AN ABSTRACT OF THE DISSERTATION OF

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Title: Lateral Cavities in Streams: Flow Structure and Mean Residence Times from Channel Hydraulics, Morphology, and Computational Fluid Dynamics.

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Surface transient storage (STS) and hyporheic transient storage (HTS) have functional significance in stream ecology and hydrology. Both provide refugia for aquatic communities and their longer mean residence times (compared to the main flow) increase the potential for biogeochemical reactions that can improve water quality. As STS and HTS have different storage and mass exchange mechanisms, hydrologists have proposed quantitatively separating STS from HTS to better predict solute fate and transport in streams. In addition, more accurate estimates of mass exchange parameters, such as mean residence times, are needed for STS and HTS. At present, effective solute transport parameters are estimated either from empirical relationships or by parameterizing effective transport metrics in solute transport models, resulting in empirical and non-transferrable parameters and an approximate equifinality in optimized numerical solutions. Through the development of relationships using field-measureable hydraulic and morphologic parameters, transient storage mass exchange parameters can be better constrained in solute transport models. To develop mass exchange relationships for transient storage, this dissertation focuses on the study of a prevalent and widely-

recognized type of STS termed lateral cavities. Lateral cavities have flow fields characterized by a recirculation region comprised of one or more gyres and a shear layer that spans the entire entrance.

The goals of this dissertation are: (1) to develop a classification scheme that categorizes different types of STS in fluvial systems in order to quantitatively separate STS from HTS; and (2) to develop accurate estimates of mass exchange parameters (i.e., mean residence times) for lateral cavities in order to better understand and quantify solute transport and dispersion in fluvial systems.

There are six major contributions of this work to the hydrology community. First, to quantitatively separate STS from HTS, a fluid-mechanics-based classification scheme is presented that identifies and categorizes different types of STS based on their characteristic mean flow structure. The classification scheme will allow for the systematic study of different STS types and development of predictive mean residence time relationships. Second, the best estimate of lateral cavity mean residence time, which represents the mean residence time of the primary gyre, is the first characteristic time of exponential decay. Third, a cavity shape factor—ratio of the square root of cavity width and depth to the cavity length—represents the degree of cavity equidimensionality and best quantifies the effect of cavity shape on mean residence time. Fourth, two roughness factors have good correlations with normalized mean residence time when computed using the median grain diameter of sediments measured in the shear layer: ratio of median grain diameter to channel depth and ratio of shear velocity to mean channel velocity. Fifth, mean residence time relationships are derived for lateral cavities in open channel flows with hydraulically smooth beds and for lateral cavities in gravel-bed rivers and streams. The mean residence time relationships are applicable for lateral cavities over a range of geometry, shape, roughness, and flow conditions. Sixth, cavity configuration (e.g., series or parallel) has a greater influence on breakthrough curve shape and transport parameters than the number of lateral cavities present. Therefore, the configuration and interaction of transient storage zones must be considered to accurately quantify stream solute transport and is a missing component in current solute transport theory.

Lateral Cavities in Streams:

Flow Structure and Mean Residence Times from Channel Hydraulics, Morphology, and Computational Fluid Dynamics

By

Tracie R. Jackson

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I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

Tracie R. Jackson, Author

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Chapter 3: Anthony Coleman provided hydraulic and morphologic field data of lateral surface transient storage zones from headwater streams in Oregon. Kevin Drost wrote data conversion programs in Matlab that were used to convert survey data to IGES and STL files for grid generation. Kevin also aided in the set up and execution of the Reynolds-Averaged Navier Stokes computational fluid dynamics model.

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DEDICATION

I dedicate this dissertation to all of my family and friends that have supported me throughout my doctorate degree.

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To my grandmother, Edna Mae Henderson, and my mother, Janet Kay Jackson—

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Lateral Cavities in Streams:

Flow Structure and Mean Residence Times from Channel Hydraulics, Morphology, and Computational Fluid Dynamics

CHAPTER 1
INTRODUCTION

Turbulence: "the invention of the Devil on the seventh day of creation, when the Good Lord wasn't looking."

-*Bradshaw* [1994]

1.1 Contextual Framework

Solute fate and transport is an active field of research due to the increased loading of pollutants, such as metals, nutrients, sediments, and radionuclides, into fluvial ecosystems. Understanding and accurately quantifying solute transport and dispersion phenomena is imperative for the prediction of solute migration. Typically, stream solute migration is predicted using effective solute transport parameters estimated from either empirical relationships [e.g., *Cheong et al.*, 2007] or the parameterization of solute transport models in reach-scale tracer studies. The drawback of effective solute transport parameters is that they are empirical and non-transferrable to either the same stream under different flow conditions or among different streams [*Harvey et al.*, 2003]. Effective solute transport parameters quantify the effects of advection, dispersion, lateral inflows and outflows, and transient storage on solute transport.

Transient storage is the temporary entrainment of solutes and suspended particulates from the main channel flow due to surface water exchange with: (1) recirculating in-stream flow structures, referred to as surface transient storage (STS); and/or (2) the hyporheic zone, referred to as hyporheic transient storage (HTS) [*Bencala and Walters*, 1983; *Boulton et al.*, 1998; *Harvey and Wagner*, 2000]. The slower-moving water velocities in transient storage zones increases the mean residence time of entrained solutes and sediments, which increases the potential for biogeochemical reactions that can improve water quality [*Harvey and Wagner*, 2000; *McClain et al.*, 2003; *Gooseff et al.*, 2007]. The slower-moving water velocities also provide refugia for aquatic communities; thus, transient storage zones are often referred to as biological "hot spots" [*Boulton*, 1993; *Lancaster and Hildrew*, 1993; *Brunke and Gonser*, 1997].

Transient storage effects on solute fate and transport have been studied in the hydrology and stream ecology communities over the last fifty years. Initially, reach-scale stream studies focused exclusively on STS. However, decades later, hydrologists and stream ecologists realized the functional significance of the hyporheic zone and expanded the study of transient storage to include both STS and HTS [*Boulton et al.*, 1998]. A majority of the current research concerning transient storage focuses exclusively on HTS because of the ecologically and hydrologically diverse processes that occur within the hyporheic zone [*Ensign and Doyle*, 2005]. Within the last decade, the problem of separating STS from HTS has been attempted using, predominantly, tracer injection techniques with little success. Quantitatively separating STS from HTS would allow for the determination of whether specific biological and physiochemical processes are occurring in the surface stream, hyporheic zone, or both in studies focusing on biogeochemical cycling [*Gooseff et al.*, 2005; *Briggs et al.*, 2009]. Within the last 15 years, computational fluid dynamics models have been used to better understand stream dynamics in the hope of advancing research to improve the calculation of STS.

Many numerical and experimental studies have been done to quantify the fluid dynamics of exchange between the main channel and STS zones [e.g., *Nepf*, 1999; *Uijttewaal et al.*, 2001; *Hinterberger et* al., 2007; Nepf *et al.*, 2007; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009; 2011; 2013; *Kang and Sotiropoulos*, 2011]. The purpose of these studies is to provide more accurate estimates of mass-exchange parameters and longitudinal dispersion coefficients at a global scale through the development of relationships using hydraulic and morphologic parameters. These relationships will better constrain transient storage mass exchange parameters in solute transport models as there is an approximate equifinality in optimized numerical solutions [*Gooseff et al.*, 2013].

This dissertation focuses on the study of a prevalent and widely-recognized type of STS referred to as lateral STS zones (herein termed lateral cavities) [*Muto et al.*, 2000; 2002; *Engelhardt et al.*, 2004; *O'Connor et al.*, 2010; *Drost*, 2012; *Jackson et al.*, 2012]. Lateral cavities are lateral side-pockets that form along a channel reach due to erosion behind erosion-resistant obstacles that protrude into the main flow. Lateral cavities have flow fields characterized by a recirculation region comprised of one or more gyres and a shear layer (also referred to as a mixing layer) that spans the entire interface between the main channel and cavity.

The goals of this dissertation are: (1) to develop a classification scheme that categorizes different types of STS in fluvial systems in order to provide a foundation for their systematic study and to quantitatively separate STS from HTS; and (2) to develop accurate estimates of mass-exchange parameters (i.e., mean residence times) between the main channel and lateral cavities in order to better understand and quantify solute transport and dispersion in fluvial systems. Field work was performed in small streams located in western Oregon to measure hydraulic and morphologic parameters in and around natural lateral cavities and to measure mean residence times. A laboratory flume study was done to determine the influence of streambed roughness and idealized representations of natural cavity shapes on the flow structure and mean residence time of lateral cavities. Computational fluid dynamics models were developed using both field and experimental data to obtain a detailed understanding of the mean flow structure and the influence of gyre dynamics on mean residence time. Mathematical and statistical methods were used to develop relationships between mean residence time and field-measureable stream hydraulic and morphologic parameters that are applicable for ranges of lateral cavity width to length aspect ratios and flow conditions (e.g., Reynolds numbers).

1.2 Objectives

- To develop a classification scheme that describes the different types of STS naturally present in fluvial systems.
- To define the appropriate residence timescale that quantifies the mean residence time of a natural lateral cavity.
- To investigate the effect of gyre dynamics on residence timescales and residence time distributions.

- To derive a mean residence time relationship for lateral cavities over a range of geometry (i.e., width to length aspect ratios) and flow conditions (i.e., Reynolds numbers) in natural rivers and streams.
- To investigate the effect of natural cavity shapes and streambed roughness on the flow structure and mean residence time of lateral cavities.
- To investigate the effect of multiple lateral cavities on solute transport and dispersion in open channel flows under non-Fickian conditions and at the Fickian asymptote.

1.3 Summary of Chapters

This dissertation is comprised of six manuscripts that are (or will be) published in the following peer-reviewed journals: Water Resources Research, Hydrology and Earth System Sciences, Environmental Fluid Mechanics, and the Journal of Hydrology.

Chapter 2, *A Fluid-Mechanics-Based Classification Scheme for Surface Transient Storage in Riverine Environments: Quantitatively Separating Surface from Hyporheic Transient Storage*, introduces a classification scheme that categorizes different types of STS in fluvial systems from a fluid mechanics perspective. Eight types of STS are identified and, in some cases, subcategorized on the basis of differing characteristic mean flow structure: (1) lateral cavities (emergent and submerged); (2) protruding in-channel flow obstructions (backward- and forward-facing step); (3) isolated in-channel flow obstructions (emergent and submerged); (4) cascades and riffles; (5) aquatic vegetation (emergent and submerged); (6) pools (vertically submerged cavity, closed cavity, and recirculating reservoir); (7) meander bends; and (8) confluence of streams. Flow structure descriptions and mean residence time relationships for each STS type are presented. The long-term goal is to use the classification scheme presented to develop predictive mean residence times for different STS using field-measureable hydraulic and morphologic parameters and obtain an effective STS mean residence time. The effective STS mean residence time can then be deconvolved from the transient storage residence time distribution (measured from a tracer test) to obtain an estimate of the HTS mean residence time.

Chapter 3, *Defining and Measuring the Mean Residence Time of Lateral Surface Transient Storage Zones in Small Streams*, defines the appropriate residence timescale that quantifies the lateral cavity mean residence time in small streams and relates the lateral cavity mean residence time to physically-based stream parameters. A theoretical mean residence time for lateral cavities is developed based on the steady flow field results of a computational fluid dynamics model of a natural lateral cavity and on the results of experimental and numerical work of open channel flow past lateral cavities. Residence timescales are quantitatively related to the theoretical mean residence time to determine the appropriate metric for the lateral cavity mean residence time. Residence timescales also are quantitatively related to an apparent (false) measured mean residence time that arises when electrical conductivity probes are improperly placed in poorly-mixed regions of the cavity (i.e., secondary gyres). Lastly, using gyre dynamics, physical processes controlling the different residence timescales and the occurrence of one- or two-exponential RTDs are discussed.

Chapter 4, *A Mean Residence Time Relationship for Lateral Cavities in Gravel-Bed Rivers and Streams: Incorporating Streambed Roughness and Cavity Shape*, derives two empirical mean residence time relationships for lateral cavities in gravel-bed fluvial systems. The mean residence time relationships are applicable for a range of cavity width to length (*W/L*) aspect ratios (0.2 to 0.75), shape, and Reynolds numbers (*Re*, ranging from 1.0×10^4 to 1.0×10^7). The relationships equate normalized mean residence time to nondimensional quantities: Froude number, *Re*, *W/L*, depth ratio (ratio of cavity depth to shear layer depth), roughness factor (ratio of shear velocity to mean channel velocity), and shape factor (representing the degree of cavity equidimensionality).

Chapter 5, *Does Bed Roughness Matter? A Revision of the Mean Residence Time Relationship for Lateral Cavities in Gravel-Bed Streams*, tests the mean residence time relationship for lateral cavities in gravel-bed fluvial systems using different relative roughness heights—ratios of bed roughness height to water depths—and different Chèzy friction factors—ratios of shear velocity to mean main channel velocity. The *Jackson et al.* [2013; WRR] mean residence time relationship is further tested because streambed roughness does not show a significant contribution to mean residence time; however, previous studies have shown otherwise. Relative roughness height and shear velocity are functions of median gravel diameter and, in this study, median gravel diameters are computed by measuring sediment grains in three regions: inside the cavity, along the shear layer interface, and in the main channel immediately upstream of the lateral cavity. Normalized mean residence time is related to different relative roughness heights and Chèzy friction factors to determine the best metric to quantify bed roughness in the empirical relationship.

Chapter 6, *Flow Structure and Mean Residence Time of Lateral Cavities in Open Channel Flows: Influence of Bed Roughness and Shape*, investigates the effect of three bed roughness conditions (hydraulically smooth, low flow rough, and high flow rough) and three idealized representations of natural cavity shapes (semi-circular, backward conic, and forward conic) on the flow structure and mean residence time of a lateral cavity. In this flume study, instantaneous 3-D velocity components are measured along depth planes in the cavity. Velocity vector fields show the influence of cavity shape on primary gyre symmetry, and gyre circulation velocities relate the effects of bed roughness to mean residence time. Two mean residence time relationships are derived for hydraulically smooth lateral cavities that have strong power-law correlations to normalized mean residence time. The rough bed cases are shown to have a strong correlation to the mean residence time relationship derived by *Jackson et al.* [2013, WRR].

Chapter 7, *Effect of Multiple Lateral Cavities on Stream Solute Transport under non-Fickian conditions and at the Fickian Asymptote*, quantifies the effect of one or more semi-circular lateral cavities on the migration of a conservative tracer under non-Fickian conditions and at the Fickian asymptote. Six Reynolds-Averaged Navier Stokes computational fluid dynamics models are developed: one with no lateral cavities, three with lateral cavities in series, and two with lateral cavities in parallel. Simulated conservative tracer time series are monitored in the main channel and evaluated using temporal moment analysis. Tracer breakthrough curves show the evolution of transport parameters (i.e., coefficient of skewness, longitudinal dispersion coefficient, Damköhler number, Péclet number, and downstream distance to Fickian conditions) as a function of downstream distance from lateral cavities. Simulated breakthrough curves show that lateral cavity configuration has a greater influence on breakthrough curve shape and transport parameters than the number of cavities present, and must be considered to accurately quantify stream solute transport.

CHAPTER 2

A FLUID-MECHANICS-BASED CLASSIFICATION SCHEME FOR SURFACE TRANSIENT STORAGE IN RIVERINE ENVIRONMENTS:

QUANTITATIVELY SEPARATING SURFACE FROM HYPORHEIC TRANSIENT STORAGE

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ABSTRACT

Surface transient storage (STS) and hyporheic transient storage (HTS) have functional significance in stream ecology and hydrology. Currently, tracer techniques couple STS and HTS effects on stream nutrient cycling; however, STS resides in localized areas of the surface stream and HTS resides in the hyporheic zone. These contrasting environments result in different storage and exchange mechanisms with the surface stream, which can yield contrasting results when comparing transient storage effects among morphologically diverse streams. We propose a fluid mechanics approach to quantitatively separate STS from HTS that involves classifying and studying different types of STS. As a starting point, a classification scheme is needed. This paper introduces a classification scheme that categorizes different STS in riverine systems based on their flow structure. Eight STS types are identified and some are subcategorized based on characteristic mean flow structure: (1) lateral cavities (emergent and submerged); (2) protruding in-channel flow obstructions (backward- and forward-facing step); (3) isolated in-channel flow obstructions (emergent and submerged); (2) cascades and riffles; (5) aquatic vegetation (emergent and submerged); (6) pools (vertically submerged cavity, closed cavity, and recirculating reservoir); (7) meander bends; and (8) confluence of streams. The long-term goal is to use the classification scheme presented to develop predictive mean residence times for different STS using field-measureable hydromorphic parameters and obtain an effective STS mean residence time. The effective STS mean residence time can then be deconvolved from the transient storage residence time distribution (measured from a tracer test) to obtain an estimate of HTS mean residence time.

2.1 Introduction

Transient storage is the short-term storage of fluid due to the exchange of solutes and suspended particulates in the main flow with: (1) recirculating in-stream flow structures, referred to as surface transient storage (STS); and/or (2) the hyporheic zone, referred to as hyporheic transient storage (HTS) [*Bencala and Walters*, 1983; *Boulton et* *al.*, 1998; *Briggs et al.*, 2009]. By definition, the total transient storage in a stream is the sum of STS and HTS. Transient storage has been known to provide refugia for aquatic communities when poor water quality, predation, strong currents, extreme surface water temperatures, droughts, and floods cause invertebrates to seek shelter in slower moving flows in the surface stream or in interstitial pore spaces of the hyporheic zone [*Boulton*, 1993; *Lancaster and Hildrew*, 1993; *Brunke and Gonser*, 1997]. Transient storage also can improve water quality by removing metals [e.g., *Bencala et al.*, 1984; *Benner et al.*, 1995; *Bencala*, 2011]; nutrients [e.g., *Newbold et al.*, 1983; *De Angelis et al.*, 1995; *Thomas et al.*, 2001]; organic contaminants [e.g., *Squillace et al.*, 1993]; and radioactive nuclides [e.g., *Cerling et al.*, 1990]. Improved water quality occurs because slower moving water in transient storage zones increases solute residence times (compared to the main channel), increasing the interaction of nutrient-rich surface waters with biogeochemically-reactive sediments [*Harvey and Wagner*, 2000; *McClain et al.*, 2003; *Gooseff et al.*, 2007].

Numerous tracer studies have strived to develop relationships between the transient storage mean residence time and volume, and various stream geomorphic and hydraulic parameters. The purpose of field-based tracer studies is to gain a better understanding of stream solute transport behavior by accounting for transient storage zones. Previous transient storage studies have focused on relating transient storage to the following hydromorphic parameters: channel order and confinement [*D'Angelo et al.*, 1993; *Gabriel and Boufadel*, 2002]; streambed and aquifer lithology (substrate) [*Valett et al.*, 1996; 1997; *Morrice et al.*, 1997; *Argerich et al.*, 2011]; discharge [*Hall et al.*, 2002; *Harvey et al.*, 2003]; transient storage area [*Mulholland et al.*, 1997; *Laenen and Bencala*, 2001; *Gücker and Boëchat*, 2004; *Ensign and Doyle*, 2005]; channel bed form [*Harvey and Bencala*, 1993; *Gooseff et al.*, 2003; *Anderson et al.*, 2005; *Wörman et al.*, 2007; *Cardenas et al.*, 2008]; wood debris, leaf packs, and vegetation [*Gabriel and Boufadel*, 2002; *Lautz and Siegel*, 2006; *Lautz et al.*, 2006; *Wondzell et al.*, 2009b]; streambed friction factor [*Harvey et al.*, 2003; *Salehin et al.*, 2003; *Zarnetske et al.*, 2007]; stream power per unit width [*Zarnetske et al.*, 2007]; channel tortuosity [*Kasahara *and Wondzell*, 2003; *Baker et al.*, 2012]; and hyporheic exchange (as determined by hydraulic gradients and streambed-aquifer hydraulic conductivity) [*Harvey et al.*, 1996; *Battin et al.*, 2003; *Lautz and Siegel*, 2006; *Wondzell et al.*, 2009a; 2009b].

Tracer studies typically use 1-D transient storage models [e.g., OTIS; *Bencala and Walters*, 1983; *Runkel*, 1998] to quantify transient storage effects on solute transport because they have the advantage of providing reach-averaged parameter estimates. However, there are a number of drawbacks when using the inverse transient storage modelling approach. First, model parameter estimates are empirical and, therefore, not transferrable to either the same stream under different flow conditions or different stream types (i.e., small versus large streams, headwater, mid-order, or valley streams) [*Harvey et al.*, 2003; *Salehin et al.*, 2003; *Stonedahl et al.*, 2012]. Second, transient storage models assume that any mass entering a storage zone will return to the main channel at the location of entrainment, thereby neglecting mass transfer through relatively long hyporheic flowpaths [*Bencala et al.*, 2011]. Third, reach-averaging a stream's total transient storage parameters couples the effects of STS and HTS, and does not provide information on the relative influence of surface and hyporheic exchange on solute entrainment and retention [*Choi et al.*, 2000; *Briggs et al.*, 2009]. Lastly, precise relationships between transient storage, solute exchange, and stream hydromorphic parameters have not been identified as different studies produce contrasting results. The weak relationships observed between transient storage and solute retention may be due to either the complexities associated with transient storage zones [*Haggerty et al.*, 2009]; or the inability of current tracer techniques to adequately identify relationships between stream hydromorphic parameters and nutrient uptake and retention when the effects of STS and HTS are coupled [*Briggs et al.*, 2009].

Within the last decade, a number of field and numerical studies have attempted to resolve the issues associated with the inverse modelling approach by quantitatively separating STS from HTS; however, there are drawbacks to each approach. In-stream transport of tracers has increasingly been supplemented with measurements of tracer transport into hyporheic and surface water storage zones [*Harvey and Fuller*, 1998;

Harvey et al., 2005]. The goal is to help isolate characteristics of STS and HTS environments, although the comparisons are often limited by the small number of point-scale observations, which may not be representative of storage processes in the reach as a whole. *Gooseff et al.* [2005] performed tracer tests in two adjacent stream reaches that had comparable physical characteristics with the exception of streambed material: one was underlain by impervious bedrock and the other a thick alluvium (hyporheic zone). While the longer mean residence time of the alluvial reach clearly showed the impact of HTS on the stream residence time distribution (RTD), a reference stream with insignificant HTS is needed in this approach. Tracer tests by *Ensign and Doyle* [2005] prior to and after wood debris removal clearly showed a decrease in STS and the impact of STS on the RTD. Nonetheless, the drawbacks to this approach include: (1) removing wood debris is labor intensive; (2) wood debris provides refugia and contains microbial biomass, and their removal can adversely affect the stream ecology; and (3) the streambed was raked, which can change streambed hydraulic properties and disrupt microbial communities on streambed sediments. *Gooseff et al.* [2008] measured RTDs in the main channel and in twelve STS zones, but did not deconvolve the STS RTDs, resulting in a characteristic power-law tailing behavior. *Gooseff et al.* [2011] measured and deconvolved STS RTDs from the main channel RTD adjacent to each STS. This method is promising, but can be labor intensive if a large number of STS zones exist. Furthermore, a larger data requirement is needed than was used in the study (e.g., multiple sensors should be placed within a single STS zone) because STS zones are not well mixed and sensors placed in poorly-mixing regions overestimate mean residence time [*Jackson et al.*, 2012]. *Stofleth et al.* [2008] estimated HTS from Darcy's law, which is not constrained by mass balance and can be corrected using the continuity equation. *Kasahara and Wondzell* [2003], *Lautz and Siegel* [2006], *Gooseff et al.* [2006], and *Wondzell et al.* [2009a; 2009b] solved the groundwater flow equation to estimate HTS, and *Anderson and Phanikumar* [2011] used a 3-D hydrodynamic and particle transport model to generate synthetic STS breakthrough curves (BTCs). *O'Connor et al.* [2010] estimated STS from predictive equations based on the geometry of emergent lateral cavities at channel sides. The results were used to parameterize a transient storage model using simple a priori physical measurements. A drawback of such approaches is that rigorous data collection is required to obtain enough measurements of streambed topography, hydraulic conductivity and boundary conditions [*Gooseff et al.*, 2006; *Wondzell et al.*, 2009a]. *Briggs et al.* [2009] and *Harvey et al.* [2005] utilized the two-zone transient storage model—developed by *Choi et al.* [2000]—to differentiate STS from HTS by measuring tracer breakthrough in the STS and then utilizing a transient storage model partially parameterized with STS to determine HTS by inverse modeling. Drawbacks to this approach include: (1) additional data collection (e.g., velocity and concentration time series); and (2) the parameterization of two additional parameters: transient storage area and the mass exchange coefficient.

We propose a new approach to quantitatively separate STS from HTS that involves the systematic study of different types of STS from a fluid mechanics perspective. A systematic fluid mechanics approach is proposed because the interplay of fluid dynamics and biogeochemical processes in STS zones influence nutrient uptake, retention, and cycling in stream ecosystems [*Lautz and Siegel*, 2007; *Nepf et al.*, 2007]. Typically, the potential for certain biogeochemical transformations to occur is determined by the RTD [*Stanford and Ward*, 1988; *Boulton, et al.*, 1998]. In STS, the RTD that arises depends on the fluid dynamics of mass and momentum exchange (i.e., circulation within the retention region and turbulence level), which influences the mixing and distribution of nutrients and larvae [*Jouon et al.*, 2006; *Gooseff et al.*, 2011].

The fluid mechanics approach will be applied to the study of different types of STS to gain insight into mechanisms driving mass and momentum exchange between the main channel and STS zones. The purpose of the fluid mechanics approach is not to incorporate all of the complexities associated with the flow structure of each STS type, but to identify key hydromorphic parameters (in the mean flow structure) influencing solute mean residence time. In this way, key hydromorphic parameters can be used to develop predictive mean residence time relationships for each type of STS. Predictive relationships may need to be developed for ranges of STS geometries (e.g., width to length aspect ratios) and flow conditions (e.g., Reynolds numbers) because the mean flow field does not significantly change within specified ranges.

The long-term goal is to quantitatively separate STS from HTS by developing an effective STS mean residence time that is based on predictive relationships between field-measureable stream parameters and the mean residence times of different types of STS. The effective STS mean residence time can then be deconvolved from the total transient storage RTD (measured from a tracer test) to obtain an estimate of the HTS mean residence time. As a starting point, a classification scheme is needed to characterize different types of STS in riverine systems based on their flow structure.

The purpose of this paper is to introduce a classification scheme that categorizes different types of STS in riverine systems based on their flow structure. From a fluid mechanics perspective, all STS have flow fields characterized by the formation of a recirculation region comprised of one or more entrained gyres as well as by the formation of at least one free-shear flow: a jet, wake, or mixing layer. Eight types of STS are identified and, in some cases, subcategorized on the basis of differing characteristic mean flow structure: (1) lateral cavities (emergent and submerged); (2) protruding in-channel flow obstructions (backward- and forward-facing step); (3) isolated in-channel flow obstructions (emergent and submerged); (4) cascades and riffles; (5) aquatic vegetation (emergent and submerged); (6) pools (vertically submerged cavity, closed cavity, and recirculating reservoir); (7) meander bends; and (8) confluence of streams (Table 2.1).

The classification scheme presented is based on review of transient storage literature as well as field observations of rivers and streams. The mean turbulent flow structure characteristic to each STS type is described to provide a basic understanding of the key physical processes influencing exchange dynamics and mean residence time. This paper is not intended to provide a comprehensive review of all fluid mechanics literature. Instead, the classification scheme described is a compilation of previous studies and is meant as a basis for future work and research directions to accurately quantify the effects of STS on stream solute transport.

Table 2.1. Summary of STS Classification Scheme.

STS Type	*Distinguishing Characteristics*
Lateral Cavity	
Emergent	Mixing layer spans entrance and recirculation region forms in cavity.
Submerged	Overtopping flow parallels main channel flow.
Protruding Flow Obstructions	
Backward-Facing Step	Recirculation region forms behind obstruction protruding from bank.
Forward-Facing Step	Recirculation region forms in front of and behind obstruction protruding from bank.
Isolated Flow Obstructions	
Emergent	Horseshoe vortex in front of and von Kármán vortex street behind obstruction in flow.
Submerged	Closed recirculation region behind obstruction in flow.
Cascades and Riffles	Coalescence of (circular cylinder-type) wake fields.
Aquatic Vegetation	
Emergent	Coalescence of wake fields and maximum canopy velocity near bed.
Submerged	Mixing layer at top of canopy and a monami for flexible canopies.
Pools	
Vertically Submerged Cavity	Pool bathymetry sufficiently below upstream reach bathymetry.
Closed Lateral Cavity	Lateral cavity flow field has a backward- and forward-facing step.
Recirculating Reservoir	*Jet-like flow:* Flow enters and generates regions of recirculating flow. *Flow impingement:* Flow impinges, deflects, and recirculates. *Scour Pool:* Vertical flow enters, scours pool head, and recirculates.
Meander Bends	Inner bank mixing layer forms recirculation region and point bar and outer bank mixing layer scours and erodes streambank.
Confluence of Streams	Velocity ratio dictates mixing interface position, mode, and coherence.

2.2 Background: Free Shear Flows

Free shear flows are comprised of coherent structures—turbulent features in the flow field of different shapes (i.e., rollers, ribs, horseshoes, and tubes) that can be recognized within the more disordered flow [*Socolofsky and Jirka*, 2005; *Versteeg and Malalasekera*, 2007]. These coherent structures (larger scale turbulence) are formed in the velocity shear region by instabilities (e.g., Kelvin-Helmholtz, Corcos-Lin, Widnall), where smaller vortices interact by mechanisms such as pairing, tearing, or stretching to form larger scale vortical structures [*Socolofsky and Jirka*, 2005]. Kelvin-Helmholtz instabilities cause the pairing and growth of vortices as they are advected downstream. Instabilities in the flow structure constantly form and destroy vortices, inducing unsteadiness. However, much information can be obtained by considering the mechanisms of mass and momentum exchange from the mean flow field.

There are three types of free shear flows: jets, wakes, and mixing layers [*Versteeg and Malalasekera*, 2007]. Some STS have flow fields that are a complex interaction between either differing free shear flows or the coalescence of similar free shear flows. Most STS types have a flow structure that is analogous to a type of flow studied in fluid mechanics. The mean flow structure of common wake and mixing layer-type flows, which are studied in fluid mechanics and commonly observed in STS, is described below.

2.2.1 Wakes

In a single wake field generated by a circular cylinder, a horseshoe vortex forms in front of the cylinder and is subjected to large-scale sweeping motions toward and away from the cylinder that alternately shed vortex tubes from each side [Figure 2.1, *Devenport and Simpson*, 1990; *Hinterberger et al.*, 2007]. The vortex tubes are advected downstream within mixing layers and roll up behind the cylinder body, forming a von Kármán vortex street comprised of streamwise-oriented rollers (finger vortices) of alternating vorticity signs, i.e., the rollers rotate in opposite directions when shed from each side of the cylinder body [Figure 2.1a; *Braza et al.*, 1990; *Rai and Moin*, 1993]. Interactions between rollers in the mixing layers cause Kelvin-Helmholtz instabilities.

The advected rollers in the von Kármán vortex street entrain and transport sediment [*Kirkil et al.*, 2006; 2008]. Fluid and sediment entrainment also occurs in a recirculation region of lower velocities that forms behind the body [*Shen and Diplas*, 2008]. Sediment scouring and entrainment occurs in front of the cylinder because large-scale sweeping motions amplify the turbulence and form a scour hole (Figure 2.1b).

The wake field generated by a flat plate (width normal to flow >> length parallel to flow) has a flow structure similar to a circular cylinder. Only the strength and size of the vortical structures differ. The strength of horseshoe vortex circulation and large-scale sweeping motions in front of a flat plate as well as coherence of alternately shed vortex tubes in the mixing layers are higher compared to a circular cylinder [*Kirkil and*

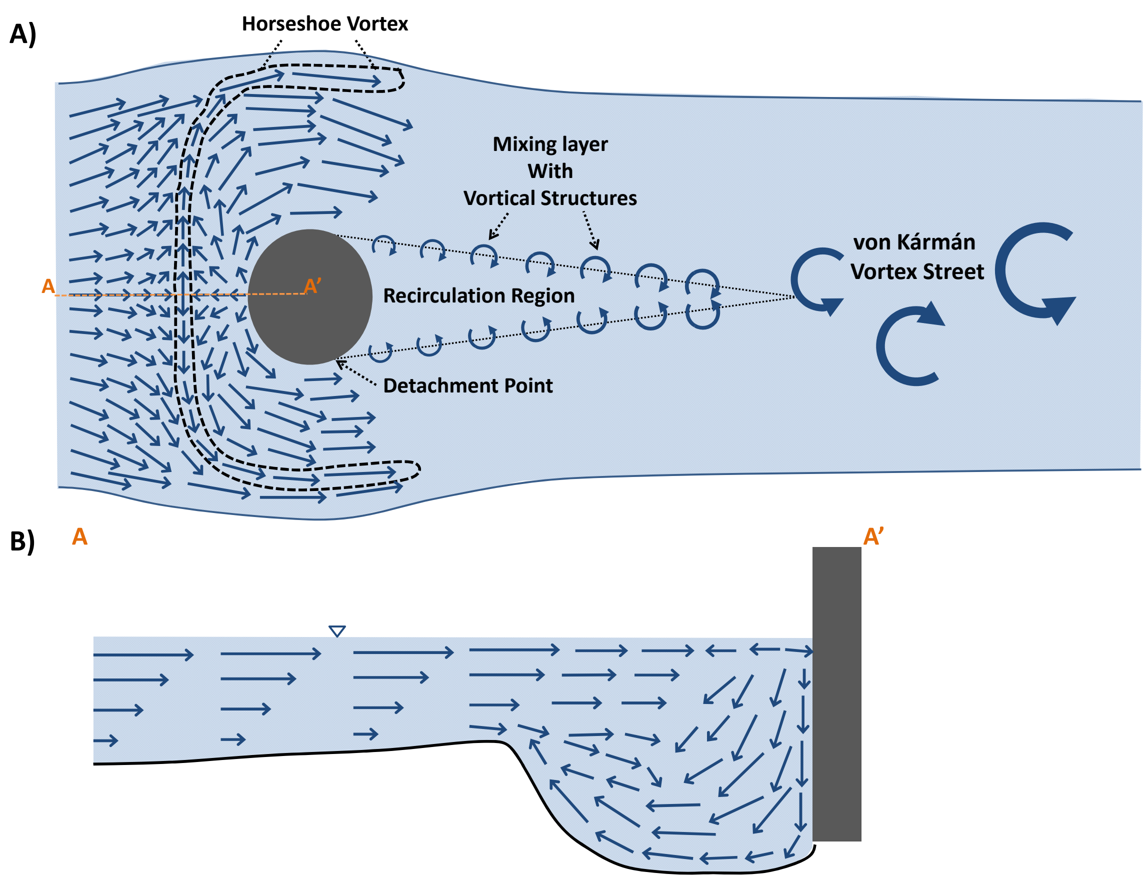

Figure 2.1. Plan view (**A**) and cross-sectional view (**B**) schematic of flow field around a circular cylinder. (Figure adapted from the work of *Kirkil et al.* [2006], *Hinterberger et al.* [2007], and *Shen and Diplas* [2008]).

Constantinescu, 2009]. This results in a wider von Kármán vortex street behind the flat plate with larger advected rollers that travel farther downstream and have greater ability to entrain sediments. The rate of scouring in front of the flat plate is faster and the size of the recirculation region behind the flat plate is larger, which also result in a greater ability to entrain solutes and sediments.

2.2.2 Recirculation Regions Enclosed by Mixing Layers

Cavity flows (e.g., emergent lateral and vertically submerged cavities) and steps (e.g., backward-facing and forward-facing) have similar flow structure. For brevity, their generalized flow structure is described herein. Other additional complexities inherent to each of these flows are described in their respective subsections in section 2.3.

Emergent cavities and steps have flow fields with three characteristic features: (1) shearing and flow separation at their leading edge (upstream corner or detachment point) [*Rockwell*, 1983; *Constantinescu et al.*, 2009]; (2) a mixing layer that forms at the detachment point and impinges at a point downstream (reattachment point); and (3) a recirculation region between the streambank and mixing layer comprised of one or more counter-rotating gyres (see Figure 2.2 for visualization) [*Rockwell and Naudascher*, 1978; *Rockwell and Knisely*, 1980]. Note that the detachment point refers to the location of an adverse (positive) pressure gradient in the main flow direction, which causes the upstream boundary layer to detach from a solid surface [*Tritton*, 1988]. At the detachment point, vortical structures are advected downstream within the mixing layer [*Rockwell*, 1977; 1998; *Lin and Rockwell*, 2001]. The advected vortices coalesce and grow downstream due to Kelvin-Helmholtz instabilities before impinging on a surface (at the reattachment point), causing the unsteady transport of vorticity into the recirculation region [*Sarohia*, 1977; *Rockwell and Knisely*, 1979; *Chang et al.*, 2006]. Entrained vortices travel from the downstream to upstream expanse of the recirculation region in a jet-like flow, causing the flow to recirculate [*Rockwell*, 1998; *Lin and Rockwell*, 2001].

2.3 Classification Scheme for Surface Transient Storage

Eight types of STS were identified in riverine systems and, in some cases, subcategorized on the basis of differing characteristic mean flow structure. The STS classification scheme divides STS into the following categories: (1) lateral cavities (emergent and submerged); (2) protruding in-channel flow obstructions (backward- and forward-facing step); (3) isolated in-channel flow obstructions (emergent and submerged); (4) cascades and riffles; (5) aquatic vegetation (emergent and submerged); (6) pools (vertically submerged cavity, closed cavity, and recirculating reservoir); (7) meander bends; and (8) confluence of streams (Table 2.1). The mean flow structure characteristic to each STS is described. Current predictive relationships between STS mean residence times and stream hydraulic and morphologic features are presented (if known). For STS types that currently do not have predictive relationships, qualitative relationships are described for key parameters influencing mean residence time and areas are highlighted where further research is needed.

2.3.1 Lateral Cavities

In rivers and streams, lateral cavities form behind or in front of erosion-resistant obstructions, such as tree roots, logs, and other obstacles that protrude into the flow from the streambank. Lateral cavities also can form as cutouts within bedrock due to either differences in lithology at bedrock contacts, or scouring and erosion along preferential planes of weakness, such as faults or bedding planes. Sequences of man-made lateral cavities, termed groyne fields, also can be found in rivers and are separated by groynes. Groynes are engineered structures comprised of either gravel, stone, earth, or piles and built at an angle to river banks to prevent bank erosion, encourage channel scouring for ship navigation, and enhance sediment storage for fish and vegetation biodiversity [*Uijttewaal et al.*, 2001; 2005; *Engelhardt et al.*, 2004; *McCoy et al.*, 2007; *Weitbrecht et al.*, 2008; *Yossef and De Vriend*, 2011]. The flow features associated with lateral cavities are complex and vary depending on whether the flow obstruction creating the lateral cavity is emergent or submerged.

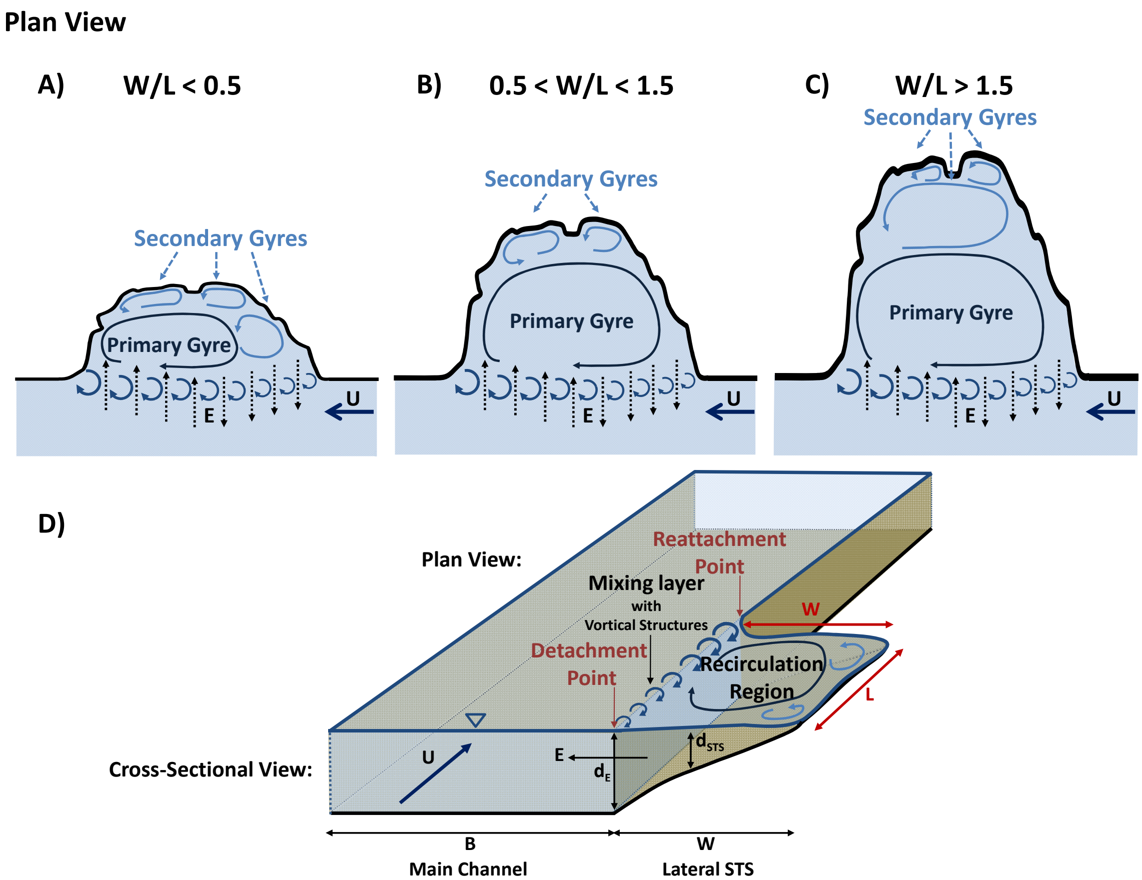

Figure 2.2. Plan view schematics of the flow field for an emergent lateral cavity at three *W/L* aspect ratios and cross-sectional view schematic showing definition of hydromorphic parameters.

2.3.1.1 Emergent Lateral Cavities

Regardless of whether a single or multiple emergent lateral cavities form along a streambank, the flow field is always characterized by flow separation at the leading cavity edge, a mixing layer that spans the entire cavity entrance, and a recirculation region inside the cavity comprised of one or more counter-rotating gyres [Figure 2.2; *Rockwell and Naudascher*, 1978; *Rockwell and Knisely*, 1980]. The recirculation region is comprised of a large primary gyre and may contain one or more smaller, counter-rotating secondary gyres. Secondary gyre formation depends on the width (normal to flow, *W*) to length (parallel to flow, *L*) aspect ratio of the cavity and irregularities in the wetted perimeter of the cavity [*Jackson et al.*, 2012]. As a general rule for rectangular cavities, cavity aspect ratios configure as follows: (a) *W/L* < 0.5 result in the development of a two-gyre recirculation pattern with the secondary momentum-driven gyre forming in the upstream corner (Figure 2.2a); (b) 0.5 < *W/L* < 1.5 result in the development of a one-gyre recirculation pattern (Figure 2.2b); and (c) *W/L* > 1.5 result in the development of a two-gyre recirculation pattern with the secondary gyre forming adjacent to the primary gyre far from the mixing layer [Figure 2.2c; *Burggraf*, 1966; *Ghia et al.*, 1982; *Weitbrecht and Jirka*, 2001a; *Cheng and Hung*, 2006]. Note that additional secondary gyres also can form due to irregularities in the wetted perimeter of a lateral STS [*Jackson et al.*, 2012].

Within the last decade, many studies have investigated the mean residence time of solutes in lateral STS. A field study by *Jackson et al.* [2012] investigated the influence of gyre dynamics on mean residence time and found that the mean residence time of a lateral cavity is given by the primary gyre mean residence time and that secondary gyre volume, not mean residence time, contributes to the primary gyre's mean residence time. *Langmuir* [1908] derived an equation for the mean residence time of a continuous stirred tank reactor, which is analogous to a lateral STS zone [*Danckwerts*, 1953; *Sardin et al.*, 1991]. *Uijttewaal et al.* [2001] developed a predictive mean residence time for lateral storage zones based on field-measureable parameters by substituting the entrainment hypothesis postulated by *Valentine and Wood* [1977] into the mean hydraulic residence time formulated by *Langmuir* [1908]:

$$\tau = \frac{WLd_{STS}}{ELd_E} = \frac{WLd_{STS}}{kULd_E}, \qquad (1)$$

where d_{STS} is the mean depth of the cavity, [L]; and d_E is the mean depth at the mixing layer interface, [L]; U is the mean main channel velocity, [LT^{-1}]; E is the exchange velocity leaving the cavity through the mixing layer interface, [LT^{-1}]; k is a dimensionless entrainment coefficient; and τ is the mean residence time, [T] (Figure 2.2d). The first quantity to the right of τ is the mean residence time derived by *Langmuir* [1908], the second quantity to the right of τ is the predictive mean residence time formulated by *Uijttewaal et al.* [2001], and the entrainment hypothesis assumes that $E = kU$. The entrainment coefficient has a range of variability (between 0.01 and 0.04) based on field and experimental studies [*Valentine and Wood*, 1977; *Seo and Maxwell*, 1992; *Wallast et al.*, 1999; *Uijttewaal et al.*, 2001; *Kurzke et al.*, 2002; *Weitbrecht and Jirka*, 2001b; *McCoy et al.*, 2006; *Hinterberger et al.*, 2007; *Chang et al.*, 2007; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009; *Jackson et al.*, 2012]. The range of variability measured for the entrainment coefficient is due to the exclusion of parameters, such as streambed roughness, lateral cavity shapes, and vegetative drag [*Jackson et al.*, 2012]. Recently, *Jackson et al.* [2013] derived a mean residence time relationship for lateral cavities that incorporates streambed roughness and cavity shape. The relationship uses field-measureable parameters and is applicable to both small streams and larger rivers:

$$\tau = 21\left[\frac{L^{0.22}W^{0.59}d_{STS}^{0.59}}{u_*^{0.21}U^{0.17}d_E^{0.76}g^{0.25}\nu^{0.13}}\right] - 6.7\frac{L}{U}, \qquad (2)$$

where τ is the mean residence time, [T]; u_* is the shear velocity, [LT^{-1}]; g is the gravitational acceleration, [LT^{-2}]; and υ is the kinematic viscosity, [L^{2}T^{-1}]. This relationship was compared to over sixty field sites measured in six different studies and was found to have a strong linear correlation with an R^2 = 0.83 for conservative solutes. However, future work is still needed for non-conservative solute transport.

2.3.1.2 Submerged Lateral Cavities

Submerged lateral cavities have flow fields similar to emergent lateral cavities with the exception of an additional flow complexity: the upstream flow separates and part of the flow overtops the erosion-resistant obstacle, such as a pair of logs (Figure 2.3). Mass and momentum are exchanged by strong, fully three-dimensional vortical structures in the lateral mixing layer and at the water surface in the recirculation region due to the overtopping flow [*Tominaga et al.*, 2001; *Uijttewaal et al.*, 2005; *Yossef and De Vriend*, 2011]. The overtopping flow disrupts the near-surface recirculation pattern that would otherwise occur for an emergent lateral cavity [*Uijttewaal et al.*, 2005; *McCoy et al.*, 2007]. At low relative submergence levels (i.e., when the ratio of main channel depth to the protruding obstruction height is small), the flow field near the water surface nearly parallels the main channel flow during an overtopping event and then returns to an emergent lateral cavity flow field between events [*Uijttewaal et al.*, 2005]. At higher submergence levels, the near-surface cavity flow remains nearly parallel to the main channel flow [*Elawady et al.*, 2000; *Uijttewaal et al.*, 2005; *Yossef and De Vriend*, 2011]. The mid-depth and deeper regions of the recirculating flow are largely unaffected because the deeper cavity flow is driven by momentum exchange through the lateral mixing layer [*Peng and Kawahara*, 1997; *Peng et al.*, 1999; *McCoy et al.*, 2007]. The relative strength of mass and momentum exchange is greater for a submerged lateral cavity when compared to an emergent lateral cavity, resulting in a relatively smaller mean residence time [*Tominaga et al.*, 2001; *McCoy et al.*, 2007; 2008]. A majority of the solute exits the cavity via the bottom of the lateral mixing layer interface and at the cavity water surface due to flow overtopping the cavity's downstream flow obstacle [*McCoy et al.*, 2007; 2008]. No predictive relationships have been formulated to date to account for the influence of submergence on the mean residence time of a lateral cavity. Nonetheless, the mean residence time of a submerged lateral cavity is dependent on the following parameters:

$$\tau = f(u_*, U, d_E, d_{STS}, \nu, g, W, L, [d_C - d_{STS}]), \tag{3}$$

where d_C is the main channel depth, [L]; and $d_C - d_{STS}$ is the submergence level, [L].

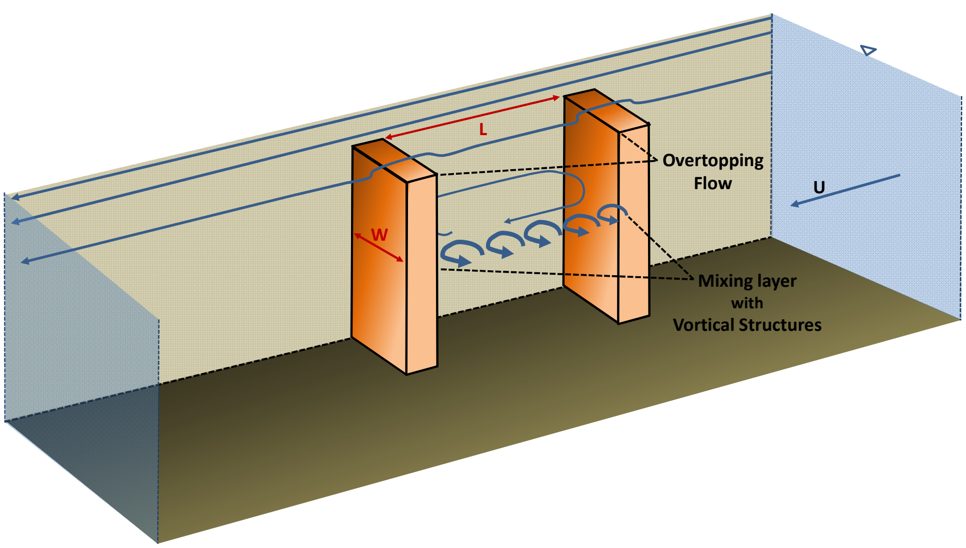

Figure 2.3. Schematic of the flow field for a submerged lateral cavity.

Table 2.2. Summary of qualitative relations between mean residence time (τ) and case-specific parameters for each STS type.

STS Type	Mean Residence Time Varies Proportionally	Mean Residence Time Varies Inversely
Lateral Cavity		
Emergent	u_*, v, W, L, d_{STS}	U, g, d_E
Submerged	u_*, v, W, L, d_{STS}	U, g, d_E, $(d_C$-$d_{STS})$
Protruding Flow Obstructions		
Backward-Facing Step	u_*, v, W, x_{BFS}, $d_{STS,BFS}$	U, g, $d_{E,BFS}$, γ
Forward-Facing Step	u_*, v, W, x_{BFS}, x_{FFS} , y_{FFS}, $d_{STS,FFS}$, $d_{STS,BFS}$	U, g, $d_{E,FFS}$, $d_{E,BFS}$, γ
Isolated Flow Obstructions		
Emergent	u_*, v, W, d_{STS}	U, g, $d_{E,}$ B, θ
Submerged	u_*, v, W, d_{STS}	U, g, $d_{E,}$ B, θ, $(d_C$-$d_{STS})$
Cascades and Riffles	u_*, v, D_g, H_g, L_R,	U, g, d_C, S_g, $(d_C - H_g)$
Aquatic Vegetation		
Emergent	C_D, a, d	U_c, g, ΔS
Submerged	C_D, a, d, h	U_c, g, d_C, δ_e, S, ΔU
Pools		
Vertically Submerged Cavity	u_*, v, W, L, d_{STS}	U, g, d_E
Closed Lateral Cavity	u_*, v, W, L, $d_{STS,FFS}$, $d_{STS,BFS}$, x_{FFS}, x_{BFS}	U, g, $d_{E,FFS}$, $d_{E,BFS}$
Recirculating Reservoir	u_*, v, W, L, d_{STS}	U, g, d_E, θ
Meander Bends	C_f, v, W, L, d_{STS}, R, B	U, g, d_E, R_{min}
Confluence of Streams	C_f, v, W, L, d_{STS}, R, B, W_{MI}, d_{MI}, β, U_1/U_2	g, d_E, R_{min}

The hydraulic and morphologic parameters of a submerged lateral cavity (with the exception of submergence level) have the same qualitative relations to mean residence time as the hydraulic and morphologic parameters of an emergent lateral cavity (see Table 2.2). An increase in either the width, W, or length, L, of a lateral cavity causes the formation of small secondary gyres, which have slower circulation velocities compared to the large primary gyre and increase mean residence time [*Weitbrecht and Jirka*, 2001a; *Jackson et al.*, 2012]. An increase in the mean cavity depth, d_{STS}, increases the volume for fluid entrainment and mean residence time, whereas an increase in the mean mixing layer depth, d_E, increases the mixing layer cross-sectional area for mass and momentum exchange and decreases mean residence time [*McCoy et al.*, 2007; 2008]. The main channel velocity and gravitational acceleration drive exchange across the mixing layer interface and decrease mean residence time [*Valentine and Wood*, 1977]. The shear velocity and kinematic viscosity quantify frictional forces that reduce exchange across the mixing layer interface and increase mean residence time [*Jackson et al.*, 2013].

2.3.2 Protruding In-Channel Flow Obstructions

Isolated protruding logs or boulders extending from the streambank into the main channel flow generate flow fields equivalent to backward-facing and forward-facing steps in front of and behind the obstacle, respectively. As an example, in-situ flow deflection log jams, identified by *Abbe and Montgomery* [2003] as one type of wood debris in forested streams, form both backward- and forward-facing steps. Backward- and forward-facing steps also can develop in conjunction with an emergent lateral cavity formed by closely spaced obstructions protruding into the main channel [e.g., *McCoy et al.*, 2006]. Field studies have found that sediment entrainment within the recirculation regions of backward- and forward-facing steps results in bar development that resembles flood plain deposits [*Abbe and Montgomery*, 2003]. The flow structure of emergent backward- and forward-facing steps are described below. We note that submerged backward- and forward-facing steps also can occur, especially at high flows. In addition, underflow can occur beneath either a floating log or a log situated atop an uneven streambed. However, no work has been done to date to determine the influence of either submergence or underflow on the flow structure of a backward- or forward-facing step, and these cases are not discussed.

2.3.2.1 Backward-Facing Step

The backward-facing step is characterized by flow separation at the obstacle head, a reattachment point at the streambank that returns the open channel flow to a fully developed state, and a recirculation region on the downstream side of the obstacle located near the streambank [Figure 2.4; *Kim et al.*, 1979; *Silveira Neto et al.*, 1993; *Hung et al.*, 1997; *Fessler and Eaton*, 1999]. The recirculation region is delineated by a zero vorticity boundary and the farthest upstream and downstream locations of zero vorticity correspond to the detachment and reattachment points, respectively [*Kim et al.*, 1979;

Williams and Baker, 1997]. Gyre formation within the recirculation region is comparable to the lateral cavity at the same *W/L* with the exception that the mixing layer forms at an oblique angle to the channel flow, which elongates gyres within the downstream region. The dimensionless STS zone length (reattachment distance) is given by x_{BFS}/W, where x_{BFS} is the distance downstream from the obstruction (backward-facing step) detachment point, [L]; and *W* is the flow obstruction width protruding into the flow, [L] (Figure 2.4). The reattachment distance is highly dependent on Reynolds number and varies proportionally [*Armaly et al.*, 1983; *Williams and Baker*, 1997]. Increasing the Reynolds number moves the reattachment point farther downstream because higher in-channel flow velocities increase shearing across the mixing layer interface, causing higher momentum-driven vortical structures to travel farther downstream prior to impingement. The reattachment distance also varies proportionally to the channel expansion ratio with x_{BFS}/W asymptotically approaching smaller values as the channel expansion ratio is decreased [*Kuehn*, 1980; *Durst and Tropea*, 1981; *Hung et al.*, 1997]. Due to the high dependence of reattachment distance on hydromorphic parameters, the reattachment distance is still determined empirically and must be measured in the field.

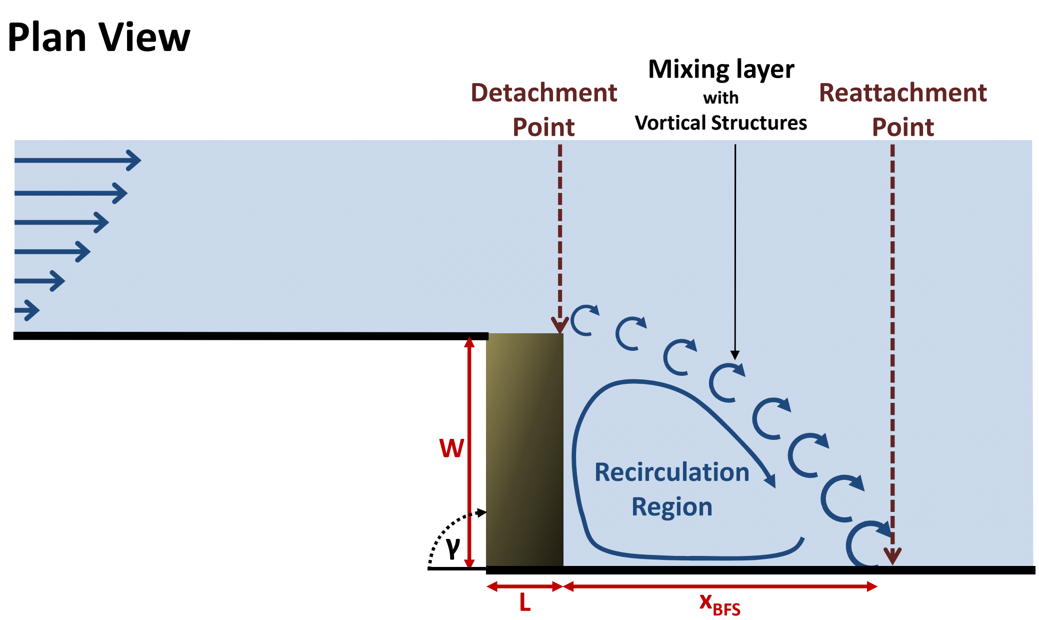

Figure 2.4. Schematic of the flow field for a backward-facing step.

The mean residence time of a backward-facing step is largely dependent on the flow obstruction width (W), Reynolds number, and inclination angle, γ (angle measured from the upstream streambank to the obstacle, see Figure 2.4). An increase in W can increase recirculation region size depending on the upstream flow conditions. Thus, larger flow obstruction widths have the potential to increase the volume for fluid entrainment and mean residence time. The recirculation region volume also increases as Reynolds number is increased; however, higher main channel flow also increases the strength of vortical structures in the mixing layer, thereby increasing mass exchange and decreasing mean residence time. The angle of the protruding in-stream flow obstacle, γ, influences the size and strength of the recirculation region that forms behind the obstacle. For protruding obstacles angled upstream into the flow, an increase in γ increases the shearing strength at the separation point, meaning that vortical structures within the mixing layer have greater coherence (and momentum). This increases momentum transfer into the recirculation region, which increases the circulation of gyres inside the region and decreases mean residence time. The mixing layer also grows farther downstream before impinging on the streambank at higher inclination angles, increasing the size of the recirculation region [*Chen et al.*, 2006], which may either enlarge the primary gyre or induce secondary gyre formation, subsequently reducing mean residence time. Therefore, the effect of inclination angle on mean residence time is poorly understood because mean residence time may increase or decrease depending on the relative influence of the angle on mixing layer exchange and recirculation region growth. We hypothesize that the inclination angle will have a stronger inverse relationship. A 3-D numerical study by *Chen et al.* [2006] showed that inclination angles less than 15 degrees are the limiting case for the formation of a mixing layer and recirculation region behind the obstacle. Mean residence time varies proportionally to the length (x_{BFS}) and depth ($d_{STS,BFS}$) of the backward-facing step and varies inversely to the mean depth at the mixing layer interface ($d_{E,BFS}$). Thus, the mean residence time of a backward-facing step is dependent on the following parameters (Table 2.2):

$$\tau = f(u_*, U, d_{E,BFS}, d_{STS,BFS}, \nu, g, W, x_{BFS}, \gamma), \tag{4}$$

noting that neither the submergence level, $d_C - d_{STS}$, nor underflow is accounted for in (4).

2.3.2.2 Forward-Facing Step

The flow dynamics associated with turbulent flow past a forward-facing step are more complex than that of a backward-facing step because, unlike a backward facing step, a forward-facing step has two regions of flow separation: one region upstream of the step (obstacle) and one region at the step corner (head of obstacle protruding into the flow) (Figure 2.5). Upstream flow separation occurs when the incoming turbulent boundary layer separates from the channel wall before approaching the obstacle due to an adverse pressure gradient imposed by the obstacle [*Farabee and Casarella*, 1986; *Pearson et al.*, 2001]. The separated boundary layer impinges at a point along the obstacle and forms a recirculation region in the corner between the obstacle and streambank. For a flow obstacle oriented normal to flow of width, W (Figure 2.5a), the upstream detachment distance (from the obstacle), x_{FFS}, and reattachment distance (from the streambank), y_{FFS}, are weakly dependent on Reynolds number, Re_W, (based on obstacle width) for $4{,}000 < Re_W < 26{,}300$ [*Awasthi*, 2012]. The upstream detachment distance ranges from about $0.8W$ to $1.2W$ and the reattachment distance ranges from about $0.5W$ to $0.6W$ [*Addad et al.*, 2003; *Fiorentini et al.*, 2007; *Camussi et al.*, 2008; *Leclercq et al.*, 2009].

The second separation region at the obstacle head results in a more complex flow field than the upper boundary layer separation region. Reattached flow travels along the flow obstacle and separates at the obstacle head, where a mixing layer forms and sheds vortices downstream [*Kiya and Sasaki*, 1983]. The flow field downstream of the obstacle head is dependent on the orientation of the obstacle's protrusion into the flow. If a protruding obstacle is oriented such that its width protruding into the flow is much longer than its length (parallel to flow) (e.g., a log oriented normal to flow), then flow separation at the obstacle head forms a mixing layer whose downstream impingement forms the flow field of a backward-facing step (Figure 2.5a). However, if a protruding obstacle

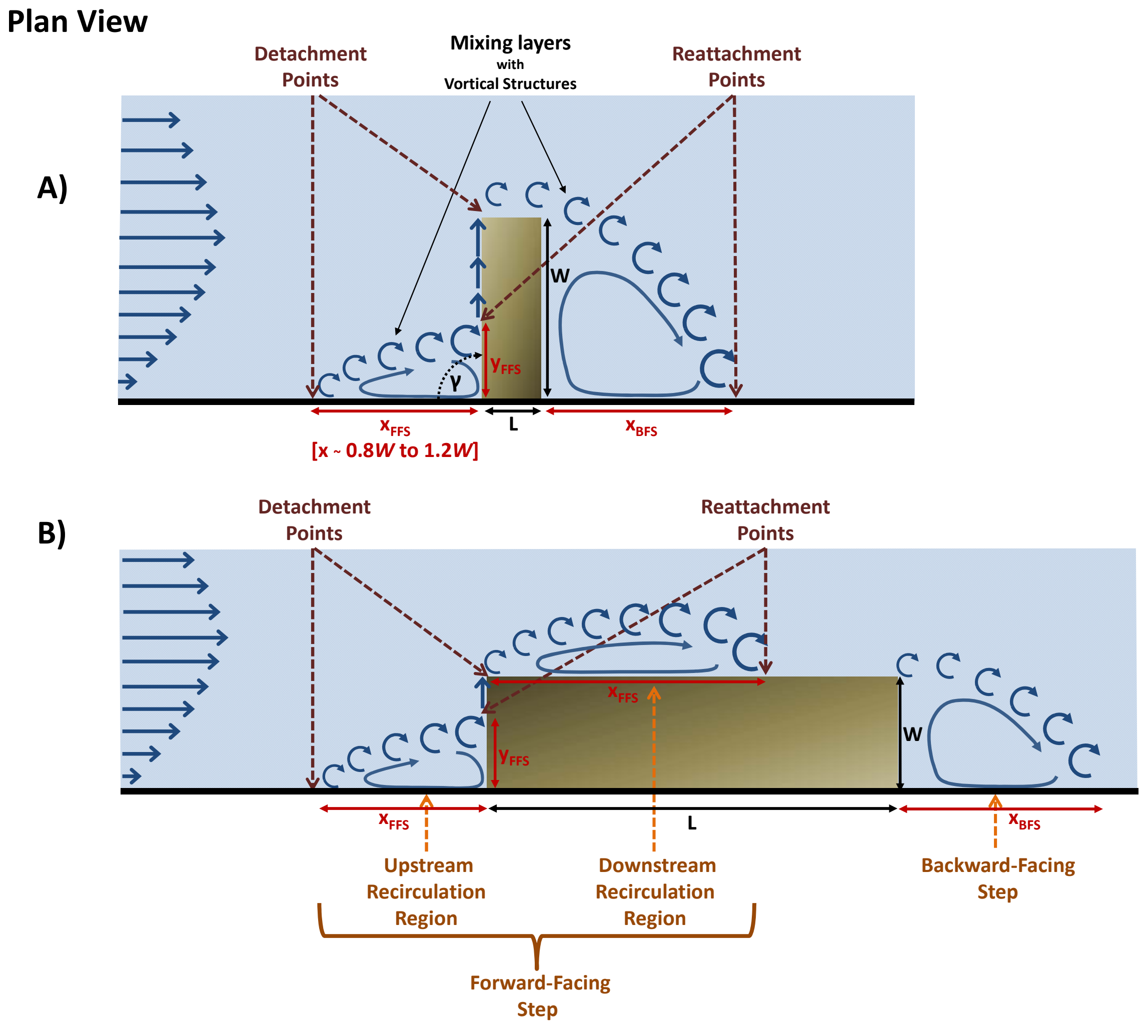

Figure 2.5. Schematics of the flow field for a forward-facing step with two different in-stream flow obstruction orientations: (**A**) $W > L$ and (**B**) $W < L$.

is oriented such that its width protruding into the flow is much shorter than its length (e.g., log(s) oriented parallel to flow), then flow separation at the obstacle head forms a mixing layer whose impingement at a point on the obstacle's length forms a recirculation region [Figure 2.5b; *Farabee and Casarella*, 1986]. One example of this flow type is logs oriented parallel to the channel axis, which typically form in higher gradient, semi-confined stream reaches and have been identified as bench jams [*Abbe and Montgomery*, 2003].

In the case of an obstacle oriented parallel to flow (Figure 2.5b), the downstream reattachment distance of the recirculation region is dependent on Re_W, W, and inclination angle, γ, into the flow. Studies of forward-facing steps typically relate reattachment distance to the flow obstacle geometry using the following hydromorphic ratio: W/δ, where δ is the boundary layer displacement thickness. Exact relationships between flow and geometry parameters and downstream attachment distance are poorly understood due to the unsteady nature of the mixing layer at the obstacle head and the amplification of mixing layer instabilities from the upstream recirculating flow and mixing layer [*Pearson et al.*, 2001; *Awasthi*, 2012]. A generalized result for reattachment distance is that W/δ = 1.43 yields reattachment distances ranging between $2.7W$ and $5.0W$ for $17{,}000 < Re_W < 50{,}000$ [*Moss and Baker*, 1980; *Addad et al.*, 2003; *Gasset et al.*, 2005], and decreases to $3.2W$ at higher Re_W (= 170,000) [*Leclercq et al.*, 2009]. At lower W/δ (~ 0.2), reattachment distances range between $1.5W$ and $2.1W$ for $8{,}000 < Re_W < 26{,}300$ [*Camussi et al.*, 2008], and decrease to $1.4W$ at higher Re_W (= 50,000) [*Castro and Dianat*, 1983]. Thus, there is a general trend that increasing obstacle protrusion width into the flow increases reattachment distance and increasing Reynolds number decreases the reattachment distance.

The mean residence time of recirculation regions upstream and downstream of the obstacle is dependent on a number of parameters. The size of the upstream recirculation region is weakly dependent on Reynolds number; however, the circulation of gyres (and mean residence time) in the recirculation region is driven by shearing in the mixing layer, which is dependent on Reynolds number (i.e., increased mixing decreases residence time). The obstacle inclination angle also can influence recirculation region size and the number of gyres in the region. Increasing the number of gyres increases the mean residence time because smaller, counter-rotating secondary gyres have slower circulation compared to the primary gyre [*Jackson et al.*, 2012]. Reynolds number and protruding obstacle width have more effect on the downstream recirculation region. Increasing obstacle protrusion width or decreasing Reynolds number will increase downstream recirculation region size, which increases primary gyre size in the recirculation region and, thus, mean residence time. An increase in free-stream velocity increases x_{FFS}, which increases recirculation region size and mean residence time. Larger y_{FFS}, $d_{STS,FFS}$, and $d_{STS,BFS}$ also increase upstream recirculation region size, which increases the volume for fluid entrainment and mean residence time. Larger $d_{E,FFS}$, and $d_{E,BFS}$ increase momentum exchange and gyre circulation, which decreases mean residence time. For the downstream recirculation region, the inclination angle will have similar effects for the forward-facing step as in the backward-facing step where, as discussed in the previous section, mean residence time either will increase or decrease depending on upstream flow conditions. Thus, the exact influence of larger inclination angles on mean residence time is poorly understood. Again, we hypothesize that the inclination angle will have a stronger inverse relationship. In summary, the mean residence time of a forward-facing step is dependent on the following parameters (Table 2.2):

$$\tau = f(u_*, U, d_{E,FFS}, d_{E,BFS} d_{STS,FFS}, d_{STS,BFS} \nu, g, W, x_{BFS}, x_{FFS}, y_{FFS}, \gamma) \,. \tag{5}$$

Note that the submergence level, $d_C - d_{STS}$, and underflow are not accounted for in (5), and that two predictive mean residence time relationships may be needed to represent the upstream and downstream recirculation regions.

2.3.3 Isolated In-Channel Flow Obstructions

Isolated in-channel flow obstructions are defined as any flow obstacle that is surrounded by main channel flow on all sides, such as a large boulder, log, or an amalgamation of wood debris. This type of flow is analogous to flow past a blunt body, which generates a single wake field. The flow structure is similar for flow obstacles of different shapes. Isolated in-channel flow obstructions can be either emergent or submerged. Note that no work has been done to date to estimate residence times in wake fields behind emergent or submerged blunt bodies and that we provide hypotheses for qualitative relations between different hydraulic and morphologic parameters and mean residence time.

2.3.3.1 Emergent Isolated In-Channel Flow Obstructions

Flow in the vicinity of an isolated boulder (Figure 2.1) or log is characterized by turbulent flow around a circular cylinder or flat plate, respectively, as described in section 2.2.1. The recirculation region formed behind isolated boulders and logs entrain solutes and sediments. If the cross-stream length of the flow obstacle is of sufficient size, meaning that the boulder or log encompasses a large fraction of the channel width, then the recirculation region can form sand bars and islands in front of and behind the obstacle, respectively. For example, a bar apex jam—a type of wood debris identified by *Abbe and Montgomery* [1996]—is an amalgamation of wood debris oriented normal to flow and centered in the channel. Main channel flow either diverges around the jam or impinges and deflects on the upstream side of the jam in the vertical and transverse directions (Figure 2.6). Vertical flow deflection and impingement on the streambed forms a large scour hole on the upstream side of the jam (see Figure 2.1b). Large-scale sweeping motions in and out of the scour hole alternately shed vortices downstream of the jam, forming a turbulent wake field. A large recirculation region forms behind the jam and sediment entrainment in this region can form an island. Transverse flow deflection causes fluid to either flow around the jam or to temporary traverse upstream in

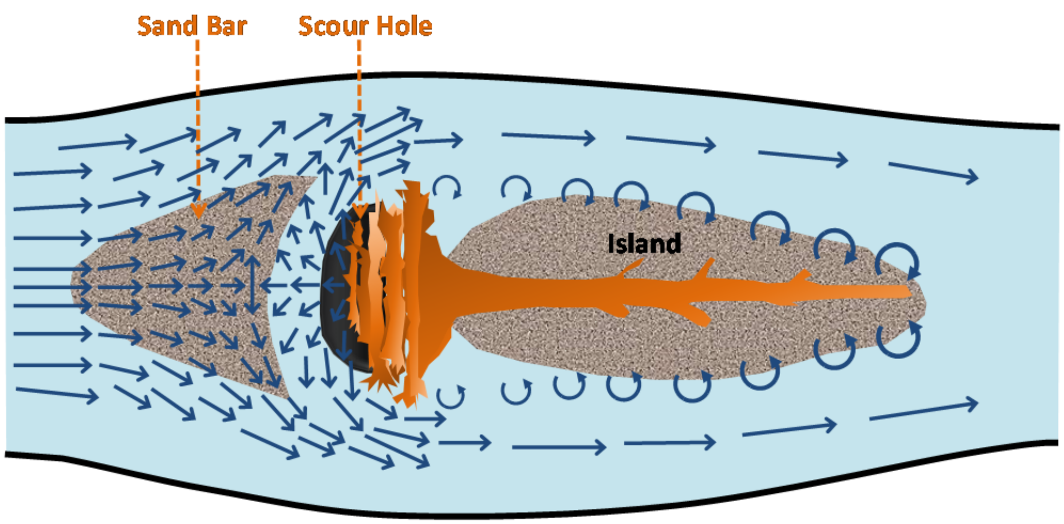

Figure 2.6. Bar apex jam: example flow field for an isolated in-channel flow obstruction. (Figure adapted from the work of *Abbe and Montgomery* [1996; 2003]).

a strong backward flow toward the oncoming streamflow. A stagnation point forms upstream of the scour hole and is centered above an arcuate bar where the horseshoe vortex forms.

Solute entrainment and mean residence time of isolated emergent obstacles is dependent on a number of factors. The most influential factor is the size of the obstacle. The relative fraction of the obstacle width (normal to flow), W, to the channel width, B, determines the size of the recirculation region behind the obstacle and whether an arcuate bar forms upstream beneath the horseshoe vortex. Thus, we hypothesize that an increase in W or decrease in B will cause an increase in mean residence time. Either one or two mean STS depths (d_{STS}) can be defined depending on whether the ratio W/B is sufficient for bar formation upstream of the obstacle. An increase in d_{STS} will increase the volume of fluid entrainment, which will increase mean residence time. Other variables of importance are the mean mixing layer depth, free-stream velocity, and porosity of the emergent obstacle, θ. Mean mixing layer depth (d_E) and free-stream velocity (U) increase mass and momentum exchange, which decreases mean residence time. Porosity is important in the case of wood debris where flow through the dam can disrupt the coherence of the wake field, which decreases mean residence time. Thus, the mean residence time of isolated emergent obstacles is dependent on the following parameters (Table 2.2):

$$\tau = f(u_*, U, d_E, d_{STS}, \nu, g, W, B, \theta). \tag{6}$$

2.3.3.2 Submerged Isolated In-Channel Flow Obstructions

Submerged isolated obstacles have the additional complexity of flow overtopping the obstacle and disrupting the wake field (Figure 2.7). Upstream of the obstacle, larger submergence depths change the position and size of the horseshoe vortex. The horseshoe vortex moves closer to the obstacle and decreases in size as the submergence depth increases due to a weakening of the backward flow as more flow overtops the obstacle [*Sadeque et al.*, 2008]. The flow accelerates as it overtops the obstacle, causing the

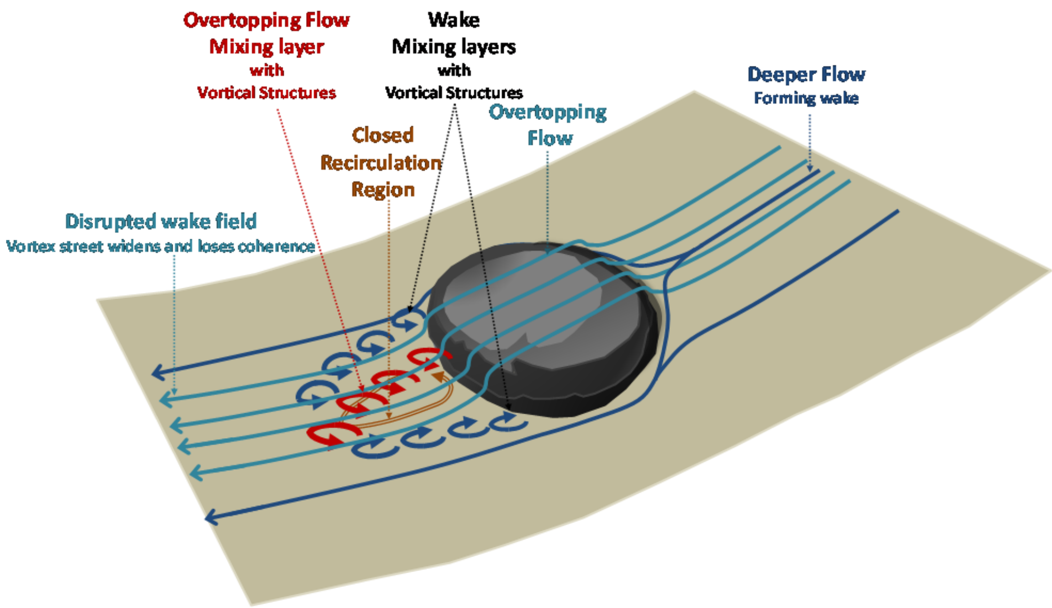

Figure 2.7. Schematic of the flow field for a submerged isolated in-channel obstacle.

destruction of wake vortices directly behind the obstacle. However, at higher submergence depths, flow separation occurs at the downstream edge of the obstacle, forming a mixing layer. Kelvin-Helmholtz instabilities in the mixing layer form large-scale vortical structures that impinge on the streambed and transport vorticity behind the obstacle, forming a closed recirculation region. The length of the recirculation region increases as the flow depth increases once the recirculation region has formed. The width of the vortex street also increases as the flow depth increases, but vortex coherence and circulation weakens [*Sadeque et al.*, 2008].

The spatial distribution of solute entrainment differs between emergent and submerged isolated obstacles. In the emergent case, the potential for solute and sediment entrainment is high because of the relatively high vortex street coherence compared to the submerged case. In the submerged case, the potential for solute and sediment entrainment decreases because vortex street coherence weakens as flow overtops the obstacle. Higher submergence depths cause the flow to be nearly parallel to main channel flow in the near surface region behind the obstacle, which decreases the size of the recirculation region and mean residence time. The closed recirculation region behind the obstacle is driven by mixing layer momentum exchange. Lower flow rates decrease exchange and increase mean residence times. All qualitative relations between hydraulic and morphologic parameters and mean residence time for the case of an isolated emergent obstacle hold for the case of submergence. Thus, the mean residence time of isolated submerged obstacles is dependent on the following parameters (Table 2.2):

$$\tau = f(u_*, U, d_E, d_{STS}, \nu, g, W, B, \theta, d_C - d_{STS}). \tag{7}$$

2.3.4 Cascades and Riffles

Cascades and riffles are relatively straight, steep, shallow reaches with higher flow velocities compared to adjacent geomorphic features, such as pools or steps [*Montgomery and Buffington*, 1997; *Raven et al.*, 1998; *Kang and Sotiropoulos*, 2011]. Cascade and riffle reaches typically are comprised of heterogeneously-spaced roughness elements, such as gravels, cobbles, or boulders, that have relatively large roughness heights—ratio of grain height, H_g, to mean water depth, d_C. Cascades and riffles are regions of high turbulent mixing and can be characterized by the coalescence of wake fields behind individual circular roughness elements (i.e., circular cylinders). In a coalesced turbulent wake field, the wake field generated by one roughness element interacts with adjacent wake fields from nearby roughness elements. Advected rollers from the mixing layers induce the formation of anisotropic small-scale structures that interact to form complex wake fields [*Tritico and Hotchkiss*, 2005; *Kang and Sotiropoulos*, 2011]. Closely spaced and/or heterogeneous distributions of roughness elements and bedform features can destabilize individual wake fields, causing the rollers to lose their coherence and ability to entrain solutes [*Constantinescu et al.*, 2013]. The rollers also can lose their coherence at higher flow depths due to flow overtopping individual roughness elements; however, smaller closed recirculation regions can form as in the case of submerged flow obstructions (discussed above in section 2.3.3.2). At high discharge, bed armoring is common along cascade and riffle reaches because high turbulent mixing (i.e., high transverse Reynolds shear stresses and turbulent kinetic energies) in the jet-like flow between roughness elements prevents deposition of finer sediment [*Vanoni*, 1975; *Hirsch and Abrahams*, 1981; *Sear*, 1996].

Cascades and riffles have fast exchange rates and relatively small mean residence times behind individual roughness elements [*Kang and Sotiropoulos*, 2011]. However, solute entrainment within the coalesced wake field can contribute to reach-averaged estimates of mean residence time, as observed in a laboratory experiment of four riffle-pool reaches by *Seo and Maxwell* [1992], where gravel (one particle thick) on the riffle reaches had a small contribution to the flume-length-averaged RTD. Thus, mean residence time varies proportionally to cascade/riffle reach length, (L_R). Furthermore, the contribution of cascade and riffle reaches to reach-averaged mean residence times may be significant depending on the mean grain diameter (D_g), spacing between roughness elements (S_g), channel velocity (U), mean flow depth (d_C), and the mean submergence depth of the roughness elements (d_C - H_g). Mean residence time varies proportionally to D_g and H_g because these parameters increase the volume of closed recirculation regions for fluid entrainment. An increase in roughness element spacing reduces wake interactions and turbulence associated with fluid entrainment, which decreases mean residence time. An increase in channel velocity increase momentum exchange and mean residence time, whereas an increase in mean channel depth and submergence depth decrease the size of individual recirculation regions and mean residence time. In summary, the mean residence time of cascade and riffle reaches is dependent on the following parameters (Table 2.2):

$$\tau = f(u_*, U, d_C, H_g, d_C - H_g, \nu, g, L_R, D_g, S_g)\,. \tag{8}$$

2.3.5 Aquatic Vegetation

Submerged and emergent aquatic macrophytes are common in rivers, wetlands, estuaries, marshes, and streams, and have been well-studied by Nepf, Ghisalberti, and coworkers. Seagrass meadows, dense algal mats (i.e., kelp forests), and mangroves are all types of aquatic vegetation canopies. Aquatic vegetation promotes sediment deposition, increases solute residence times, and enhances water quality through vertical mixing gradients due to increased drag and reduced shear stress near the streambed of the canopy [*Nepf*, 1999; *Ghisalberti and Nepf*, 2002; 2005; 2006; *Harvey et al.*, 2005; *Harvey et al.*, 2009]. Emergent and submerged aquatic macrophytes have differing physical characteristics and, therefore, differing influences on the main channel flow field. Emergent macrophytes have maximum heights that extend above the water surface and (typically) rounder stem geometries to increase their rigidity and strength against oncoming flow, whereas submerged macrophytes have maximum heights below the water surface and flatter blade-like stems to increase their elasticity so they can move with the main channel flow [*Nepf*, 2012]. Thus, emergent macrophytes can be considered bluff bodies and submerged macrophytes can be considered streamlined bodies.

2.3.5.1 Emergent Aquatic Vegetation

The flow field associated with emergent aquatic vegetation is characterized by the coalescence of wake fields behind individual stems [*Finnigan*, 2000]. As emergent canopies fill the entire flow depth, the mean velocity profile and turbulence characteristics of the main channel flow are dependent on the density (spacing) and frontal area geometry of individual macrophytes [*Finnigan*, 2000; *Bennett et al.*, 2002]. The mean velocity profile has a maximum canopy velocity near the streambed due to stem branching (Figure 2.8). The turbulent length scale is set by either the mean spacing between individual plant stems (ΔS) or the stem diameter (d), depending on whichever scale is smaller [*Tanino and Nepf*, 2008]. Turbulence in the stem wake region is higher than turbulence generated in the boundary layer region of the streambed, represented as bed shear stress [*Nepf*, 1999]. Therefore, the turbulent kinetic energy produced, which is dependent on the ratio of stem drag in the wake region to viscous drag, scales with the stem drag [*Nepf and Koch*, 1999]. The turbulence intensity in the wake region varies proportionally with increasing stem density [*Gambi et al.*, 1990].

The flow structure imposed by emergent aquatic vegetation is complex. Flow and mass transport equations have been derived by double-averaging the Navier-Stokes equations [*Nikora et al.*, 2001; 2007; *Nepf*, 2012]. The transport equations describe fluid

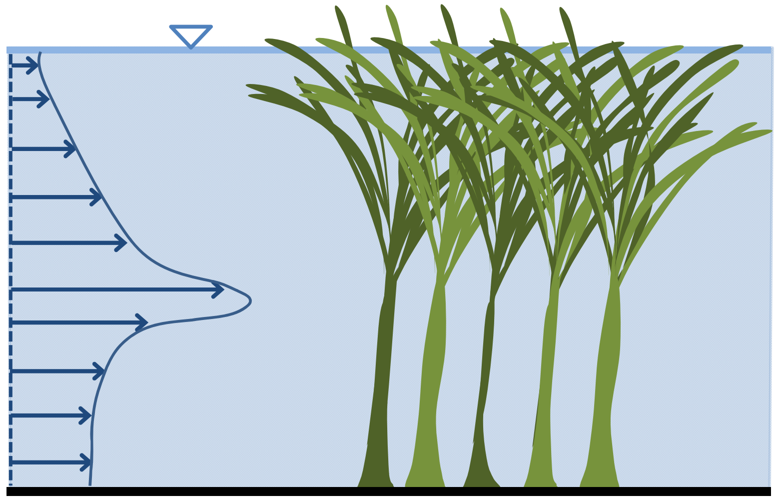

Figure 2.8. Schematic of the flow field for emergent aquatic vegetation. (Figure adapted from *Nepf* [2012]).

transport through an emergent aquatic canopy using a diffusion coefficient, D, which is the sum of the turbulent diffusion coefficient and mechanical diffusion coefficient, which accounts for tortuosity of flow paths [*Nepf*, 1999]. In sparsely vegetated canopies, turbulent diffusion dominates and $D = 0.2U_c d$, where U_c is the mean canopy velocity, [LT^{-1}] [*Lightbody and Nepf*, 2006]. In densely vegetated canopies, the influence of turbulent diffusion decreases and mechanical diffusion becomes the dominate diffusion process, especially at higher Reynolds numbers. The mechanical diffusion coefficient is given by: $D/ U_c d = ad$, where a is the frontal area per canopy volume, [L^{-1}] [*Nepf et al.*, 2007].

Several relationships have been found in the literature relating different hydromorphic parameters. Mean flow velocity (U_c) varies inversely with the front area (and diameter) of individual stems, vegetation density, and the canopy drag coefficient (C_D) [*Nepf*, 2012]. The drag coefficient decreases downstream along the vegetation canopy because vegetation upstream shelter stems downstream from the impact velocity; thus, the bulk drag coefficient decreases downstream as vegetation stem density increases [*Nepf*, 1999; *Nepf et al.*, 2007]. However, no simple relations have been developed to date relating mean residence time to hydromorphic parameters. Predictive relationships may be derived for relative volumes of stream reaches occupied by emergent canopies.

Thus, the mean residence time of emergent canopies is dependent on the following parameters:

$$\tau = f(g, \Delta S, U_c, d, a, C_D)\,. \tag{9}$$

Hypotheses relating the case-specific parameters of emergent aquatic vegetation to mean residence time are provided in Table 2.2.

2.3.5.2 Submerged Aquatic Vegetation

Submerged aquatic vegetation has a flow field characterized by the formation of a mixing layer at the canopy-water interface and a wake region in the canopy [Figure 2.9; *Finnigan*, 2000; *Ghisalberti and Nepf*, 2002]. The mean velocity profile in a submerged canopy is dependent on the canopy density and relative influence of canopy to bed drag [*Wilson et al.*, 2003; *Sukhodolov and Sukhodolova*, 2006]. In sparse submerged canopies, bed drag is larger than canopy drag and the mean velocity profile follows a turbulent logarithmic velocity profile, whereas in dense submerged canopies, bed drag is smaller than canopy drag and the mean velocity profile has an inflection point near the top of the canopy [*Ghisalberti and Nepf*, 2002; *Wilson et al.*, 2003; *Sukhodolov and Sukhodolova*, 2006; *Nepf and Ghisalberti*, 2008]. At the top of the canopy, the drag discontinuity increases velocity shear, causing flow separation and the formation of a mixing layer [*Gambi et al.*, 1990; *Stoesser et al.*, 2009]. The inflection point in the velocity profile causes vortical structures in the mixing layer to billow and grow downstream due to Kelvin-Helmholtz instabilities [*Ikeda and Kanazawa*, 1996; *Ghisalberti and Nepf*, 2002; *Nepf and Ghisalberti*, 2008; *Stoesser et al.*, 2009].

Canopy drag, density, and submergence depth (ratio of channel depth (d_C) to canopy height (h)) determine the penetration depth of the mixing layer into the canopy (Figure 2.9). Mixing layer penetration depth is inversely proportional to canopy drag and density and varies proportionally to submergence depth [*Ghisalberti and Nepf*, 2004; *Poggi et al.*, 2004]. For less dense and deeply submerged canopies ($d_C/h > 10$), turbulent

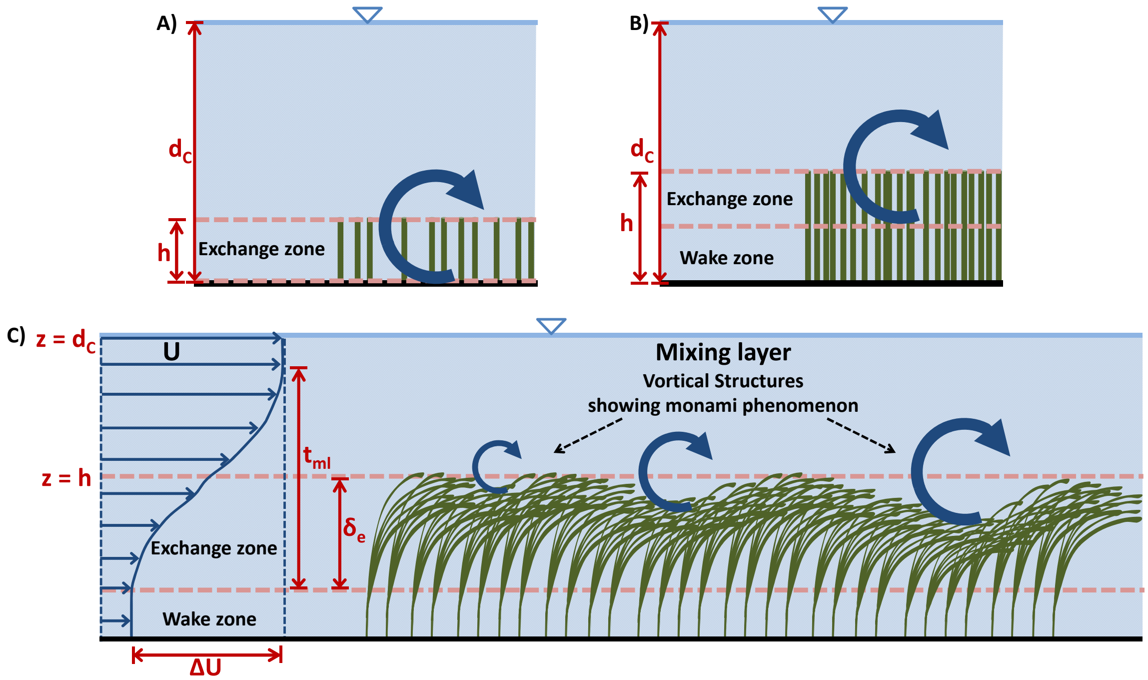

Figure 2.9. Schematics of the flow field for submerged aquatic vegetation. (**A**) Influence of deep submergence and sparse canopy on mixing layer penetration depth. (**B**) Influence of shallow submergence and a dense canopy on mixing layer penetration depth. (**C**) Flow structure within a flexible submerged canopy showing monami phenomenon. (Figure adapted from *Ghisalberti and Nepf* [2002; 2005], *Nepf et al.* [2007], *Nepf and Ghisalberti* [2008], and *Nepf* [2012]).

sweep and eject motions from vertical structures in the mixing layer penetrate the entire canopy height and transfer mass and momentum between the main channel and canopy [Figure 2.9a; *Fitzmaurice et al.*, 2004; *Ghisalberti and Nepf*, 2006; *Nepf and Ghisalberti*, 2008]. Deeply submerged canopies promote sediment resuspension and transport. For dense and shallow submerged canopies ($d_C/h \leq 5$), turbulent sweep and eject motions from vertical structures in the mixing layer do not penetrate the entire canopy height [Figure 2.9b; *Ghisalberti and Nepf*, 2004; 2005; 2009; *Poggi et al.*, 2004]. Shallow submerged canopies promote sediment entrainment by shielding the streambed from mixing layer turbulent stresses [*Nepf*, 2012]. Entrainment and transport can be enhanced if the canopy is comprised of flexible plants and the main channel velocity exceeds a threshold value [*Nepf*, 2012]. In this case, the advection of higher momentum-driven vortical structures causes a coherent waving pattern at the top of the canopy due to their downstream transport (Figure 2.9c). This phenomenon is called a monami and causes canopy drag reduction and deeper penetration of vortical structures into the canopy [*Ackerman and Okubo*, 1993; *Ghisalberti and Nepf*, 2002; 2009; *Nepf and Ghisalberti*, 2008].

Nepf et al. [2007] developed a vertical transport model for flow through submerged aquatic canopies by dividing the canopy into an exchange and wake zone (Figure 2.9c). Two timescales were developed, one each for the wake and exchange zone. The timescale of the wake zone, which is analogous to an STS zone, is given by [*Nepf et al.*, 2007]:

$$T_{wake} = \frac{\left(h - \delta_e\right)^2}{0.2 U_c d}, \tag{10}$$

where δ_e is the mixing layer penetration depth into the canopy, [L]. For deeply submerged canopies, $\delta_e = h$. For shallow submerged canopies, $\delta_e < h$, and is predicted by [*Nepf et al.*, 2007]:

$$\delta_e = \frac{0.23 \pm 0.6}{0.6 a C_D}. \tag{11}$$

Vertical transport in the wake zone is governed by the hydraulic gradient and balances between bed and canopy drag [*Ghisalberti and Nepf*, 2009]. Vertical transport in the exchange zone is governed by the hydraulic gradient and turbulent stresses [*Nepf and Vivoni*, 2000]. The timescale for the exchange zone (mixing layer) is given by [*Nepf et al.*, 2007]:

$$T_e = \frac{\delta_e}{E} = \frac{\delta_e}{(0.17 \pm 0.02)\sqrt{-gS(d_C - h)}(C_D a h)^{0.13}}, \tag{12}$$

where E is the exchange velocity at the wake-exchange zone interface, [LT^{-1}]; g is the gravitational acceleration, [LT^{-2}]; S is the channel slope; and C_D is the canopy drag coefficient given by $C_D = 2gSd_C/ahU_c^2$. Note that *Ghisalberti and Nepf* [2005] found that there is a linear relationship between E and the velocity difference between the main channel and wake region velocity, ΔU (Figure 2.9c); therefore, the denominator in (12) can be approximated by ΔU. *Ghisalberti and Nepf* [2005] also found that the vertical turbulent diffusivity can be approximated by $t_{ml}\Delta U$, where t_{ml} is the total mixing layer thickness, [L]. From the vertical transport model, the mean residence time of a submerged canopy can be estimated by the wake zone timescale.

2.3.6 Pools

Pools are deep, slow-moving, recirculating in-stream flow structures and are prevalent in rivers and streams [*Raven et al.*, 1998; *Kang and Sotiropoulos*, 2011]. Pools typically form as part of step-pool or riffle-pool sequences [*Montgomery and Buffington*, 1997]; adjacent to cascade reaches [*Montgomery and Buffington*, 1997]; downstream of flow constrictions [*Wright and Kaplinski*, 2011]; at abrupt changes in bed slope [*Raven et al.*, 1998]; or as backwater areas upstream and downstream of flow obstructions [*Abbe and Montgomery*, 2003]. The flow dynamics of pools differ depending on the upstream flow conditions, whereby seasonal flow conditions can substantially change the flow field. Therefore, careful attention is needed when classifying the flow field of a pool.

2.3.6.1 Pool Type 1: The Vertically Submerged Cavity

In some riverine systems pools can be sufficiently deep, meaning that either an abrupt break in slope or deep scouring causes the pool bathymetry to be sufficiently below the bathymetry of the upstream reach at the pool head. In this case, the pool can be classified as a vertically submerged cavity. The flow dynamics of a vertically submerged cavity are analogous to the flow dynamics associated with lateral cavities (Figure 2.10). Open channel flow across the top of the cavity causes flow separation at the upstream edge, mixing layer formation across the entire cavity entrance, and a recirculation region within the cavity. The cavity aspect ratio produces the same pattern of gyre dynamics observed in a lateral cavity. The predictive mean residence time in (1) can be applied to vertically submerged pools. Flume studies of flow past vertically submerged cavities show that the dynamics of mass and momentum exchange are the same for both lateral and vertically submerged cavities, where exponential RTDs arise and estimated

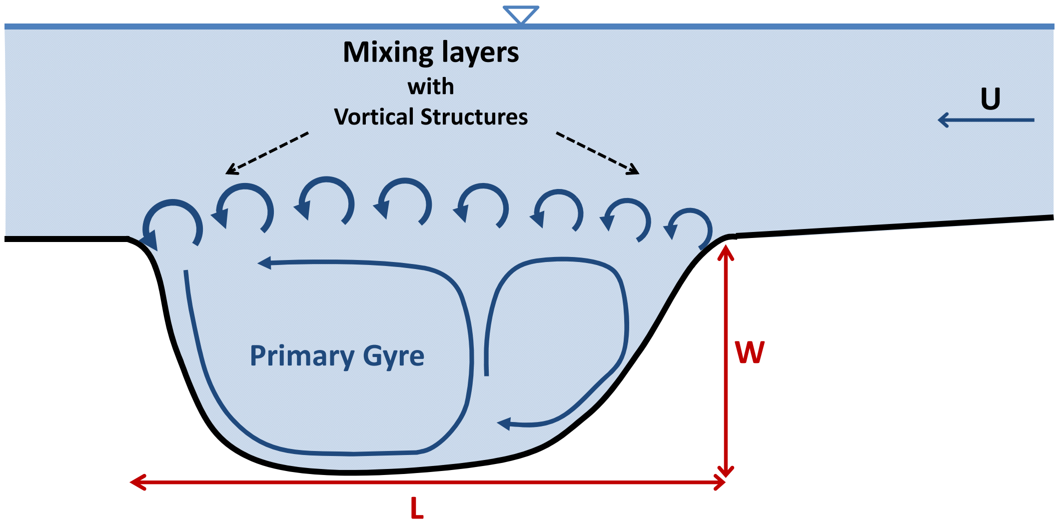

Figure 2.10. Schematic of the flow field for a vertically submerged cavity. Gyre formation within the cavity is depicted for $W/L < 0.5$. Note that gyre formation in vertically submerged cavities is equivalent to lateral cavities at the same W/L (see Figure 2.3).

entrainment coefficients are well within the range predicted for lateral cavities [e.g., *Valentine and Wood*, 1977; *Seo and Maxwell*, 1992; *Chang et al.*, 2007]. The predictive relationship in (2) was shown to work well for the experimental results of *Seo and Maxwell* [1992], who investigated exchange dynamics in a sequence of gravel-bed riffles with vertically-submerged pools. The relation holds when the cavity geometric parameters are redefined: W is the mean distance from the mixing layer to the cavity streambed, [L]; L is the cavity length (parallel to flow), [L]; d_E is the vertical length of the shear layer, [L]; and d_{STS} is the cavity width (normal to flow), [L]. Table 2.2 provides a summary of qualitative relations between case-specific parameters and mean residence time.

2.3.6.2 Pool Type 2: The Closed Lateral Cavity

Many natural pools in streams have a geometry that resembles a lateral cavity, whereby one streambank is relatively straight and the other streambank has a lateral cut-out due to erosion. At sufficiently high flows, the flow field will be characteristic to a lateral cavity (Figure 2.11a). However, as the main channel flow decreases, the flow dynamics associated with lateral cavities can evolve into a flow field more characteristic of slower moving pools (Figure 2.11b-c). For example, the mixing layer spanning the lateral cavity entrance will lose momentum as discharge decreases and the reattachment point at the downstream cavity edge will migrate upstream and reattach at a point along the wetted perimeter wall inside the cavity. As the reattachment point travels upstream due to lower channel velocities, flow will be advected directly into the cavity [*Rathburn and Wohl*, 2003]. Thus, the mixing layer will not span the entire cavity length and a recirculation region will not encompass the entire cavity, as in an emergent lateral cavity [*Shen and Floryan*, 1985; *Lawson and Barakos*, 2011]. The flow field will evolve from an emergent lateral cavity flow to a closed cavity flow. A closed cavity flow resembles a backward-facing step in the upstream cavity region and a forward-facing step in the downstream cavity region with no interaction between these flows (Figure 2.11c). The mixing layer impinges at the streambank inside the cavity, reattaches to the streambank boundary, and a recirculation region forms in the upstream region of the cavity, forming a flow similar to that over a backward facing step. The reattached boundary layer detaches in the downstream cavity region, forming a mixing layer that impinges on the trailing cavity edge and a recirculation region in the downstream cavity region, forming a flow similar to that over a forward facing step. If the reattachment point inside the cavity is

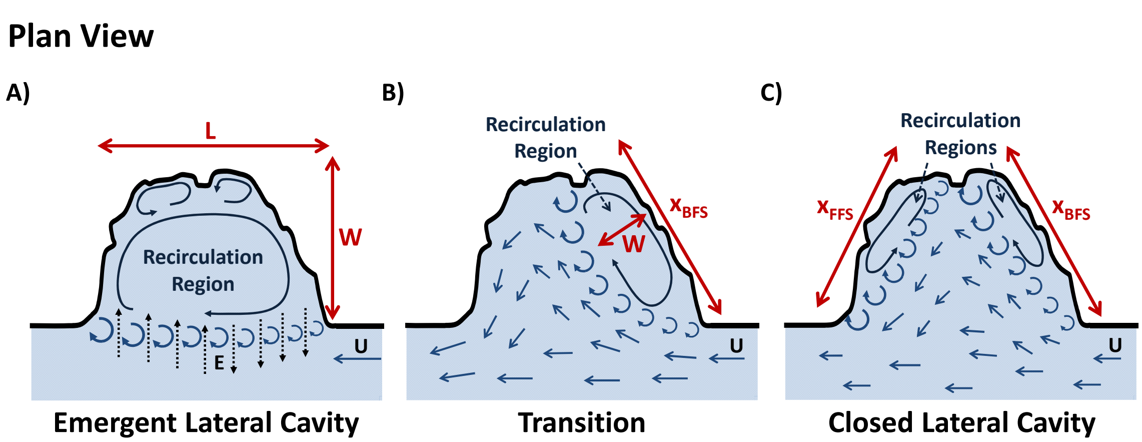

Figure 2.11. Schematics showing the evolution of the flow field from an emergent lateral cavity (**A**) to a closed lateral cavity (**C**).

sufficiently far downstream in the cavity, then a forward-facing step-like flow will not be observed (Figure 2.11b) [e.g., *Rathburn and Wohl*, 2003; *Wright and Kaplinski*, 2011]. Flow velocities decrease and disperse laterally toward the pool outlet within the main channel region adjacent to the closed cavity.

The closed cavity pool has a dynamic solute and sediment flushing pattern. Sediment entrainment occurs within the upstream and downstream recirculation regions of the closed cavity. At higher flows, the reattachment point in the cavity is located farther within the downstream cavity region. This causes a larger upstream recirculation region to form, increasing sediment entrainment in the upstream cavity region [*Thompson*, 1997; *Thompson et al.*, 1998; *Thompson and Hoffman*, 1999]. Sediment transport occurs in the downstream cavity region due to flow advection, causing scouring and erosion. At lower flows, the reattachment point migrates upstream, decreasing the size of the upstream recirculation region and promoting sediment transport. No work has been done to date to characterize the mean residence time of a closed lateral cavity.

The mean residence time of a closed lateral cavity is complex because it is dependent on parameters associated with an emergent lateral cavity, and backward- and forward-facing steps. Mean residence time varies proportionally to x_{FFS} and x_{BFS}, which are the lengths (parallel to flow) of the forward-facing and backward-facing steps, respectively. Mean residence time also varies proportionally to $d_{STS,FFS}$ and $d_{STS,BFS}$, which are the mean depths of the forward-facing and backward-facing steps, respectively. Mean residence time varies inversely to $d_{E,FFS}$ and $d_{E,BFS}$, which are the mixing layer depths of the forward-facing and backward-facing steps, respectively. An increase in the total cavity length (parallel to flow), L, and cavity width (normal to flow), W, increases the volume of fluid entrainment and mean residence time. In summary, the mean residence time of a closed lateral cavity is dependent on the following parameters (Table 2.2):

$$\tau = f(u_*, U, d_{STS,FFS}, d_{STS,BFS}, d_{E,FFS}, d_{E,BFS}, \nu, g, W, L, x_{FFS}, x_{BFS}), \quad (13)$$

2.3.6.3 Pool Type 3: A Recirculating Reservoir

Recirculating reservoir-type pools can form downstream of channel constrictions, cascades, riffles, log steps, or waterfalls. Deep, slow-moving, recirculating pools also can form upstream and downstream of wood debris that extend across the entire channel width and obstruct channel flow such that water overtops the wood debris. Wood debris accumulations can partially or completely impound channel flow. Specific types of wood debris include: (1) stable orthogonal tree boles that form log steps; (2) combination debris jams—comprised of larger orthogonal in-situ tree boles and smaller driftwood—that grow laterally from upstream debris accumulations and have a larger lateral extent than the channel width; (3) chaotic accumulations of waterborne driftwood; and (4) beaver dams [*Abbe and Montgomery*, 2003].

The mean residence time of a reservoir-type pool can be obtained from (1) by redefining hydromorphic parameters: W and L are the pool width (normal to flow) and length (parallel to flow), respectively, [L]; d_{STS} is the mean pool depth, [L]; d_E is the mean pool depth at the pool outlet, [L]; and E is the exchange velocity leaving the pool through the pool outlet, [LT^{-1}]. An increase in W, L, or d_{STS} increases mean residence time, whereas an increase in d_E decreases mean residence time. An increase in main channel velocity increases gyre circulation of the recirculating pool, which decreases mean residence time. As dams and jams typically form recirculating pools, the relative porosity, θ, of the wood debris attributed to underflow and flow through the debris also should be considered, which decreases mean residence time. The mean residence time of a reservoir-type pool can be obtained if either the exchange velocity is known, or an entrainment coefficient can be substituted into the second relation in (1). No work to date has estimated an entrainment coefficient for this type of flow; however, the mean residence time of recirculating reservoir-type pools is dependent on the following parameters (Table 2.2):

$$\tau = f(u_*, U, d_{STS}, d_E, \nu, g, W, L, \theta). \qquad (14)$$

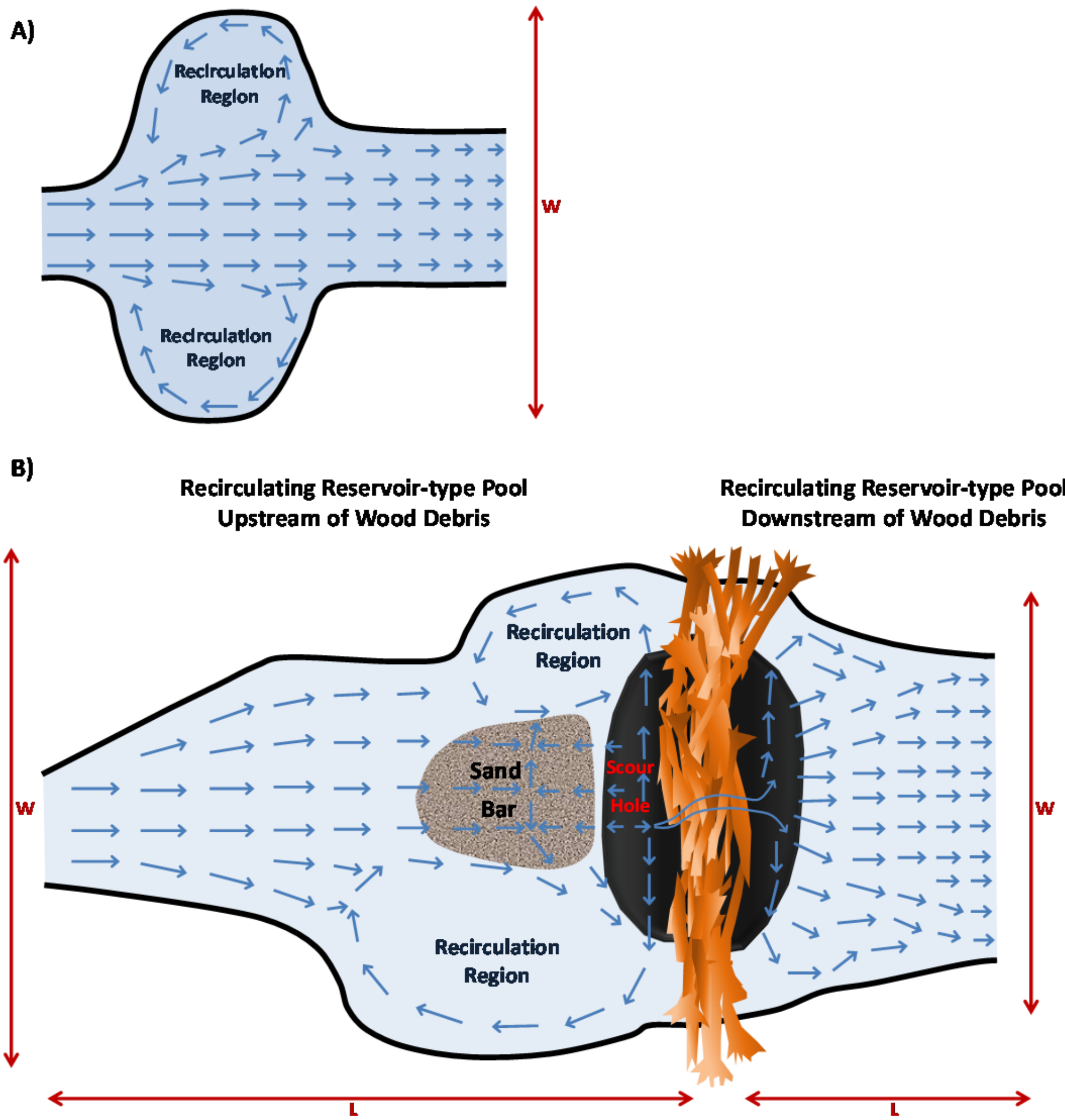

Figure 2.12. Schematics illustrating three different flow field examples of recirculating reservoir-type pools. (**A**) A jet-like flow forms recirculation regions on each side of the pool near the entrance. (**B**) (left-hand side) Upstream of in-channel obstacle, flow impingement forms recirculation regions near streambanks and a deep recirculating flow in scour hole. **(B)** (right-hand side) Downstream of in-channel obstacle, vertical jet-like flow enters pools and forms deep recirculating flow in scour hole.

2.3.6.3.1 Recirculating Reservoir: A Jet-like Flow

A recirculating reservoir-type pool downstream of channel constrictions, cascades, or riffles forms when faster main channel velocities upstream of the pool converge with slower flow downstream, transferring momentum and driving flow recirculation. Higher flow velocities enter the pool head as jet-like flows, causing flow separation and, sometimes, the formation of localized recirculation regions [Figure 2.12a; *Peterson and Mohanty*, 1960; *Bathurst*, 1979; *Thompson et al.*, 1996; *Raven et al.*, 1998; *Kang and Sotiropoulos*, 2011]. The localized recirculation regions are dominated by one large gyre and form to the left and right banks of the incoming jet-like flow at the pool head [*Kang and Sotiropoulos*, 2011]. Momentum exchange of the recirculating gyres with the incoming jet can increase the incoming flow velocities at the pool head [*Booker et al.*, 2001]. As the higher incoming velocities encounter slower moving water downstream in the pool, the velocity decreases and flow disperses laterally toward the pool outlet [*Sear*, 1996; *Kang and Sotiropoulos*, 2011]. Decelerating flow velocities toward the pool outlet cause sediment deposition [*Abbe and Montgomery*, 1996]. These pools typically have graded beds where coarser sediments are deposited near the pool head due to higher flows and scouring, and finer sediments are deposited near the pool outlet as flow decreases longitudinally through the pool [*Iseya and Ikeda*, 1987; *Lisle et al.*, 1991].

2.3.6.3.2 Recirculating Reservoir: Flow Impingement

A recirculating reservoir-type pool upstream of wood debris (e.g., beaver dams, log jams) forms when flow impingement deflects flow laterally and downward toward the streambed. The accelerated downwelling flow impinges on the streambed, causing scouring and erosion [*Abbe and Montgomery*, 1996]. The downwelling flow forms a scour pool just upstream of the wood debris (see Figure 2.1b for example). Sweeping motions in and out of the scour hole generate a recirculating flow deep in the pool. The laterally deflected flow scours and erodes the streambed on either side of the wood debris, and some of the flow is deflected upstream in a strong backward flow toward the oncoming streamflow (Figure 2.12b). The balance of incoming and backward flow forces creates a stagnation point upstream of the debris and causes flow recirculation. For pools formed upstream of wood debris, sand bars can develop just upstream of the scour pool beneath the stagnation point as a result of flow deceleration and deposition [*Abbe and Montgomery*, 2003].

2.3.6.3.3 Recirculating Reservoir: Scour Pool

A recirculating reservoir-type pool downstream of a waterfall, log step, debris dam, or log jam is typically called a scour or plunge pool [*Lamb et al.*, 2007]. In this case, the jet of upstream flow enters vertically at the pool head and drives downwelling flow (and falling sediments) toward the streambed (Figure 2.12b). A scour hole forms at the pool head due to downwelling flow scouring the streambed. For rapidly varied flow, the incoming jet-like flow can form a hydraulic jump comprised on streamwise-oriented rollers [*Endreny et al.*, 2011]. The flow velocity in the pool decreases and disperses laterally toward the outlet.

2.3.7 Meander Bends

Meander bends are characterized by a complex interaction of turbulent flow structures. Planform longitudinal bank curvature causes flow separation along the inner and outer banks and an imbalance of centrifugal and transverse pressure forces, inducing the direction of near-surface flow toward the outer bank (cut bank) and near-streambed flow toward the inner bank (point bar) [Figure 2.13; *Van Bendegom*, 1947; *Rozovskii*, 1957; *Bagnold*, 1960; *Leopold et al.*, 1960; *Dietrich and Smith*, 1983; *Thompson*, 1986]. Flow separation at the start of the bend forms two mixing layers: one along the inner bank and one along the outer bank nearly across from one another. A strong jet-like flow forms between the mixing layers and impinges near the apex of the outer bank, raising water surface levels and inducing downwelling flow toward the streambed [*Blanckaert*, 2010]. Downwelling flow impingement and subsequent transverse deflection toward the inner bank, which is termed a curvature-induced secondary flow, is the predominant

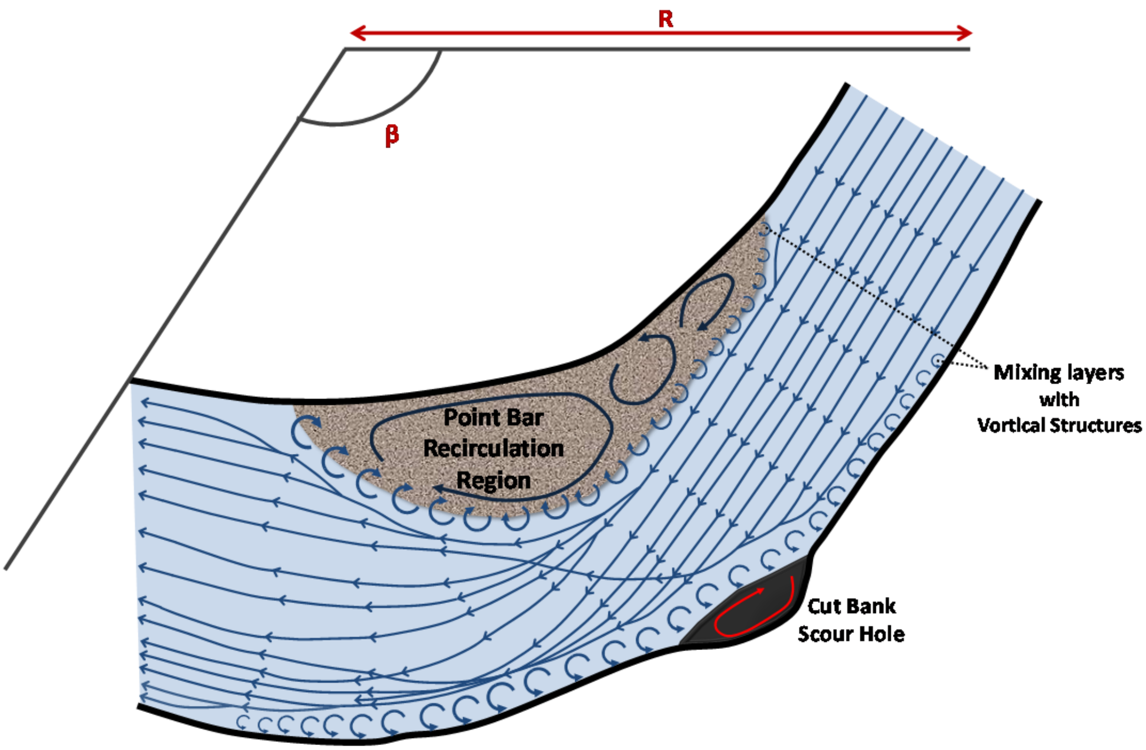

Figure 2.13. Schematic of the flow field for a meander bend. (Figure adapted from the work of *Kang and Sotiropoulos* [2011]).

cause of bed scouring along the outer bank [*Thomson*, 1876; *Johannesson and Parker*, 1989; *Hodskinson and Ferguson*, 1998; *Blanckaert*, 2010]. Scouring also is influenced by small vortices that form adjacent to the outer bank when centrifugal forces interact with streamwise anisotropic vortical structures in the outer bank mixing layer [*Hey and Thorne*, 1975; *Bathurst et al.*, 1979; *Thorne et al.*, 1985; *Kang and Sotiropoulos*, 2011]. *Jamieson et al.* [2010] showed that small outer bank vortices are centered above scour holes. Increased transverse Reynolds stresses and turbulent kinetic energy are the mechanisms by which curvature-induced secondary flow and small outer bank gyres scour and erode the outer bank [*Blanckaert and Graf*, 2001; *Blanckaert and de Vriend*, 2004; *van Balen et al.*, 2009].

The flow dynamics associated with the inner bank induce solute and sediment transport and entrainment. The inner bank mixing layer advects vortical structures downstream (Figure 2.13). The vortical structures typically impinge just downstream of the meander bend's point of highest curvature and cause the unsteady transport of vorticity and momentum toward the inner bank, forming a recirculation region [*Bagnold*, 1960; *Leeder and Bridges*, 1975; *Kang and Sotiropoulos*, 2011]. The inner bank recirculation region is comprised of a large primary gyre centered atop the point bar in the region of high bend curvature. A number of smaller secondary gyres develop upstream along the point bar due to primary gyre momentum exchange [L*eeder and Bridges*, 1975; *Ferguson et al.*, 2003]. Deposition and entrainment occur along the inner bank because inner bank gyres have low velocities and turbulent mixing (i.e., low turbulent kinetic energy) [*Schmidt*, 1990; *Kang and Sotiropoulos*, 2011]. Predominant locations of sediment entrainment within the inner bank recirculation region occur near the primary gyre vortex center and the separation and reattachment points [*Rubin et al.*, 1990; *Schmidt*, 1990]. *Kang and Sotiropoulos* [2011] found that the primary gyre vortex center is situated directly atop the apex of the point bar.

Relations have been found in the hydrology literature to relate hydromorphic parameters in a meander bend. *Leeder and Bridges* [1975] and *Schmidt* [1990] found that flow separation and vortical structure coherence, which influences inner bank recirculation and entrainment, is dependent on the Froude number and the degree of meander bend curvature. The meander bend curvature is quantified using a curvature ratio, R/B, where R is the meander bend radius of curvature, [L]; and B is the main channel width, [L] [*Leeder and Bridges*, 1975; *Blanckaert and de Vriend*, 2010]. A hydromorphic parameter for sharply curved meander bends is given by: $C_f^{-1} d_C/B$, where C_f is the Chézy-type friction coefficient; and d_C is the channel depth, [L] [*Blanckaert and de Vriend*, 2010]. *Blanckaert* [2010] showed that the flow dynamics of the outer and inner bank are strongly influenced by bed topography, where the inner bank recirculation region is dependent on the inner bank mixing layer depth, d_E. *Blanckaert* [2010] also derived a required condition for bank curvature-induced flow separation and recirculation: $R_{min}/B < 0.5(C_f^{-1} d_C/B)^{1/2}$, where R_{min} is the minimum radius of curvature, [L].

No relations have been developed to date to characterize the mean residence time of solutes and sediments entrained by a meander bend. Qualitatively, the mean residence time of the inner bank recirculation region varies proportionally to point bar width (normal to flow), W, and point bar length (parallel to flow), L. An increase in W increases the size of gyres in the recirculation region and an increase in L increases the number of secondary gyres. Point bar length and mean residence time increase as the meander bend radius of curvature increases. The minimum radius of curvature is associated with the smallest point bar that can form along a meander bend, which will decrease mean residence time. Larger main channel widths form larger point bar widths, which increases mean residence time. An increase in mean point bar depth, d_{STS}, increases the volume of solute entrainment and mean residence time, whereas an increase in mean inner bank mixing layer depth, d_E, increases mass and momentum exchange across the mixing layer, which decreases mean residence time. Frictional forces quantified by the Chézy-type friction coefficient and kinematic viscosity increase mean residence time. Main channel velocity and gravitational acceleration drive momentum exchange across the mixing layer and decrease mean residence time. In summary, the mean residence time of a meander bend point bar is dependent on the following parameters (See Table 2.2):

$$\tau = f(U, d_{STS}, d_E, \nu, g, R, R_{\min}, B, C_f, W, L). \tag{15}$$

2.3.8 Confluence of Streams

The flow field at the confluence of two non-parallel streams is characterized by flow separation at the point of streambank convergence (junction point) and the development of a mixing interface downstream of the junction point comprised of streamwise-oriented vortical structures [Figure 2.14; *Rhoads and Kenworthy*, 1995; *Bradbrook et al.*, 1998]. The streamwise-oriented vortical structures are formed by the higher transverse momentum generated from incoming stream convergence [*Sukhodolov and Rhoads*, 2001]. Vortical structures in the free mixing interface are shed from each stream at the junction point and advect downstream, accelerating the downstream flow within the mixing interface [*Rhoads and Kenworthy*, 1995]. Vortical structure pairing has been documented in the mixing interface, whereby shedded vortical structures from each stream are advected downstream in pairs from the junction point [e.g., *Rhoads and Kenworthy*, 1998; *Rhoads and Sukhodolov*, 2001; *Constantinescu et al.*, 2011].

The pattern of vortical structure pairing in the mixing interface has been described as being in the wake, Kelvin-Helmholtz, or combined wake-Kelvin-Helmholtz mode [Figure 2.14; *Miyawaki et al.*, 2009; 2010; *Constantinescu et al.*, 2011]. When the large-scale streamwise-oriented vortical structures rotate in opposite directions (counter-rotating), the mixing interface is in the wake mode (Figure 2.14a), whereas when the large-scale vortical structures rotate in the same direction (co-rotating), the mixing interface is in the Kelvin-Helmholtz mode [Figure 2.14b; *Constantinescu et al.*, 2011]. In the wake mode, the counter-rotating vortices are shed from the separation point and grow downstream (from weak Kelvin-Helmholtz instabilities) without an increase to their circulation, which limits their ability to entrain sediment. In the Kelvin-Helmholtz mode, strong Kelvin-Helmholtz instabilities arise in the mixing interface due to interactions

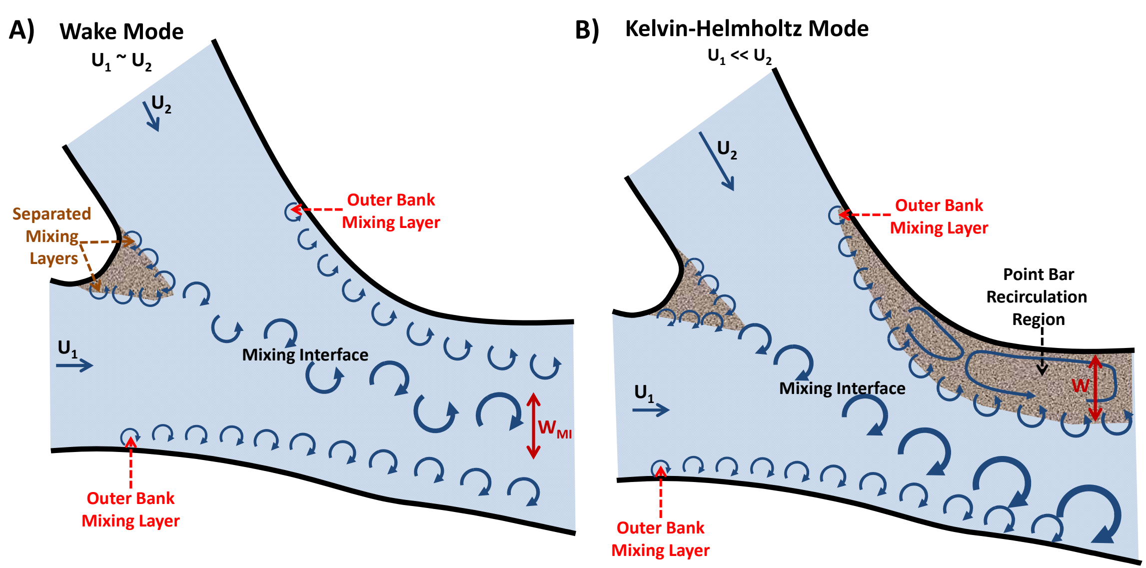

Figure 2.14. Flow field schematics of a stream confluence with a small velocity ratio between converging streams (**A**) and with a large velocity ratio between converging streams (**B**). (Figure adapted from the work of *Miyawaki et al.* [2010] and *Constantinescu et al.* [2011]).

between vortices in the mixing layers, causing vortex pairing between the mixing layers [*Constantinescu et al.*, 2011]. In this case, the mixing interface is comprised of vortices that merge, grow, and increase their circulation as they are advected downstream from the separation point, which increases their ability to entrain sediment. In some cases, such as high velocity ratios and confluence angles (β) between two converging streams, the mixing interface can have vortical structures whose interactions can be characterized by both the Kelvin-Helmholtz and wake mode [*Miyawaki et al.*, 2010].

Mixing interface position, mode, and coherence strength is dependent on the velocity (or momentum) ratio of the incoming streams, bathymetry (i.e., bed discordances), and the confluence angle at the junction point [*Biron et al.*, 1996a, 1996b]. Note that the velocity ratio is given by: U_1/U_2, where U_1 and U_2 are the mean channel velocities of the main and tributary channels, respectively, [LT^{-1}]. If the velocity ratio between the incoming streams is small, then the mixing interface is in the wake mode (Figure 2.14a). The mixing interface is comprised of strongly coherent vortical structures and neither stream pushes the mixing interface closer to the opposite streambank (i.e., the mixing interface is centered downstream of the point of stream convergence) [*Constantinescu et al.*, 2011]. However, if the velocity ratio between the incoming streams is large, then the mixing interface is in the Kelvin-Helmholtz mode and the stream with the larger momentum pushes the mixing layer interface toward the opposite streambank [Figure 2.14b; *Miyawaki et al.*, 2010]. Vortical structures in the mixing layer of the higher momentum stream have greater coherence than vortical structures in the mixing layer of the lower momentum stream [*Rhoads and Kenworthy*, 1998]. The coherence of vortical structures in the mixing interface also depends on the streambed topography and the confluence angle of the incoming streams, where concordant streambeds and larger confluence angles generally increase vortical structure coherence [*Miyawaki et al.*, 2010].

An additional flow field complexity is the separated mixing layers that form along the outer streambanks of the incoming streams at the confluence. The longitudinal bank curvature imposed by the confluence causes outer streambank flow separation. At high confluence angles and low momentum ratios, flow separation at the outer streambanks forms mixing layers that interact with the mixing interface (Figure 2.14a). At high confluence angles and momentum ratios, the higher momentum stream pushes the mixing interface toward the opposite streambank and the lower momentum stream mixing layer interacts with the mixing interface (Figure 2.14b). The interaction of vortical structures causing scouring and erosion. Flow separation, mixing layer formation and downstream impingement at the outer bank of the higher momentum stream is the same as that of a meander bend. A recirculation region forms along the outer bank (near the high momentum stream) atop a point bar [Figure 2.14b; *Constantinescu et al.*, 2011].

The mean residence time of solutes and sediments in stream confluences has not been studied to date. Key parameters influencing entrainment in the mixing interface are: the confluence angle, velocity and momentum ratios, and bed concordance. Larger confluence angles (β) and higher momentum ratios (U_1/U_2) increase solute entrainment and mean residence time. The exact influence of bed topography discordance on vortical structure coherence and transport is still largely unknown as discordant topographic features between channels have been found to both increase vortical structure coherence [e.g., *Miyawaki et al.*, 2010] and decrease vortical structure coherence [e.g., *De Serres et al.*, 1999]. An increase in mean width (W_{MI}) and depth (d_{MI}) of the mixing interface increase the volume of solute entrainment and mean residence time. Main channel width downstream of the confluence, B, increases the potential for mixing interface spreading (W_{MI}) and mean residence time. Frictional forces quantified by the Chézy-type friction coefficient and kinematic viscosity increase mean residence time. Thus, the mean residence time of a stream confluence (without the formation of a point bar) is dependent on the following parameters:

$$\tau = f(C_f, U_1, U_2, W_{MI}, \beta, d_{MI}, \nu, g, B)\,. \tag{16}$$

If a point bar is present, the mean residence time is also dependent on parameters associated with a meander bend (see Table 2.2):

$$\tau = f(C_f, U_1, U_2, W_{MI}, \beta, d_{MI}, \nu, g, B, d_E, d_{STS}, R, R_{\min}, W, L)\,. \tag{17}$$

2.4 Utilizing the STS Classification Scheme

2.4.1 Development of Predictive Mean Residence Time Relationships

We hypothesize that, for each STS type (and subtype) identified in the classification scheme, mean residence time relationships can be derived for a range of flow conditions and geometries using field-measureable hydromorphic parameters. Employing dimensional analysis, nondimensional mean residence times can be related to a combination of nondimensional quantities, such as Reynolds number, Froude number, shape factors, bed roughness parameters, aspect ratios, submergence ratios, discharge ratios, and other case-specific parameters (see Table 2.3). Nondimensional mean residence times can then be compared to collected data for verification. This method was recently utilized by *Jackson et al.* [2013] to successfully relate the nondimensional mean residence time of a lateral emergent cavity to six nondimensional quantities. *Nepf et al.* [2007] also developed residence time relationships by dividing a submerged aquatic canopy into two zones: an exchange and wake zone. The exchange zone timescale (Eq. 10) is representative of solute residence time in the mixing layer interface and the wake zone timescale (Eq. 12) is representative of solute residence time in the canopy (STS). Thus, in some cases, mean residence time relationships may need to be derived for both the STS and the mixing layer interface if solute exchange is not a rapid process and solute becomes entrained in the mixing layer at timescales near the order of the STS residence timescale.

For each STS identified, mean residence time is a function of a number of hydromorphic parameters (see Eq. 1-17). In all cases, mean residence time is dependent on the main channel velocity, gravitational acceleration, and bed friction (or canopy drag for aquatic vegetation) (Table 2.3). These parameters form three nondimensional quantities: Reynolds number, Froude number, and a bed roughness factor; however, the characteristic length scale differs among STS types. For example, the mean depth at the mixing layer interface (d_E) is the characteristic length scale for the emergent lateral cavity, whereas the stem diameter (d) is the characteristic length scale for aquatic vegetation. In most cases the characteristic length scale has not been identified. The

Table 2.3. Summary of hydromorphic parameters characteristic to STS types.

STS Type	Flow	Roughness	Constants	Case-Specific Parameters
Lateral Cavity				
Emergent	U	u_*	$g\ \nu$	d_E, d_{STS}, W, L
Submerged	U	u_*	$g\ \nu$	d_E, d_{STS}, W, L, $(d_C\text{-}d_{STS})$
Protruding Flow Obstructions				
Backward-Facing Step	U	u_*	$g\ \nu$	$d_{E,BFS}$, $d_{STS,BFS}$, W, x_{BFS}, γ
Forward-Facing Step	U	u_*	$g\ \nu$	$d_{E,FFS}$, $d_{E,BFS}$, $d_{STS,FFS}$, $d_{STS,BFS}$, W, x_{BFS}, x_{FFS}, y_{FFS}, γ
Isolated Flow Obstructions				
Emergent	U	u_*	$g\ \nu$	d_E, d_{STS}, W, B, θ
Submerged	U	u_*	$g\ \nu$	d_E, d_{STS}, W, B, θ, $(d_C\text{-}d_{STS})$
Cascades and Riffles	U	u_*	$g\ \nu$	d_C, D_g, H_g, L_R, S_g, $(d_C - H_g)$
Aquatic Vegetation				
Emergent	U_c	C_D	g	a, d, ΔS
Submerged	U_c	C_D	g	a, d, h, d_C, δ_e, S, ΔU
Pools				
Vertically Submerged Cavity	U	u_*	$g\ \nu$	d_E, d_{STS}, W, L
Closed Lateral Cavity	U	u_*	$g\ \nu$	$d_{E,FFS}$, $d_{E,BFS}$, W, L, $d_{STS,FFS}$, $d_{STS,BFS}$, x_{FFS}, x_{BFS}
Recirculating Reservoir	U	u_*	$g\ \nu$	d_E, d_{STS}, W, L, θ
Meander Bends	U	C_f	$g\ \nu$	d_E, d_{STS}, W, L, B, R, R_{min}
Confluence of Streams	U_1, U_2	C_f	$g\ \nu$	d_E, d_{STS}, d_{MI}, W, L, W_{MI}, B, β, R, R_{min}

definition of bed roughness also will be defined differently between cases. In emergent lateral cavities, the channel bed roughness of the upstream boundary layer (i.e., upstream of the cavity separation point) is used to define the shear velocity. For the confluence of two streams, the bed roughness of each stream above the confluence must be considered to define the shear velocity. Thus, case-specific hydromorphic parameters dictate the flow structure and mean residence time characteristic to each STS, and detailed analyses are needed to determine appropriate metrics for defining hydraulic, geometric, and roughness quantities. As a starting point, we provide qualitative relations between mean residence time and case-specific hydraulic and morphologic parameters in Table 2.2 for each STS type.

2.4.2 Application of STS Classification

To implement the STS classification scheme and quantitatively separate STS from HTS in a tracer test, we propose a method that deconvolves the STS residence time distribution (RTD) from the total transient storage RTD to obtain the HTS RTD. Implementation of this proposal is well beyond the scope of this manuscript, and so we only provide a brief overview. We can think of the total transient storage RTD as closely related to the late-time tailing behavior of the main channel tracer concentration breakthrough curve (BTC) in a reach-scale tracer test [*Haggerty et al.*, 2000]. Transient storage increases tracer mean residence time along a channel reach, where longer mean residence times increase the skewness (tailing) of the main channel concentration BTC. This method extends the work of *Haggerty et al.* [2002], who performed a reach-scale tracer injection to obtain tracer concentration BTCs in a high-gradient (2nd-order) stream. A multirate mass transfer (MRMT) model with a late-time power-law RTD was used to characterize the late-time behavior (tailing) of the measured BTC and estimate the HTS RTD. Note that the choice of transient storage model is dependent on the type of RTD measured in a reach-scale tracer test. The slope of the best-fit line through the late-time tailing of the measured BTC is used in conjunction with the harmonic mean approximation to the RTD to obtain the total transient storage RTD. (See Table 1 of *Haggerty et al.* [2000] for a listing of different RTDs and corresponding harmonic mean approximations). STS mean residence times can then be deconvolved to obtain the HTS RTD. Once the type of RTD is determined and a transient storage model is selected, an effective STS mean residence time and an estimate of the reach-scale STS volume fraction (V_{STS}) can be used for model parameter estimation.

We highlight that a number of transient storage models have been developed with similar conceptual frameworks, but differ in the type of RTD assumed. All of these models could be applied in a similar fashion to that outlined above, with minor modifications. The OTIS model [*Bencala and Walters*, 1983; *Runkel*, 1998] assumes an exponential RTD based on a perfectly mixed continuous stirred tank reactor with a single-rate mass transfer coefficient. *Choi et al.* [2000] modified the OTIS model to formulate a two-zone transient storage model that represents STS and HTS separately with exponential RTDs. *Wörman et al.* [2002] developed the Advective-Storage-Path (ASP) model by re-deriving the transient storage equations to include moment methods for a lognormal RTD. The continuous time random walk (CTRW) model [*Montroll and Weiss*, 1965; *Berkowitz and Scher*, 1998; *Boano et al.*, 2007; *Berkowitz et al.*, 2008] could be used in a fashion similar to the MRMT model by employing separate RTDs for HTS and STS. An application of the CTRW model by *Stonedahl et al.* [2012] could possibly be extended to do this task.

2.5 Advantages and Limitations of STS Classification

A fluid-mechanics-based STS classification scheme will provide a number of advantages when implemented in transient storage models. First, predictive relationships will be developed based on a small number of field-measureable hydraulic and morphologic parameters. Second, the morphologic parameters will provide a more accurate estimate of the reach-scale STS volume fraction (V_{STS}). Third, an accurate effective STS mean residence time can be obtained from the predictive relationships (τ_{STS}). Fourth, an accurate estimate of the HTS mean residence time (τ_{HTS}) can be obtained by deconvolving the late-time tailing of the total transient storage RTD. Fifth, effective STS and HTS mass exchange rate coefficients can be obtained from the inverse of the effective STS and HTS mean residence times, respectively. Therefore, all transient storage parameters will be constrained during parameter optimization with the exception of the longitudinal dispersion coefficient. Sixth, the predictive mean residence time relationships will be developed based on the underlying physics driving mass and momentum exchange; thus, these relationships will be process-based and will more accurately describe residence time dynamics. Lastly, the predictive relationships will allow for a priori estimates of STS mean residence times that will reduce extensive data requirements currently in practice. For example, in reach-scale tracer tests, additional sensors are emplaced in individual STS zones [e.g., *Gooseff et al.*, 2008; *O'Connor et al.*, 2010] as well as in the main channel adjacent to STS zones to obtain STS RTDs [e.g., *Gooseff et al.*, 2011]. The predictive relationships will eliminate the need for emplacing additional sensors in individual STS zones to obtain STS RTDs.

One complication that can arise when using the fluid-mechanics-based STS classification scheme is the identification of STS zones that may not precisely fit into the STS types presented. The STS classification scheme identifies and describes the most predominant types of STS in fluvial systems. Some STS may have flow structure characteristics that deviate somewhat from the flow structure described in the classification. For example, one may find an emergent lateral cavity in a channel with a slightly permeable upstream boundary, such as if wood debris upstream of the cavity forms the upstream boundary. In the case that the amount of leakage through the wood debris does not significantly disrupt the flow structure (i.e., the recirculation region is pronounced), then the leakage can be assumed negligible. However, in the case that the amount of leakage through the wood debris does significantly disrupt the flow structure (i.e., flow in the upstream cavity region is disrupted while a recirculation region forms in the downstream region), then the leakage cannot be neglected. For these unique cases sensors may need to be placed in the individual STS zones and in the main channel adjacent to the STS to deconvolve the STS RTD using the method employed by *Gooseff et al.* [2011] to obtain the STS mean residence time.

2.6 Broader Impacts of STS Classification Scheme

The STS classification scheme presented provides a foundation for future studies in the areas of fluid dynamics, geomorphology and hydrology. In fluid dynamics, the classification scheme has presented flow types where little to no work has been done, such as submerged backward- and forward-facing steps. In addition, flow types where more work needs to be done are highlighted. Investigations into the flow structure of different STS types (and the influence of different hydromorphic parameters on the mean flow field) will aid in the development of predictive mean residence time relationships.

In geomorphology, the fluid-mechanics-based classification scheme may remove complexities and ambiguities associated with relating different types of STS between different riverine systems. For example, backwater areas in riverine systems are typically defined as pools; however, lateral cavities, backward- and forward-facing steps, vertically submerged cavities, closed cavities, and recirculating reservoirs have all been identified as pools in the hydrology literature. This has led to complications and inconsistencies in the study of pool maintenance and sediment transport dynamics. As an example, in the well-studied riffle-pool sequence, many hydraulic reversal theories have been provided in the literature to describe the maintenance of pools based on hydraulic mechanisms, including an abrupt decrease in water surface slope [*Keller*, 1971]; a decrease in mean cross-sectional velocity [*Lane and Borland*, 1954]; and changes in near-bed velocity and shear stress [*Keller*, 1969; 1971; *Lisle*, 1979]. These hydraulic reversal theories postulate that high velocities and bed shear stress occur on the upstream riffles and low velocities and bed shear stress occur in the downstream pools at low flows, causing the downstream transport of fine sediment into pools [*Hack*, 1957; *Keller*, 1971; *Lisle and Hilton*, 1992]. Conversely, at high flows, lower velocities and bed shear stress are observed on the riffles compared to the mid-pool region, causing the downstream transport of coarse sediment from the pools to downstream riffles [*Keller*, 1971; *Andrews*, 1979; *Lisle*, 1979; *Ashworth*, 1987; *Clifford*, 1993]. *Booker et al.* [2001] showed that hydraulic reversal theories weakly explain pool formation dynamics because decreased riffle velocity and bed shear stress were responsible for the maintenance of three out of eight pools that form in riffle-pool sequences along a meander bend of the Highland Water in the United Kingdom. Furthermore, *Campbell and Sidle* [1985], Sidle [1988], Carling [1991], *Keller and Florsheim* [1993], and *Sear* [1996] also observed weak relationships between hydraulic reversals along upstream riffles and maintenance of their downstream pools at higher discharges, suggesting that these hydraulic reversals are not the main mechanism for pool formation and maintenance. We postulate another explanation: the flow dynamics of exchange may change, producing a different type of flow field in the pool at high discharges, such as from a closed cavity to a recirculating reservoir. Therefore, the hydraulic reversal theory may only be applicable to pools with a specific flow structure.

In hydrology, developing predictive mean residence times for different STS using field-measureable parameters will provide an accurate, reliable, and inexpensive method for estimating STS. This approach will allow for the quantitative separation of STS from HTS in a tracer test, where STS mean residence times can be deconvolved from the total transient storage mean residence time to obtain the HTS RTD. Quantitatively separating STS from HTS will allow for the determination of whether specific processes are occurring in-stream, in the hyporheic zone, or both [*Harvey and Wagner*, 2000]. Predictive relationships also will provide a more direct comparison between transient storage and solute dynamics and exchange processes among morphologically diverse streams [*D'Angelo et al.*, 1993]. Furthermore, predictive relationships will aid stream restoration efforts in mitigating nutrient transport by providing a quantitative means for assessing the impact of hydromorphic parameters on in-stream structure design [*Baker et al.*, 2012]. For example, stream restoration projects typically restore stream ecosystems by emplacing in-stream structures that increase biological diversity; however, different STS structures may enhance the growth of different types of biotic communities and, thus, affect the nutrient uptake capabilities of the stream [*Argerich et al.*, 2011].

2.7 Conclusion

This paper introduces a classification scheme that categorizes different types of STS in riverine systems based on their flow structure. Eight types of STS are identified and, in some cases, subcategorized on the basis of differing characteristic mean flow structure: (1) lateral cavities (emergent and submerged); (2) protruding in-channel flow obstructions (backward- and forward-facing step); (3) isolated in-channel flow obstructions (emergent and submerged); (4) cascades and riffles; (5) aquatic vegetation (emergent and submerged); (6) Pools (vertically submerged cavity, closed cavity, and recirculating reservoir); (7) meander bends; and (8) confluence of streams. This classification scheme provides a foundation for studying different types of STS with greater quantitative accuracy so that greater insight will be gained into key hydromorphic parameters influencing mass and momentum exchange.

The long-term goal is to develop predictive mean residence times and RTDs for different types of STS using field-measureable hydromorphic parameters, which will provide the ability to quantitatively separate STS from HTS. In some cases, predictive relationships may need to be developed for ranges of STS geometries and Reynolds numbers. To implement the STS classification scheme, we propose a method that deconvolves STS mean residence times using predictive relationships from the total transient storage RTD (measured from a tracer test) to obtain an estimate of the HTS RTD.

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Notation

a	Frontal area per canopy volume, $[L^{-1}]$
B	Channel width, [L]
C_D	Canopy drag coefficient, [-]
C_f	Chézy-type friction coefficient, [-]
d	Stem diameter, [L]
d_C	Main channel depth, [L]
d_C - d_{STS}	Submergence depth, [L]
d_C - H_g	Mean submergence depth of sediment grains, [L]
d_E	Mean water depth in mixing layer, [L]
$d_{E,BFS}$	Mean water depth in mixing layer of a backward-facing step, [L]
$d_{E,FFS}$	Mean water depth in mixing layer of a forward-facing step, [L]
d_{MI}	Mean water depth in mixing interface at stream confluence, [L]
d_{STS}	STS water depth, [L]
$d_{STS,BFS}$	Mean depth of backward-facing step, [L]
$d_{STS,FFS}$	Mean depth of forward-facing step, [L]
D	Diffusion coefficient (emergent vegetation), $[L^2T^{-1}]$
D_g	Mean grain diameter, [L]
E	Exchange velocity at STS interface, $[LT^{-1}]$
g	gravitational acceleration, $[LT^{-2}]$
h	Submerged canopy height, [L]
H_g	Sediment grain height, [L]
k	Dimensionless entrainment coefficient, [-]
L	STS length (parallel to flow), [L]
L_R	Cascade/riffle reach length, [L]
R	Meander bend radius of curvature, [L]
R_{min}	Minimum meander bend radius of curvature, [L]
R/B	Meander bend curvature ratio, [-]
S	Channel slope, [-]
S_g	Mean spacing between sediment grains, [L]
ΔS	Mean spacing between individual emergent plant stems, [L]
t	Time, [T]
t_{ml}	Total mixing layer thickness (submerged canopy), [L]
T_e	Timescale of submerged canopy exchange zone, [T]
T_{wake}	Timescale of submerged canopy wake zone, [T]
u_*	Shear velocity, $[LT^{-1}]$
U	Mean main channel velocity, $[LT^{-1}]$
U_1	Mean main channel velocity at stream confluence, $[LT^{-1}]$
U_2	Mean tributary channel velocity at stream confluence, $[LT^{-1}]$
U_c	Mean canopy velocity, $[LT^{-1}]$

ΔU	Velocity difference between channel and wake region velocity, [LT^{-1}]
V_{STS}	Reach volume of surface transient storage zones, [L^3]
W	STS width (normal to flow), [L]
W_{MI},	Width of mixing interface (normal to flow) at stream confluence, [L]
x	Downstream distance from point of tracer injection, [L]
x_{BFS}	Length (parallel to flow) of backward-facing step recirculation, [L]
x_{FFS}	Length (parallel to flow) of forward-facing step recirculation, [L]
y_{FFS}	Width (normal to flow) of forward-facing step recirculation, [L]
β	Stream confluence angle
δ	Boundary layer displacement thickness, [L]
δ_e	Mixing layer penetration depth (submerged canopy), [L]
τ	Mean residence time, [T]
τ_{HTS}	Harmonic mean of STS mean residence times, [T]
τ_{STS}	Harmonic mean of mean residence times in hyporheic zone, [T]
θ	Porosity of isolated obstacle, [-]
ν	Kinematic viscosity, [L^{2}T^{-1}]
γ	Inclination angle (measured from upstream streambank to obstacle)

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CHAPTER 3

DEFINING AND MEASURING THE MEAN RESIDENCE TIME OF LATERAL SURFACE TRANSIENT STORAGE ZONES IN SMALL STREAMS

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ABSTRACT

Surface transient storage (STS) has functional significance in stream ecosystems because it increases solute interaction with sediments. After volume, mean residence time is the most important metric of STS, but it is unclear how this can be measured accurately or related to other timescales and field-measureable parameters. We studied mean residence time of lateral STS in small streams over Reynolds numbers (*Re*) 5,000 — 200,000 and STS width to length (*W/L*) aspect ratios between 0.2 — 0.75. Lateral STS have flow fields characterized by a shear layer spanning the length of the STS entrance, and one primary gyre and one or more secondary gyre(s) in the STS. The study's purpose was to define, measure, and compare residence timescales: volume to discharge ratio (Langmuir timescale); area under normalized concentration curve; and characteristic time of exponential decay, and to compare these timescales to field measureable parameters. The best estimate of STS mean residence time—primary gyre residence time—was determined to be the first characteristic time of exponential decay. An apparent mean residence time can arise, which is considerably larger than other timescales, if probes are placed within secondary gyre(s). The Langmuir timescale is the minimum mean residence time, and is linearly correlated to channel velocity and STS width. The lateral STS mean residence time can be predicted using a physically-based hydromorphic timescale derived by *Uijttewaal et al.* [2001] with an entrainment coefficient of 0.031 ± 0.009 for the *Re* and *W/L* studied.

3.1 Introduction

Transient storage is the temporary entrainment of stream water in recirculating flow in the stream channel (surface transient storage (STS)) or in slow flow in the hyporheic zone (hyporheic transient storage (HTS)). The lower velocities and structure of STS and HTS provide refugia for aquatic species [*Lancaster and Hildrew*, 1993]. STS and HTS also increase solute interaction with biogeochemically-reactive sediments by their longer residence times, which can improve water quality by removing metals [e.g., *Bencala et al.*, 1984]; organic contaminants [e.g., *Squillace et al.*, 1993]; radionuclides [e.g., *Cerling et al.*, 1990]; and other pollutants through biotic (e.g., nitrification and denitrification by bacteria) and abiotic (e.g., adsorption, redox) processes.

Many hydrodynamic metrics have been developed to characterize transient storage, which is typically estimated using tracer injection techniques [*Gooseff et al.*, 2005] because tracer concentration breakthrough curves (BTC) tails are sensitive to transient storage [*Hays*, 1966; *Nordin and Troutman*, 1980; *Haggerty et al.*, 2000; 2002]. Common transient storage metrics include: the ratio of cross-sectional transient storage area to cross-sectional main channel area, A_s/A [*Thackston and Schnelle*, 1970; *Bencala and Walters*, 1983]; transient storage residence time, $\alpha A_s/A$, where α is the mass exchange rate coefficient [*Thackston and Schnelle*, 1970]; the storage exchange flux, αA [*Harvey et al.*, 1996]; the hydrological retention factor, $A_s/u/A$, where u is the main channel advective velocity [*Morrice et al.*, 1997]; and the total reach volume fraction occupied by transient storage, $A_s/(A_s+A)$ [*Runkel*, 2002]. *Runkel* [2002] developed a hydrodynamic metric to quantify the interaction between u, α, and A_s, termed the median travel time fraction due to transient storage. While the fraction of median travel time due to transient storage better decouples main channel and transient storage effects on mass transport, no metric has been identified to decouple the properties of STS from HTS (i.e., residence times, relative storage zone areas, and exchange rates) when using current tracer methods. In addition, model parameters used to estimate transient storage are empirical in nature and, therefore, not transferrable to other streams.

Currently, advances in areas of hydrology and stream ecology are thwarted by the inability to differentiate STS from HTS [*Harvey et al.*, 1996; *Salehin et al.*, 2003; *Ensign and Doyle*, 2005]. STS and HTS have distinct influences on stream ecosystems due to differing biogeochemistry, surface area, and exchange timescales (i.e., residence time distributions (RTDs)) that depend on stream geomorphic and hydraulic properties [*Valett et al.*, 1996; *Lautz and Siegel*, 2007]. For example, many studies assume that all significant exchange is hyporheic [e.g., *Valett et al.*, 1996; *Morrice et al.*, 1997; *Haggerty et al.*, 2002; *Battin et al.*, 2003]. This assumption may be inaccurate for redox-sensitive or photoactive solutes, for streams with large surficial biofilms, or for streams with a large STS component [*Mulholland et al.*, 1997; *Kasahara and Wondzell*, 2003; *Gooseff et al.*, 2005; *Briggs et al.*, 2009; *Argerich et al.*, 2011]. Therefore, our science needs to distinguish STS and HTS when determining the influence of transient storage on nutrient uptake functional relationships [*Harvey et al.*, 1996; *Hall et al.*, 2002; *Salehin et al.*, 2003; *Ensign and Doyle*, 2005], so that we can determine whether specific processes are occurring in-stream, in the hyporheic zone, or both [*Harvey and Wagner*, 2000].

A few field-based studies have quantitatively measured STS residence times using tracers [e.g., *Ensign and Doyle*, 2005; *Gooseff et al.*, 2005; *Lautz and Siegel*, 2006; *Phanikumar et al.*, 2007; *Stofleth et al.*, 2008; *Briggs et al.*, 2009; *Anderson and Phanikumar*, 2011]. However, current techniques are time-consuming, subject to interference from HTS residence times, and probably do not scale reliably because the theoretical underpinnings are poor. Our goal, therefore, is to develop physically-based predictive STS RTDs and mean residence times for different types of STS that are applicable for a range of Reynolds Numbers (*Re*) and STS geometries in order to separate STS from HTS.

As a first step toward this goal, we studied a specific type of natural STS—a straight open channel with a lateral cavity (Figure 3.1)—at twenty-two field sites located along reaches of four small, higher-gradient streams in Oregon. Other types of STS have been documented in the literature, including coarse woody debris [*Ensign and Doyle*, 2005], submerged aquatic canopies [*Nepf*, 1999], and pools, to name a few. Natural lateral STS were chosen in this study because this type of STS has been observed in many rivers and streams, including the Willamette, Santiam, and Alsea Rivers of Oregon [T.R. Jackson, 2012, unpublished data], and previous studies have referenced the occurrence of natural lateral STS in streams [e.g., *O'Connor et al.*, 2010]. One common occurrence of lateral STS in streams is downstream of erosion-resistant features (e.g., trees, logs, boulders). Although a systematic study of different STS is yet to be done, lateral STS in some streams may produce the largest fraction of STS residence time and volume, which are the two most important metrics of transient storage [*Hays*, 1966; *Thackston and Schnelle*, 1970; *Nordin and Troutman*, 1980; *Bencala and Walters*, 1983].

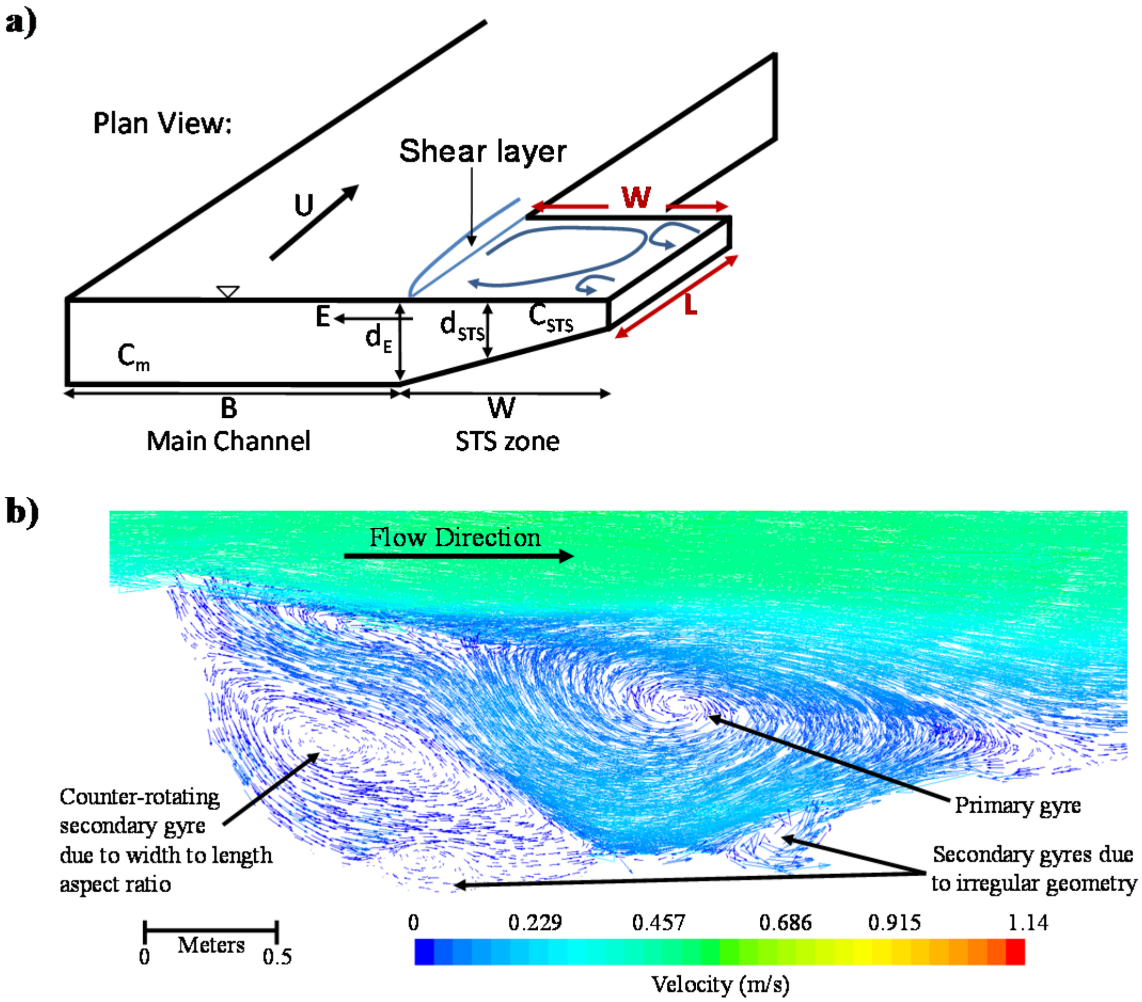


Figure 3.1. Conceptualization of a natural lateral surface transient storage zone. (a) Schematic diagram showing plan and cross-sectional views of a straight channel reach with a lateral STS zone used to illustrate physically-based properties of the main channel and STS. (b) Plan view of velocity field associated with a typical lateral STS from Site 1P along Oak Creek in the Oregon State University McDonald-Dunn Research Forest near Corvallis, Oregon. 3-D depth-averaged velocity field obtained from a Reynolds-Averaged Navier-Stokes computational fluid dynamics model.

A number of residence timescales have been used in studies to characterize STS mean residence times: (1) the mean hydraulic residence time (volume to discharge ratio or Langmuir timescale) [e.g., *Langmuir*, 1908; *Hays*, 1966; *Kurzke et al.*, 2002; *Kozerski et al.*, 2006; *Weitbrecht et al.*, 2008]; (2) the first temporal moment normalized by the zeroth temporal moment of the residence time distribution [e.g., *Aris*, 1956; 1958; *Nauman*, 1981; *Sardin et al.*, 1991; *Patwardhan*, 2001; *Kurzke et al.*, 2002]; and (3) the characteristic time of exponential decay [e.g., *Nauman*, 1981; *Seo and Maxwell*, 1992; *Buffoni et al.*, 1997; *Bellucci et al.*, 2001; *Uijttewaal et al.*, 2001; *Engelhardt et al.*, 2004; *Kozerski et al.*, 2006; *Hinterberger et al.*, 2007; *Roussinova and Kresta*, 2008; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009]. Mathematical definitions of these timescales are given in section 3.3.2. These residence timescales are not always equivalent in practice, even though they are equivalent in classical residence time theory as applied to continuous stirred tank reactors (CSTRs), which are sometimes used as a conceptual model for an STS zone [*Hays*, 1966]. This deviation occurs because classical CSTRs are closed systems without internal dead zones [*Nauman*, 1981; *Buffham*, 1985], but STS zones are always open systems and usually have internal dead zones. An open system has mixing across the entrance and exit boundaries, such that particles can enter and exit more than once, whereas a closed system does not have mixing across the entrance and exit boundaries, such that particles can enter and exit only once. All three of the residence timescales are equivalent for closed systems; however, this is not true for open systems. A lateral STS zone is an open system because the entrance and exit are intermixed within the shear layer that forms along the STS entrance and allow for mixing and re-entrance to the STS (Figure 3.1). Internal dead zones further complicate the definition and measurement of mean residence time. As all three of the residence timescales have been defined as a mean residence time, uncertainty exists as to which is the appropriate STS mean residence time. In addition, research to date has neither developed a standardized method to accurately measure STS mean residence times in the field nor established how the mean residence time is related to other field-measureable parameters.

The purpose of this paper is, therefore, to define the appropriate mean residence time of lateral STS in small streams for a range of *Re* and STS geometries and to relate the STS mean residence time to physically-based stream parameters. Lateral STS field sites studied have flow fields characterized by a shear layer that spans the length of the STS entrance, and a large primary gyre and one or more secondary gyres in the STS (Figure 3.1). Twenty-two field sites with natural lateral STS were selected in this study and had main channel *Re* that ranged from 5,000 to 200,000 (based on main channel wetted perimeter) or from 40,000 to 1,000,000 (based on STS width) (Table 3.1). The lateral STS aspect ratio (*W/L*), where *W* is the cavity width (normal to flow) and *L* is the cavity length at the main channel-STS interface (parallel to flow) (Figure 3.1a), ranged from 0.2 to 0.75 (Table 3.1). The objectives of this paper are to: (1) develop a theoretical mean residence time for lateral STS based on the steady flow field results of a computational fluid dynamics (CFD) model and on the results of laboratory and numerical studies in the range of *Re* and *W/L* studied; (2) quantitatively relate residence timescales to the theoretical mean residence time and determine the appropriate metric for the STS mean residence time; (3) quantitatively relate residence timescales to an apparent (false) measured mean residence time that arises when electrical conductivity probes are improperly placed in poorly-mixed regions of the STS (i.e., secondary gyres); (4) relate residence timescales to physically measureable parameters in the field to develop predictive relationships; and (5) determine the physical processes controlling the different residence timescales and the occurrence of one- or two-exponential RTDs using gyre dynamics.

This paper introduces a new approach to study natural lateral STS that integrates fluid dynamics and classical residence time theory. Fluid dynamics will be incorporated into the understanding of physical processes controlling the STS mean residence time, apparent measured mean residence time, and the occurrence of one- and two-exponential RTDs. Fundamental fluid dynamics is included because fluid interaction with channel bed and banks results in flow separation, induced pressure gradients with mean and fluctuating components, velocity shear in vertical and transverse directions, and

Table 3.1. Summary of field measurements for lateral STS sites.

	Location[1]	W (m)	L (m)	W/L [-]	d_{STS} (m)	d_E (m)	U (m/s)	T_L (s)	RTD[2]	*Re*[3]
Site 1P	OC	0.54	1.69	0.32	0.12	0.14	0.35	27	2	3.2×10^4
Site 2P	OC	0.64	1.47	0.43	0.11	0.18	0.19	97	2	9.0×10^3
Site 3P	OC	0.49	0.90	0.54	0.05	0.09	0.33	45	1	2.3×10^4
Site 4P	OC	1.07	1.91	0.56	0.10	0.15	0.20	121	2	1.5×10^4
Site 1S	OC	0.55	1.95	0.28	0.07	0.12	0.20	129	1	9.9×10^3
Site 3S	OC	1.90	3.50	0.54	0.21	0.26	0.12	584	2	8.4×10^3
Site 4S	OC	0.50	1.45	0.34	0.07	0.12	0.08	100	2	5.2×10^3
Site 5P	SC	0.93	1.25	0.74	0.17	0.09	0.53	65.4	2	2.6×10^4
Site 6S	SC	0.60	1.30	0.46	0.05	0.08	0.13	112	2	7.5×10^3
Site 7S	SC	0.60	2.05	0.29	0.12	0.26	0.24	50	1	3.1×10^4
Site 8S	SC	0.60	2.05	0.29	0.08	0.16	0.30	49	1	3.0×10^4
Site 9S	SC	0.55	2.25	0.24	0.14	0.27	0.17	75	1	1.5×10^4
Site 10S	SC	0.60	3.05	0.20	0.06	0.15	0.24	77	1	1.5×10^4
Site 15S	SC	1.80	5.30	0.34	0.09	0.18	0.22	263	1	1.4×10^4
Site 16S	SC	1.45	4.35	0.33	0.08	0.17	0.15	69	1	1.2×10^4
Site 17S	SC	1.95	3.30	0.59	0.18	0.23	0.29	207	2	1.6×10^4
Site 11S	JD	0.90	3.15	0.29	0.17	0.43	0.74	37	1	1.8×10^5
Site 12S	JD	1.90	3.85	0.49	0.26	0.36	0.68	82	1	1.2×10^5
Site 13S	JD	1.00	3.10	0.32	0.35	0.48	0.53	55	1	1.2×10^5
Site 19S	LC	1.45	2.40	0.60	0.17	0.42	0.31	174	1	2.9×10^4
Site 20S	LC	1.50	3.40	0.44	0.28	0.37	0.23	138	1	2.7×10^4
Site 21S	LC	1.15	1.90	0.61	0.16	0.37	0.43	138	1	5.0×10^4

[1]Field site location:
OC = Oak Creek, Oregon State University McDonald-Dunn Research Forest near Corvallis, OR;
SC = Soap Creek, Oregon State University McDonald-Dunn Research Forest near Corvallis, OR; JD = Middle Fork of John Day River, eastern OR;
LC = Lookout Creek, H.J. Andrews Experimental Forest, western Cascades, OR
[2]RTD column defines site as having either a one- or two-exponential RTD.
[3]*Re* is computed using the main channel wetted perimeter.

recirculation, all of which form three-dimensional vortical structures with differing length and timescales [*Boano et al.*, 2011; *Keylock et al.*, 2005], which altogether influences STS residence timescales and RTDs. The basis for incorporating fluid dynamics to study lateral STS is not to include the complexities of the flow field in the computation of mean residence time, but to provide a better understanding of the mechanisms that entrain solute.

3.2 Conceptual Framework

Before presenting the methods and results of a field study (sections 3.3 and following), we first provide a conceptual model for flow and transport in lateral STS zones. First, we describe the typical flow features associated with lateral STS based on their resemblance to engineered (geometrically ideal) lateral cavities in open channel flows. Second, we illustrate a typical flow field for lateral STS using a 3-D Reynolds-Averaged Navier-Stokes (RANS) computational fluid dynamics (CFD) model generated from detailed field data at a single field site. Third, using classical and contemporary residence time theory, we highlight key observations about the STS that are relevant for solute transport in streams. Fourth, based on these observations, we develop a simple box model of solute transport in STS that will provide a basis for comparing residence timescales previously defined in the literature.

3.2.1 Flow Field of Lateral STS

Lateral STS is analogous to flow past an open lateral rectangular cavity, which has been well-studied using both laboratory flumes and numerical models for the range of *Re* and *W/L* measured in this study [e.g., *Kimura and Hosada*, 1997; *Muto et al.*, 2000; *Uijttewaal et al.*, 2001; *Uijttewaal*, 2005; *McCoy et al.*, 2006; 2007; 2008; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009]. Flume studies of incompressible, turbulent flow past ideal, rectangular cavities at high *Re* (> 5,000) and $0.2 \leq W/L \leq 0.75$ show that a free-shear layer forms along the entire cavity entrance and generates a recirculation region in the cavity (Figure 3.1). The shear layer forms by flow separation at the leading edge of the cavity due to large differences in momentum and velocity between the main channel and cavity [*Constantinescu et al.*, 2011]. Vortices in the shear layer convect downstream from the leading edge and impinge on the trailing edge, causing pressure fluctuations and the unsteady transport of vorticity into the downstream region of the cavity [*Chang et al.*, 2006; *Lin and Rockwell*, 2001]. The vorticity becomes entrained and recirculates within the cavity [*Chang et al.*, 2006; *Lin and Rockwell*, 2001], typically producing either: (a) one large primary gyre that inhabits the entire cavity; or (b) two or more gyres in the cavity: a primary gyre with velocity fluctuations in the downstream region and one or more counter-rotating secondary gyres [*Muto et al.*, 2000]. The production of more than one gyre is dependent on the *W/L* aspect ratio of the cavity. These same complex flow features are also associated with lid-driven cavity flows [*Koseff and Street*, 1982; 1984a; 1984b; 1984c; *Chiang et al.*, 1997; 1998; *Guermond et al.*, 2002]; however, open lateral cavity flows have the additional complexity of mass and momentum exchange across the channel-cavity interface.

3.2.2 RANS CFD Model

The 3-D RANS CFD model was generated from detailed field data collected at site 1P, which is located along a straight riffle reach of Oak Creek in the Oregon State University McDonald-Dunn Research Forest near Corvallis, Oregon. This site was selected because the main channel *Re* (~32,000 based on wetted perimeter) and STS *W/L* aspect ratio (~0.32) are typical of STS sites studied (Table 3.1). Appendix A describes the field data collection and development of the CFD model. Key results of the model are presented below.

The mean flow field results from the RANS CFD model show that typical lateral STS are comprised of a large primary gyre and a number of smaller, counter-rotating secondary gyres (Figure 3.1b). The primary gyre extends across the entire length of the STS entrance and exchanges mass and momentum from the shear layer to the secondary gyres. One counter-rotating secondary gyre forms in the upstream corner due to the aspect ratio and a number of smaller gyres form along the wetted perimeter of the STS due to the irregular shaped geometry.

The flow features within a lateral STS can change significantly based on *Re*, *W/L*, and *W/D*, where *D* is STS depth. Considerable experimental and numerical work has been done on driven cavity flows with varying geometric parameters and *Re*, showing various recirculation patterns over a much wider range of *Re* [*Koseff and Street*, 1982; 1984a; 1984b; 1984c; *Chiang et al.*, 1997; 1998; *Guermond et al.*, 2002; *Cheng and Hung*, 2006; *Lawson and Barakos*, 2011]. If the length of the dead zone is very large, the shear layer may not span the entire length, eliminating primary gyres [*Lawson and Barakos*, 2011]. Likewise, if *W/L* is increased considerably, multiple gyres may be stacked on each other [*W/L* >> 1.5; *Weitbrecht and Jirka*, 2001]. However, the narrow range of *W/L* ratios and *Re* studied in this work consistently provided the same flow features. Similar flow features also were observed for this range of *Re* and *W/L* in a series of lateral cavities (or groynes) with idealized geometries by *Wallast et al.* [1999], *Weitbrecht and Jirka* [2001], *Uijttewaal et al.* [2001]; *Uijttewaal*, [2005], *Kurzke et al.* [2002], *McCoy et al.* [2006], *Chang et al.* [2007], *Hinterberger et al.* [2007], *Weitbrecht et al.* [2008], *Constantinescu et al.* [2009], and *Ozalp et al.* [2010], and RANS simulations by *Kimura and Hosada* [1997] and *Drost et al.* [2012]. We conclude that for field STS in the *Re* and *W/L* studied (See Table 3.1), a streamwise anisotropic primary gyre forms along the STS entrance and transfers mass and momentum from the shear layer to the secondary gyre(s), and that the flow structure (in the mean) does not significantly change.

3.2.3 STS effects on RTD in Main Channel

The choice of appropriate mean residence time depends on the use of that mean residence time. STS residence times are important because of how they modify solute transport in the main channel, and so understanding transport in the main channel is the use for measurements and calculations of STS mean residence time. STS modifies the RTD of solutes in the main channel and its effects have been studied extensively in the context of transport with mobile-immobile domain mass transfer, which is mathematically similar. There is a deep literature on this, and important reviews from the chemical engineering and groundwater perspectives are provided by *Villermaux* [1974; 1981], *Nauman* [1981; 2008], *Sardin et al.* [1991]; *Cunningham and Roberts* [1998]; and *Luo et al.* [2008]. We mention the key results relevant to this study and refer the reader back to these references for more detail.

First, the most important effects of STS on the RTD in the main channel are determined by the mean residence time in the STS and by A_s/A (relative volume of STS to channel per unit channel length); where A_s is the STS cross-sectional area and A is the cross-sectional area of the channel. This fact comes from the properties of mass transfer that (1) the area under the main channel breakthrough curve (0th moment) is not influenced by STS; (2) the main channel mean arrival time (1st moment normalized by 0th moment) is only a function of A_s/A; and (3) the spread of the channel residence time (2nd central moment) is only a function of the STS mean residence time and A_s/A (see references cited above). Reactive solutes (e.g., nutrients) are influenced by the entire STS RTD, but A_s/A and the mean residence time are still the most important characteristics of the RTD (see *Sardin et al.* [1991] and *Argerich et al.* [2011], among others).

Second, for mass transfer across a series of gyres (mass transfer in series), the STS mean residence time should be determined in the first gyre that is not part of advection in the channel (*Sardin et al.*, 1991). The shear layer has a downstream advection rate and so it is part of the channel for purposes of calculating temporal moments. The first transient storage zone is the primary gyre (see Figure 3.1b), which transfers mass into secondary gyre(s). The mean residence time, therefore, will be determined by the primary gyre. The volume of the secondary gyre(s) affects the mean residence time of the primary gyre and the second moment in the channel. The residence time of secondary gyres affects only the third and higher moments in the channel and does modify the shape of the tail of the breakthrough curve in the channel. Furthermore, the secondary gyres may be influential on a reactive solute if the secondary gyres have residence times similar to the reaction timescale. To emphasize: the secondary gyres' residence times have no influence on the channel's 0^{th}, 1^{st}, or 2^{nd} temporal moments for a conservative tracer.

3.2.4 Box model of Lateral STS

The box model consists of the main or primary gyre (1), and one or more secondary gyres, denoted as i = 1, 2, …, N, that interact with the primary gyre (2) (Figure 3.2). The box model divides the STS into multiple CSTRs and assumes: (1) that each of the regions is individually well mixed; (2) that flow is steady and incompressible; and (3) that there are no sources and sinks other than those specified. The mass balance is expressed with first-order equations, where mass exchange is linearly proportional to the mean concentration difference between any two regions. The mass balance equations are:

$$\frac{dC_p}{dt} = \frac{Q_{pm}}{V_p}(C_m - C_p) + \frac{Q_{inj}}{V_p}C_{inj} + \sum_{i=1}^{N}\frac{Q_{ps_i}}{V_p}(C_{s_i} - C_p) \tag{1}$$

$$\sum_{i=1}^{N}\frac{dC_{s_i}}{dt} = \sum_{i=1}^{N}\frac{Q_{ps_i}}{V_{s_i}}(C_p - C_{s_i}) \tag{2}$$

where C is concentration; Q is discharge in or out; and V is volume. All discharges except Q_{inj} are defined as ½ the sum of the absolute value of discharges in and out. The subscripts on C and V indicate as follows: m is the main channel; p is the primary gyre; s is a secondary gyre that interacts only with the primary gyre; and inj is injection from an external source (e.g., a pump). The subscripts on Q indicate as follows: pm is flow between the main channel and primary gyre; ps is flow between the primary gyre and a secondary gyre; and inj is the injection rate. (See notation section for definition and units of all variables). Note that the flow is steady, meaning that the volume flux entering the STS is balanced by the volume flux leaving the STS through the shear layer, and that the volume flux entering the primary gyre is balanced by the volume flux leaving the primary gyre to secondary gyres and the shear layer. Longitudinal advection in the shear layer is not included in the mass balance because the longitudinal transport velocity is much larger than the transverse velocity (by an order of magnitude), resulting in a

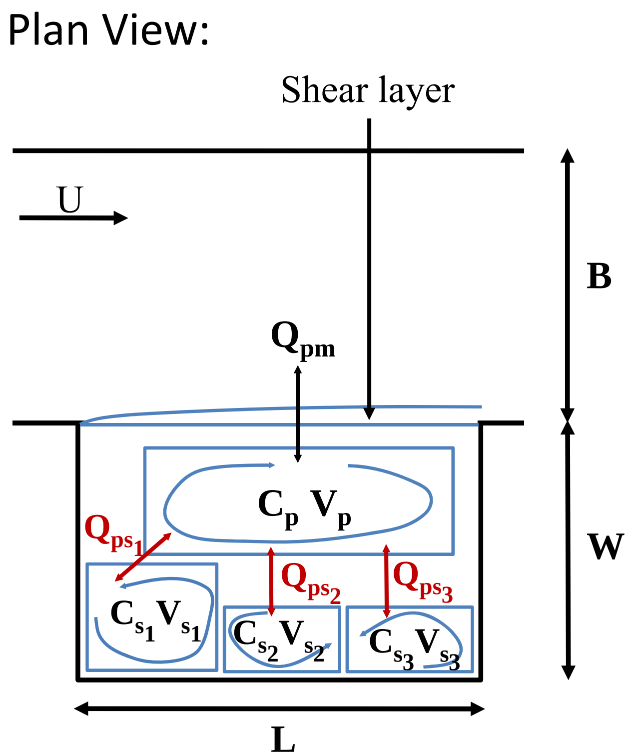


Figure 3.2. Schematic diagram showing plan view of an open channel reach with a rectangular STS used to illustrate physically-based properties of the main channel and STS. Note that all variables correspond to STS box model.

much smaller residence timescale for the longitudinal velocity compared to the transverse velocity. The residence time associated with the transverse velocity in and out of the shear layer is small compared to the residence time in the STS and, because the residence time associated with the longitudinal velocity is much smaller, the shear layer transport timescales can be neglected.

We define the average concentration in the STS zone as:

$$C_{STS} = \frac{V_p C_p + \sum_{i=1}^{N} V_{s_i} C_{s_i}}{V_{STS}}, \tag{3}$$

where $V_{STS} = V_p + \sum_{i=1}^{N} V_{s_i}$. In general, $C_{STS} \neq C_p$. The following variables are known: Q_{inj}, C_{inj}, C_{STS}, and Q_{pm} (which is equivalent to the entrainment discharge, or volumetric flow rate entering or leaving the storage zone). Two useful results with (1-3) can be obtained from steady state and moment solutions, which are presented below.

We calculate the STS mean residence time by Laplace transformation. Setting $Q_{inj} = 0$, $C_m = 0$, and all initial concentrations in the STS to 1 (i.e., after injection), where $C_p(t=0) = C_{s_i}(t=0) = 1$, we find the solution of (1-2) in the Laplace domain. The full solution is cumbersome, but we are only interested in the solution in the limit as the Laplace variable goes to zero (i.e., infinite time), and in the temporal moments, which are calculated by *Aris*' method of moments [*Aris*, 1958]. Using *Aris* [1958], the STS mean residence time can be calculated from the concentration in the primary gyre, C_p:

$$\tau_{STS} = \tau_L, \tag{4}$$

where τ_L is the primary gyre mean residence time, $\tau_L = V_{STS} / Q_{pm}$, which is also the mean hydraulic residence time originally derived by *Langmuir* [1908]. We refer to τ_L as the Langmuir timescale. If we (incorrectly or inadvertently) base the measurement of mean residence time on the average concentration throughout the whole STS, C_{STS}, in (3), the resulting timescale will be

$$\tau_{ap} = \tau_L + \sum_{i=1}^{N} \beta_{s_i} \tau_{s_i} = \tau_{STS} + \sum_{i=1}^{N} \beta_{s_i} \tau_{s_i}, \tag{5}$$

where τ_{ap} is the measured apparent mean residence time; τ_{s_i} is the mean residence time for each secondary gyre, *i*, that exchanges with the primary gyre, $\tau_{s_i} = V_{s_i} / Q_{ps_i}$; and β_{s_i} is the relative volume of the STS occupied by each secondary gyre, *i*, $\beta_{s_i} = V_{s_i} / V_{STS}$.

3.3 Methods: Field Data Collection and Computation of Residence Timescales

3.3.1 Field Data Collection

Twenty-two field sites were selected along riffles in small streams near Corvallis, Oregon (Oak and Soap Creeks), in several small streams in the HJ Andrews Experimental Forest of Oregon, and in the Middle Fork John Day River, Oregon. Determination of whether a lateral indentation along the main channel was a lateral STS was based on the following criteria: (1) presence of a shear layer adjacent to the STS entrance using a visual (rhodamine WT) dye; and (2) entrance of dye into the STS and observed formation of at least one region of recirculation inside (Figure 3.3a). The minimum width measured among the field sites was 0.5 m.

At each site, two to three constant-rate NaCl injections (at 0.06 L/s) were done using a pump-driven distribution system to obtain concentration breakthrough curves and RTDs. The pump-driven distribution system was comprised of twelve pressure-compensating emitters mounted to a plexiglass platform (Figure 3.3b-c). The platform was centered about 0.5 m above the STS center and the pump-driven salt injections were used to raise background concentrations to steady state. Seven to nine electrical conductivity (EC) probes were uniformly spaced (by visual inspection) on the streambed within the STS and shear layer to simultaneously collect specific conductivity at 10-s intervals [Campbell Scientific, Inc., Logan, Utah, USA]. Background concentrations were raised by 50 to 100 μS/cm, and the steady state concentration versus time curves were used to obtain RTDs and to compute mean residence times.

Detailed morphological and velocity measurements were collected at field sites. STS width and depth were measured along 5 – 10 transects normal to flow and shear layer depths were measured parallel to flow with a wading rod and measuring tape at 5-cm increments. Channel velocity was measured at 60% depth upstream of the STS zone using a wading rod, tape, and Flo-Mate 2000 portable flowmeter [*Marsh-McBirney*, 1990]. Velocity data was used in the comparison of residence timescales to field-measureable parameters.

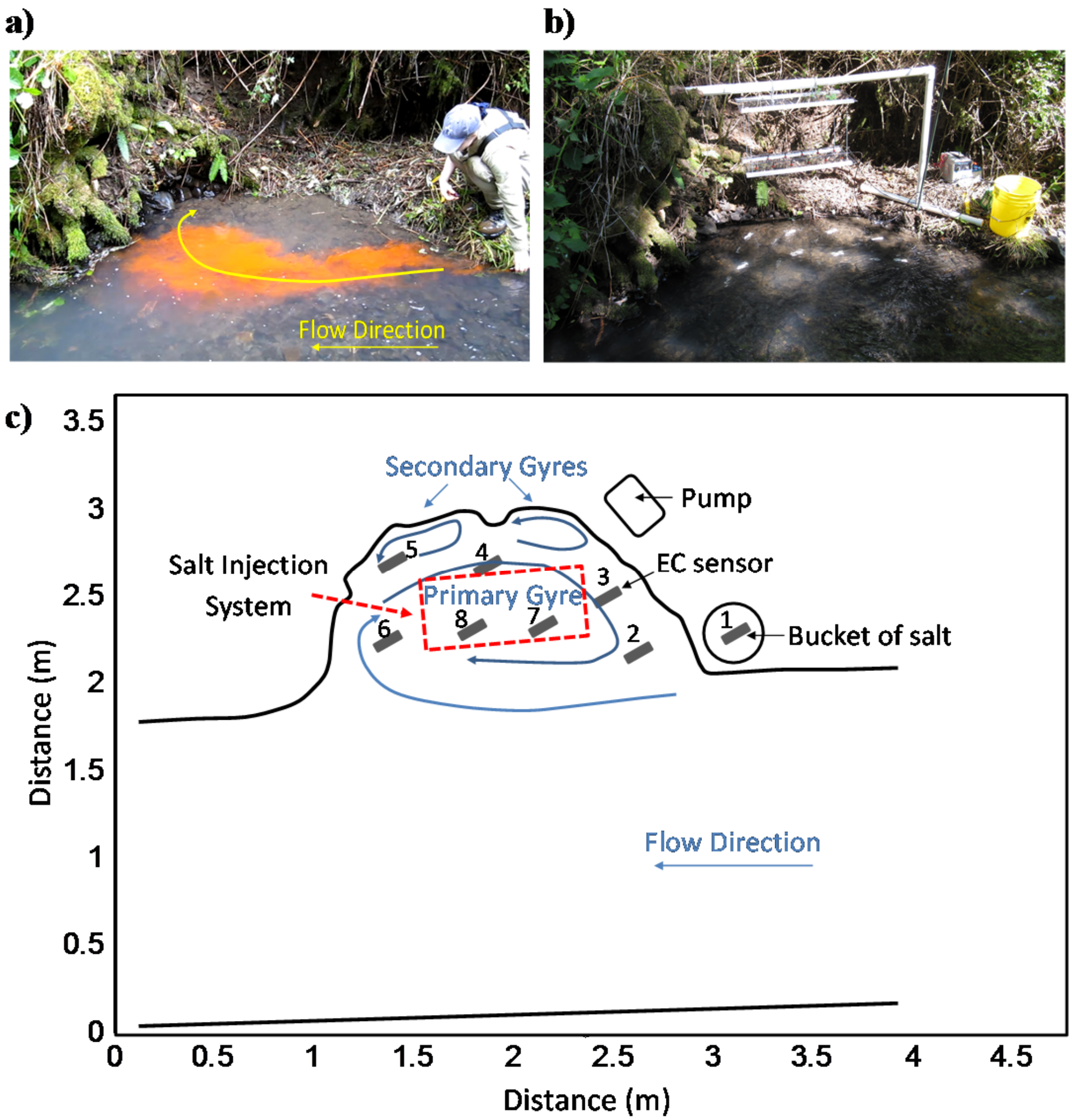


Figure 3.3. Field measurements of a lateral STS along Oak Creek, Oregon (Site 2P). (a) rhodamine WT dye used to delineate location of shear layer and recirculation region in STS. (b) NaCl injection experimental set-up using pump-driven distribution system. (c) Schematic of NaCl injection experiment and location of primary and secondary gyres relative to electrical conductivity (EC) sensors for (b).

3.3.2 Equations for RTD and Mean Residence Times and Methods for Computation

Field data show that natural lateral STS typically can be characterized by either one-exponential or two-exponential RTDs. Methods are described for the computation of each timescale based on whether the RTD is a one-exponential or two-exponential (Figure 3.4). The distinction between a one- or two-exponential RTD was based on an abrupt change in slope in the concentration BTC (see Figure 3.4, noting that the shaded diagrams are overlain on RTDs taken from Site 7S (one-exponential RTD; Soap Creek) and Site 1P (two-exponential RTD; Oak Creek)).

Transient storage residence time theory often uses the continuous stirred tank reactor (CSTR) as a conceptual model for an STS zone, such as a pool between riffles [*Hays*, 1966]. From this theory, the RTD for transient storage is a probability density function (pdf) of age distribution of water molecules exiting the storage zone for the final time, given that the time of initial entrainment was $t_i = 0$ [*Buffoni et al.*, 1997; *Botter et al.*, 2011]. The RTD pdf derived by *Danckwerts* [1953], $F(t_r)$, is the fraction of particles leaving the storage zone since the time of entrainment at $t_i = 0$ between the residence time, t_r, and $t_r + dt_r$:

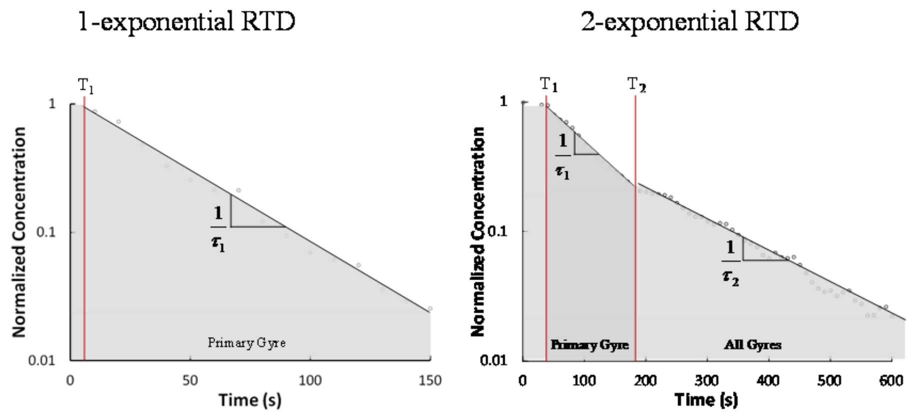
$$\int_0^\infty F(t_r)\,dt_r = 1, \tag{6}$$

where $t_r = t - t_i$ and t is the current time given by $t > t_i$ [*Botter et al.*, 2011]. The mean residence time is the arithmetic mean of $F(t_r)$ [*Botter et al.*, 2011].

The mean residence time for a CSTR [*Langmuir*, 1908] with no internal stagnation zones (i.e., well-mixed) [*Nauman*, 1981] and negligible dispersion across the inlet and outlet is

$$\tau_L = \frac{V_{STS}}{Q_{pm}}, \tag{7}$$

where V_{STS} is the STS volume; and Q_{pm} is the entrainment discharge. For all field sites, the Langmuir timescale (7), or mean hydraulic residence time, was computed using



$$\tau_L = \tau_{STS} = \tau_1$$

$$I_0^{\infty} = \int_0^{\infty} \frac{C(t)}{C(t=0)}\,dt = \tau_{STS} = \tau_1$$

$$\tau_L < \tau_{STS} = \tau_1 < \tau_{ap} \cong \tau_2$$

$$I_{T_1}^{T_2} = \int_{T_1}^{T_2} \frac{C(t)}{C(t=0)}\,dt \cong \tau_L$$

$$I_0^{T_2} = \int_0^{T_2} \frac{C(t)}{C(t=0)}\,dt \cong \tau_{STS} = \tau_1$$

$$I_0^{\infty} = \int_0^{\infty} \frac{C(t)}{C(t=0)}\,dt = \tau_{ap} \cong \tau_2$$

Figure 3.4. Comparison of residence times for a one-exponential and two-exponential residence time distribution (RTD). For a one-exponential RTD, the STS mean residence time, τ_{STS}, computed as the area beneath the normalized concentration curve for $0 \le t < T_2 = \infty$, $I_0^{T_2}$, is equal to the inverse slope of the exponential decay function, τ_1, and the Langmuir timescale, τ_L. For a two-exponential RTD, there exists an early time for initiation of exponential decay, T_1, and a late time of exponential decay, T_2, that occurs at the abrupt change in exponential slope. τ_L is approximately equivalent to the area beneath the normalized concentration curve for $T_1 < t \le T_2$, $I_{T_1}^{T_2}$. τ_{STS} is equal to the inverse slope of the first exponential decay function, τ_1, and is approximately equivalent to the area beneath the normalized concentration curve for $0 \le t \le T_2$, $I_0^{T_2}$. The measured apparent STS mean residence time, τ_{ap}, is approximately equivalent to the inverse slope of the second exponential decay function, τ_2, and is equal to the area beneath the normalized concentration curve for $0 \le t < \infty$, I_0^{∞}. Note that, in some cases, the RTD will have an initial plateau concentration because of the time lag between turning off the pump and the initial release of tracer from the STS into the main channel, as shown by the two-exponential RTD. The initial plateau concentration results in a differentiation between $t = 0$ and $t = T_1$ when (a) approximating τ_L from $I_{T_1}^{T_2}$ if $T_1 \ne 0$ for a two-exponential RTD; and (b) approximating a best-fit line for the first exponential decay function for both the one- and two-exponential RTD, where the best-fit line is fitted to data for $T_1 < t \le T_2$. Data in the two-exponential RTD are from the STS at site 1 on Oak Creek shown in Figure 3.1b.

physically-based properties of the STS and the mass balance equation, $Q_{inj}C_{inj} = Q_{pm}C_{STS}$, where Q_{inj} = 0.06 L/s and $Q_{inj} << Q_{pm}$.

A more general mean of the RTD can be obtained with temporal moments, e.g., *Aris* [1956; 1958]. The mean of the RTD is the first moment of the pdf. Using a conservative tracer that uniformly fills the storage zone, the first moment also is the area under the concentration curve from the end of the injection at t = 0 normalized by the average concentration at t = 0 [*Nauman*, 1981]. I.e., for a well-mixed CSTR:

$$I_0^\infty = \int_0^\infty t_r F(t_r) dt_r = \int_0^\infty \frac{C(t)}{C(t=0)} dt, \tag{8}$$

where C is the concentration in the STS after a long injection; and I_0^∞ is the normalized residence time. For practical reasons, $C(t$ = 0) is the average concentration over some period of time prior to the end of injection at t = 0. Note that I indicates integral and the subscript and superscript are the lower and upper integration bounds, respectively. This notation is used because integration over different areas of the concentration curve yields different timescales that have different physical meanings (i.e., mean or apparent mean residence time) depending on whether the RTD is a one-exponential or a two-exponential. For a one-exponential RTD, the STS mean residence time, τ_{STS}, was computed as the area beneath the normalized concentration curve for $0 \le t < \infty$, denoted I_0^∞. A two-exponential RTD has two timescales (Figure 3.4): a mean and an apparent mean residence time. The STS mean residence time, τ_{STS}, was computed as the area beneath the normalized concentration curve for $0 \le t \le T_2$, denoted $I_0^{T_2}$, where T_2 represents the time where the change in slope occurs at the end of the first exponential decay and beginning of the second exponential decay. A two-exponential RTD has an apparent STS mean residence time, τ_{ap}, unlike the one-exponential RTD, computed as the area beneath the normalized concentration curve for $0 \le t < \infty$, denoted I_0^∞.

The RTD for an ideal (well-mixed) CSTR is:

$$F(t) = \frac{1}{\tau}\exp(-t/\tau), \tag{9}$$

where τ is the characteristic timescale computed as the inverse slope of the exponential decay function and will be defined as either τ_1 or τ_2 depending on the type of RTD and the exponential decay slope. A one-exponential RTD only has one characteristic timescale, denoted τ_1, computed as the inverse slope of the exponential decay function (i.e., concentration curve). A two-exponential RTD has two characteristic timescales (Figure 3.4) because the RTD has two exponential decay functions. Exponential decay begins at T_1, which is the time for initiation of the first exponential decay, and changes slope at T_2, which is the time for initiation of the second exponential decay. Note that T_1 does not always coincide with the time at the end of injection (i.e., turning off the pump at $t = 0$) because, at some field sites, the RTDs had an initial plateau concentration due to the time lag between turning off the pump and the initial release of tracer from the primary gyre into the main channel measured by the first EC probe. The early time timescale, denoted τ_1, was estimated from the inverse slope of the first exponential decay from $T_1 \le t < T_2$. The second timescale, τ_2, was estimated from the inverse slope of the second exponential decay from $T_2 \le t < \infty$ (Figure 3.4).

Uijttewaal et al. [2001] developed an expression to predict the mean residence time from the dead zone model derived by *Hays* [1966] by incorporating the entrainment hypothesis of *Valentine and Wood* [1977]. In this hypothesis, $E = kU$, where E is the exchange velocity entering or leaving the STS (Figure 3.1a); U is the mean main channel velocity; and k is a dimensionless entrainment coefficient for linear, first order mass exchange:

$$\tau_{STS} = \frac{Wd_{STS}}{kUd_E}, \tag{10}$$

where d_E is the depth at the main channel-STS interface; W is the width of the STS normal to flow; and d_{STS} is the mean STS water depth. The mean residence time can be predicted from (10) using field-measureable parameters if the entrainment coefficient, k, is known; however, to date, a precise estimate of k has not been found. Laboratory studies of open channel flow past rectangular cavities suggest that k ranges between values of 0.01 to 0.04 [*Valentine and Wood*, 1977; *Seo and Maxwell*, 1992; *Wallast et al.*, 1999; *Uijttewaal et al.*, 2001; *Kurzke et al.*, 2002; *Weitbrecht and Jirka*, 2001; *McCoy et al.*, 2006; *Hinterberger et al.*, 2007; *Chang et al.*, 2007; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009]; see Table 3.2. The predictive relationship in (10) will be used as a basis for comparing mean residence timescales to stream hydromorphic parameters.

3.4 Results

Note that all relationships reported in the results have fits that are statistically significant at the $p < 0.001$ level.

Table 3.2. Laboratory flume studies and estimated k values.

Laboratory Study	Description of Flume Set-Up	k *
This study	Natural lateral STS	0.031 $\pm$ 0.009 (n = 20)
Valentine and Wood [1977]	Vertically-submerged STS	0.02 $\pm$ 0.01 (n = 67)
Seo and Maxwell [1992]	Pools between gravelly riffles	0.037 $\pm$ 0.032 (n = 12)
Wallast et al. [1999]	Series of lateral groynes	0.02 ± 0.01 (n = 4)
Uijttewaal et al. [2001]	Series of lateral groynes	0.026 ± 0.040 (n = 7)
Kurzke et al. [2002]	Series of lateral groynes	0.024 ± 0.014 (n = 15)
Weitbrecht and Jirka [2001]	Series of lateral groynes	0.029 (n = 1)
McCoy et al. [2006]	Single lateral groyne	0.061/0.032 (n = 1)
Hinterberger et al. [2007]	Series of lateral groynes	0.027 (n = 1)
Chang et al. [2007]	Vertically-submerged STS	0.013 (n = 1)
Weitbrecht et al. [2008]	Series of lateral groynes	0.024 ± 0.014 (n = 18)
Constantinescu et al. [2009]	Series of lateral groynes	0.018 / 0.014** (n = 1)

* k value range is mean $\pm$ 2 standard deviations
**RTD is a two-exponential distribution (initial phase k / final phase k)

3.4.1 Determination of 1- or 2-exponential RTDs from Experiments at STS Field Sites

The distinction of whether a lateral STS was characterized by a one- or two-exponential RTD was based on RTDs of individual EC sensors placed within the STS during NaCl injection experiments. As an example, consider the concentration BTCs for individual EC probes during 3 different NaCl injections (with increasing initial concentration injections from experiment 1 to 3) at Site 2P (Oak Creek, Oregon) shown in Figure 3.5a. The location of each EC probe is shown in the schematic in Figure 3.3c, where all EC probes all located in the primary gyre region except probe 5 (EC5), which is located in a secondary gyre. The result of placing EC5 in a poorly-mixed region (secondary gyre) is a time-lag for this BTC to reach a steady state concentration compared to the other BTCs. Oscillations in the steady-state concentrations were due to the unsteady nature of gyres in the vicinity of probes. When comparing probe locations in Figure 3.3c to BTCs in Figure 3.5a, the steady state plateau concentration increases from probes EC2 to EC8 (ignoring EC 5) due to lower concentration stream water circulating from the downstream region to the upstream region of the STS. Highest NaCl concentrations occurred near the center of the primary gyre due to the slower-moving velocities. τ_1 was computed for each EC probe (Figure 3.5b), which each have a one-exponential RTD. All probes located in the primary gyre have consistent residence timescales, whereas the probe in the secondary gyre has a significantly larger residence timescale. The significantly differing residence timescales in two different regions of the STS resulted in a two-exponential RTD for the normalized mean concentration BTCs for each experiment (Figure 3.5c). The placement of EC probes can significantly influence the mean residence timescale and type of RTD obtained. All sensors located in poorly-mixed regions are removed during data analysis; however, two-exponential RTDs can still arise if EC sensors in the primary gyre are located near secondary gyres and are influenced by secondary gyre exchange.

For each normalized mean BTC, the early time decay slope has less variability between experiments than the late-time decay slope (Figure 3.5c). The late-time variability is attributed to the relatively short time duration between experiments (~25

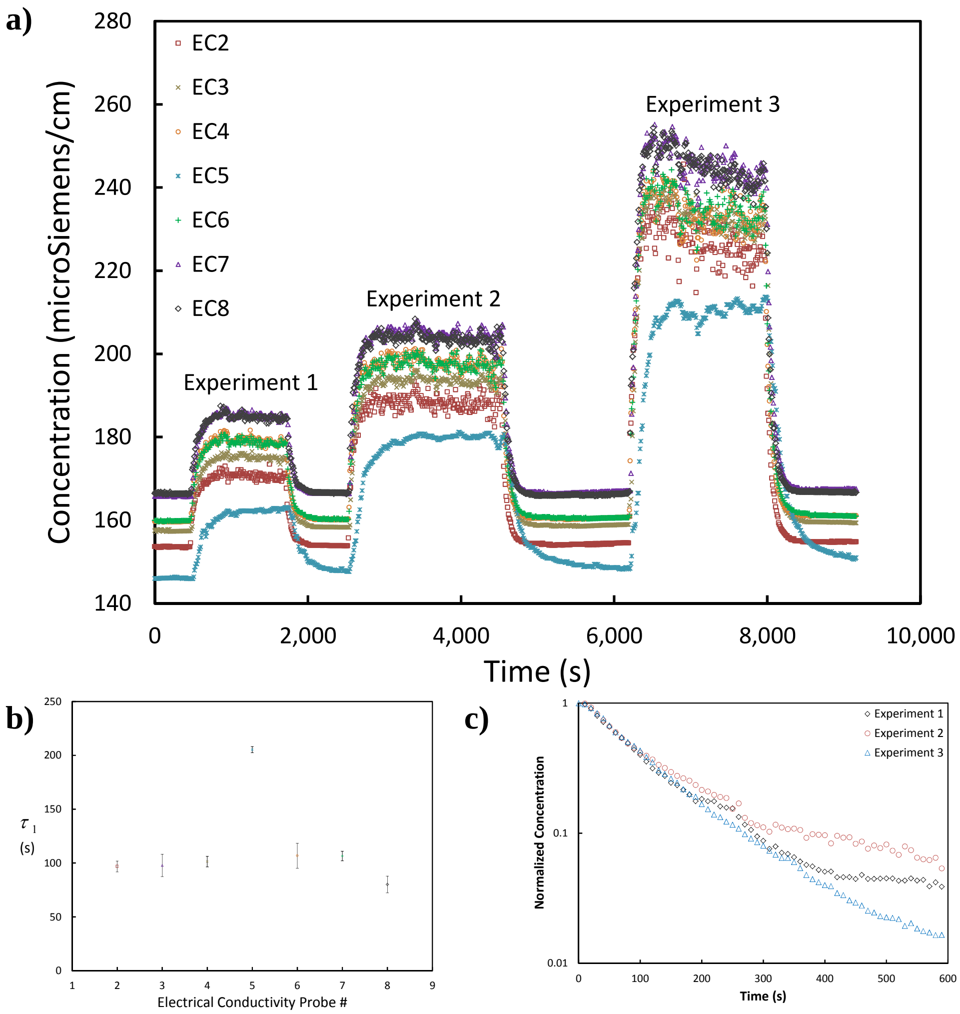


Figure 3.5. (a) Concentration BTCs for 3 different constant-rate NaCl injection experiments and all electrical conductivity (EC) probes at Site 2P (Oak Creek, Oregon) shown in Figure 3.3. Oscillations in steady-state concentrations due to unsteady nature of gyres in vicinity of probes. Notice that the BTC for probe 5 lags behind the other probes because of its location in a secondary gyre (see Figure 3.3). (b) τ_1 computed for each EC probe, which each have a one-exponential RTD. Error bars represent percent bias error. Notice that all probes located in primary gyre (all but EC 5) have the same mean residence time, but the probe in the secondary gyre has a significantly larger mean residence time. (c) Mean normalized concentration BTCs for three NaCl injection experiments that show the range of variability between experiments, where more variability exists at later times. The late-time variability is attributed to the relatively short time duration between experiments (~20 min), which results in more NaCl in poorly-mixed regions (secondary gyres) initially that exchanges with the primary gyre. Note that the size of markers for the field data represent one standard error of the residence timescale ($\pm$ 2%).

min), which results in more NaCl in poorly-mixed regions (secondary gyres) for experiments 2 and 3 initially than in experiment 1. The higher initial concentration in secondary gyres for later experiments results in more solute exchange with the primary gyre, and changes the late-time tailing behavior of the RTD. Therefore, when using BTCs from multiple experiments to obtain residence timescales, results from the first experiment are used for comparison.

3.4.2 Comparison of Residence Timescales

3.4.2.1 The Langmuir Timescale

The area under the normalized concentration BTC for $T_1 < t \leq T_2$, (where $T_2 = \infty$ in the case of a one-exponential RTD), denoted $I_{T_1}^{T_2}$ (Figure 3.4), yields a timescale that is a good approximation to the Langmuir timescale, τ_L, (R^2 = 0.82) (Figure 3.6). Note that τ_L is defined as the primary gyre mean residence time from the box model and:

$$\tau_L \cong \int_{T_1}^{T_2} \frac{C(t)}{C(t=0)} dt \tag{11}$$

Therefore, for both one- and two-exponential RTDs, $I_{T_1}^{T_2}$ is approximately the mean residence time of the primary gyre. A one-exponential RTD arises when only a single, large primary gyre dominates the STS. A two-exponential RTD arises when the STS is comprised of a large primary gyre and one or more counter-rotating secondary gyres. For a two-exponential RTD, the early time exponential decay ($T_1 < t \leq T_2$) results from the direct, relatively fast exchange between the primary gyre and main channel. The late time exponential decay ($T_2 < t < \infty$) results from the slower exchange of the smaller, slower-moving, counter-rotating gyres with the primary gyre that adds to the primary gyre residence time. This result confirms that the early time exponential decay in Figure 3.5c, which is due solely to the primary gyre residence time, should not be influenced by secondary gyre(s) as observed by the relatively consistent early time exponential slopes of each mean BTC between experiments and variance in late-time behavior.

In Figure 3.6, residuals above the best-fit line are an overestimate of the primary gyre mean residence time arising from the influence of secondary gyre residence times due to probes placed in close proximity to secondary gyres. The two-exponential residuals below the best-fit line are an underestimate of the primary gyre mean residence time, and arise due to the truncation of the first exponential decay at T_2 when there is a larger component of the primary gyre mean residence time within the second exponential decay.

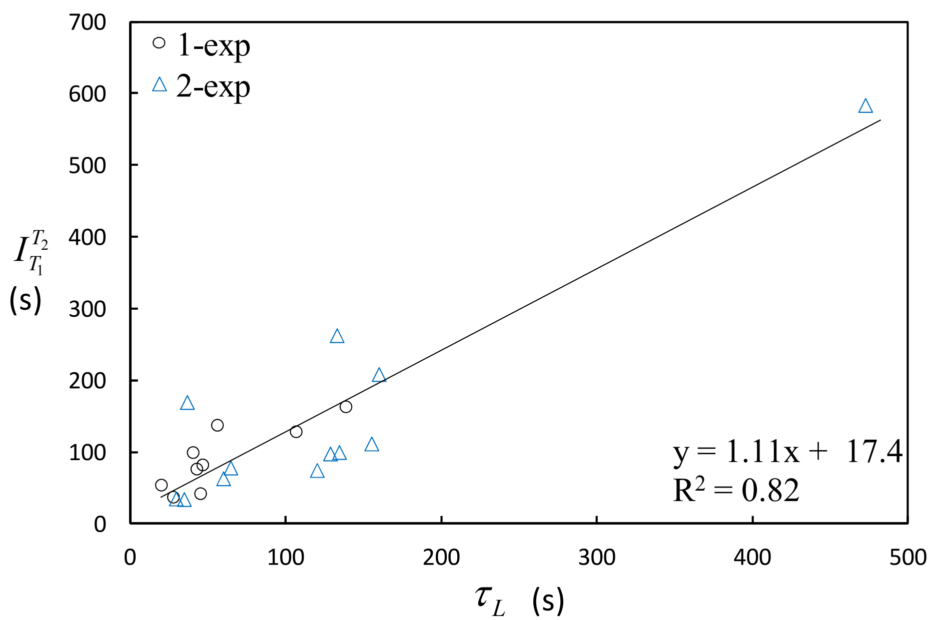


Figure 3.6. Comparison of the area beneath the normalized concentration curve for $T_1 < t \le T_2$, denoted $I_{T_1}^{T_2}$, to the Langmuir timescale, τ_L, for field data with one-exponential and two-exponential RTDs. Note that the size of markers for the field data represent one standard error of the residence timescale ($\pm$ 2% for $I_{T_1}^{T_2}$ and $\pm$ 6% for the Langmuir timescale). These errors are associated with uncertainties in instrumentation and measurement where, for the natural lateral STS, the electrical conductivity sensors yield a range of error of $\pm$ 2 percent.

3.4.2.2 Mean Residence Timescales for one-exponential RTDs

A one-exponential RTD does not have τ_{ap} because the influence of secondary gyres is insignificant. This occurs because either a large primary gyre dominates the STS or all probes were placed within the relatively well-mixed primary gyre and the rate of exchange with secondary gyre(s) was negligible as their residence times were substantially larger compared to the primary gyre mean residence time. However, in the field, the a priori proper placement of probes only in the primary gyre is difficult because there is uncertainty in the existence or location of secondary gyres. These secondary gyres can form due to both the STS aspect ratio and irregular STS wetted perimeter geometry, as shown in a CFD model (Figure 3.1). Probes placed in these poorly mixed locations add to the STS mean residence time and result in a measured apparent mean residence time for the STS, which can be observed by obtaining a two-exponential RTD.

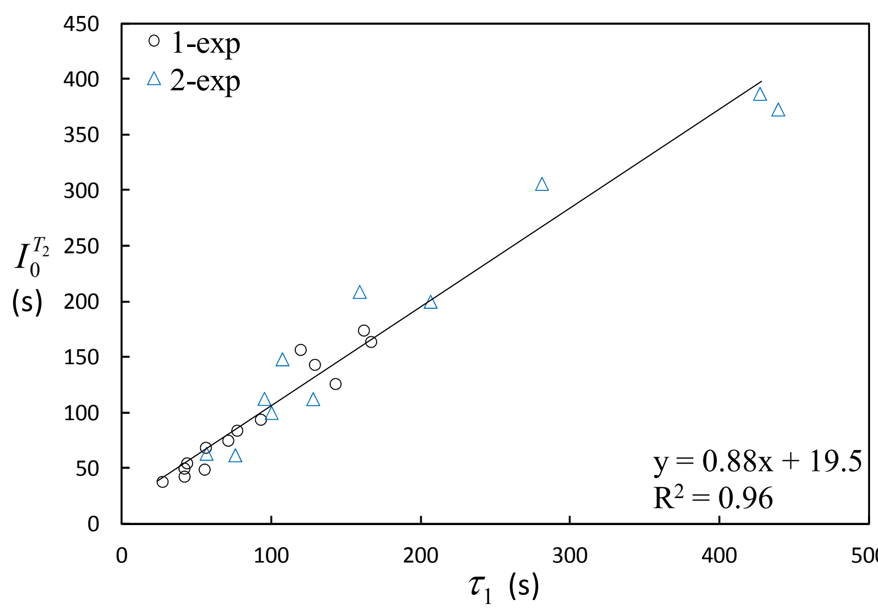


Figure 3.7. Comparison of the area beneath the normalized concentration curve for $0 \le t \le T_2$, denoted $I_0^{T_2}$ where $T_2 = \infty$ for a one-exponential RTD, to the inverse slope of the first exponential decay function, τ_1, for field data with one-exponential and two-exponential RTDs. Both $I_0^{T_2}$ and τ_1 are measures of the STS mean residence time, τ_{STS}. Note that the size of markers for the field data represent one standard error of the residence timescale ($\pm$ 2% for both timescales). These errors are associated with uncertainties in instrumentation and measurement where, for the natural lateral STS, the electrical conductivity sensors yield a range of error of $\pm$ 2 percent.

All of the residence timescales are equal when a one-exponential RTD arises. The inverse slope of the exponential concentration decay function, τ_1, is equal to I_0^{∞} (Figure 3.7). Therefore, $\tau_{STS} = \tau_L = \tau_1 = I_0^{\infty}$, and all of these timescales describe the STS mean residence time because the dominance of a primary gyre causes the STS to be relatively well mixed and to exhibit the characteristics of an ideal CSTR.

3.4.2.3 Mean Residence Timescales for two-exponential RTDs

A two-exponential RTD can be characterized by both a mean and an apparent mean residence time because the STS is comprised of a primary and one or more secondary gyres, and EC probe placement captures the effects of their residence timescales. We estimate the STS mean residence time from $I_0^{T_2}$, where $T_2 < \infty$, by assuming that a majority of the primary gyre mean residence time resides within the first exponential decay and compute the measured apparent STS mean residence time, τ_{ap}, from I_0^{∞} (Figure 3.4); thus, the STS mean residence time is always smaller than the apparent mean residence time.

The STS mean residence time computed from $I_0^{T_2}$ is approximately equivalent to the inverse slope of the first exponential decay function, τ_1 (Figure 3.7), and τ_{ap} is approximately equivalent to the inverse slope of the second exponential decay function, τ_2 (Figure 3.8). In Figure 3.7, $I_0^{T_2}$ and τ_1 are well correlated with a small range of variability (about 30 percent) in residuals from the best fit line because the first temporal moment from (8) is truncated at T_2 to estimate the mean residence time. A better estimation of the STS mean residence time can be obtained from τ_1 for a two-exponential RTD because this method avoids truncating the area beneath the normalized concentration curve after T_2. Similar to computing τ_{STS} from $I_0^{T_2}$ and τ_1, computing τ_{ap} from I_0^{∞} and τ_2 in Figure 3.8 results in a small range of variability in residuals

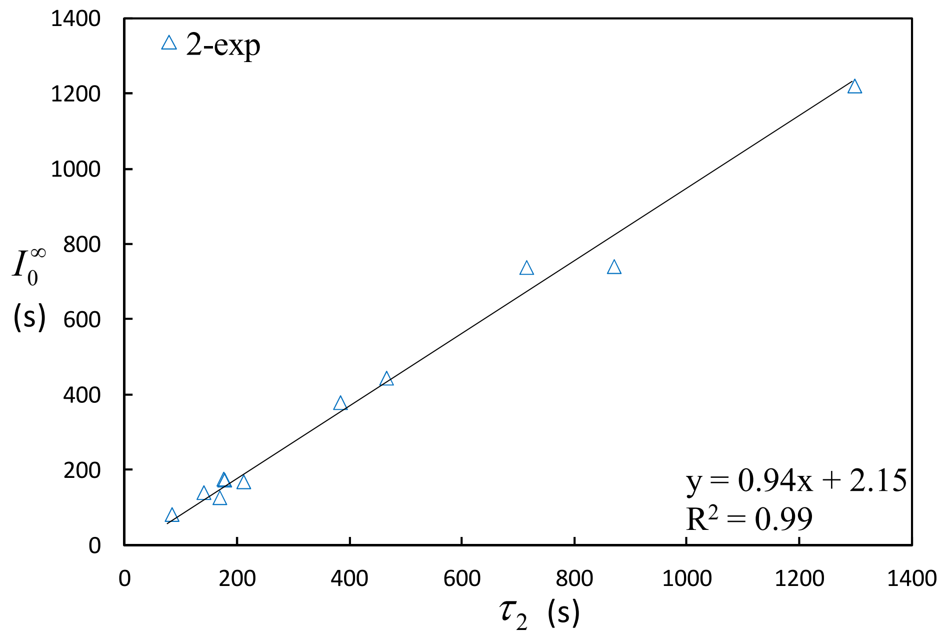


Figure 3.8. Comparison of the area beneath the normalized concentration curve for $0 \le t < \infty$, denoted I_0^∞, to the inverse slope of the second exponential decay function, τ_2, for field data with two-exponential RTDs. Both I_0^∞ and τ_2 are measures of the measured apparent STS mean residence time, τ_{ap}. Note that the size of markers for the field data represent one standard error of the residence timescale ($\pm$ 2% for both timescales). These errors are associated with uncertainties in instrumentation and measurement where, for the natural lateral STS, the electrical conductivity sensors yield a range of error of $\pm$ 2 percent.

between methods of up to 30 percent. This variability arises because τ_2 is estimated from the inverse slope for $T_2 \le t < \infty$, whereas I_0^∞ comprises the area beneath the entire RTD. These methods are approximately equivalent because, in most cases, the time for initialization of the second exponential decay occurs within a relatively short period of time after injection ceases. Therefore, a better estimation of the STS measured apparent mean residence time is obtained from I_0^∞, and the best estimation of the additional residence time provided by the secondary gyres is: $I_0^\infty - \tau_1$. In summary, $\tau_L < \tau_{STS} = \tau_1 < \tau_{ap} = I_0^\infty$, where the Langmuir timescale is under-estimated because of the over-estimation of the entrainment discharge from (7). This over-estimation occurs because the entrainment discharge is computed using the formulation: $Q_{inj}C_{inj} = Q_{pm}C_{STS}$, where $C_{STS} > C_p$; therefore, the Langmuir timescale is a minimum mean residence time.

3.4.3 Comparison of Mean Residence Timescales to Stream Parameters

The ratio of the Langmuir to convective timescale is linearly correlated to the STS aspect ratio (R^2 = 0.74). This suggests that the Langmuir timescale can be predicted from three stream parameters: the mean main channel velocity, the STS width, and the STS length (length of STS-main channel interface, denoted L). The Langmuir timescale was

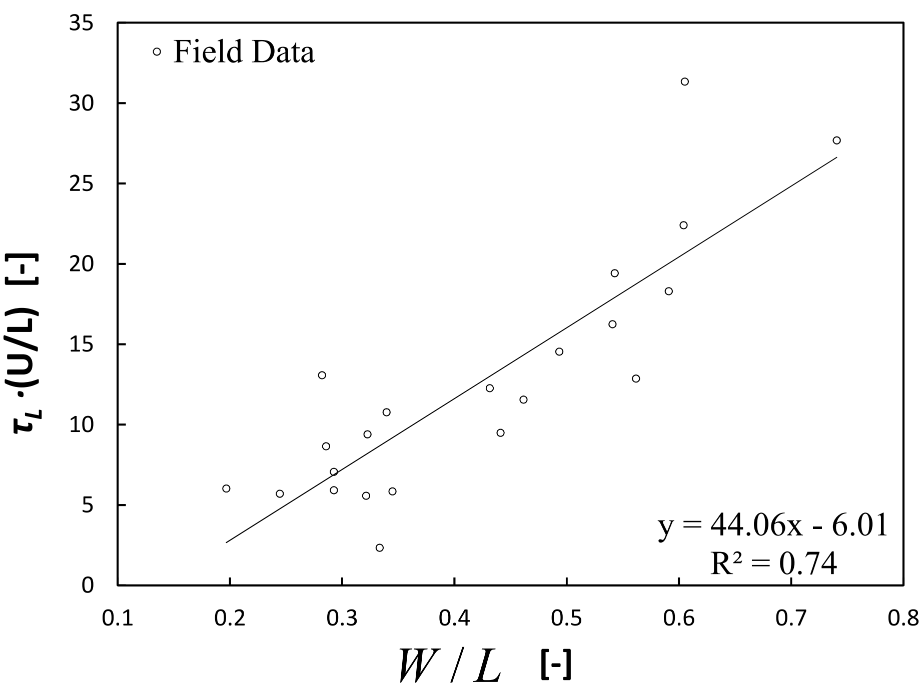


Figure 3.9. Comparison of ratio of Langmuir timescale, τ_L, to the main channel convective timescale (length at main channel-STS interface to mean main channel velocity, *L/U*) versus the STS aspect ratio (STS width to length at main channel-STS interface, *W/L*). Note that the size of markers for the field data represent the range of error, which is one standard error ($\pm$ 6% for the scaled Langmuir timescale and $\pm$ 1% for the *W/L* aspect ratio). These errors are associated with uncertainties in instrumentation and the velocity flowmeter, which yields a range of error of $\pm$ 2 percent.

scaled by the main channel convective timescale (L/U), which represents the travel time of fluid in the main channel over a distance equal to the STS length (i.e., time over which vortices in the shear layer will affect exchange through the STS), and compared to the *W/L* aspect ratio (Figure 3.9). As both the Langmuir timescale and *W* were scaled by *L*, this timescale is only a function of the mean channel velocity and STS width. Mean depths at the STS entrance and in the STS were not included because they were nearly the same at field sites.

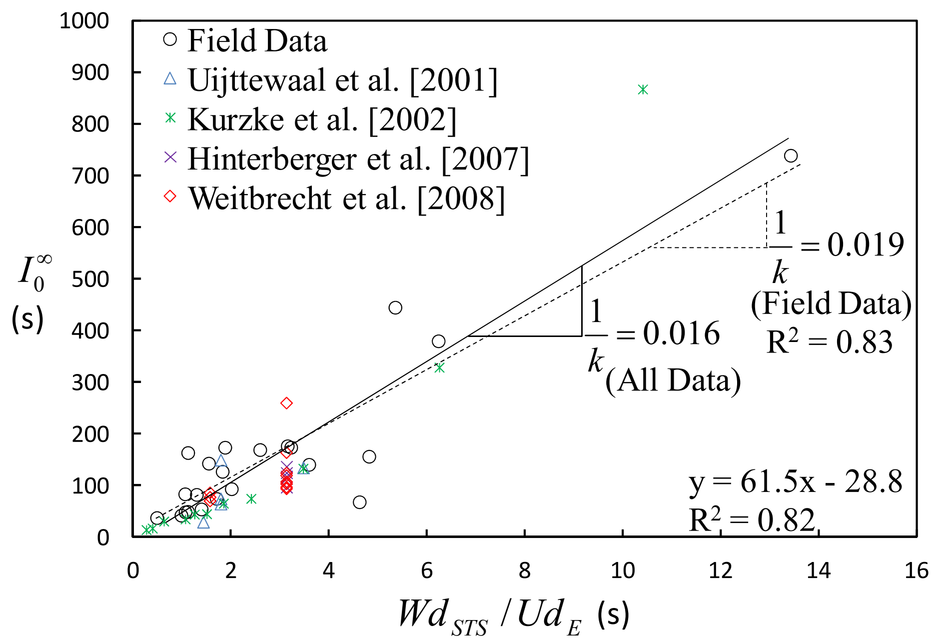


Figure 3.10. Comparison of the measured apparent mean residence time of STS (estimated as the area beneath the normalized concentration curve for $0 \le t < \infty$, denoted I_0^∞) to physically-based stream properties (based on *Uijttewaal et al.* [2001] mean residence time from (9)). Note that the size of markers for the field data represent the range of error, which is one standard error ($\pm$ 2% for I_0^∞ and $\pm$ 5% for the *Uijttewaal et al.* [2001] timescale). These errors are associated with uncertainties in instrumentation and velocity flowmeter, which yield a range of error of $\pm$ 2 percent. The estimated entrainment coefficients from the trend lines are 0.016 ± 0.007 for all data, and 0.019 ± 0.006 for the field data.

The apparent mean residence time and STS mean residence time both have good linear correlations to physically-based stream parameters using *Uijttewaal et al.*'s formulation of the mean residence time (10) (Figure 3.10 and 3.11). There is a strong correlation between τ_{ap} and physically-based parameters (R^2 = 0.82). The entrainment coefficient, k (inverse slope in Figure 3.10), is 0.016 ± 0.007 for all data, and 0.019 ± 0.006 for the field measurements. The STS mean residence time computed from τ_1 also has a strong linear correlation to physically-based stream parameters (Figure 3.11) (R^2 = 0.75) with k = 0.031 ± 0.009, which predicts exchange that is about two times faster than the apparent mean residence time.

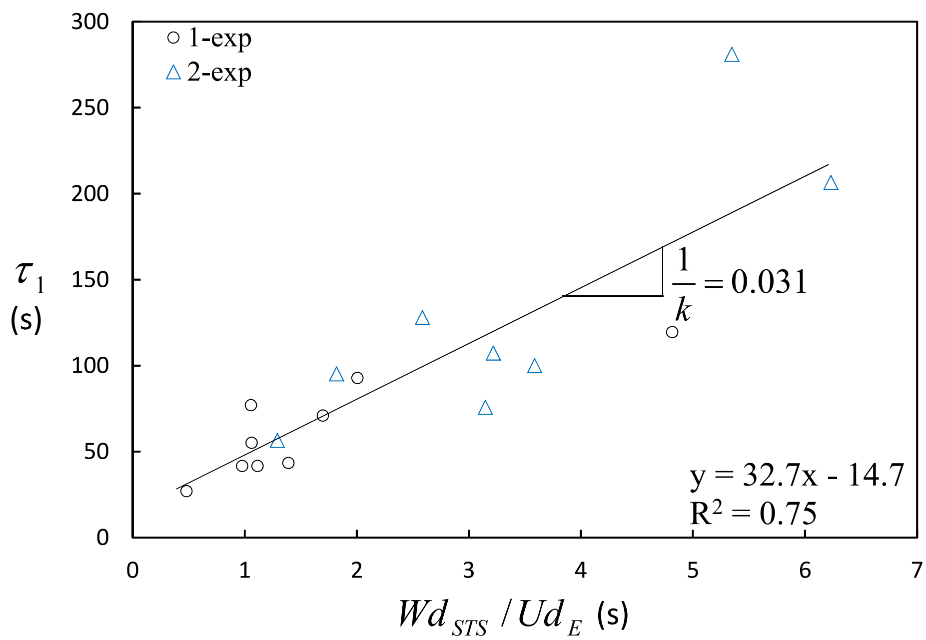


Figure 3.11. Comparison of the STS mean residence time (estimated as the inverse slope of the first exponential decay function, τ_1) to physically-based stream properties (based on *Uijttewaal et al.* [2001] mean residence time from (9)). Note that the size of markers represent the range of error, which is one standard error ($\pm$ 2% for τ_1 and $\pm$ 5% for the *Uijttewaal et al.* [2001] timescale). These errors are associated with uncertainties in instrumentation and velocity flowmeter, which yield a range of error of $\pm$ 2 percent. Note that the estimated entrainment coefficient from the field data ($k = 0.031$) is greater than that for the apparent measured mean residence time by a factor of approximately 2.

3.5 Discussion

3.5.1 Assumptions of the Box Model for STS

The box model assumes (1) the primary and secondary gyres are well-mixed; (2) a steady flow field; and (3) neither sources nor sinks exist other than the pump (specified as a source); however, each of these assumptions is violated in the field to some degree. First, natural lateral STS are not comprised of perfectly well mixed gyres. Gyres have a nearly stagnant inner core and higher velocities toward their outer region, which disproportionately disperses mass that becomes entrained [*Kang and Sotiropoulos,* 2011]. A tracer entering a gyre can either disperse radially relatively fast or become entrained in the slower, nearly stagnant inner core with longer residence times. Second, exchange of mass and momentum through natural lateral STS occurs because turbulent mixing processes are inherently unsteady. The flow dynamics of exchange in natural lateral STS are complex due to velocity and pressure fluctuations in the shear layer that interact with and produce unsteady recirculating flow in the STS. However, we assume that these fluctuations are small relative to the mean velocity and pressure flow fields, and are rapid relative to the exchange timescales, so that we can solve for a steady state solution. This assumption is based on literature review of flow past lateral cavities in the range of *W/L* and *Re* studied, where similar flow features are observed and the flow structures in the mean do not change significantly [*Uijttewaal et al.*, 2001; *Weitbrecht et al.*, 2008]. Lastly, assuming neither sources nor sinks exist in the STS (other than the pump) ignores hyporheic exchange through the streambed. This assumption was made because (1) as observed in the field, natural lateral STS have streambeds comprised predominantly of fine silts and clays, which have relatively low permeability; (2) hyporheic exchange processes are slow and have relatively long timescales of exchange that range from hours to days [*Harvey and Bencala*, 1993; *Boulton et al.*, 1998; *Harvey and Wagner*, 2000; *Haggerty et al.*, 2002; *Wörman et al.*, 2002; 2007; *Gooseff et al.*, 2003; *Dent et al.*, 2007; *Cardenas*, 2008; *Cardenas et al.*, 2008; *Bencala*, 2011]; and (3) the timescale of the NaCl injection experiments was relatively short (on the order of 10 to 30 minutes per experiment).

The box model is a 2-D representation of the 3-D flow field in natural lateral STS studied. The box model is 2-D because the depth is shallow at the STS field sites where the main channel depth is nearly the same as the STS depth (Table 3.1). In cases where STS depth is close to channel depth, eddies in the shear layer are quasi-two dimensional, and in cases where the STS depth significantly differs from the channel depth, fully three-dimensional eddies form in the shear layer [*McCoy et al.*, 2007; 2008]. Therefore, for the field sites studied, vertical momentum flux does not play a significant role in residence time and the box model can be represented as 2-D.

3.5.2 The Langmuir Timescale

The Langmuir timescale (primary gyre mean residence time for STS) is the minimum mean residence time and has implications for stream ecology and restoration. For example, stream restoration projects typically emplace in-stream structures that increase physical and biological diversity; however, different structures may enhance the growth of different types of biotic communities because residence times generated by flow conditions and the structures' aspect ratios will affect the nutrient uptake capabilities of the stream [*Argerich et al.*, 2011]. As the minimum residence timescale scales with mean channel velocity and STS width, these two parameters can be used to predict the minimum residence time within lateral STS. This will be a powerful tool because predicting this timescale has minor data collection requirements.

3.5.3 STS Mean and Apparent Mean Residence Time

The STS mean residence time—i.e., the mean residence time that would be observed in the main channel from a conservative tracer test—is only dependent on the primary gyre mean residence time. The STS mean residence time is best estimated by the inverse slope of the first exponential decay curve, τ_1. The Langmuir timescale is the primary gyre mean residence time (as derived from the box model) for a one-exponential RTD, but this timescale is under-estimated for a two-exponential RTD due to the formulation used to compute the entrainment discharge: $Q_{inj}C_{inj} = Q_{pm}C_{STS}$, where $C_{STS} > C_p$.

The secondary gyres add to the apparent measured mean residence time if these gyres' concentrations are included in the average. It is the volumes, not residence times, of the secondary gyres that always influence the mean residence time of the primary gyre (refer to (5)). Consequently, estimation of STS mean residence time using tracer measurements within the STS zone is subject to error unless sensor emplacement in secondary gyres can be avoided.

3.5.4 Flow Field Physics in Natural Lateral STS and Implications for a 1-exponential RTD

Aspect ratios (*W/L*) less than 0.5 result in the development of a two-gyre recirculation pattern with the secondary gyre forming in the upstream corner (see Figure 3.1). Aspect ratios 0.5 < *W/L* < 1.5 result in the development of a one-gyre recirculation pattern with possible small secondary gyres in the upstream and downstream corners near the STS bank [*Weitbrecht*, 2004; *McCoy et al.*, 2008]. These general rules apply to idealized STS geometries, such as rectangular cavities. In natural systems, similar patterns develop, with the exception that more secondary gyres can form because of irregular wetted perimeters due to rocky banks and vegetation. The production of a one-exponential RTD does not necessarily imply that the STS is comprised of only a single primary gyre, but that the STS is dominated by the primary gyre and the effect of smaller counter-rotating gyres is negligible because either their volumes or exchange rates with the primary gyre are sufficiently small. Note that for an ideal (well-mixed) CSTR, $\tau_L = \tau_{STS} = \tau_1$ [*Nauman*, 1981]. Therefore, we can assume that one-exponential RTDs apply to lateral STS that are sufficiently well-mixed.

3.5.5 Scaling Relationships

Scaling from a single lateral STS to a distribution along a reach is an important application. While a detailed treatment of this is beyond the scope of this paper, two comments can be made. Since the application of the scaling law is an important consideration in scaling, we limit our comments to conservative solute transport.

First, in the unlikely case that all STS zones are of the same size and shape, the conservative solute's transport will be governed by $\tau_{STS} = \tau_1$ and A_s/A, and A_s/A will be determined by a simple summation of STS volumes. Once these values are determined, the models in the literature for a single timescale of exchange [e.g., *Bencala and Walters*, 1983 and subsequent references] will be applicable. The breakthrough curve will be a classical advection-dispersion curve with an exponential tail governed by $\tau_{STS} = \tau_1$ and A_s/A.

Second, in the more likely case of a distribution of sizes and shapes of STS zones, the distribution must be quantified and then properly applied at the reach scale. For the sake of illustration, let us assume a power-law distribution of STS widths but (unrealistically) all other parameters are constant. Furthermore, let us assume that transient storage is dominated by STS. Let us assume a pdf of STS volume that takes the form $b\, w^{3-a}$, where b is a scaling parameter with units [L^{a-4}] and a value such that the pdf integrates to 1. This pdf will generate a pdf of inverse timescales $\tau_{STS}^{-1} \sim w^{a-3}$. *Haggerty et al.* [2000] derived the relationship between a distribution of inverse timescales (rate coefficients) and a breakthrough curve. This distribution of STS widths will generate a breakthrough curve with power-law late-time behavior, $C(t) \sim t^{-a}$. Note that our use of a here is equivalent to *Haggerty et al.*'s k, which we cannot use because of variable duplication. For example, consider a pdf of widths ~ w^1, which is a distribution of STS zones where the volume fraction of the STS is linearly proportional to the STS width. This will generate a breakthrough curve $C(t) \sim t^{-2}$, up to the $t \sim \tau_{STS}^{-1}$ given by (9) for the largest STS width, at which time the breakthrough curve will begin to decay exponentially.

3.5.6 The Entrainment Coefficient

An entrainment coefficient of 0.19 ± 0.006 predicted for τ_{ap} is within the range of laboratory experiments (Table 3.2) of open channel flow past lateral rectangular cavities, whereas an entrainment coefficient of approximately 0.031 ± 0.009 for τ_{STS} is on the higher end of previously measured values. However, for a number of reasons, we postulate that the τ_{STS} $k \approx 0.031$ is a better predictive value for computing mean residence times of natural lateral STS studied. First, laboratory experiments use more ideal geometries than observed in field configurations. Natural lateral STS, as observed in the field, typically are shallow (i.e., bed friction plays a role in slowing exchange) and have irregular wetted perimeters that are able to form a greater number of secondary gyres compared to lab experiments. As these additional gyres are small and are located within the shallowest regions of the STS (Figure 3.1b), their residence times typically will have less of an influence on the primary gyre mean residence time, causing a faster exchange rate through the STS. Second, laboratory studies of flow past a series of lateral cavities typically take experimental measurements starting from the fourth through sixth cavity downstream to ensure a fully developed shear layer [*Uijttewaal*, 2005]. This yields consistent exchange rates among cavities adjacent to the fully developed shear layer [*Weitbrecht et al.*, 2008]. The first few cavities (i.e., the cavities farthest upstream in a series of lateral cavities that are more representative of a natural STS) are adjacent to an unstable (not fully developed) shear layer, which causes each of these cavities to have differing exchange rates because the dimensions of the primary recirculating gyre decreases downstream, allowing secondary gyres to increase in size [*McCoy et al.*, 2008]. Thus, laboratory measurements were collected from cavity flow fields with smaller primary gyres and larger secondary gyres for similar cavity aspect ratios (W/L), which increases mass entrainment and mean residence time and decreases mass exchange. Lastly, a study by *Seo and Maxwell* [1992] constructed a pool and riffle stream in a large experimental flume by placing gravel on the riffles to simulate STS geometries representative of natural streams. This study obtained an empirical entrainment coefficient of 0.037 ± 0.032 (n = 12), which is close to our value of 0.031. Comparison of natural lateral STS to laboratory experiments is difficult because few studies have been done on turbulent open channel flow past open lateral cavities in environments representative of streams. However, the relatively narrow range of values estimated for k from lab experiments and field measurements indicate that the STS mean residence time may be predicted using *Uijttewaal et al.*'s equation (10). Note that the predictive relationship may not be a universal relationship representative of all lateral STS in natural streams, but will be applicable for a range of *Re* and STS geometries. Other predictive relationships also may be needed to represent STS with slightly differing flow fields, such as STS characterized by shear layers that do not span the entire STS length or STS generated by in-stream flow obstructions, such as logs, where flow enters the STS both through a shear layer and over the top of the log, which is analogous to the case of flow past a submerged groyne.

An explanation for the variability of k between laboratory and field experiments is elusive and is a topic worthy of further research. We hypothesize that other parameters not accounted for in (10), such as streambed and streambank roughness characteristics and vegetative drag may also influence k and, therefore, may help to explain (and possibly reduce) some of the variability. The roughness characteristics of natural lateral STS typically will be rougher than their more ideal counterparts studied in laboratory flumes for given flow and geometry conditions. Increased roughness likely will decrease the vorticity in the STS and subsequently decrease mass exchange and increase STS mean residence time, which may reduce the variability in k between lab and field experiments; however, an exact relationship has not been identified to date.

3.6. Summary and Conclusions

The purpose of this paper is to define the appropriate mean residence time of lateral STS in small streams for a range of flow conditions (5,000 ≤ *Re* ≤ 200,000) and STS geometries (0.2 ≤ *W/L* ≤ 0.75) in a way that will guide quantitative field measurements, and to relate residence timescales to field-measureable parameters. Five study objectives were defined: (1) to develop a theoretical mean residence time for lateral

STS as a basis for comparing residence timescales defined in the literature; (2) to quantitatively relate residence timescales to determine the appropriate metric for the STS mean residence time; (3) to determine when an apparent mean residence time arises; (4) to relate residence timescales to physically measureable parameters in the field to develop predictive relationships; and (5) to provide physical explanations for different residence timescales and for the occurrence of one- or two-exponential RTDs using fluid dynamics.

Two theoretical residence timescales were derived to characterize natural lateral STS: a mean residence time and an apparent mean residence time. The most appropriate metric for estimating the STS mean residence time is the inverse slope of the first exponential decay, τ_1. The STS mean residence time, τ_{STS}, is the primary gyre mean residence time. An apparent measured mean residence time, that is larger than the STS mean residence time, arises when secondary gyres are inadvertently included in the mean residence time calculation due to the placement of probes within these poorly mixed locations.

The Langmuir timescale is the minimum mean residence time of lateral STS. This result has important implications for stream ecology and restoration projects because this timescale may be used in the design of in-stream structures typically emplaced into streams to enhance biodiversity. The Langmuir timescale, when scaled by the main channel convective timescale, *L/U,* has a linear correlation to the STS *W/L*. From this correlation, the Langmuir timescale can be predicted using two stream parameters: the mean channel velocity, and STS width.

Natural lateral STS are characterized by one- and two-exponential RTDs. One-exponential RTDs arise when a large primary gyre dominates the STS. Two-exponential RTDs arise when the STS is comprised of a large primary gyre and a number of smaller, counter-rotating secondary gyres generated by an irregular boundary. The early time exponential decay is due to direct, relatively fast exchange between the primary gyre and main channel, whereas the late time exponential decay is due to the combined effects of slower exchange of the smaller, slower-moving, counter-rotating gyres with the primary gyre and the exchange of the primary gyre with the main channel.

The STS mean residence time was estimated using the predictive relationship developed by *Uijttewaal et al.* [2001] based on field-measureable stream parameters. An entrainment coefficient of $k = 0.031 \pm 0.009$ was estimated from the field data using the STS mean residence time. Variability in estimated values of k between laboratory and field experiments may possibly be explained (and reduced) by accounting for other physical factors not currently in the predictive relationship, such as roughness characteristics of the STS bank and bed and vegetative drag, and this is a topic worthy of further research.

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APPENDIX A

A.1 Data Collection for RANS CFD Model

Detailed morphological and flow field measurements were taken of a lateral STS at Site 1P. STS morphology and water surface were surveyed using a Topcon GTS-230W total station [*Topcon Corporation*, 2008] to obtain a grid for the CFD model. The maximum streamwise distance surveyed was 1 m upstream and 2 m downstream. Streambed topology was surveyed with a sample spacing density of about 3-5 cm between point measurements in the STS and with a sample spacing density of about 5-10 cm between points in the main channel. The mean water surface was obtained by randomly surveying points with a sampling density of about 10 points/m^2.

Instantaneous, three-dimensional velocities were measured in the main channel and shear layer using an acoustic Doppler velocimeter (ADV) [*SonTek*, 2001], which has a 10 cm distance from the transducer and 25-Hz sampling rate. Main channel velocities were measured along one transect (normal to flow) at about 1 m upstream of the STS zone, and shear layer velocities were measured along one transect (parallel to flow) at time durations of 60 s for each measurement. Mean flow and turbulence quantities (i.e., turbulence intensity and kinetic energy) were obtained from the ADV data and used to validate the RANS CFD model.

A.2 Description of RANS CFD Model

The 3-D RANS CFD model has an unstructured grid and flow boundary conditions specified 1 m upstream and downstream of the STS (Figure 3.1b; zoomed in plan view image). The grid geometry was formulated in the commercial grid generation software, Pointwise. A periodic flow boundary condition (based on the mean channel velocity of 0.35 m/s) was used to obtain a fully developed velocity profile inlet boundary condition. A velocity profile inlet boundary condition and a pressure outlet boundary condition were specified upstream and downstream of the STS, respectively. A no-slip boundary was specified for the streambed and banks and the water surface was specified as a slip boundary.

A commercial RANS finite volume solver, Star-CCM+, was used to solve the RANS equations with the standard $k-\varepsilon$ turbulence closure model and wall functions (see *Wilcox* [2006] for further details). Both the SST Mentor $k-\Omega$ and $k-\varepsilon$ models were used for detailed verification tests on idealized lateral rectangular storage zone geometries at the same *Re* and similar *W/L*. The verification tests show good agreement with experimental as well as large-eddy simulation results published in the literature [*Drost et al.*, 2012]. The flow prediction did not significantly change when using either turbulence closure. For the relatively complex 3-D STS geometry, the $k-\varepsilon$ model was used mainly because this closure model was easier to obtain a converged solution compared to the SST Mentor $k-\Omega$ model. A grid refinement study was done where the number of control volumes increased from approximately 7 million (0.02 to 0.04 m cell size), to 23 million (0.01 to 0.02 m cell size), and 68 million (0.005 to 0.01 m cell size) with each cell reduced in size by half between grids. The flow structure, including the number of gyres, and the mean velocity field did not change when the grid was refined.

Notation

A	Main channel cross-sectional area, [L^2]
A_s	STS cross-sectional area, [L^2]
C	STS concentration, [ML^{-3}]
C_{inj}	Mean concentration of the injected tracer, [ML^{-3}]
C_m	Main channel concentration, [ML^{-3}]
C_p	Primary gyre concentration, [ML^{-3}]
C_s	Secondary gyre concentration, [ML^{-3}]
C_{STS}	Mean STS concentration, [ML^{-3}]
d_E	Mean water depth in shear layer, [L]
d_{STS}	STS water depth, [L]
E	Entrainment velocity, [LT^{-1}]
$F(t_r)$	STS residence time distribution, [T^{-1}]
I	Integration beneath normalized concentration curve, [T]
$I_0^{T_2}$	Integration for $0 \le t < T_2$, [T]
$I_{T_1}^{T_2}$	Integration for $T_1 < t \le T_2$, [T]
I_0^{∞}	Integration for $0 \le t < \infty$, [T]
k	Dimensionless entrainment coefficient, [-]
L	Length at main channel-STS interface (shear layer), [L]
Q_{inj}	Volumetric injection rate from external source, [L^3T^{-1}]
Q_{ps}	Volumetric exchange between primary and secondary gyre, [L^3T^{-1}]
Q_{pm}	Volumetric exchange between main channel and primary gyre, [L^3T^{-1}]
t	Current time, [T]
t_i	Time of initial entrainment, [T]
t_r	Current residence time of solute particle, [T]
T_1	Time for initiation of first exponential decay, [T]
T_2	Time for initiation of second exponential decay, [T]
U	Mean main channel velocity, [LT^{-1}]
V	Volume, [L^3]
V_p	Primary gyre volume, [L^3]
V_s	Secondary gyre volume, [L^3]
V_{STS}	STS volume, [L^3]
W	STS width, [L]
W_p	Wetted perimeter, [L]
β_s	Fraction of STS volume occupied by secondary gyres, [-]

τ	Characteristic timescale of exponential decay, [T]
τ_{ap}	Measured apparent STS mean residence time, [T]
τ_L	Langmuir timescale (Eqn 6), [T]
τ_s	Mean residence time of secondary gyre, [T]
τ_{STS}	STS mean residence time, [T]
τ_1	Inverse slope of first exponential decay function, [T]
τ_2	Inverse slope of second exponential decay function, [T]

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CHAPTER 4

A MEAN RESIDENCE TIME RELATIONSHIP FOR LATERAL CAVITIES IN GRAVEL-BED RIVERS AND STREAMS:

INCORPORATING STREAMBED ROUGHNESS AND CAVITY SHAPE

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ABSTRACT

Accurate estimates of mass-exchange parameters in transient storage zones are needed to better understand and quantify solute transport and dispersion in riverine systems. Currently, the predictive mean residence time relies on an empirical entrainment coefficient with a range in variance due to the absence of hydraulic and geomorphic quantities driving mass exchange. Two empirically derived relationships are presented for the mean residence time of lateral cavities—a prevalent and widely recognized type of transient storage—in gravel-bed rivers and streams that incorporates hydraulic and geomorphic parameters. The relationships are applicable for gravel-bed rivers and streams with a range of cavity width to length (*W/L*) aspect ratios (0.2 to 0.75), shape, and Reynolds numbers (*Re*, ranging from 1.0×10^4 to 1.0×10^7). The relationships equate normalized mean residence time to nondimensional quantities: Froude number, *Re*, *W/L*, depth ratio (ratio of cavity to shear layer depth), roughness factor (ratio of shear to channel velocity), and shape factor (representing degree of cavity equidimensionality). One relationship excludes bed roughness (equation (13)) and the other includes bed roughness (equation (14)). The empirically derived relationships have been verified for conservative tracers (R^2 of 0.83) within a range of flow and geometry conditions. Topics warranting future research are testing the empirical relationship that includes the roughness factor using parameters measured in the vicinity of the cavity to reduce the variance in the correlation, and further development of the relationship for non-conservative transport.

4.1 Introduction

The fluid dynamics of exchange between a main channel and adjacent lateral cavities has been extensively studied both numerically and experimentally, especially within the last decade, to better understand and quantify solute transport and dispersion phenomena in open channel flows [e.g., *Rockwell and Knisely*, 1980; *Kimura and Hosada*, 1997; *Lin and Rockwell*, 2001; *Patwardhan*, 2001; *Hankin et al.*, 2002; *Yao et al.*, 2004; *Chang et al.*, 2006; *Faure et al.*, 2007; *Tritthart et al.*, 2009]. Studies of open channel flow past adjacent lateral cavities are conducted to provide more accurate estimates of longitudinal dispersion coefficients and mass-exchange parameters at a global scale through the development of hydraulic and geomorphic relationships [*Valentine and Wood*, 1977; *Uijttewaal et al.*, 2001; *Weitbrecht and Jirka*, 2001a; *Kurzke et al.*, 2002; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009]. Developing new or improving previously-derived relationships is needed because solute transport parameters are empirical and not transferrable to either different streams or the same stream under different flow conditions [*Harvey et al.*, 2003]. Estimates of effective solute transport parameters in reach-scale studies currently are obtained by empirical relationships [e.g., *Cheong et al.*, 2007] or by parameterizing transient storage models, which are numerical models that account for advective and dispersive solute transport in addition to the presence of lateral cavities and other adjacent storage zones, termed transient storage zones [*Hays*, 1966; *Bencala and Walters*, 1983; *Stream Solute Workshop*, 1990; *Runkel*, 1998; *Harvey and Wagner*, 2000].

Lateral cavities and other types of transient storage zones have important functional significance in streams. Their lower water velocities and higher local residence times enhance fish and vegetation biodiversity [*Engelhardt et al*., 2004; *Uijttewaal*, 2005; *Constantinescu et al.*, 2009]. Their recirculating flows also entrain suspended and dissolved particulates, which increases the potential for biogeochemical reactions responsible for removing metals, nutrients, and other contaminants [*Newbold et al.*, 1983; *Bencala et al.*, 1984; *Triska et al.*, 1989; *Cerling et al.*, 1990; *D'Angelo et al.*, 1993; *Valett et al.*, 1994; 1996; 1997; *Benner et al.*, 1995; *Mulholland et al.*, 1997; *Squillace et al.*, 1993; *Gücker and Boëchat*, 2004; *Ensign and Doyle*, 2005; *Argerich et al.*, 2011].

The lateral cavity is a prevalent and widely recognized type of transient storage in open channel flows [*Muto et al.*, 2000; 2002; *Engelhardt et al.*, 2004; *O'Connor et al.*, 2010; *Drost*, 2012; *Jackson et al.*, 2012] and may account for a large fraction of transient storage volume and residence time in the surface stream [*Jackson et al.*, 2012]. Lateral cavities in streams are characterized by a shear layer spanning the entire cavity entrance length and the formation of a recirculation region inside the cavity composed of one or more counter-rotating gyres depending on the cavity aspect ratio—ratio of cavity width (normal to flow) to cavity length (parallel to flow) (*W/L*) [Figure 4.1; *Rockwell and Knisely*, 1980; *Lin and Rockwell*, 2001; *Chang et al.*, 2006].

Turbulent, incompressible open channel flow past one or more lateral rectangular cavities has been well studied in hydrology and fluid mechanics, and generalized results regarding mass exchange have been obtained. Previous studies have determined that mass exchange between the main channel and lateral cavities is influenced by the aspect ratio [*Rockwell and Knisely*, 1980; *Uijttewaal et al.*, 2001; *Weitbrecht and Jirka*, 2001a; *Kurzke et al.*, 2002; *Engelhardt et al.*, 2004; *Weitbrecht et al.*, 2008], in-stream (main channel) velocity [*Valentine and Wood*, 1977; *Rockwell and Knisely*, 1980; *Chiang et al.*, 1998; *Yao et al.*, 2004; *Faure et al.*, 2007], upstream boundary layer (i.e., turbulent boundary layer along the wall directly upstream of the cavity entrance) [*Rockwell and Knisely*, 1980], and cavity depth [*Yao et al.*, 2004; *McCoy et al.*, 2006; 2007; 2008; *Faure et al.*, 2007]. Mass exchange is typically quantified using either a mass exchange coefficient representing the exchange rate between the main channel and lateral cavity [*Hays*, 1966; *Bencala and Walters*, 1983], or a lateral cavity mean residence time. A

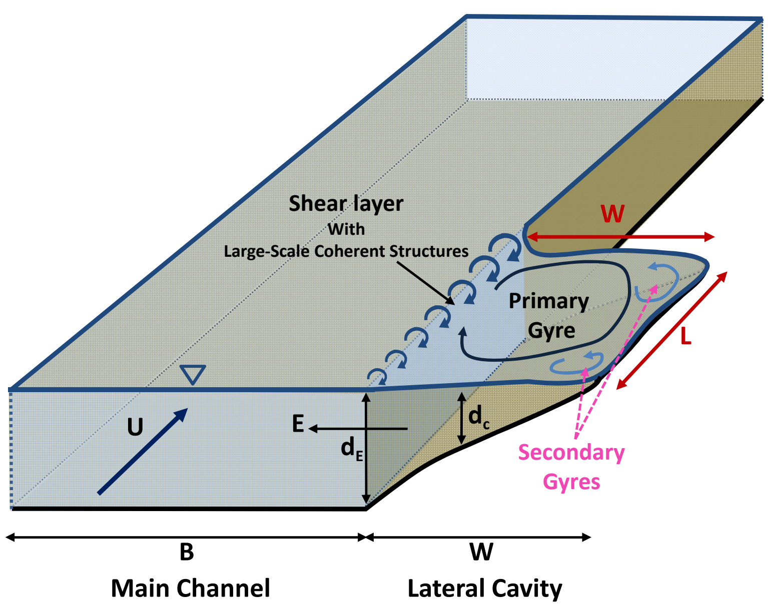

Figure 4.1. Flow field conceptualization of a lateral cavity in a natural stream and associated hydraulic and geomorphic parameters.

mean residence time relationship has been postulated that relates mean residence time to the hydraulic and geomorphic parameters listed above (see section 4.2, equation 1). The mean residence time relationship (1) includes a dimensionless entrainment coefficient, k, representative of mass exchange [e.g., *Hays*, 1966; *Valentine and Wood*, 1977; *Uijttewaal et al.*, 2001]. However, to date, an accurate and reliable mean residence time relationship quantifying mass exchange in lateral cavities has not been identified because laboratory and field experiments yield values of k ranging between 0.01 and 0.04 with a wider range of variability in k for field studies [*Valentine and Wood*, 1977; *Seo and Maxwell*, 1992; *Wallast et al.*, 1999; *Uijttewaal et al.*, 2001; *Kurzke et al.*, 2002; *Weitbrecht and Jirka*, 2001b; *McCoy et al.*, 2006; *Hinterberger et al.*, 2007; *Chang et al.*, 2007; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009; *Drost*, 2012; *Jackson et al.*, 2012].

Physical factors not accounted for in the current mean residence time relationship need to be considered to reduce, and possibly explain, some of the variance in k. Previous laboratory and numerical studies of flow past lateral cavities have focused on idealized square and rectangular geometries with smooth walls that do not take into account roughness elements, such as streambed roughness and lateral cavity shape. *Muto et al.* [2002] concluded that roughness is one important parameter driving fluid exchange. *Ozalp et al.* [2010] investigated the effect of rectangular, triangular, and semi-circular cavity shapes on flow and turbulence fields within and near the cavity. However, neither study considered the effect of bed roughness or cavity shape on mean residence time.

This paper presents two empirically derived relationships for the mean residence time of lateral cavities in natural rivers and streams that incorporate streambed roughness and shape. The mean residence time relationships presented will be tools that hydrologists and water managers can use to predict conservative solute transport in natural fluvial systems with lateral cavities over a range of geometry ($0.2 < W/L < 0.75$), shape, roughness, and flow conditions ($1.0 \times 10^4 < Re < 1.0 \times 10^7$). The empirically derived relationships are developed using dimensional analysis and are verified through comparison to previous laboratory and field studies.

4.2 Review of Relevant Residence Time, Hydraulic, and Geomorphic Relationships

Uijttewaal et al. [2001] derived a predictive mean residence time relationship for a lateral cavity by incorporating the entrainment hypothesis formulated by *Valentine and Wood* [1977] into the mean hydraulic residence time proposed by *Langmuir* [1908], which is a ratio of cavity volume to the volumetric flow rate entering or leaving the cavity through the shear layer. The entrainment hypothesis assumes that: $E = kU$, where E is the entrainment velocity (velocity entering or leaving the cavity through the shear layer interface), [LT^{-1}]; U is the mean main channel velocity, [LT^{-1}]; and k is a dimensionless entrainment coefficient. The predictive mean residence time, τ_L, is given by:

$$\tau_L = \frac{WLd_c}{kULd_E} = \frac{Wd_c}{Ed_E}, \tag{1}$$

where W is the cavity width (normal to flow), [L]; L is the cavity length (parallel to flow), [L]; d_c is the mean cavity depth, [L]; and d_E is the mean shear layer depth, [L] (Figure 4.1). The relation in (1) assumes the following: (1) steady flow; (2) a residence time distribution that decays exponentially in time; (3) the mechanism of exchange is a linear, first-order process; and (4) k is a constant. It is important to note that the predictive mean residence time is inversely proportional to k and to the mass exchange coefficient [T^{-1}] [*Bencala and Walters*, 1983; *Runkel*, 1998], as this will become important in the dimensional analysis.

Mean residence time also can be computed from the inverse slope of the exponential residence time distribution (RTD), $F(t)$, given by:

$$F(t) = \frac{1}{\tau_1}\exp(-t/\tau_1), \tag{2}$$

where t is the current time, [T]; τ_1 is the mean residence time (arithmetic mean of the RTD), [T]; and the RTD is defined as a distribution of fluid particle residence times inside of the cavity since their time of entrainment [*Sardin et al.*, 1991]. Notice that we denote the *predictive* mean residence time as τ_L, and denote the mean residence time estimated from concentration breakthrough curves as τ_1. The predictive mean residence time is used for comparison to the empirically derived relationships, which were formulated using τ_1 in the dimensional analysis.

The shear velocity, u_*, is defined by $u_* = \sqrt{\tau_0 / \rho}$, where ρ is the fluid density, [ML^{-3}]; and τ_0 is the shear stress, [$ML^{-1}T^{-2}$]. For open channel flow, $\tau_0 = \rho g R S_f$, where g is the gravitational acceleration, [LT^{-2}]; R is the hydraulic radius (ratio of cross-sectional channel area to wetted perimeter), [L]; and S_f is the friction slope, dimensionless. The friction slope is derived from Manning's Equation: $S_f = n^2 U^2 / R^{4/3}$, where n is the Manning roughness coefficient. Thus, by substitution of the shear stress and friction slope, the shear velocity is computed from:

$$u_* = \sqrt{g n^2 U^2 R^{-1/3}}\,, \tag{3}$$

and n is estimated from either the *Chen and Cotton* [1988] method given by:

$$n = \frac{(R/0.3048)^{1/6}}{8.6 + 19.97\log(R/d_{50})}, \tag{4}$$

or the *Henderson* [1966] method given by:

$$n = 0.034(3.28 d_{50})^{1/6}, \tag{5}$$

where d_{50} is the median diameter of the gravel, in meters. The *Chen and Cotton* [1988] method provides a good approximation of streambed roughness in gravel-bed streams with very shallow flows. The *Henderson* [1966] method estimates a Manning roughness coefficient for gravel-bed streams at higher flows.

4.3. Dimensional Analysis: Developing the Relationship

The mean residence time of a lateral cavity is dependent on the hydraulic and geomorphic properties of the main channel and cavity. These properties drive mass and momentum exchange across the shear layer by means of large-scale coherent structures. Therefore, mean residence time can depend on the following parameters:

$$\tau_1 = f(u_*, U, g, \upsilon, W, L, d_E, d_c), \tag{6}$$

where υ is the kinematic viscosity, [L^2T^{-1}]. Equation 6 includes three parameters not considered in the predictive mean residence time from (1): a shear velocity, the gravitational acceleration, and kinematic viscosity, which account for bed roughness, gravitational forces, and viscous forces, respectively. The median gravel diameter, main channel hydraulic radius, and Manning roughness coefficient are expressed in the shear velocity. Re-writing the above equation of nine parameters composed of two physical dimensions (time and length), Buckingham Pi Theorem predicts that no more than seven nondimensional groups (9 − 2 = 7) [*Fischer et al.*, 1979] relate to the mean residence time:

$$\frac{\tau_1 U}{L} = f\left(\frac{W}{L}, \frac{d_c}{L}, \frac{UL}{\upsilon}, \frac{U}{\sqrt{gL}}, \frac{u_*}{U}, \frac{d_E}{L}\right). \tag{7}$$

The mean residence time is scaled by L/U, which is the convective timescale—timescale representative of the time for a parcel of fluid to travel the distance of the cavity entrance length. Note that there are four length scales: W, L, d_E, and d_c, and that, for some of the nondimensional groups, d_E is a more appropriate length scale due to the significance of depth-dependent exchange across the shear layer interface. Multiplying nondimensional groups by L/d_E and rearranging terms yields:

$$\frac{\tau_1 U}{L} = f\left(\frac{W}{L}, \frac{d_c}{d_E}, \frac{Ud_E}{\upsilon}, \frac{U}{\sqrt{gd_E}}, \frac{u_*}{U}, \frac{\sqrt{Wd_c}}{L}\right), \tag{8}$$

where the last term in (8) is a combination of the first two geometric ratios in (7). Equation 8 can be further reduced to:

$$\frac{\tau_1 U}{L} = f\Bigg(\underbrace{\frac{W}{L}, \frac{d_c}{d_E}}_{\substack{\text{Geometric}\\ \text{Ratios}}}, \underbrace{\mathrm{Re}, Fr}_{\substack{\text{Hydraulic}\\ \text{Quantities}}}, \underbrace{\frac{u_*}{U}}_{\substack{\text{Roughness}\\ \text{Factor}}}, \underbrace{\frac{\sqrt{Wd_c}}{L}}_{\substack{\text{Shape}\\ \text{Factor}}}\Bigg), \tag{9}$$

where Re is the Reynolds Number ($Re = Ud_E/v$), and Fr is the Froude Number ($Fr = U\sqrt{gd_E}$). The six nondimensional groups can be subdivided into four groups: (1) cavity geometric ratios (W/L, d_c / d_E); (2) hydraulic quantities representative of the flow dynamics (Re, Fr); (3) a bed roughness factor, u_* / U, which is the inverse of Chézy's dimensionless friction factor; and (4) a shape factor, $\sqrt{Wd_c} / L$.

A mean residence time relationship for lateral cavities can be derived with the six nondimensional quantities in (9) using a two-part method. First, the effect of each nondimensional quantity on lateral cavity flow structure and exchange dynamics is summarized. Nondimensional quantities are summarized within their respective subgroups because, as stated earlier, previous studies have concluded that mass and momentum exchange dynamics are dependent on the flow dynamics, cavity geometry, roughness, and shape. Second, qualitative relations between mean residence time and variables in the nondimensional quantities from (9) are discussed to derive a mean residence time relationship.

In the first subgroup, cavity geometric ratios, both the aspect ratio, W/L, and depth ratio, d_c / d_E, influence lateral cavity flow structure and mean residence time. Numerical and experimental studies have shown that the number of gyres that form in a lateral cavity is a function of the cavity aspect ratio [e.g., *Rockwell and Knisely,* 1980; *Koseff and Street*, 1982; 1984a; 1984b; 1984c; *Chiang et al.*, 1997; 1998; *Wallast et al.*, 1999; *Muto et al.*, 2000; *Weitbrecht and Jirka*, 2001a; *Weitbrecht*, 2004; *Cheng and Hung*, 2006]. For example, two gyres form inside rectangular cavities when $W/L < 0.5$. The large primary gyre forms in the downstream region, and a smaller counter-rotating secondary gyre forms in the upstream corner. A large gyre forms inside the cavity when $0.5 < W/L < 1.5$ and, for $W/L >> 1.5$, a large primary gyre forms near the shear layer and a counter-rotating gyre forms adjacent to the primary gyre far from the shear layer [*Weitbrecht and Jirka*, 2001a; *Weitbrecht*, 2004; *McCoy et al.*, 2008]. The recirculation patterns formed by the aspect ratio influence the mean residence time inside the cavity. The mean residence time increases with the presence of secondary gyres because of their slower circulation velocities and longer exchange timescales [*Engelhardt et al.*, 2004; *McCoy et al.*, 2007; 2008; *Jackson et al.*, 2012]. The depth ratio influences the large-scale coherent structures within the shear layer. *McCoy et al.* [2007; 2008] show that when the depth ratio is equal to or near 1, the coherent structures in the shear layer are quasi-two-dimensional, and that when the depth ratio is far from 1, the coherent structures in the shear layer are fully three-dimensional. These large-scale coherent structures drive mass and momentum exchange between the main channel and cavity and the circulation of gyres, which influences mean residence time.

In the second subgroup, hydraulic quantities, the *Re* and *Fr* describe the forces driving the flow dynamics of exchange. *Fr* quantifies the relation of inertial to gravitational forces and expresses the influence of the main channel flow (flow conditions) and bed slope on mass and momentum exchange through the shear layer. Thus, the *Fr* accounts for the local flow behavior. The *Re* quantifies the relation of inertial to viscous forces and expresses the influence of mixing by turbulent motion on the dynamics of exchange. Thus, the *Re* accounts for the degree of turbulence in the flow, which is induced and augmented by channel geomorphic complexities (e.g., irregular channel geometry and bedforms), especially for larger rivers.

In the third subgroup, bed roughness, the quantity, u_* / U, influences exchange dynamics and mean residence time. The shear velocity is defined in (3) and the Manning roughness coefficient in (4) and (5) are given for gravel-bed fluvial systems. The roughness factor describes gravel-bed roughness within the main channel, which influences the incoming turbulent boundary layer immediately upstream of the cavity entrance. The strength of the incoming turbulent boundary layer controls the degree of vortical structure coherence within the shear layer, and higher vortical structure coherence increases both mass exchange across the shear layer interface and the circulation of gyres in the cavity, which influences mean residence time [*Rockwell and Knisely*, 1980; *Chiang et al.*, 1998].

In the fourth subgroup, shape factors, the quantity, $\sqrt{Wd_c} / L$, influences the cavity flow structure. The cavity shape factor is analogous to the sediment transport shape factor, which is used to compute the degree to which a particle approximates the shape of a sphere (i.e., sediment transport shape factor is equal to 1 for a sphere). In the case of a lateral cavity, the shape factor computes the degree of cavity equidimensionality, which controls the symmetry and three-dimensionality of gyres within the cavity.

Qualitative relations between mean residence time and variables in the nondimensional quantities from (9) are discussed based on their effect on lateral cavity flow structure and mass and momentum exchange. First, an increase in *W* or *L* will result in an increase in τ_1, as both will cause the formation of secondary gyres. However, increasing *W* will cause the formation of larger secondary gyres that form sufficiently far from the shear layer and, thus, will have a greater influence on τ_1. Increasing d_c increases the volume for fluid entrainment and the three-dimensionality of the cavity flow field, resulting in an increase in τ_1. Increasing d_E allows for more exchange through the shear layer, thereby causing a decrease in τ_1. Increasing *U* causes faster exchange across the shear layer, which causes the mean circulation in the cavity to increase, and a decrease in τ_1. An increase in the shear velocity increases τ_1 as bed roughness slows exchange across the shear layer and the mean circulation in the cavity. From these relations, the normalized mean residence time for a natural lateral cavity is given by:

$$\frac{\tau_1 U}{L} = \frac{u_*}{U} \cdot \frac{U d_E}{\upsilon} \cdot \frac{U}{\sqrt{g d_E}} \cdot \frac{W}{L} \cdot \frac{d_c}{d_E} \cdot \frac{\sqrt{W d_c}}{L} = \frac{u_*}{U} \cdot \frac{U d_E}{\upsilon} \cdot \frac{U}{\sqrt{g d_E}} \cdot \frac{W^{3/2} d_c^{3/2}}{L^2 d_E}. \qquad (10)$$

In (10), there is a co-dependency and repetition of variables between nondimensional groups, meaning that some variables influence more than one mechanism driving exchange.

Table 4.1. Summary of nondimensional parameters in mean residence time relationship.

Study	Creek	$\tau_1 U/L$	Re	Fr	W/L	d_c/d_E	u_*/U	$\sqrt{Wd_c}/L$
Seo and Maxwell [1992]	Lab: Pool & Riffle	7.7	3.4×10^4	0.16	0.03	10.5	0.31	0.06
	Lab: Pool & Riffle	6.3	4.4×10^4	0.18	0.03	10.1	0.26	0.06
	Lab: Pool & Riffle	6.6	5.0×10^4	0.20	0.03	9.68	0.24	0.06
O'Connor et al. [2010]	Elder Creek, CA	8.9	3.6×10^4	0.36	0.67	0.50	0.10	0.15
Jackson et al. [2012]	Oak Creek, OR	7.9	4.9×10^4	0.30	0.22	0.83	0.24	0.15
	Oak Creek, OR	8.8	3.9×10^4	0.13	0.32	0.53	0.30	0.18
	Oak Creek, OR	9.5	2.7×10^4	0.37	0.49	0.66	0.23	0.18
	Oak Creek, OR	8.2	3.4×10^4	0.16	0.57	0.60	0.23	0.17
	Oak Creek, OR	5.8	9.9×10^3	0.08	0.34	0.61	0.40	0.13
	Soap Creek, OR	29.1	4.9×10^4	0.55	0.47	1.84	0.20	0.32
	Soap Creek, OR	6.6	6.3×10^4	0.15	0.29	0.45	0.18	0.13
	Soap Creek, OR	7.9	4.6×10^4	0.24	0.29	0.52	0.20	0.11
	Soap Creek, OR	5.4	4.6×10^4	0.10	0.24	0.53	0.14	0.12
	Soap Creek, OR	6.0	3.6×10^4	0.20	0.20	0.42	0.19	0.06
	John Day River, OR	11.2	3.1×10^5	0.36	0.29	0.39	0.23	0.12
	John Day River, OR	16.5	2.5×10^5	0.36	0.49	0.72	0.26	0.18
	John Day River, OR	12.0	2.6×10^5	0.24	0.32	0.74	0.22	0.19
	Lookout Creek, OR	13.0	3.5×10^4	0.10	0.67	0.80	0.29	0.23
	Lookout Creek, OR	20.8	1.4×10^5	0.15	0.60	0.59	0.55	0.25
Engelhardt et al. [2004]	Elbe River, Germany	10.1	2.2×10^6	0.15	0.58	0.71	0.06	0.11
	Elbe River, Germany	6.3	1.2×10^6	0.17	0.55	0.59	0.04	0.07
Kozerski et al. [2006]	Elbe River, Germany	34.4	6.7×10^6	0.43	0.36	1.0	0.09	0.09
	Elbe River, Germany	20.0	3.8×10^6	0.25	0.36	1.0	0.09	0.09
	Elbe River, Germany	17.7	3.6×10^6	0.23	0.36	1.0	0.09	0.09
	Elbe River, Germany	78.2	6.3×10^6	0.50	0.54	1.0	0.10	0.14
	Elbe River, Germany	44.9	4.3×10^6	0.35	0.54	1.0	0.09	0.14
	Elbe River, Germany	27.6	2.8×10^6	0.32	0.54	1.0	0.09	0.13
	Elbe River, Germany	79.3	6.3×10^6	0.50	0.54	1.0	0.10	0.14
	Elbe River, Germany	32.5	2.5×10^6	0.70	0.47	1.0	0.16	0.08
	Elbe River, Germany	62.7	6.7×10^6	0.41	0.58	1.0	0.09	0.13
	Elbe River, Germany	25.3	4.3×10^6	0.13	0.41	1.0	0.09	0.13
Tritthart et al. [2009]	Danube River, Austria	8.1	7.5×10^6	0.08	0.48	0.5	0.06	0.10
	Danube River, Austria	8.8	8.8×10^6	0.09	0.48	0.5	0.06	0.10
	Danube River, Austria	15.4	1.0×10^7	0.10	0.48	0.5	0.06	0.10

4.4. Verification

The mean residence time relationship was verified using data obtained from laboratory and field experiments of natural lateral cavities with roughness elements (Table 4.1). See Table S4.1 in the supplementary materials section for a complete listing of individual parameters. The mean residence time relationship from (10) has linear correlations for both small streams ($R^2 = 0.82$) and larger rivers ($R^2 = 0.97$) (Figure 4.2) that are statistically significant at the $p < 0.001$ level. Notice that the smaller stream data

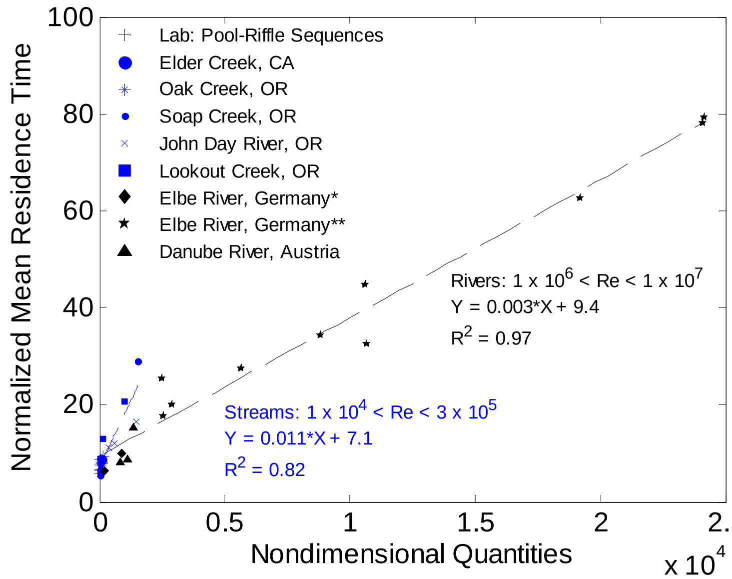

Figure 4.2. Mean residence time relationship from (10) for lateral cavities in natural fluvial systems using equal weighting to all nondimensional groups. All data were obtained from laboratory and field studies with irregular cavity shapes and bed roughness elements. Data plotted above were obtained from the following references: laboratory experiments of pool-riffle sequences [*Seo and Maxwell*, 1992]; Elder Creek, CA [*O'Connor et al.*, 2010]; Oak Creek, Soap Creek, Middle Fork of the John Day River, and Lookout Creek, OR [*Jackson et al.*, 2012]; Elbe River, Germany* [*Engelhardt et al.*, 2004]; Elbe River, Germany** [*Kozerski et al.*, 2006]; and Danube River, Austria [*Tritthart et al.*, 2009].

($1.0 \times 10^4 < Re < 6.0 \times 10^4$) follow a steep linear trend with a slope of 0.011 and that the larger river data ($1.0 \times 10^6 < Re < 1.0 \times 10^7$) follow a shallower linear trend with a slope of 0.003. The John Day River ($Re < 3.0 \times 10^5$), which can be considered a medium-sized stream, has data points that fall in-between the two lines (Figure 4.2). This suggests that there is a *Re* discontinuity in the relationship from (10). The two distinct linear trends are attributed to the equal weighting of nondimensional groups in the relationship, which causes the main channel velocity to vary proportionally to the normalized mean residence time in (10). To further illustrate, when (10) is simplified, the mean residence time collapses to the following form:

$$\tau_1 = \frac{u_* W^{3/2} d_c^{3/2}}{\upsilon L \sqrt{g d_E}} = \frac{\sqrt{g n^2 U^2 R^{-1/3}}\, W^{3/2} d_c^{3/2}}{\upsilon L \sqrt{g d_E}} = \frac{U n W^{3/2} d_c^{3/2}}{\upsilon L \sqrt{d_E}\, R^{1/6}}, \tag{11}$$

and $\tau_1 \propto U$. However, in reality, $\tau_1 \propto U^{-1}$. Thus, the six nondimensional groups are not weighted equally. The unequal weighting of nondimensional groups can be explained, physically, by the shift in influence of predominant mechanisms driving mass and momentum exchange between flow regimes (i.e., between a small stream and large river). The shift in predominant processes from a small stream to a larger river causes: (1) the reduced influence of bed roughness attributed to flow over individual grains, which is attributed to the roughness factor; (2) the inducement of additional turbulence (and roughness) by larger bedforms in larger rivers compared to streams, which is characterized by *Re*; and (3) a change in the local flow dynamics (balance of inertial to gravitational forces) from smaller high-gradient streams to larger low-land rivers, which is characterized by *Fr*. Controls driving mass and momentum exchange are embedded within the bed roughness factor, *Re*, and *Fr*. To account for the shift in predominant processes influencing mass and momentum exchange, the exponents must be reduced for all nondimensional groups. Equation 10 was expressed as a product of power-laws and a log transformation was used to linearize the solution:

$$\begin{aligned}\log\left[\frac{\tau_1 U}{L}\right] &= \log a + b\log\left[\frac{u_*}{U}\right] + c\log \mathrm{Re} + d\log Fr \\ &\quad + e\log\left[\frac{W}{L}\right] + f\log\left[\frac{d_c}{d_E}\right] + g\log\left[\frac{\sqrt{W d_c}}{L}\right].\end{aligned} \tag{12}$$

Linear regression was used to formulate an empirically derived mean residence time. Power-law correlations were plotted for each log-transformed nondimensional group (i.e., $\log[\tau_1 U/L]$ versus log[nondimensional group]) to obtain variable coefficients and determine the predictive ability of each nondimensional group in estimating nondimensional mean residence time (Table 4.2). The summary of power-law correlations in Table 4.2 shows that *Re* (R^2 = 0.42) and *Fr* (R^2 = 0.40) have the strongest correlations, *W/L* has a weaker correlation (R^2 = 0.18), and the other nondimensional groups are uncorrelated (R^2 < 0.10). These correlations suggest that cavity geometry, shape, and roughness do not influence mean residence time, whereas previous studies show that these parameters do influence mean residence time. When cavity geometry and shape factors are combined into a "lumped" geometric factor given by: $[W/L]\cdot[d_c/d_E]\cdot\left\lfloor\sqrt{Wd_c}/L\right\rfloor$, the log transform has a strong correlation (R^2 = 0.41) to mean residence time.

Three different cases were formulated from the nondimensional groups (Table 4.2). Case 1 included the three independent variables with the highest correlations: *Re*, *Fr*, and *W/L*. Case 2 included the *Re*, *Fr*, and the lumped geometric factor. Case 3 included all independent variables: the *Re*, *Fr*, the lumped geometric factor, and roughness factor. Cases 2 and 3 provided the strongest correlations to nondimensional mean residence time with an R^2 = 0.83 and regression coefficient (exponent) of 0.67 for case 2 and an R^2 = 0.82 and regression coefficient of 0.60 for case 3. Case 2 yields an empirically derived mean residence time (without roughness) given by:

Table 4.2. Summary of regression analysis.

Independent Variable	**Regression Coefficients**	**Correlations**		**Nondimensional Products**[a]		
		R^2	***p*-values**	**Case 1**	**Case 2**	**Case 3**
log *Re*	0.22	0.42	1.4×10^{-3}	X	X	X
log *Fr*	0.83	0.40	3.4×10^{-5}	X	X	X
log (*W/L*)	0.41	0.18	2.3×10^{-2}	X	-	-
log (d_c/d_E)	0.02	0.0007	4.1×10^{-1}	-	-	-
log ($\sqrt{Wd_c}/L$)	0.52	0.08	4.6×10^{-1}	-	-	-
log (u_*/U)	-0.34	0.08	8.7×10^{-2}	-	-	X
log ($W/L\cdot d_c/d_E\cdot\sqrt{Wd_c}/L$)	0.66	0.41	3.4×10^{-2}	-	X	X
Case 1	0.69	0.70	2.1×10^{-12}			
Case 2	0.67	0.84	3.6×10^{-15}			
Case 3	0.60	0.79	1.8×10^{-17}			

[a] Nondimensional products indicate the nondimensional groups used in the formulation of a nondimensional mean residence time (denoted by 'X') for each case and unused terms for each case are denoted by a dash.

$$\frac{\tau_1 U}{L} = 28\underbrace{\left[\frac{Ud_E}{\upsilon}\right]^{0.15}}_{Re} \cdot \underbrace{\left[\frac{U}{\sqrt{gd_E}}\right]^{0.56}}_{Fr} \cdot \underbrace{\left[\frac{W^{3/2}d_c^{3/2}}{L^2 d_E}\right]^{0.44}}_{\text{Lumped Geometric Factor}} - 5.0\,. \tag{13}$$

Case 3 yields an empirically derived mean residence time (with roughness) given by:

$$\frac{\tau_1 U}{L} = 21\underbrace{\left[\frac{Ud_E}{\upsilon}\right]^{0.13}}_{Re} \cdot \underbrace{\left[\frac{U}{\sqrt{gd_E}}\right]^{0.49}}_{Fr} \cdot \underbrace{\left[\frac{W^{3/2}d_c^{3/2}}{L^2 d_E}\right]^{0.39}}_{\text{Lumped Geometric Factor}} \cdot \underbrace{\left[\frac{U}{u_*}\right]^{0.21}}_{\text{Roughness Factor}} - 6.7\,. \tag{14}$$

Two empirically derived mean residence time relationships are presented: one without a roughness factor (13) and one with a roughness factor (14). The roughness factor was excluded from the analysis in case 2 (13) because roughness was uncorrelated to nondimensional mean residence time. The lack of correlation likely stemmed from estimating u_* with reach-averaged (effective) parameters when the actual bed roughness in the vicinity of the cavity may differ. Estimates of u_* may show a strong correlation to mean residence time if parameters are measured in the vicinity of the cavity; therefore, case 3 (14) is shown as a tentative result. More detailed data of roughness parameters near the cavity are needed to fully test this hypothesis. The empirically derived mean residence time relationships in (13) (R^2 = 0.83; Figure 4.3) and (14) (R^2 = 0.82; Figure 4.4) have strong correlations that are statistically significant at the $p < 0.001$ level (Table 4.2). The relationship works well for both small streams and larger rivers. The empirically derived mean residence time relationship for (13) reduces to:

$$\tau_1 = \frac{28 L^{0.27} W^{.66} d_c^{0.66}}{g^{0.28}\upsilon^{0.15} U^{0.29} d_E^{0.16}} - 6.7\frac{L}{U}\,. \tag{15}$$

As a check, the mean residence time relationship in (13) is compared to the predictive mean residence time relationship in (1). Equation 15, when rewritten in the form of (1), yields:

$$\tau_1 = \frac{28U^{0.71}d_E^{0.84}L^{0.27}}{g^{0.28}\upsilon^{0.15}W^{0.34}d_c^{0.34}}\left[\frac{Wd_c}{Ud_E}\right] - 6.7\frac{L}{U} = \frac{Wd_c}{kUd_E} - 6.7\frac{L}{U}, \tag{16}$$

where the entrainment coefficient is given by:

$$k = \frac{g^{0.28}\upsilon^{0.15}W^{0.34}d_c^{0.34}}{28U^{0.71}d_E^{0.84}L^{0.27}}. \tag{17}$$

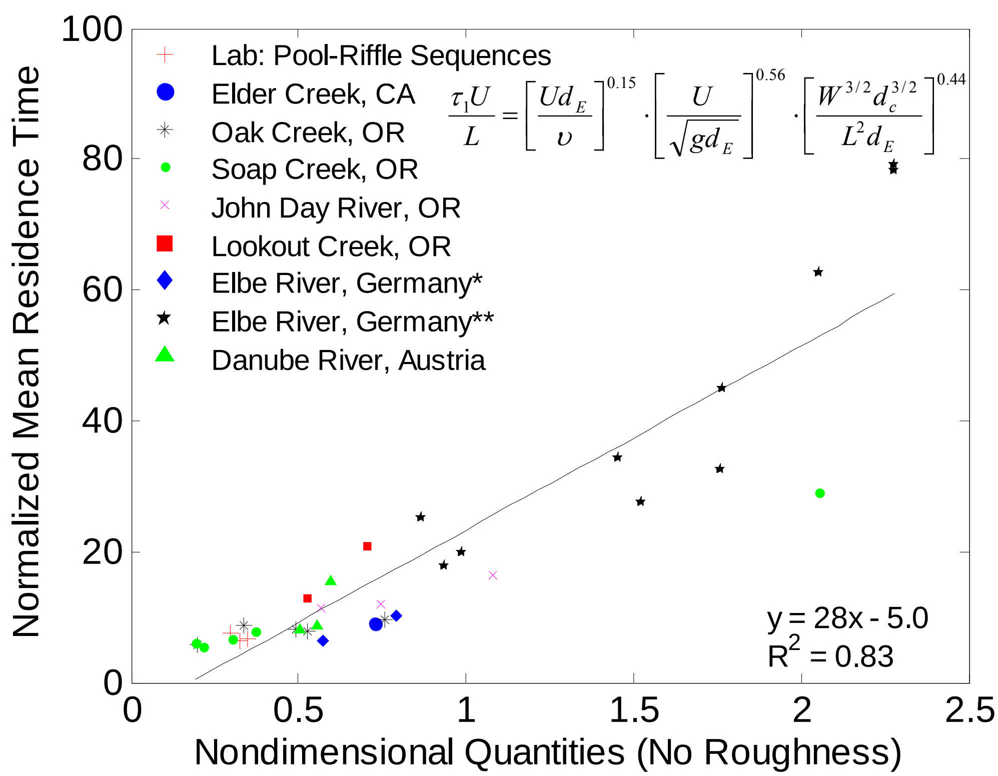

Figure 4.3. Empirically derived mean residence time relationship excluding roughness (13) for lateral cavities in natural fluvial systems. All data were obtained from laboratory and field studies with irregular cavity shapes and bed roughness elements. Data plotted above were obtained from the following references: laboratory experiments of pool-riffle sequences [*Seo and Maxwell*, 1992]; Elder Creek, CA [*O'Connor et al.*, 2010]; Oak Creek, Soap Creek, Middle Fork of the John Day River, and Lookout Creek, OR [*Jackson et al.*, 2012]; Elbe River, Germany* [*Engelhardt et al.*, 2004]; Elbe River, Germany** [*Kozerski et al.*, 2006]; and Danube River, Austria [*Tritthart et al.*, 2009].

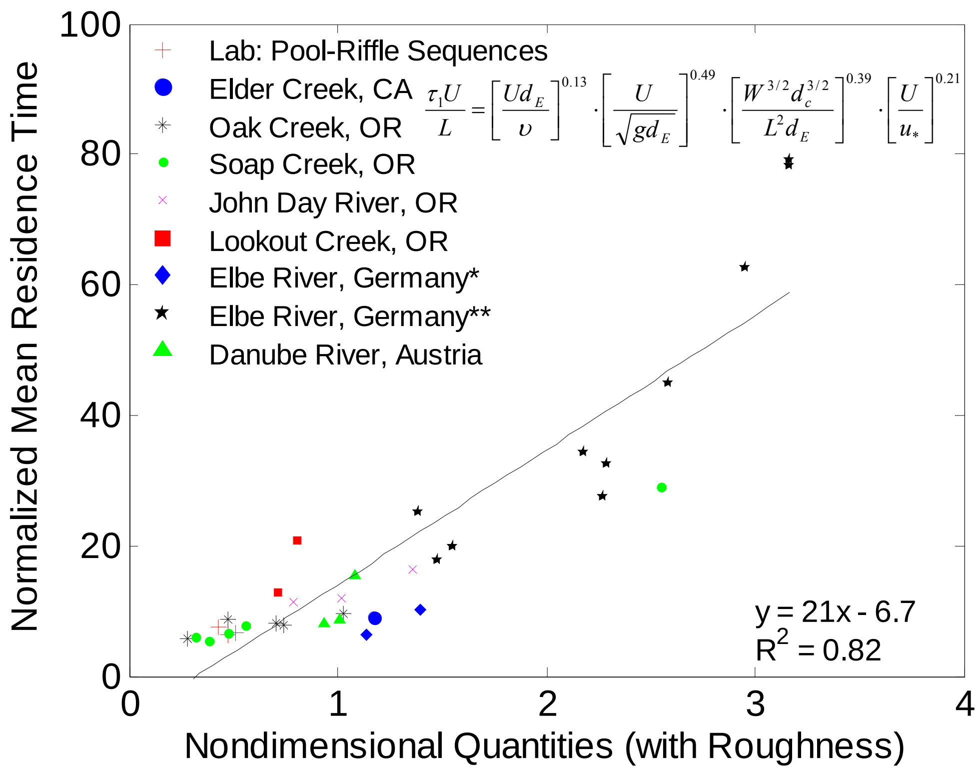

Figure 4.4. Empirically derived mean residence time relationship with roughness (14) for lateral cavities in natural fluvial systems. All data were obtained from laboratory and field studies with irregular cavity shapes and bed roughness elements. Data plotted above were obtained from the following references: laboratory experiments of pool-riffle sequences [*Seo and Maxwell*, 1992]; Elder Creek, CA [*O'Connor et al.*, 2010]; Oak Creek, Soap Creek, Middle Fork of the John Day River, and Lookout Creek, OR [*Jackson et al.*, 2012]; Elbe River, Germany* [*Engelhardt et al.*, 2004]; Elbe River, Germany** [*Kozerski et al.*, 2006]; and Danube River, Austria [*Tritthart et al.*, 2009].

4.5 Implications for Mean Residence Time Relationship and Future Work

The empirically derived mean residence time relationships derived for lateral cavities in natural streams and rivers are useful tools for hydrologists and water managers. The relationships have a wide range of applicability for both gravel-bed streams and rivers with lateral cavities, such as embayments or man-made groyne fields, because the relationships collapse the data into strong linear relations for a wide range of geometries ($0.2 < W/L < 0.75$), complex shapes, and flow conditions ($5.0 \times 10^3 < Re < 1.0 \times 10^7$). An additional bonus is that the mean residence time relationships can be obtained from a few field-measureable parameters (i.e., W, L, U, d_E, d_c, n, R, d_{50}) without the need for an empirical entrainment coefficient. The relationships can be used for conservative solute or contaminant transport studies to predict the residence time of solutes in lateral embayments within natural streams and rivers. The relationships also can be used to compute the mean residence time of in-stream structures emplaced along streams for stream restoration projects used to enhance stream biodiversity.

Three key elements need to be considered when using the empirically derived relationships. First, the mean residence time relationships were derived for gravel-bed fluvial systems because data were readily available to test this relationship. The relationships may or may not hold for fluvial systems with substrates other than gravel, such as mud or sand, or for heavily vegetated fluvial systems. Second, lateral and vertical channel roughness could have a more significant contribution to mean residence time than was observed in the dimensional analysis if parameters used to compute the shear velocity are measured in the vicinity of the cavity. More detailed data of roughness parameters near the cavity shear layer are needed to fully test this hypothesis. If bed roughness is found to be highly correlated with mean residence time, this could possibly explain and reduce some of the variance in the empirically derived relationship (14). In the case where bed roughness does significantly contribute to mean residence time, the user should refer to the literature for the appropriate Manning roughness coefficient [e.g., *Carter et al.*, 1963; *Barnes*, 1967; *Chen and Cotton*, 1988; *Chaudhry*, 2008]. Third, the relationship was derived and tested for conservative solutes. For a non-conservative solute, one or more additional terms need to be added to the relationship, such as a retention factor, to account for biogeochemical processes driving solute retention in the cavity. Testing the relationship using roughness parameters measured in the cavity vicinity and further development of the empirically derived relationship for non-conservative transport are topics that warrant future research.

4.6. Conclusions

Mean residence time relationships for lateral cavities in natural gravel-bed streams and rivers can be computed from six nondimensional groups: *Fr*, *Re*, cavity aspect ratio, cavity depth ratio, a shape factor, and a roughness factor. The *Fr* is representative of local channel hydraulics driving mass and momentum exchange. The *Re* is representative of the turbulence and mixing mechanisms driving exchange. The cavity aspect ratio—ratio of cavity width (normal to flow) to length (parallel to flow)—and the cavity depth ratio—ratio of cavity depth to exchange interface depth—are representative of cavity geometry. The shape factor is a measure of the degree of cavity equidimensionality. The roughness factor is a ratio of the shear velocity to the main channel velocity, and the shear velocity is a function of channel hydraulic radius and the Manning roughness coefficient. We formulated two empirical mean residence time relationships: one without a roughness factor (13) and one with a roughness factor (14). Both empirically derived relations had strong linear correlations to normalized mean residence time. The relationships have been validated for conservative tracers within a range of geometry ($0.2 < W/L < 0.75$) and flow conditions ($1.0 \times 10^4 < Re < 1.0 \times 10^7$). However, further testing of the relationship using roughness parameters measured in the vicinity of the cavity and further development of the relationship for non-conservative transport are topics worthy of future research.

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SUPPLEMENTARY MATERIAL

Table S4.1. Summary of parameters in mean residence time relationship.

Study	Creek	τ_1 (s)	U (m/s)	W (m)	L (m)	d_E (m)	d_c (m)	R (m)	u_* (m/s)	n
Seo and Maxwell [1992]	Lab: Pool & Riffle	324	0.2	0.15	8.5	0.17	1.80	0.10	0.06	0.04
	Lab: Pool & Riffle	220	0.2	0.15	8.5	0.18	1.80	0.11	0.06	0.04
	Lab: Pool & Riffle	208	0.3	0.15	8.5	0.19	1.80	0.11	0.07	0.04
O'Connor et al. [2010]	Elder Creek, CA	37	0.4	1.00	1.5	0.10	0.05	0.10	0.03	0.03
Jackson et al. [2012]	Oak Creek, OR	56	0.4	0.54	2.5	0.14	0.12	0.12	0.08	0.05
	Oak Creek, OR	95	0.2	0.64	2.0	0.21	0.11	0.06	0.06	0.06
	Oak Creek, OR	29	0.3	0.49	1.0	0.08	0.05	0.09	0.07	0.05
	Oak Creek, OR	76	0.2	1.07	1.9	0.17	0.10	0.10	0.05	0.05
	Oak Creek, OR	100	0.1	0.50	1.5	0.12	0.07	0.06	0.03	0.08
	Soap Creek, OR	107	0.5	0.93	2.0	0.09	0.17	0.06	0.11	0.04
	Soap Creek, OR	56	0.2	0.60	2.1	0.26	0.12	0.13	0.04	0.04
	Soap Creek, OR	55	0.3	0.60	2.1	0.16	0.08	0.10	0.06	0.04
	Soap Creek, OR	71	0.2	0.55	2.3	0.27	0.14	0.09	0.02	0.03
	Soap Creek, OR	77	0.2	0.60	3.1	0.15	0.06	0.06	0.04	0.04
	John Day River, OR	48	0.7	0.90	3.2	0.43	0.17	0.24	0.17	0.06
	John Day River, OR	93	0.7	1.90	3.9	0.36	0.26	0.18	0.17	0.06
	John Day River, OR	70	0.5	1.00	3.1	0.48	0.35	0.23	0.12	0.06
	Lookout Creek, OR	206	0.2	1.60	2.4	0.23	0.18	0.05	0.04	0.09
	Lookout Creek, OR	162	0.3	1.45	2.4	0.44	0.26	0.20	0.17	0.12
Engelhardt et al. [2004]	Elbe River, Germany	1200	0.8	55	95	2.80	2.00	2.73	0.04	0.03
	Elbe River, Germany	900	0.7	55	100	1.70	1.00	1.67	0.03	0.03
Kozerski et al. [2006]	Elbe River, Germany	1860	2.3	45	125	2.90	2.90	2.79	0.21	0.03
	Elbe River, Germany	1890	1.3	45	125	2.90	2.90	2.79	0.12	0.03
	Elbe River, Germany	1770	1.3	45	125	2.90	2.90	2.79	0.12	0.03
	Elbe River, Germany	2190	2.5	38	70	2.50	2.50	2.42	0.25	0.03
	Elbe River, Germany	1830	1.7	38	70	2.50	2.50	2.42	0.16	0.03
	Elbe River, Germany	1380	1.4	38	70	2.00	2.00	2.42	0.13	0.03
	Elbe River, Germany	2220	2.5	38	70	2.50	2.50	2.42	0.25	0.03
	Elbe River, Germany	1200	2.3	40	85	1.10	1.10	1.08	0.38	0.03
	Elbe River, Germany	2820	2.2	58	100	3.00	3.00	2.88	0.20	0.03
	Elbe River, Germany	3210	0.9	45	111	4.90	4.90	4.60	0.07	0.03
Tritthart et al. [2009]	Danube River, Austria	2700	0.8	120	250	10.0	5.00	9.09	0.05	0.02
	Danube River, Austria	2500	0.9	120	250	10.0	5.00	9.09	0.05	0.02
	Danube River, Austria	4000	1.0	120	250	10.0	5.00	9.09	0.06	0.02

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CHAPTER 5

DOES BED ROUGHNESS MATTER?

A REVISION OF THE MEAN RESIDENCE TIME RELATIONSHIP FOR LATERAL CAVITIES IN GRAVEL-BED STREAMS

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For Submission to Water Resources Research

ABSTRACT

Lateral cavities—a prevalent type of surface transient storage—have functional significance in stream ecosystems. *Jackson et al.* [2013b]'s mean residence time relationship for lateral cavities in gravel-bed streams showed streambed roughness does not significantly contribute to mean residence time, whereas previous studies have shown otherwise; therefore, the relationship needs further testing. We tested the mean residence time relationship using two types of nondimensional bed roughness parameters: relative roughness heights—ratios of median gravel diameter to water level height—and Chèzy friction factors—ratios of shear velocity to mean main channel velocity. Nondimensional bed roughness parameters are a function of median gravel diameter, which was computed by measuring sediments in three regions: inside the cavity, along the shear layer interface, and in the main channel immediately upstream of the lateral cavity. Results show the bed roughness factors computed using median gravel diameters from gravels measured along the shear layer interface ($d_{50(E)}$) have the highest correlation to normalized mean residence time. The Chèzy friction factor computed using the *Chen and Cotton* [1988] empirical relationship and the ratio of $d_{50(E)}$ to mean main channel water depth have the strongest linear correlations to normalized mean residence time; therefore, either metric can be used to estimate lateral cavity mean residence times in *Jackson et al.* [2013b]'s mean residence time relationship. The validated mean residence time relationship is a tool hydrologists can use for conservative stream solute transport studies to accurately estimate lateral cavity mean residence times.

5.1. Introduction

Surface transient storage (STS) is the temporary storage of water and dissolved solutes (i.e., metals, nitrates, phosphates) due to surface stream exchange with recirculating in-stream flow structures [*Jackson et al.*, 2013a] and hyporheic transient storage (HTS) is the temporary solute entrainment and retention due to surface stream exchange with the hyporheic zone. The slower-moving flow velocities in STS and HTS zones increases the mean residence time of entrained solutes, which increases the potential for biogeochemical reactions that can remove solutes and improve water quality

[*Valett et al.*, 1996; *Morrice et al.*, 1997]. STS and HTS zones also are "hot spots" for biological activity because their slow-moving flow velocities provide refugia for aquatic communities [*Lancaster and Hildrew*, 1993; *McClain et al.*, 2003].

Within the last decade, hydrologists have proposed quantitatively separating STS from HTS to better quantify stream solute transport. Both STS and HTS have functional significance in fluvial ecosystems; however, the mechanisms of mass and momentum exchange differ between these environments. STS is associated with turbulence-driven momentum exchange between the main flow and slower recirculating flow fields [*Keylock et al.*, 2005], whereas HTS is associated with sweep and eject motions and pressure gradients that drive exchange between the main flow and topographic bed elements [*Boano et al.*, 2006; 2011; *Revelli et al.*, 2008].

The ability to quantitatively separate STS from hyporheic transient storage (HTS) will better constrain transient storage parameters in stream tracer studies. At present, stream tracer studies use 1-D transient storage models [e.g., OTIS, *Runkel*, 1998; STAMMT-L, *Haggerty and Reeves*, 2002] to quantify transient storage effects on stream solute fate and transport. However, transient storage parameters are non-unique empirical estimates and well-optimized simulations yield equifinality in model solutions [*Gooseff et al.*, 2013]. Accurate, reliable, and inexpensive estimates of STS can be obtained by developing predictive mean residence time relationships using field-measureable hydraulic and morphologic parameters, and used to constrain transient storage model parameters.

In accordance with the goal to quantitatively separate STS from HTS, *Jackson et al.* [2013b] empirically derived a mean residence time relationship for emergent lateral cavities in gravel-bed fluvial systems. Emergent lateral cavities are a type of STS that typically forms by lateral erosion either along the cutbank of a meander bend or behind an erosion-resistant feature, such as a tree root or log bole, at the channel streambank [*Jackson et al.*, 2012; 2013a]. The flow structure of an emergent lateral cavity is characterized by a shear layer that forms across the entire interface between the main channel and lateral cavity, and a recirculation region inside the cavity comprised of one or more gyres (Figure 5.1). In *Jackson et al.* [2013b]'s mean residence time relationship, regression analysis showed that streambed roughness, quantified by the Chèzy friction factor, does not have a significant contribution to mean residence time, whereas previous studies have shown otherwise [e.g., *Muto et al.*, 2002; *Jackson et al.*, In Review]. Therefore, the empirically-derived mean residence time relationship for emergent lateral cavities needs further testing.

In this paper, the mean residence time relationship for lateral cavities in gravel-bed streams is tested using eight different nondimensional bed roughness parameters: six relative roughness heights—ratios of median gravel diameter to water level height—and two Chèzy friction factors—ratios of shear velocity to mean main channel velocity. We hypothesize that streambed roughness (quantified either using relative roughness height or the Chèzy friction factor) could have a more significant contribution to the lateral cavity mean residence time if the median gravel diameter is computed from gravels measured in close proximity to the lateral cavity. Median gravel diameters were computed by measuring sediment grains in three regions: inside the cavity, along the shear layer interface, and in the main channel immediately upstream of the lateral cavity. Hydraulic, morphologic, and bed roughness parameters were measured in the vicinity of natural lateral cavities in gravel-bed streams and used to test the empirical relationship.

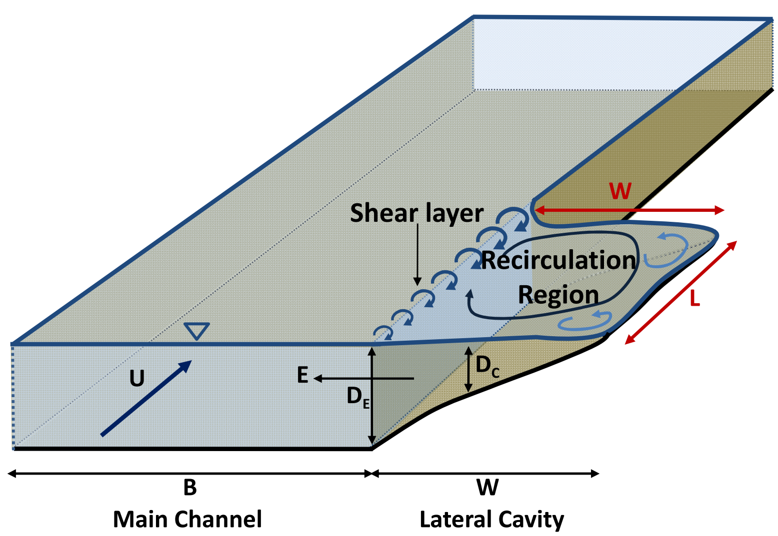

Figure 5.1. Flow field schematic of a natural lateral cavity.

5.2. Background

In fluvial systems, the residence time distribution (RTD) of lateral cavities is exponential [*Uijttewaal et al.*, 2001; *Engelhardt et al.*, 2004; *Weitbrecht et al.*, 2008; *Jackson et al.*, 2012]. The RTD is a probability density function describing the age distribution of fluid parcels inside a lateral cavity since their time of initial entrainment at $t = 0$ [*Nauman*, 1981; 2008]. Measured RTDs typically are either one-exponential or two-exponential. One-exponential RTDs are characteristic of lateral cavities with flow fields dominated by a large primary gyre, and two-exponential RTDs are characteristic of lateral cavities with flow fields comprised of a large primary gyre and a number of smaller, counter-rotating secondary gyres [*Jackson et al.*, 2012]. For lateral cavities, mass transfer occurs in series, meaning that mass entering the cavity through the shear layer first becomes entrained in the primary gyre and the primary gyre transfers mass to the secondary gyres [*Jackson et al.*, 2012]. According to residence time theory, when mass transfer occurs in series, the mean residence time is given by the first place where mass is transiently stored which, in the case of lateral cavities, is the primary gyre [*Sardin et al.*, 1991; *Jackson et al.*, 2012]. Therefore, the lateral cavity mean residence time, τ_1, which is the mean residence time of the primary gyre, is defined as [*Nauman*, 1981]:

$$C(t) = \frac{1}{\tau_1}\exp(-t/\tau_1) \tag{1}$$

where t is time, [T]; and $C(t)$—tracer concentration as a function of time—is the residence time distribution. Using the method described by *Jackson et al.* [2012], we compute τ_1 from the inverse slope of the first exponential decay function, which captures the primary gyre mean residence time.

Jackson et al. [2013b] derived an empirical relationship for the mean residence time of an emergent lateral cavity in gravel-bed fluvial systems. Using dimensional analysis and field data, a predictive mean residence time relationship was formulated by equating a nondimensional mean residence time to six nondimensional groups: Reynolds number (*Re*), Froude number (*Fr*), cavity aspect ratio, cavity depth ratio, a cavity shape factor, and the Chèzy friction factor:

$$\frac{\tau_1 U}{L} = 21\underbrace{\left[\frac{UD_E}{\upsilon}\right]^{0.13}}_{Re} \cdot \underbrace{\left[\frac{U}{\sqrt{gD_E}}\right]^{0.49}}_{Fr} \cdot \underbrace{\left[\frac{W^{3/2} D_C^{3/2}}{L^2 D_E}\right]^{0.39}}_{\substack{\text{Lumped} \\ \text{Geometric Factor}}} \cdot \underbrace{\left[\frac{U}{u_*}\right]^{0.21}}_{\substack{\text{Roughness} \\ \text{Factor}}} - 6.7 \tag{2}$$

where W is the cavity width (normal to flow), [L]; L is the cavity length (parallel to flow), [L]; D_C is the mean cavity depth, [L]; D_E is the mean depth at the shear layer interface, [L]; U is the mean main channel velocity, [LT^{-1}]; υ is the kinematic viscosity, [L^2T^{-1}]; g is gravitational acceleration, [LT^{-2}]; and u_* is the shear or friction velocity, [LT^{-1}]. The lumped geometric factor is the product of the cavity aspect ratio (W/L), depth ratio (D_C/D_E), and shape factor ($W^{0.5}D_C^{0.5}L^{-1}$). The shape factor, which is taken from sediment transport theory, represents the degree of cavity equidimensionality. The bed roughness factor—Chèzy friction factor—is the ratio of shear velocity to mean main channel velocity.

The shear velocity for open channel flows is given by [*Chaudhry*, 2008]:

$$u_* = \sqrt{gRS}\ , \tag{3}$$

where R is the channel hydraulic radius, [L]; and S is the channel slope, dimensionless, which is computed by rearranging the Manning equation:

$$S = n^2 U^2 R^{4/3}\ . \tag{4}$$

The nondimensional Manning roughness coefficient, n, for gravel-bed streams can be computed using either the *Henderson* [1966] method:

$$n = 0.034(3.28 d_{50})^{1/6} \tag{5}$$

or the *Chen and Cotton* [1988] method:

$$n = \frac{(R/0.3048)^{1/6}}{8.6 + 19.97\log(R/d_{50})} \tag{6}$$

where d_{50} is the median gravel diameter (in meters). Both methods are applicable for gravel-bed streams with relatively shallow flow depths.

Table 5.1. Summary of nondimensional parameters in mean residence time relationships.

Site	Creek	$\tau_1 UL^{-1}$	*Re*	*Fr*	*W/L*	D_C/D_E	$W^{0.5}D_C^{0.5}L^{-1}$	d_{50}/D_{MC} [a]	u_*/U [b]
1	Soap Creek, OR	2.42	2.0×10^4	0.29	0.36	0.82	0.20	0.17	0.33
2	Soap Creek, OR	4.86	2.1×10^4	0.28	1.04	0.88	0.34	0.11	0.18
3	Soap Creek, OR	0.72	5.4×10^3	0.05	0.39	0.98	0.10	0.02	0.05
4	Soap Creek, OR	2.10	2.8×10^4	0.33	0.21	0.74	0.07	0.28	0.22
5	North Fork Siuslaw River, OR	4.69	2.0×10^4	0.16	0.68	1.00	0.17	0.76	0.37
6	North Fork Siuslaw River, OR	3.02	2.1×10^4	0.16	0.49	0.93	0.15	0.52	0.36
7	Little Lobster Creek, OR	0.64	5.5×10^3	0.05	0.54	0.71	0.20	0.13	0.20
8	Little Lobster Creek, OR	2.09	6.9×10^3	0.14	0.79	0.98	0.24	0.13	0.15
9	North Fork Yachats River, OR	1.62	1.0×10^4	0.10	0.77	0.61	0.23	0.09	0.23
10	North Fork Yachats River, OR	2.74	1.5×10^4	0.20	0.40	0.73	0.16	0.23	0.27
11	North Fork Yachats River, OR	1.55	1.7×10^4	0.10	0.42	0.68	0.16	0.07	0.15
12	North Fork Yachats River, OR	1.87	2.2×10^3	0.06	0.60	0.71	0.12	0.17	0.14
13	Sulfur Springs Creek, OR	0.68	2.0×10^3	0.03	0.94	1.37	0.22	0.04	0.08
14	Sulfur Springs Creek, OR	1.92	6.8×10^3	0.05	0.75	0.83	0.22	0.29	0.22
15	Sulfur Springs Creek, OR	1.38	5.5×10^3	0.15	0.39	0.74	0.10	0.19	0.20
16	Sulfur Springs Creek, OR	1.44	2.8×10^3	0.05	1.20	3.08	0.68	0.16	0.19
17	Silver Creek Falls, OR	2.10	3.7×10^4	0.15	0.41	0.69	0.16	0.11	0.17
18	Silver Creek Falls, OR	3.70	5.5×10^4	0.43	0.36	0.76	0.11	0.27	0.24

[a] Median gravel diameter estimated from gravels measured along shear layer interface.
[b] Chèzy friction factor computed using median gravel diameter estimated from gravels measured along the shear layer interface.

5.3. Methods

During the summer of 2013, field work was conducted in high-gradient, gravel-bed streams within the Willamette Valley and Coast Range of western Oregon (Table 5.1). Field work consisted of measuring the parameters used in the empirical mean residence time relationship in Eq. 2. All field sites have a naturally-formed lateral cavity present with a recirculation region inside the cavity and a shear layer that spans the entire main channel-cavity interface. A visual dye (Honeyville Red 40 food coloring) was used to discern the shear layer and recirculation region. A total of eighteen field sites were selected and the detailed field measurements are described below.

First, detailed hydraulic and morphologic parameters were measured. Mean main channel velocity was measured at 60% depth immediately upstream of the lateral cavity using a wading rod, measuring tape, and Marsh-McBirney Flow-Mate portable flowmeter [*Marsh-McBirney*, 1990]. The mean depth along the shear layer (lateral cavity interface) and mean depth in the lateral cavity were computed from the arithmetic mean of measured depths at these locations. Depths along the shear layer were measured at 5-cm increments using a wading rod and measuring tape. Depths in the lateral cavity were measured at 5-cm increments along 3-6 transects normal to stream flow (transverse direction). Each transverse transect spanned from the shear layer to the wetted perimeter of the lateral cavity. Mean lateral cavity width was estimated from the arithmetic mean of the transverse transect lengths.

Second, 2 to 3 NaCl injection experiments were done to measure NaCl tracer concentrations over time (i.e., residence time distributions) and estimate lateral cavity mean residence times. NaCl was injected into the lateral cavity using a pump-driven distribution system comprised of 12 pressure-compensating irrigation emitters. The emitters were mounted to a plexiglass platform attached to a carriage and the entire carriage assembly was mounted (and centered) above the lateral cavity using PVC pipe and rebar (Figure 5.2). Six to nine electrical conductivity (EC) probes were uniformly spaced (by visual inspection) on the streambed of the lateral cavity and simultaneously measured specific conductivity (NaCl concentration) at 1-s intervals [Campbell Scientific, Inc., Logan, Utah, USA]. NaCl was injected at a constant rate of 0.007 L/s into the lateral cavity to raise background concentrations by 50 to 100 μS/cm. Steady state concentration breakthrough curves were obtained for each EC probe. Using the method of *Jackson et al.* [2012], lateral cavity mean residence times were estimated from the inverse slope of exponential concentration breakthrough curves using Eq. 1. The arithmetic mean of mean residence times estimated from each EC probe yielded the global lateral cavity mean residence time.

Last, pebble counts were done to estimate median sediment grain diameters. Using a measuring tape, we randomly sampled and measured 100 sediment grains from inside the lateral cavity, 100 sediment grains along the shear layer interface, and 100 sediment grains in the main channel just upstream of the lateral cavity. We estimated 3 different median grain diameters (d_{50} values) from the pebble counts to compute shear velocities.

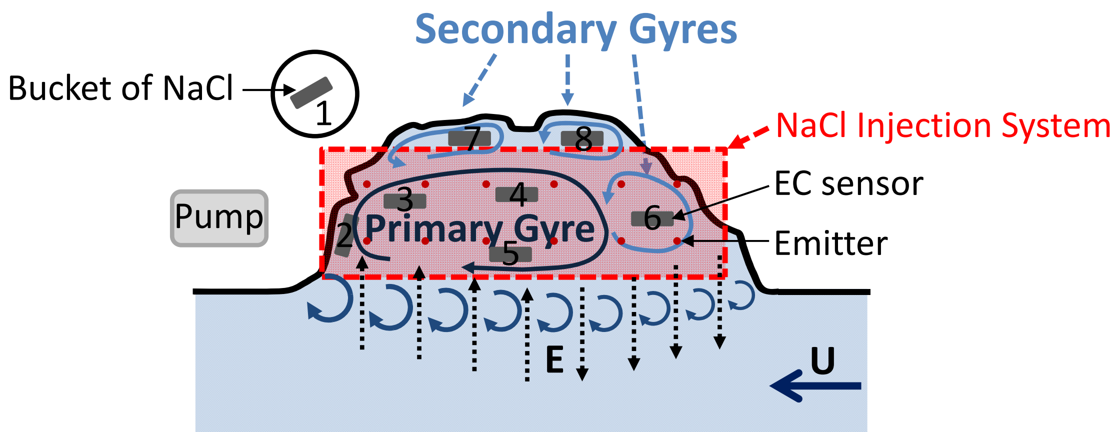

Figure 5.2. Plan view schematic of a NaCl injection set-up showing numbered EC sensors (gray bars) and pressure-compensating emitters (red dots) mounted onto a platform above the water surface of a lateral cavity.

5.4. Results

5.4.1 Comparison of Bed Roughness Metrics to Normalized Mean Residence Time

To determine the best metric that characterizes bed roughness effects on the lateral cavity mean residence time, the correlation between a number of nondimensional bed roughness parameters and normalized mean residence time is estimated. In open channel hydraulics, nondimensional bed roughness typically is quantified either by a ratio of relative roughness height (i.e., ratio of bed roughness height to water level height) or by a Chèzy friction factor. Six different ratios of relative roughness height and two Chèzy friction factors are plotted as a function of normalized mean residence time, and their correlation coefficients (R^2 values) computed. Because normalized mean residence time is dependent on channel hydraulics (*Re* and *Fr*), cavity geometric ratios (W/L and D_C/D_E), a cavity shape factor ($W^{0.5}D_C^{\ 0.5}L^{-1}$), and bed roughness, normalized mean residence time will not have a strong linear correlation to nondimensional bed roughness. Therefore, we define the best nondimensional bed roughness metric as the metric with the highest linear correlation to normalized mean residence time.

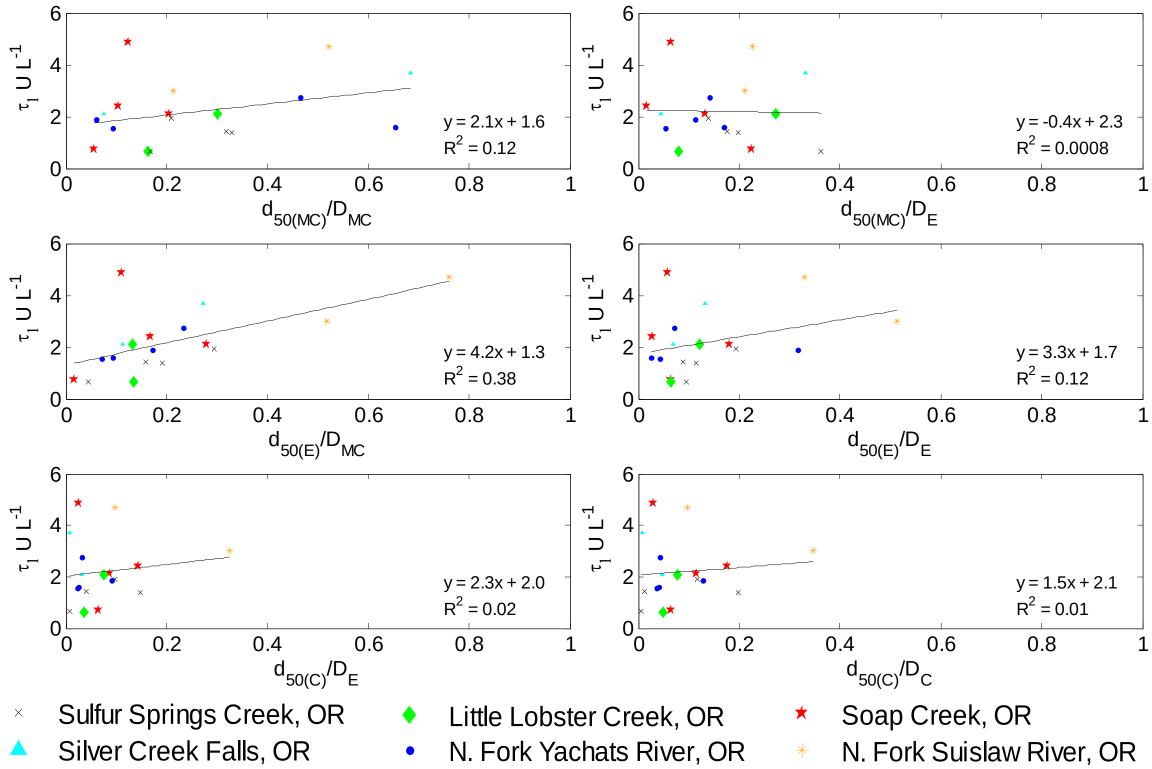

Figure 5.3. Normalized mean residence time as a function of nondimensional bed roughness (ratios of median gravel diameter to water depth). Note that the subscripts 'MC', 'E', and 'C' indicate that d_{50} values were estimated from gravels measured either in the main channel immediately upstream of lateral cavity, along the exchange (shear layer) interface, or inside the lateral cavity, respectively. Note that no nondimensional bed roughness metrics have strong linear correlations to normalized mean residence time because the lateral cavity mean residence time is not only dependent on bed roughness, but a number of additional nondimensional parameters representing the effects of channel hydraulics and cavity geometry and shape.

For relative bed roughness height, the ratio of median gravel diameter (for gravels measured along the shear layer interface) to the mean main channel water depth has the best linear correlation to normalized mean residence time (R^2 = 0.38; Figure 5.3). Median gravel diameters computed using gravels measured either in the main channel near the cavity or inside the cavity are uncorrelated to normalized mean residence time.

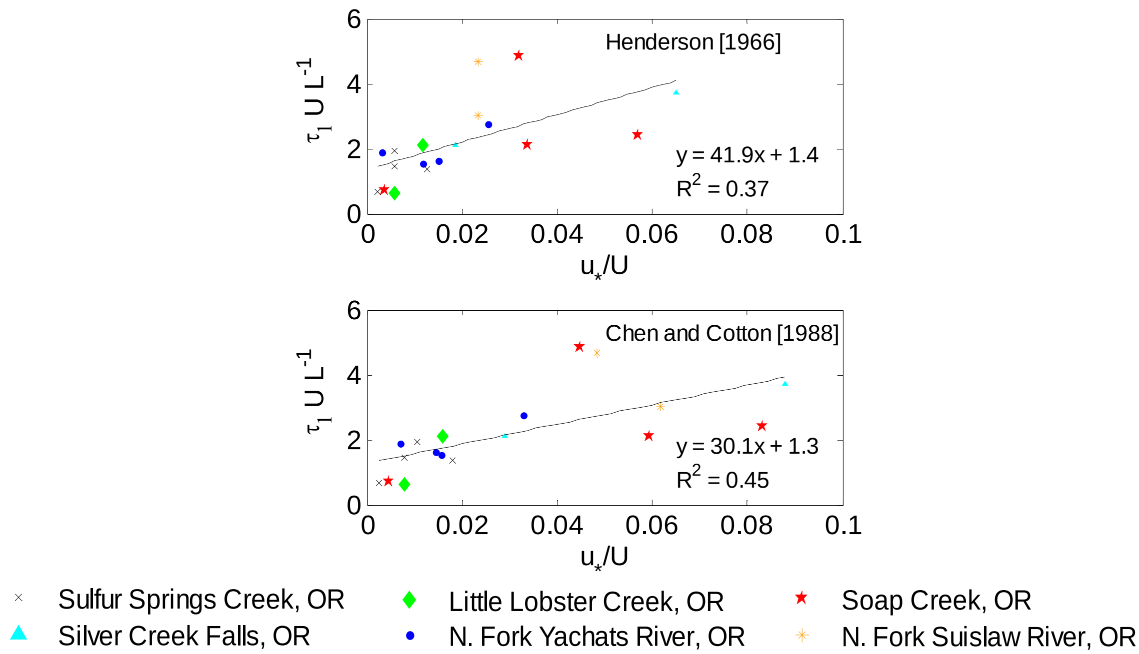

Figure 5.4. Normalized mean residence time as a function of nondimensional bed roughness (Chèzy friction factors). Shear velocity estimates were obtained using the *Henderson* [1966] and the *Chen and Cotton* [1988] methods. Note that no nondimensional bed roughness metrics have strong linear correlations to normalized mean residence time because the lateral cavity mean residence time is not only dependent on bed roughness, but a number of additional nondimensional parameters representing the effects of channel hydraulics and cavity geometry and shape.

Chèzy friction factors computed using the *Chen and Cotton* [1988] empirical relationship have the best linear correlation to normalized mean residence time (R^2 = 0.45; Figure 5.4). Chèzy friction factors computed using the *Henderson* [1966] empirical relationship also are correlated to normalized mean residence time (R^2 = 0.37; Figure 5.4); however, the correlation is less significant. Because the channel flow depth is shallow at all field sites (i.e., mean main channel depth < channel width) and lateral cavities are located at the channel streambank, shear velocities in Eq. 3 where computed by substituting the channel hydraulic radius with the channel depth at the shear layer interface (D_E).

5.4.2 Mean Residence Time Relationships

We show the correlation between normalized mean residence time and nondimensional groups using two metrics that best characterize bed roughness effects on the lateral cavity mean residence time: (1) ratio of median gravel diameter (along the shear layer) to the mean main channel water depth; and (2) the Chèzy friction factor computed using the *Chen and Cotton* [1988] empirical relationship. We begin by rewriting the mean residence time relationship in Eq. 2 in its "non-regressed" form (i.e., by assigning equal weighting to all nondimensional groups) and replacing the roughness factor with the relative roughness height ($d_{50(E)}/D_{MC}$):

$$\frac{\tau_1 U}{L} = \frac{d_{50(E)}}{D_{MC}} \cdot \frac{UD_E}{\upsilon} \cdot \frac{U}{\sqrt{gD_E}} \cdot \frac{W^{3/2} D_C^{3/2}}{L^2 D_E} \tag{7}$$

and the Chèzy friction factor (u_*/U):

$$\frac{\tau_1 U}{L} = \frac{u_*}{U} \cdot \frac{UD_E}{\upsilon} \cdot \frac{U}{\sqrt{gD_E}} \cdot \frac{W^{3/2} D_C^{3/2}}{L^2 D_E} \,. \tag{8}$$

Unlike the mean residence time relationship derived by *Jackson et al.* [2013b] (Eq. 2), which indicates that normalized mean residence time varies inversely with bed roughness, bed roughness factors in Eq. 7 ($d_{50(E)}/D_{MC}$) and 8 (u_*/U) vary proportionally with normalized mean residence time, as shown in Figures 5.3 and 5.4.

Normalized mean residence time has a strong linear correlation when equated to nondimensional hydraulic and geometric quantities with $d_{50(E)}/D_{MC}$ as the roughness factor (R^2 = 0.81; Figure 5.5). Normalized mean residence time also has a good linear correlation when equated to nondimensional hydraulic and geometric quantities with u_*/U as the roughness factor (R^2 = 0.73; Figure 5.6). Therefore, both $d_{50(E)}/D_{MC}$ and u_*/U are good metrics that can be used to estimate bed roughness effects on the lateral cavity mean residence time.

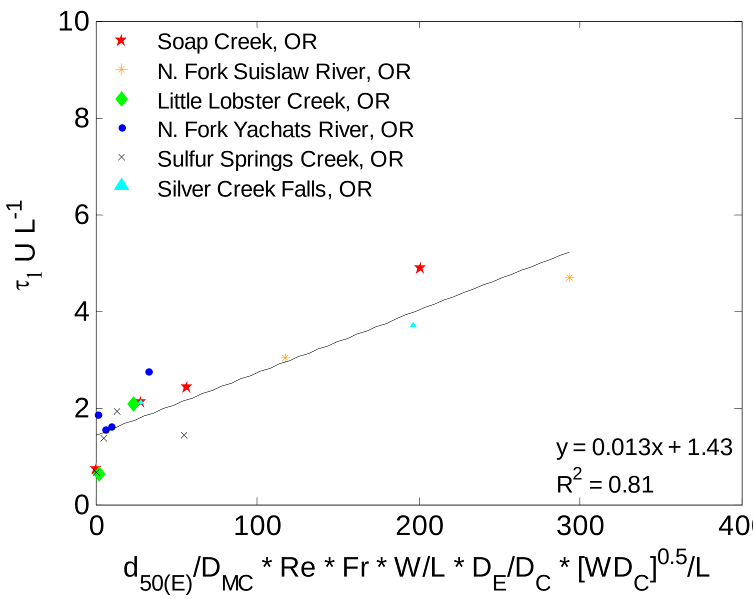

Figure 5.5. Mean residence time relationship for lateral cavities in gravel-bed streams (Eq. 7). Nondimensional bed roughness is a ratio of the median gravel diameter estimated using gravels along the shear layer interface to the main channel water depth.

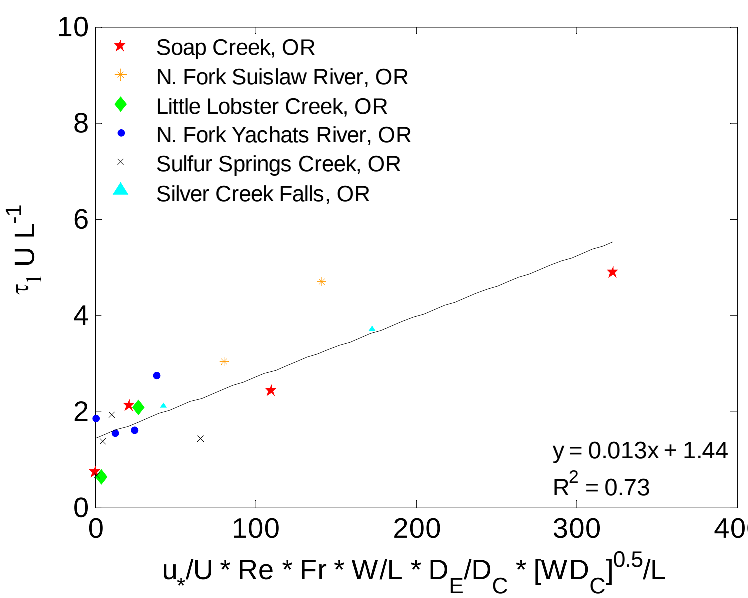

Figure 5.6. Mean residence time relationship for lateral cavities in gravel-bed streams (Eq. 8). Nondimensional bed roughness is a Chèzy friction factor computed using the *Chen and Cotton* [1988] method.

5.5. Discussion

5.5.1 Comparison of Bed Roughness Metrics to Normalized Mean Residence Time

The best metrics that characterize bed roughness effects on the lateral cavity mean residence time are a function of the median gravel diameter, specifically when the median gravel diameter is estimated from gravels measured along the shear layer interface. Therefore, gravels situated along the shear layer interface have the greatest influence on the lateral cavity mean residence time. Physically, this can be explained by the underlying flow physics. Because gyre circulation velocities are driven by momentum exchange across the shear layer interface [*Uijttewaal et al.*, 2001; *Muto et al.*, 2002; *Weitbrecht et al.*, 2008], gravels situated along the shear layer interface increase drag and reduce the flow momentum, thereby reducing gyre circulation velocities and increasing lateral cavity mean residence times. Sediments along the shear layer have a greater influence on mean residence time compared to sediments inside the cavity. The streambed of natural lateral cavities in gravel-bed streams is comprised of fine-grained sediments because the slower flow velocities cause the settling of suspended fine-grained silts and clays [*Jackson et al.*, 2012]. Compared to gravel situated along the shear layer, finer-grained sediments induce less drag on gyre circulation and, thus, have less impact on the lateral cavity mean residence time.

Chèzy friction factors computed using the *Chen and Cotton* [1988] empirical relationship have the strongest correlation to normalized mean residence time compared to the other nondimensional bed roughness parameters. Slightly weaker, but notable, linear correlations to normalized mean residence time occur for Chèzy friction factors computed using the *Henderson* [1966] empirical relationship and the ratio of median gravel diameter (along the shear layer) to the mean main channel water depth. The *Chen and Cotton* [1988] method better quantifies bed roughness effects on normalized mean residence time because of parameter dependence. The *Henderson* [1966] empirical relationship and ratio of median gravel diameter to mean main channel water depth are only a function of the median gravel diameter; therefore, bed roughness effects are quantified based only on relative gravel size. The *Chen and Cotton* [1988] empirical relationship is a function of the median gravel diameter, channel hydraulic radius, and tractive force; therefore, this relationship better accounts for the underlying flow physics driving drag forces.

5.5.2 Mean Residence Time Relationships

We show that bed roughness is correlated to the lateral cavity mean residence time. In the empirically-derived mean residence time relationship derived by *Jackson et al.* [2013b], results of the regression analysis showed that bed roughness is uncorrelated to the lateral cavity mean residence time. When including nondimensional bed roughness parameters that are a function of the median gravel diameter along the shear layer ($d_{50(E)}$), normalized mean residence time is linearly correlated (varies proportionally) to bed roughness. From a fluid mechanics perspective, the lateral cavity mean residence time varies proportionally to bed roughness [*Muto et al.*, 2002; *Jackson et al.*, In Review], and is shown in Figures 5.3 and 5.4. An increase in bed roughness decreases the exchange velocity at the shear layer interface, which slows gyre circulation velocities and increases mean residence time.

For lateral cavities in gravel-bed streams, mean residence times can be estimated using six nondimensional groups: *Re*, *Fr*, cavity aspect ratio, cavity depth ratio, cavity shape factor, and one of two roughness factors: $d_{50(E)}/D_{MC}$ or u_*/U. Both $d_{50(E)}/D_{MC}$ and u_*/U yield good linear correlations with normalized mean residence time; therefore, either nondimensional bed roughness metric can be used to estimate lateral cavity mean residence times. The use of either nondimensional bed roughness metric does not detract from the strength of this relationship in that no more than eight field-measureable parameters are required to estimate lateral cavity mean residence times. Improving the quantification of bed roughness effects on mean residence time will strengthen this predictive relationship. Currently, the mean residence time relationship is a tool hydrologists and water managers can use to accurately estimate mean residence times in natural lateral cavities and man-made groynes for either conservative stream solute transport or stream restoration efforts [*Jackson et al.*, 2013b].

5.6. Conclusion

We tested the mean residence time relationship for lateral cavities in gravel-bed streams using eight different nondimensional bed roughness parameters: six relative roughness heights—ratios of median gravel diameter to water level height—and two Chèzy friction factors—ratios of shear velocity to mean main channel velocity. All nondimensional bed roughness parameters are a function of median gravel diameter, which was computed by measuring sediment grains in three regions: inside the cavity, along the shear layer interface, and in the main channel immediately upstream of the lateral cavity.

Contrary to the results of *Jackson et al.* [2013b], this work shows that bed roughness has a more significant contribution to the lateral cavity mean residence time. Nondimensional bed roughness parameters with the highest correlation to normalized mean residence time are a function of the median gravel diameter computed using gravels measured along the shear layer interface. The Chèzy friction factor computed using the *Chen and Cotton* [1988] empirical relationship (u_*/U) and the ratio of median gravel diameter (along the shear layer) to mean main channel water depth ($d_{50(E)}/D_{MC}$) have the strongest linear correlations to normalized mean residence time; therefore, either metric can be used to estimate lateral cavity mean residence times. At present, the validated mean residence time relationship is a tool hydrologists can use for conservative stream solute transport studies as well as stream restoration efforts to accurately estimate lateral cavity mean residence times.

Acknowledgements

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SUPPLEMENTARY MATERIAL

Table S5.1. Summary of parameters in mean residence time relationship.

Site	Creek	τ_1 (s)	U (m/s)	W (m)	L (m)	D_E (m)	D_C (m)	D_{MC} (m)	$d_{50(E)}$ (m)	R[1] (m)	n[2]	u_* (m/s)
1	Soap Creek, OR	34.4	0.3	1.3	3.6	0.49	0.40	0.08	0.013	0.08	0.027	0.083
2	Soap Creek, OR	23.1	0.3	1.3	1.2	0.15	0.13	0.08	0.009	0.08	0.027	0.045
3	Soap Creek, OR	22.0	0.1	1.0	2.6	0.06	0.06	0.25	0.004	0.21	0.024	0.004
4	Soap Creek, OR	28.3	0.3	0.8	3.6	0.11	0.08	0.07	0.019	0.07	0.036	0.059
5	North Fork Siuslaw River, OR	127.9	0.1	2.5	3.6	0.15	0.15	0.07	0.051	0.07	0.049	0.048
6	North Fork Siuslaw River, OR	45.0	0.2	1.3	2.6	0.12	0.12	0.12	0.063	0.08	0.060	0.062
7	Little Lobster Creek, OR	21.9	0.0	0.7	1.4	0.14	0.10	0.07	0.009	0.06	0.027	0.008
8	Little Lobster Creek, OR	17.2	0.1	0.7	0.9	0.07	0.06	0.06	0.008	0.06	0.029	0.016
9	North Fork Yachats River, OR	39.2	0.1	1.2	1.5	0.17	0.10	0.04	0.004	0.04	0.022	0.014
10	North Fork Yachats River, OR	32.9	0.1	0.6	1.5	0.13	0.09	0.04	0.009	0.04	0.027	0.033
11	North Fork Yachats River, OR	27.4	0.1	0.8	1.8	0.17	0.11	0.10	0.007	0.10	0.025	0.016
12	North Fork Yachats River, OR	47.1	0.0	0.8	1.3	0.04	0.03	0.08	0.014	0.08	0.039	0.007
13	Sulfur Springs Creek, OR	36.1	0.0	1.6	1.7	0.06	0.09	0.14	0.006	0.13	0.026	0.003
14	Sulfur Springs Creek, OR	72.8	0.0	1.4	1.8	0.14	0.12	0.10	0.028	0.09	0.039	0.011
15	Sulfur Springs Creek, OR	24.3	0.1	0.6	1.6	0.06	0.05	0.04	0.007	0.04	0.028	0.018
16	Sulfur Springs Creek, OR	35.7	0.0	1.2	1.0	0.12	0.38	0.07	0.011	0.07	0.029	0.008
17	Silver Creek Falls, OR	31.6	0.2	1.1	2.6	0.22	0.15	0.13	0.015	0.13	0.030	0.029
18	Silver Creek Falls, OR	33.9	0.4	1.2	3.4	0.15	0.11	0.07	0.020	0.07	0.034	0.088

[1] R is the hydraulic radius of the channel.

[2] n is the Manning roughness coefficient computed using the Chen and Cotton [1988] empirical relationship.

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CHAPTER 6

FLOW STRUCTURE AND MEAN RESIDENCE TIME OF LATERAL CAVITIES IN OPEN CHANNEL FLOWS:

INFLUENCE OF BED ROUGHNESS AND SHAPE

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ABSTRACT

Natural lateral cavities in open channels are important because their lower water velocities promote water quality and provide refugia for organisms. Lateral cavities are characterized by a mixing layer that spans the entrance and by a recirculation region inside. Little is known about the influence of natural cavity shapes and roughness on the flow structure and mass and momentum exchange dynamics. In a flume with turbulent open channel flow, we investigated the effects of cavity shape (semi-circular, backward conic, and forward conic) and bed roughness on the flow structure and mean residence time (MRT) of a lateral cavity. All cavity shapes [width to length (*W/L*) of 0.4] have a flow field dominated by a one-gyre recirculation pattern, contrasting results of rectangular cavities at similar Reynolds number (*Re*) and *W/L*. The hydraulically smooth cases have smaller MRTs and rough flow cases have larger MRTs. The backward conic yields larger MRTs due to lower mean circulation velocities associated with primary gyre asymmetry and the forward conic yields smaller MRTs due to higher mean circulation velocities associated with primary gyre symmetry. Rough flow cases have a strong correlation to a predicted MRT relationship derived by Jackson et al. [Water Resour Res 49: doi:10.1002/wrcr.20272, 2013] (R^2 = 0.77); however, this predicted model does not work well for hydraulically smooth lateral cavities. Two MRT relationships were derived for smooth lateral cavities and both have strong power-law correlations to normalized mean residence time.

6.1 Introduction

Current (and past) land use practices have adversely affected the ecology of fluvial systems worldwide. Accidental contaminant spills and the eutrophication of coastal marine and freshwater ecosystems by agricultural and industrial practices have led to degraded water quality [*Thomas et al.*, 2001; *Scavia et al.*, 2003; *Dodds*, 2006; *Anderson and Phanikumar*, 2011]. Current land use practices in agricultural and urban settings also promote channel destabilization by straightening channel banks and removing riparian vegetation [*Jacobson et al.*, 2001; *Allan*, 2004]. Channel destabilization results in increased sediment erosion, channel incision, higher channel flows, increased flooding potential, and the degradation of aquatic habitat [*Baker et al.*, 2012]. Stream restoration is the primary method utilized by water managers to improve water quality, promote biological diversity, and restore riparian vegetation.

Stream restoration projects typically design and install in-stream structures such as groynes—engineered structures comprised of stone, gravel, earth, or piles that protrude from the bank into the channel—to create embayment regions of slow-moving recirculating flow, termed groyne fields [*Uijttewaal et al.*, 2001; *Constantinescu et al.*, 2009]. Groyne fields have flow features similar to lateral surface transient storage zones (herein called lateral cavities). Lateral cavities are prevalent in streams and rivers and form naturally behind erosion-resistant features, such as trees, and behind sediment deposition features, such as gravel bars [*O'Connor et al.*, 2010; *Jackson et al.*, 2012]. Both groyne fields and lateral cavities are open cavities with flow fields characterized by the formation of a mixing layer that spans the entire cavity entrance and a recirculation region in the cavity comprised of one or more gyres (Figure 6.1). Natural lateral cavities in open channels are important because their lower mean water velocities (compared to the main channel) entrain contaminants (either dissolved or adsorbed to suspended particulate matter) and generate longer mean residence times [*Engelhardt et al.*, 2004; *Constantinescu et al.*, 2009]. The longer mean residence times can improve water quality by increasing interactions between entrained contaminants and biogeochemically-reactive sediments, which can subsequently cause accumulation and deposition [*Hall et al.*, 2002; *Gooseff et al.*, 2011]. The lower mean water velocities, increased fine sediment deposition, and entrainment of nutrients, phytoplankton, and other dissolved constituents in lateral cavities also promote flora and fauna production [*Lancaster and Hildrew*, 1993; *Kimura and Hosoda*, 1997; *Uijttewaal et al.*, 2001].

Due to the functional significance of lateral cavities on the water quality and biodiversity of fluvial systems, studies focused on mass transport and exchange mechanisms in the vicinity of engineered lateral cavities are receiving increased attention in environmental fluid mechanics and stream restoration [*Weitbrecht et al.*, 2008;

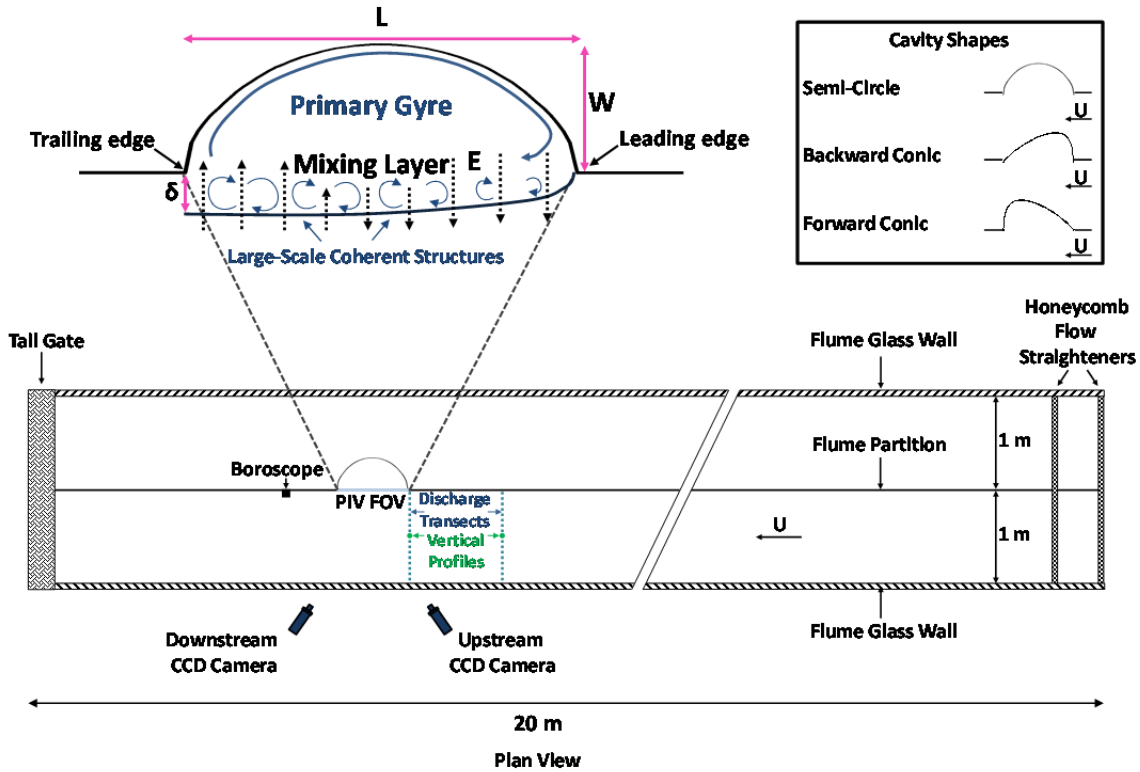

Figure 6.1. Plan view schematic of flume and experimental set-up.

Constantinescu et al., 2009]. The emplacement of engineered structures has been shown to increase nutrient entrainment [*Ensign and Doyle*, 2005]; however, the hydraulic and geomorphic characteristics of engineered embayment regions may or may not enhance the growth of target biotic communities for which the restoration is designed because differing mean residence times promote favorable habitats for differing aquatic communities [*Larson et al.*, 2001; *Becker*, 2012]. Mean residence time also influences the ability of the stream to entrain and remove nutrients and other contaminants [*Argerich et al.*, 2011]. Little is known of how in-stream structure design influences mean residence time and nutrient uptake [*Baker et al.*, 2012]. Furthermore, current stream restoration practices seek to restore fluvial systems by using structures that are more representative of the natural channel geomorphology to increase geomorphic complexity [*Newbury and Gaboury*, 1988; *Yu et al.*, 2012]. A better understanding of hydraulic and geomorphic parameter effects (i.e., natural cavity shapes and bed roughness) on the flow structure and mean residence time of a natural lateral cavity will benefit water managers as they plan stream restoration projects that increase fluvial geomorphic complexity.

Numerous experimental and numerical investigations have been done on the flow structure of open lateral square and rectangular cavities because of their complex flow dynamics; however, not many investigations have incorporated features representative of natural cavities, such as idealized representations of natural cavity shapes and bed roughness. Only a few studies have been done on flow past non-rectangular cavity shapes, such as a triangle or semi-circle [e.g., *Rockwell and Naudascher*, 1978; *Shankar*, 1997; *Chang and Cheng*, 1999; *Migeon et al.*, 2000; *Glowinski et al.*, 2006]. Even fewer studies have considered flow past non-rectangular cavities at high Reynolds numbers, *Re*, characteristic of streams (e.g., semi-circular cavity studies by *Mercan and Atalik* [2009] and *Ozalp et al.* [2010]). While a semi-circular cavity is one idealized representation of a natural lateral cavity [T.R. Jackson, 2012, unpublished data], natural cavities have shapes that are more complex than that of the rectangular, triangular, and semi-circular shapes typically studied. Natural lateral cavities also have streambed roughness elements, which is an additional complexity that has not been considered in previous studies.

To date, no work has investigated the influence of flow structure on the fluid dynamics of mass and momentum exchange between natural lateral cavity shapes with roughness elements and an open channel flow. This is important because local flow behavior and mass and momentum exchange at the mixing layer interface are poorly understood mechanisms in open channels [*Constantinescu et al.*, 2009; *Gooseff et al.*, 2011]. Little is known about the relation between morphology and transport properties [*Weitbrecht and Jirka*, 2004]. Predictive mean residence time relationships will provide a better quantification of stream solute transport for accidental spills, where current tracer studies rely on stream transport models [e.g., OTIS, *Runkel*, 1998] that must calibrate mass transport and exchange parameters to account for areas of transient storage, such as lateral cavities [*Hays*, 1966]. Predictive mean residence time relationships also will aid in the design and implementation of in-stream structures for stream restoration to promote target flora and fauna production. Studies have qualitatively stated that cavity shape and bed roughness influence flow and exchange dynamics. *Muto et al.* [2002] performed laboratory and field studies of three rectangular embayments along the Yodo River, Japan and determined that bed roughness is an important parameter driving fluid exchange. *Jackson et al.* [2012] used a 3-D Reynolds-Averaged Navier-Stokes (RANS) model to simulate a natural lateral cavity in Oak Creek, Oregon, and showed that the flow structure and mean residence time of solutes is dependent on cavity shape, where the irregular wetted perimeter induces the formation of small secondary gyres that increase mean residence time. However, the exact influence of natural cavity shapes and bed roughness on flow structure behavior and solute mean residence time is poorly understood.

The objective of this study is to investigate the effect of three representative natural cavity shapes—semi-circular, backward-facing conic, and forward-facing conic (Figure 6.1)—and three roughness conditions—hydraulically smooth, low flow rough, and high flow rough—on the flow structure and mean residence time of a lateral cavity in an open channel flow (38,000 < *Re* < 75,000). Note that *Re* is computed using the channel hydraulic radius. The cavity shapes chosen for this study are representative of natural lateral cavities observed in streams along Oak Creek (N44°36.404' W123°19.936') and Soap Creek (N44°38.573' W123°18.930'), located in the Oregon State University McDonald-Dunn Research Forest, Oregon. These cavity shapes also have been observed in larger rivers, such as the Willamette, Santiam, and Alsea Rivers of Oregon, and the Boise and Snake Rivers in Idaho [T.R. Jackson, 2012, unpublished data].

6.2 Review of Relevant Studies

6.2.1 Flow Structure

There is a deep and comprehensive literature on the flow structure of lateral cavities [e.g., *Ghia et al.*, 1982; *Ho and Huerre*, 1984; *Theodossiou and Sousa*, 1986; *Pereira and Sousa*, 1995; *Howe*, 1997; *Kimura and Hosoda*, 1997; Kuo and Chang, 1998; *Lin and Rockwell*, 2001; *Kuo and Huang*, 2001; 2003; *Erturk and Gökçöl*, 2006]. Reviews have been provided by *Shankar and Deshpande* [2000] and *Erturk* [2009]. Key flow field results of relevant studies are summarized below.

Turbulent flow past a single open cavity is characterized by the formation of a mixing layer that spans the entire cavity entrance and a recirculation region in the cavity comprised of one or more gyres [Figure 6.1; *Rockwell and Naudascher*, 1978; *Rockwell and Knisely*, 1980; *Grace et al.*, 2004]. Large velocity and momentum differences at the leading cavity edge form a mixing layer between the main channel and cavity [*Rockwell*, 1983; *Constantinescu et al.*, 2011]. Vortical structures develop at the leading cavity edge [*Rockwell*, 1977; *Rockwell and Naudascher*, 1978; *Rockwell and Knisely*, 1980; *Faure et al.*, 2007], are advected downstream, and impinge on the trailing edge, causing pressure fluctuations and the unsteady transport of vorticity into the downstream cavity region [*Sarohia*, 1977; *Rockwell and Knisely*, 1979; *Lin and Rockwell*, 2001; *Chang et al.*, 2006]. The vorticity becomes entrained, travels in a jet-like flow along the downstream wetted perimeter of the cavity, and forms a recirculation region within the cavity [*Rockwell*, 1998; *Lin and Rockwell*, 2001; *Chang et al.*, 2006]. The recirculating flow in the cavity interacts with vortices in the mixing layer, causing Kelvin-Helmholtz instabilities that produce unsteady velocity and pressure fields [*Rockwell*, 1977; *Sarohia*, 1977; *Rockwell and Naudascher*, 1978; 1979; *Yao et al.*, 2004]. The high frequency small-scale structures in the mixing layer (with wavelengths much smaller than the cavity length) occur near the leading cavity edge due to high mean vorticity and the relatively small mixing layer thickness [*Rockwell*, 1977; *Sarohia*, 1977; *Pereira and Sousa*, 1995]. Large-scale structures dominate in the central and trailing edge regions of the mixing layer due to Kelvin-Helmholtz instabilities [*Lin and Rockwell*, 2001; *Constantinescu et al.*, 2011].

Experimental and numerical work has delineated the flow structure of open channel flow past lateral square and rectangular cavities [e.g., *Kimura and Hosoda*, 1997; *Wallast et al.*, 1999; *Uijttewaal et al.*, 2001; *Grace et al.*, 2004; *Faure et al.*, 2007; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009; *Drost et al.*, 2012]. Square and shallow and deep rectangular cavities are defined based on the cavity aspect ratio (W/L), where W is cavity width normal to flow, [L]; and L is cavity length parallel to flow, [L]. Square cavities ($W/L \sim 1$) have recirculation regions characterized by the formation of a large primary gyre along with either two smaller, counter-rotating secondary gyres in the corners at lower *Re* or three smaller, counter-rotating secondary gyres in the corners at high *Re*. Shallow rectangular cavities ($W/L < 1$) have recirculation regions characterized by the formation of a large primary gyre in the downstream cavity region and one or more smaller secondary gyres in the upstream region. Deep rectangular cavities ($W/L > 1$) have recirculation regions characterized by one or more counter-rotating gyres stacked on top of one another in the cavity of nearly the same size. Similar flow structure results have been observed for lid-driven square cavities by *Burggraf* [1966], *Benjamin and Denny* [1979], *Ghia et al.* [1982], *Schreiber and Keller* [1983], and *Erturk and Gökçöl* [2006], and for lid-driven shallow and deep rectangular cavities by *Sinha et al.* [1982], *Shen and Floryan* [1985], *Shankar* [1993], and *Cheng and Hung* [2006]. However, open lateral cavities have an additional flow complexity not observed in lid-driven cavities: mass and momentum are exchanged between the cavity and channel via the mixing layer. Note that the flow structure results described herein are applicable for square and rectangular cavities, and that more irregular-shaped cavities (i.e., more rounded geometries) influence the number of secondary gyres [e.g., *Mercan and Atalik*, 2009; *Ozalp et al.*, 2010].

6.2.2 Mean Residence Time

Mean residence time is a common metric used to quantitatively describe mixing and exchange across the mixing layer interface in studies focusing on mass transport and exchange in lateral cavities. Large-scale coherent structures in the mixing layer drive mass and momentum exchange between the main channel and cavity, and influence the circulation and mean residence time of the cavity [*Uijttewaal et al.*, 2001]. Two definitions are typically used to characterize mean residence time: a characteristic time of exponential decay and a mean hydraulic residence time [*Nauman*, 1981]. The characteristic time of exponential decay is computed from the inverse slope of the residence time distribution (RTD). The RTD, $F(t)$, is a probability density function representing the age distribution of fluid parcels leaving the cavity through the mixing layer interface since their time of initial entrainment [*Nauman*, 1981; *Buffoni et al.*, 1997]:

$$F(t) = \frac{1}{\tau_1}\exp(-t/\tau_1)\,, \tag{1}$$

where t is the current time, [T]; and the mean residence time, τ_1, is estimated from the inverse slope of the best-fit line through the exponential RTD. The exponential RTD is obtained from a normalized concentration breakthrough curve (BTC). An exponential RTD is assumed because previous laboratory experiments [e.g., *Uijttewaal et al.*, 2001; *Kurzke et al.*, 2002; *McCoy et al.*, 2006; 2007; *Weitbrecht et al.*, 2008; *Constantinescu et al.*, 2009] and field studies [e.g., *Engelhardt et al.*, 2004; Kozerski et al., 2006; *Jackson et al.*, 2012] show that exponential RTDs arise in lateral cavities. A one-exponential RTD arises when the cavity is dominated by a single large primary gyre, and a two-exponential RTD arises when the cavity has a large primary gyre and one or more secondary gyres [*Jackson et al.*, 2012]. The mean hydraulic residence time, also known as the Langmuir timescale, τ_L, is a volume to discharge ratio given by [*Langmuir*, 1908]:

$$\tau_L = \frac{WLD_C}{ELD_E} = \frac{WD_C}{ED_E}\,, \tag{2}$$

where W and L are cavity width (normal to flow) and length (parallel to flow), respectively, [L]; D_C and D_E are the mean cavity and mixing layer depth, respectively, [L]; and E is the entrainment velocity or mean velocity of fluid particles leaving the cavity through the mixing layer interface, [LT^{-1}]. Because the entrainment velocity is a difficult parameter to accurately measure in the field, an entrainment hypothesis was proposed by *Valentine and Wood* [1977]: $E = kU$, where U is the mean main channel velocity, [LT^{-1}]; and k is a dimensionless entrainment coefficient:

$$\tau_L = \frac{WD_C}{kUD_E}\,. \tag{3}$$

Previous studies have estimated values of k that range between 0.01 and 0.04 [*Valentine and Wood*, 1997; *Wallast et al.*, 1999; *Uijttewaal et al.*, 2001; *Kurzke et al.*, 2002; *Kozerski et al.*, 2006; *McCoy et al.*, 2006; *Chang et al.*, 2007; *Hinterberger et al.*, 2007; *Constantinescu et al.*, 2009; *Jackson et al.*, 2012]. *Jackson et al.* [2012] proposed that the wide range of variability in estimates of k is due to not accounting for bed roughness and variations in cavity shape.

Jackson et al. [2013] used dimensional analysis and field data to derive a mean residence time relationship for lateral cavities that incorporates bed roughness and cavity shape. The relationship was derived for gravel-bed rivers and streams and scales the mean residence time by the convective velocity, L/U, which is the time for a fluid parcel in the main channel to travel past the cavity. The normalized mean residence time has a strong correlation (R^2 = 0.82) when equated to six nondimensional groups: Froude number, Reynolds number, bed roughness, cavity aspect ratio, cavity depth ratio, and a cavity shape factor:

$$\frac{\tau_1 U}{L} = 21 \underbrace{\left[\frac{UD_E}{\upsilon}\right]^{0.13}}_{Re} \cdot \underbrace{\left[\frac{U}{\sqrt{gD_E}}\right]^{0.49}}_{Fr} \cdot \underbrace{\left[\frac{W^{3/2} D_C^{3/2}}{L^2 D_E}\right]^{0.39}}_{\text{Lumped Geometric Factor}} \cdot \underbrace{\left[\frac{U}{u_*}\right]^{0.21}}_{\text{Roughness Factor}} - 6.7 \ , \tag{4}$$

where g is the gravitational acceleration, [LT^{-2}]; υ is the kinematic viscosity of the fluid, [L^2T^{-1}]; and u_* is the shear velocity, [LT^{-1}]. The *Re* and *Fr* represent the influence of turbulence and local channel hydraulics, respectively, on mean residence time. The lumped geometric factor is the product of the cavity aspect ratio (W/L), cavity depth ratio (D_C/D_E), and shape factor ($[WD_C]^{0.5}/L$), where the shape factor represents the degree of cavity equidimensionality. The roughness factor, U/u_*, is Chézy's dimensionless friction coefficient. The shear (or friction) velocity is given by: $u_* = \sqrt{gU^2 n^2 R^{-1/3}}$, where R is the main channel hydraulic radius, [L]; and n is the dimensionless Manning roughness coefficient. For gravel-bed fluvial systems at larger flow depths (> 0.30 m), n is estimated using the *Henderson* [1966] method:

$$n = 0.034(3.28 d_{50})^{1/6}, \tag{5}$$

where d_{50} is the median gravel diameter (in meters). For gravel-bed fluvial systems with relatively shallow flow (≤ 0.30 m), n is estimated using the *Chen and Cotton* [1988] method:

$$n = \frac{(R/0.3048)^{1/6}}{8.6 + 19.97\log(R/d_{50})}. \quad (6)$$

6.3 Methods

6.3.1 Experimental Approach

Nine laboratory experiments were conducted at the University of Idaho's Center for Ecohydraulics Research (CER) Mountain Stream Lab in Boise, Idaho. The CER Mountain Stream Lab has a hydraulically smooth, glass-walled, steel-bottomed, recirculating flume that is 20-m-long, 2-m-wide, and 1.2-m-deep, and has an adjustable bed slope that was set to 0.60% (see *Budwig and Goodwin* [2012] for flume configuration details). In our experiments, the flume was configured to represent a straight open channel reach with a lateral cavity of three geometries: semi-circular, backward-facing conic, and forward-facing conic (Figure 6.1). These model configurations correspond to shallow riffle reaches with lateral cavities and have a constant aspect ratio of 0.4, which is the arithmetic mean of aspect ratios measured by *Jackson et al.* [2012] for lateral cavities in small Oregon streams (mean of 22 field sites). A 0.4 cavity aspect ratio also is common in engineered groynes for stream restoration [*Uijttewaal et al.*, 2001; *Weitbrecht et al.*, 2008]. The cavity was placed 13.5 m downstream of the flume entrance. Three bed roughness experiments were done for each shape: one with a hydraulically smooth bed, one with river gravels at low-flow conditions (0.33 m^3s^{-1}), and one with river gravels at high-flow conditions (0.47 m^3s^{-1}) (Table 6.1). The rough flow experiments had river gravel (median size of 0.032 m) in the main channel and pea gravel (median size of 0.005 m) in the cavity to represent a "natural" reach representative of Oak Creek, Oregon. The river gravel was emplaced in the main channel in a nearly uniform, 5-cm layer about 2-3 gravels thick. The main channel flow *Re* (based on channel hydraulic radius) was 63,500 for the hydraulically smooth bed case, 38,000 for low flow rough case, and 75,000 for high flow rough case, corresponding to measurements in Oak Creek during low and high

Table 6.1. Summary of laboratory experiments and model parameters.

Experiment	*Re*	*U* (m/s)	*W/L*	*D* (m)	*E* (m/s)	d_{50} (m)	*n*	τ_L (s)	τ_{EC} (s)
Semi-Circular									
Smooth	63,500	0.55	0.4	0.150	0.0120	-	0.010	15.7	12.3
Rough: Low Flow	38,000	0.33	0.4	0.150	0.0100	0.032	0.043	16.7	16.5
Rough: High Flow	74,600	0.47	0.4	0.225	0.0150	0.032	0.040	11.1	10.3
Backward Conic									
Smooth	63,500	0.55	0.4	0.150	0.0050	-	0.010	30.4	25.5
Rough: Low Flow	38,000	0.33	0.4	0.150	0.0046	0.032	0.043	32.0	27.9
Rough: High Flow	74,600	0.47	0.4	0.225	0.0051	0.032	0.040	28.8	25.8
Forward Conic									
Smooth	63,500	0.55	0.4	0.150	0.0094	-	0.010	22.4	19.4
Rough: Low Flow	38,000	0.33	0.4	0.150	0.0073	0.032	0.043	26.3	18.8
Rough: High Flow	74,600	0.47	0.4	0.225	0.0097	0.032	0.040	20.6	20.9

**U* is the free-stream velocity, $[LT^{-1}]$; *D* is main channel depth, [L]; *E* is the entrainment velocity, $[LT^{-1}]$; d_{50} is the median grain size diameter of the main channel (roughness height), [L]; *n* is the Manning roughness coefficient; and τ_L and τ_{EC} are mean residence times computed from Eq. 2 and Eq. 8, respectively, [T].

flow periods during the summer and winter of 2011, respectively. The water depth was set to 0.15 m for the smooth bed and low flow rough bed case, and set to 0.225 m for the high flow rough bed case. In all the rough flow experiments, gravels in the main channel were immobile. This was confirmed by visual inspection during experimental runs, and by computing Shields stresses using the method of *Parker et al.* [2003] for gravel-bed streams, where the Shields stress for each rough flow experiment was well below the critical Shields stress for particle movement.

6.3.2 Measurements

A Sontek FlowTracker Handheld acoustic Doppler velocimeter (ADV) (10 MHz operating frequency, 0.10 m sampling volume distance, time-averaged 10-Hz sampling rate) was mounted in the side looking position to a wading rod, and used to obtain channel discharge (at 0.05 m transverse increments) and vertical velocity profiles (at 0.01 m depth increments along the main channel centerline beginning 0.02 m above the flume streambed) (Figure 6.1). Discharge was computed as the sum of the products of time-averaged velocity and cross-sectional areas along a transverse. Discharge and vertical velocity profiles were measured 1-m upstream of the cavity and at the leading edge of the cavity. Discharge and vertical velocity profiles were within 5 percent between measured locations for all experiments, which is sufficient for fully developed flow. The flow rates corresponding to the smooth, low flow rough, and high flow rough cases were 0.083, 0.050, and 0.109 m^3/s, respectively. Free stream velocity was computed as the ratio of discharge to channel cross-sectional area.

Entrainment velocities were measured along the entire cavity entrance (i.e., mixing layer interface) using the LaVision commercial stereoscopic particle image velocimetry (PIV) system. For the stereoscopic PIV system, high-speed (50 kHz sampling rate) CCD cameras were mounted at angles of 13° and -13° upstream and downstream of the PIV field of view (FOV), respectively (Figure 6.1). Four PIV FOV were required to measure entrainment velocities along the entire cavity entrance and the FOV were overlapped by 20% to provide better resolution near the edges. The PIV FOV was 22.5 cm wide (1,600 pixels) by 17 cm high (1,200 pixels). The flow field was illuminated by a laser light sheet mounted adjacent to the downstream cavity wall and oriented parallel to flow in the plane of the cavity entrance (Figure 6.2). The laser light

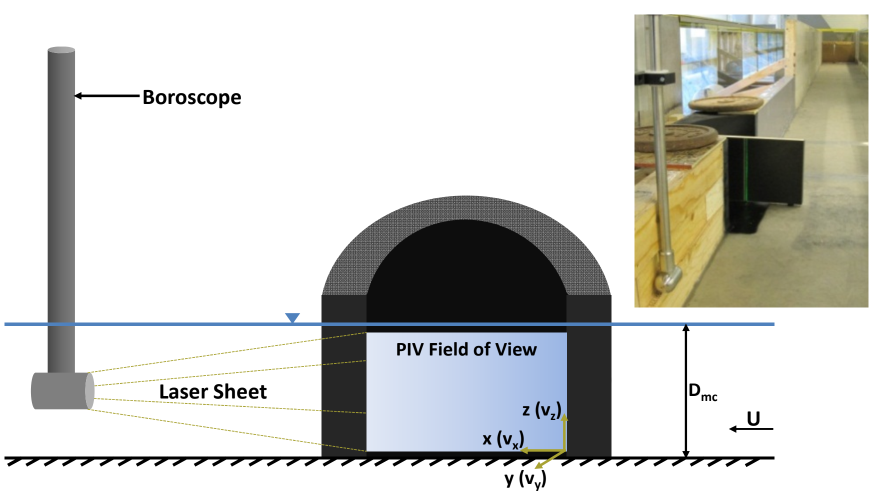

Figure 6.2. PIV orientation and location of field of view (FOV).

sheet was generated using two ND-YAG lasers. The flow was seeded with 0.2 liters of neutrally buoyant 20-μm glass microspheres per 60.5 m^3 of water in the flume catch basin. A total of 1,500 frame pairs were collected for each experiment and had an average particle displacement of 10 pixels between frames and a Δt ranging between 4,500 and 6,500 μm. The choice of 1,500 frame pairs was based on convergence studies (see *Hocut* [2010]) done for each of the smooth flow cases with 4,000 frame pairs, where average velocities and turbulence intensities were randomly sampled at intervals of 5, 10, 25, 50, 100, 250, 500, 1000, 1500, 2000, 2500, 3000, 3500, and 4000 to determine the number of samples required for the variance to converge within 5%. Particle image pairs were processed using the cross-correlation method in the DaVis software package, where the PIV FOV is initially divided into 64 x 64 pixel interrogation windows and then further subdivided into 32 x 32 pixel interrogation windows with an overlap of 50%. Ensemble averaging at each node location in the PIV FOV was used to obtain time averaged and root mean square (RMS) velocity components in x, y, and z. Note that instantaneous velocity components in x, y, and z are denoted by v_x, v_y, and v_z, respectively, and that RMS velocity components in x, y, and z are denoted by v_x', v_y', and v_z', respectively. Velocity magnitude is denoted as $|V|$, and time-averaged velocity components are denoted by angle brackets, < >. All instantaneous velocity fields were exported into text files and post-processed in Matlab to obtain entrainment velocities. Entrainment velocities (E) were computed by first time-averaging the instantaneous out-of-plane velocities, v_y (N = 1,500), then vertically averaging the absolute values of $\langle v_y \rangle$ (P = 1,200 pixels) and summing the velocities along the x plane (i.e., flow direction; Q = 1,600 pixels):

$$E = \sum_{q=1}^{Q} \left[\frac{1}{P} \sum_{p=1}^{P} \left| \langle v_y \rangle \right|_p \right]_q . \tag{7}$$

Entrainment velocities are used to compute the mean hydraulic residence time.

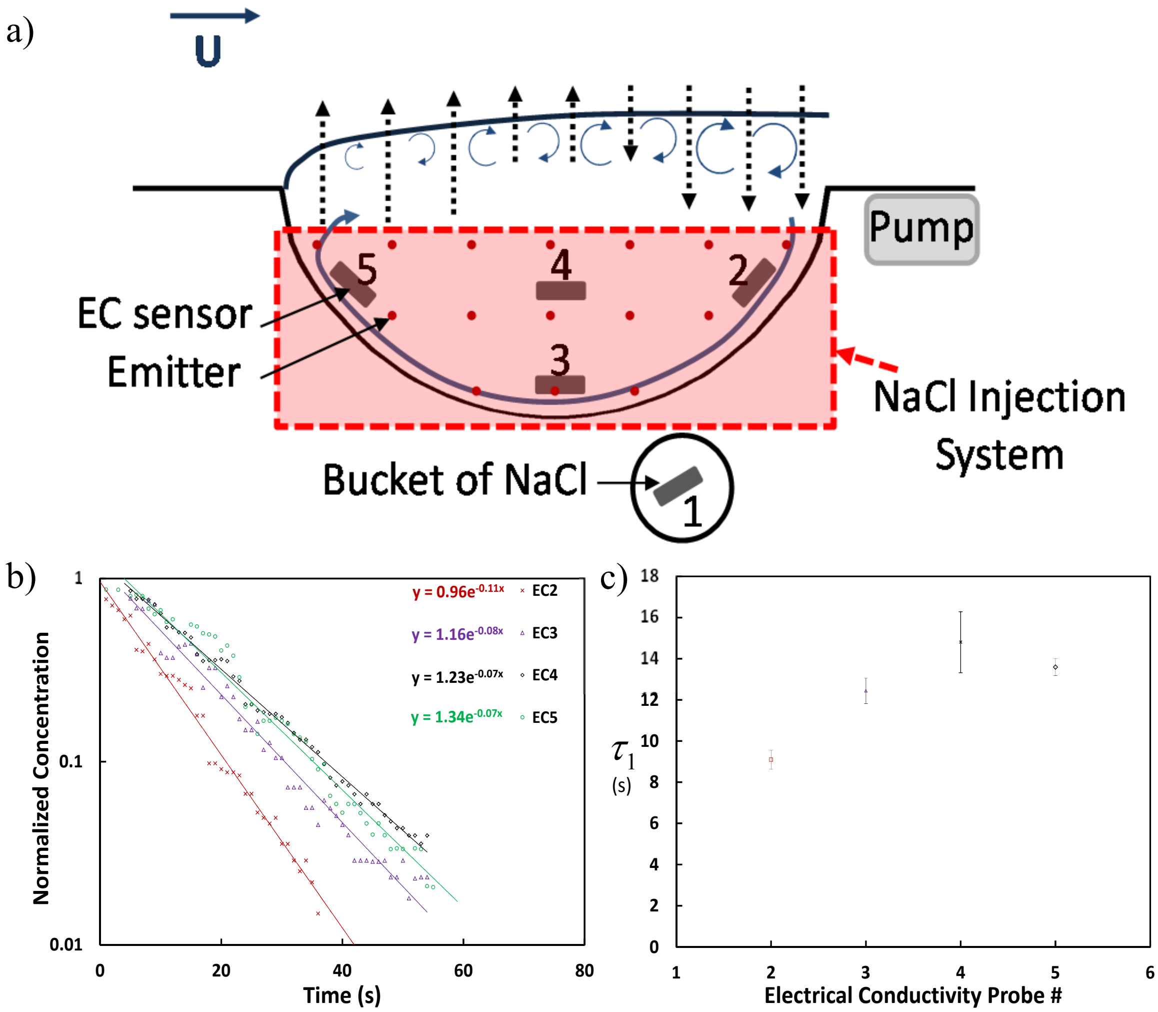

Figure 6.3. NaCl injection experimental set-up and measurements (illustrated using the hydraulically smooth semi-circular case). (a) Schematic of semi-circular cavity showing locations of electrical conductivity (EC) sensors and pressure-compensating emitters mounted onto a platform 0.20 m above water surface. (b) One-exponential concentration BTCs at each EC probe for first NaCl injection experiment. (c) Mean residence time computed at each probe. Error bars represent percent bias error. Notice that EC probe #4 has the largest mean residence time because it is located within the slower moving core region.

Residence time distributions and mean residence times also were measured using the method of *Jackson et al.* [2012]. Two constant rate NaCl injections were done for each experiment using a pump-driven distribution system comprised of pressure-compensating emitters (Figure 6.3a). The emitters were mounted onto a platform centered above the cavity to raise background concentrations to steady state. Four electrical conductivity (EC) probes were uniformly spaced (by visual inspection) within the cavity to simultaneously collect specific conductivity at 1-s intervals (Campbell Scientific, Inc., Logan, Utah, USA). Normalized concentration breakthrough curves were obtained from each NaCl injection experiment (Figure 6.3b) and used to obtain mean residence times from the inverse slope of the exponential RTD [*Nauman*, 1981].

Flow quantities inside the lateral cavity (e.g., velocity, vorticity, turbulent kinetic energy (TKE), Reynolds stresses) were measured using a Sontek MicroADV probe. The Sontek microADV (16 MHz operating frequency; 50 Hz sampling rate; 0.05 m measurement distance) was mounted in the down-looking position and used to measure flow and turbulence characteristics in a horizontal plane at 50% depth in the cavity with a measurement spacing density of no more than 0.05 m between measurements. ADV measurements were collected over 2.75-min intervals (8,000 data samples) at each sampling location. ADV data was post-processed using WinADV software to filter and de-spike instantaneous velocity data. Data was filtered with phase-space filtering, as well as with a signal-to-noise ratio less than 5 and an average correlation score less than 50, based the convergence of ADV data to validated PIV data for moderately and highly turbulent flow using a range of filters [*Bradshaw*, 2012]. Mean flow and turbulence fields within the cavities were obtained by time-averaging instantaneous microADV velocity data. Higher resolution of flow quantities near the cavity walls was achieved using a cubic spline interpolation scheme with 0.005-m resolution.

6.4 Results

6.4.1 Mean Flow Structure

Bed roughness and cavity shape influence the location of the primary gyre that dominates the cavity recirculation region in each experiment (Figure 6.4). Increasing bed roughness moves the primary gyre core upstream and deeper into the cavity. Cavity shape skewness from a symmetrical semi-circular cavity reduces the amount of primary gyre migration in the cavity. For example, in the smooth semi-circular cavity, the primary gyre core is located in the downstream cavity region near the mixing layer at $y/L \sim -0.1$ (U = 0.55 ms^{-1}; Figure 6.4—left column). In the rough low flow semi-circular cavity, the primary gyre core moves toward the cavity center at y/L = -0.2 (U = 0.33 ms^{-1}). In the rough high flow semi-circular cavity, the primary gyre core moves farther into the cavity away from the mixing layer at $y/L \sim -0.3$ due to an increase in main channel velocity. Similarly, in the smooth backward conic cavity, the primary gyre core is located in the

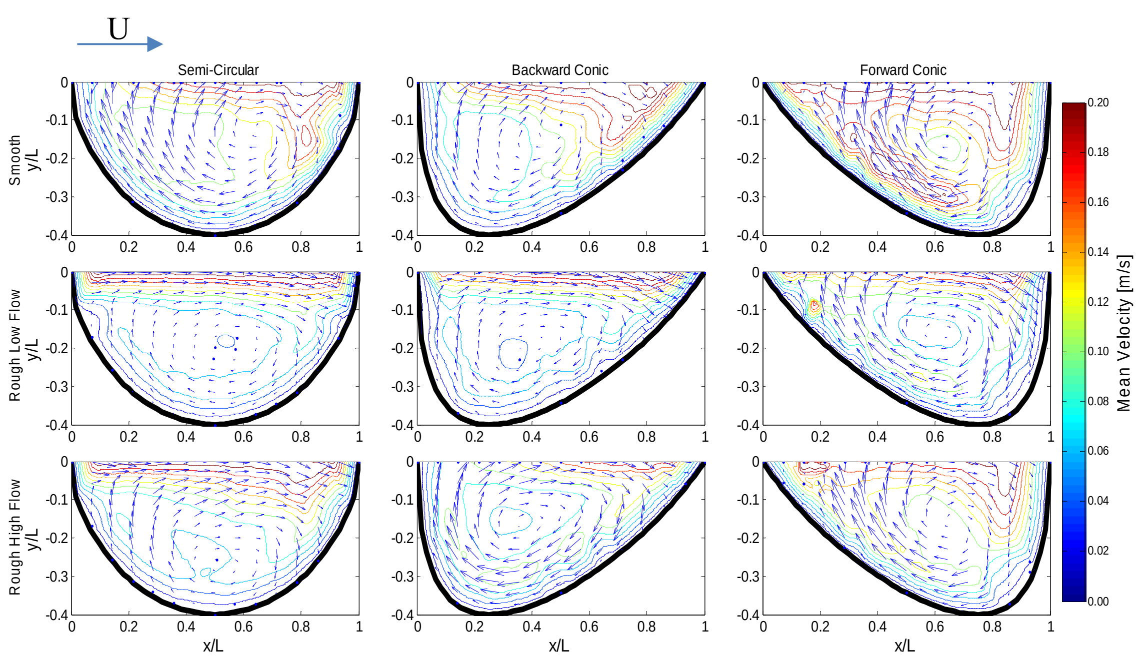

Figure 6.4. Plan view of time-averaged velocity fields at 0.5D_C for semi-circular (left column), backward conic (center column), and forward conic (right column) cavity shapes at three roughness conditions: hydraulically smooth (U = 0.55 ms^{-1}), rough low flow (U = 0.33 ms^{-1}), and rough high flow (U = 0.47 ms^{-1}). Main channel flow is from left to right.

downstream cavity region near the mixing layer at *y/L* ~ -0.1 (Figure 6.4—center column). However, in the rough low flow backward conic cavity, the primary gyre core moves toward the cavity center at *y/L* ~ -0.2 and only moves slightly closer to the mixing layer due to an increase in main channel velocity. In the smooth forward conic cavity, the primary gyre core is located near the cavity center at *y/L* ~ -0.2 (Figure 6.4—right column), and the primary gyre core does not change location with either the addition of roughness elements (rough low flow case) or an increase in main channel velocity (rough high flow case).

Bed roughness and cavity shape influence primary gyre symmetry and circulation. Roughness elements increase gyre symmetry for all rough flow cases (i.e., independent of cavity shape) and have more of an influence at lower flow rates (i.e., the rough low flow cases). The backward conic cavities have primary gyres that exhibit more asymmetry compared to the other cavity shapes at the same bed roughness (Figure 6.4). The forward conic cavities have a larger downstream cavity width, which induces the formation of a symmetrical primary gyre. Therefore, the forward conic cavities have primary gyres that exhibit more symmetry compared to the other cavity shapes at the same bed roughness (Figure 6.4). In the rough bed forward conic cavities, increasing the mean channel velocity (from the rough low flow to rough high flow case) subsequently increases mean gyre circulation with minimal changes to core location. A small secondary gyre begins to form in the upstream corner of the rough low flow forward conic cavity.

6.4.2 Vorticity Fields

Larger values of time-averaged vorticity are observed along the wetted perimeter wall of all cavities and smaller values of time-averaged vorticity are observed toward the cavity center (Figure 6.5). The higher vorticity region is a wall-attached jet-like flow that forms because vorticity patches advected downstream from the leading cavity edge in the mixing layer impinge on the trailing cavity edge, causing the downstream entrainment of vorticity. The relative strength of the jet-like flow is dependent on the in-stream flow velocity [*McCoy et al.*, 2007; 2008]. Higher *Re* (and lower bed roughness effects)

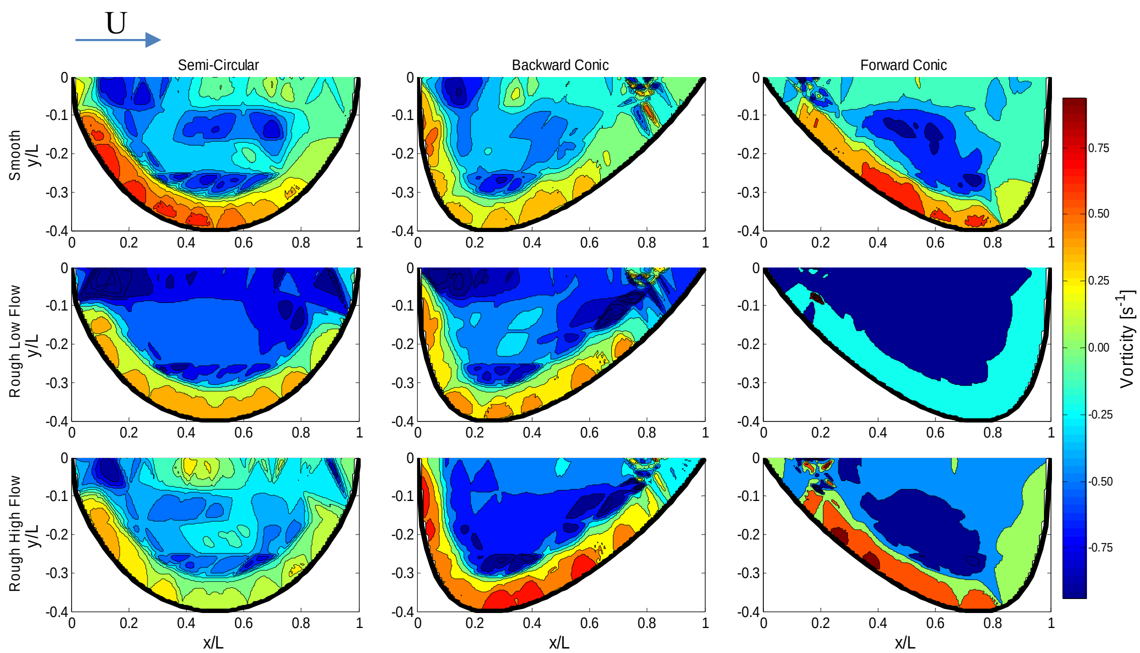

Figure 6.5. Plan view of time-averaged vorticity fields at $0.5D_C$ for semi-circular (left column), backward conic (center column), and forward conic (right column) cavity shapes at three roughness conditions: hydraulically smooth (U = 0.55 ms^{-1}), rough low flow (U = 0.33 ms^{-1}), and rough high flow (U = 0.47 ms^{-1}). Main channel flow is from left to right.

increase momentum exchange and vorticity entrainment, causing higher vorticity fields in the smooth (Figure 6.5—top row) and rough high flow cases (Figure 6.5—bottom row). The relative distribution of high and low vorticity patches is consistent with numerical simulations and experimental work of open channel flow past lateral rectangular embayments [e.g., *Lin and Rockwell*, 2001; *Yao et al.*, 2004; *Chang et al.*, 2006; *Constantinescu et al.*, 2009].

6.4.3 TKE

The time-averaged turbulent kinetic energy (TKE) field for all experiments has a general trend of higher TKE along the mixing layer interface and lower TKE within the cavity (Figure 6.6). Kelvin-Helmholtz instabilities cause the TKE to increase downstream from the leading cavity edge. The impingement of vorticity patches is directly correlated to the higher TKE levels observed in the downstream cavity region. The TKE attenuates in the cavities (from the downstream to upstream cavity region) as the circulation decreases and is more pronounced in the rough flow cases. The highest TKE fields are observed for the smooth cases (Figure 6.6—top row) because higher *Re* and hydraulically smooth beds increase shear strength across the mixing layer, which increases TKE. The lowest TKE fields are observed for the rough low flow cases (Figure 6.6—middle row) because lower *Re* and increased bed roughness effects reduces shear strength and gyre circulation. The forward conic shape yields higher TKE fields compared to the other shapes at each roughness condition (Figure 6.6—right column) because the forward conic shape allows for the formation of a nearly isotropic primary gyre and primary gyre asymmetry reduces mean cavity circulation (see velocity magnitude contours in Figure 6.4). The TKE distribution is consistent with numerical simulations of open channel flow past lateral rectangular embayments by *McCoy et al.* [2007; 2008].

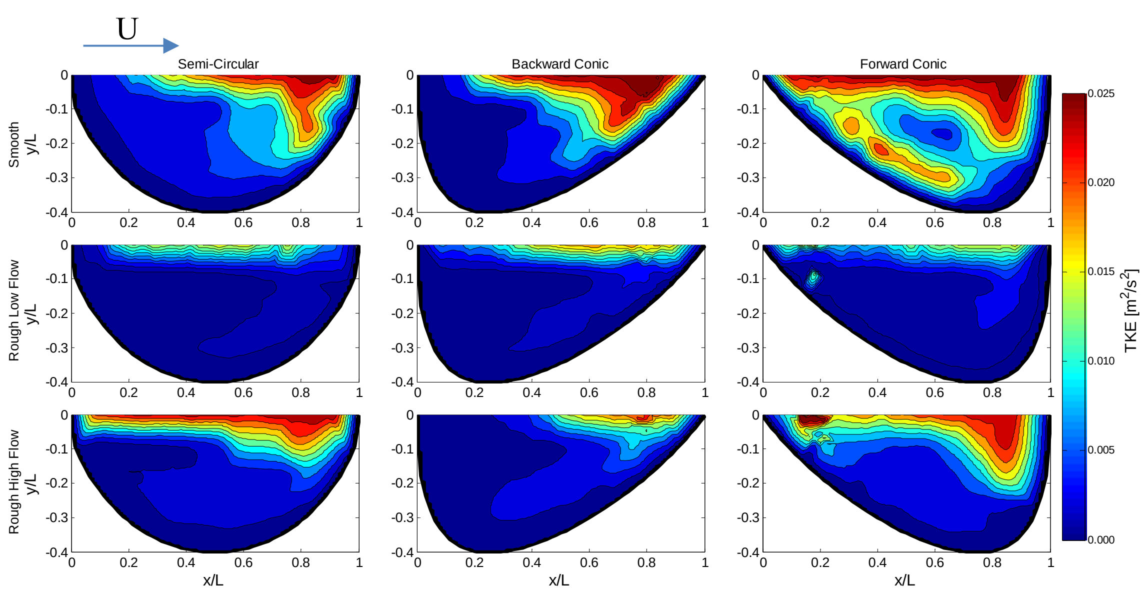

Figure 6.6. Plan view of time-averaged turbulent kinetic energy fields at $0.5D_C$ for semi-circular (left column), backward conic (center column), and forward conic (right column) cavity shapes at three roughness conditions: hydraulically smooth (U = 0.55 ms^{-1}), rough low flow (U = 0.33 ms^{-1}), and rough high flow (U = 0.47 ms^{-1}). Main channel flow is from left to right.

6.4.4 Reynolds Shear Stress Fields

The distribution of time-averaged Reynolds shear stress for the semi-circular, backward conic, and forward conic cavities are shown in Figure 6.7 ($<v_x'v_y'>U^{-2}$). When comparing time-averaged Reynolds shear stress fields for all experiments, the Reynolds shear stresses are higher in the central and trailing edge region of the mixing layer due to Kelvin-Helmholtz instabilities. Maximum values are observed near the cavity trailing edge due to flow impingement. The Reynolds stresses are amplified in the downstream cavity region as vorticity becomes entrained and the Reynolds stresses attenuate in the upstream cavity region. The Reynolds stresses also decay faster farther inside the cavity for the rough flow cases. The streamwise-transverse Reynolds stresses are weakest in the backward conic cavity and strongest in the forward conic cavity (Figure 6.7), and are consistent with the TKE distribution (Figure 6.6).

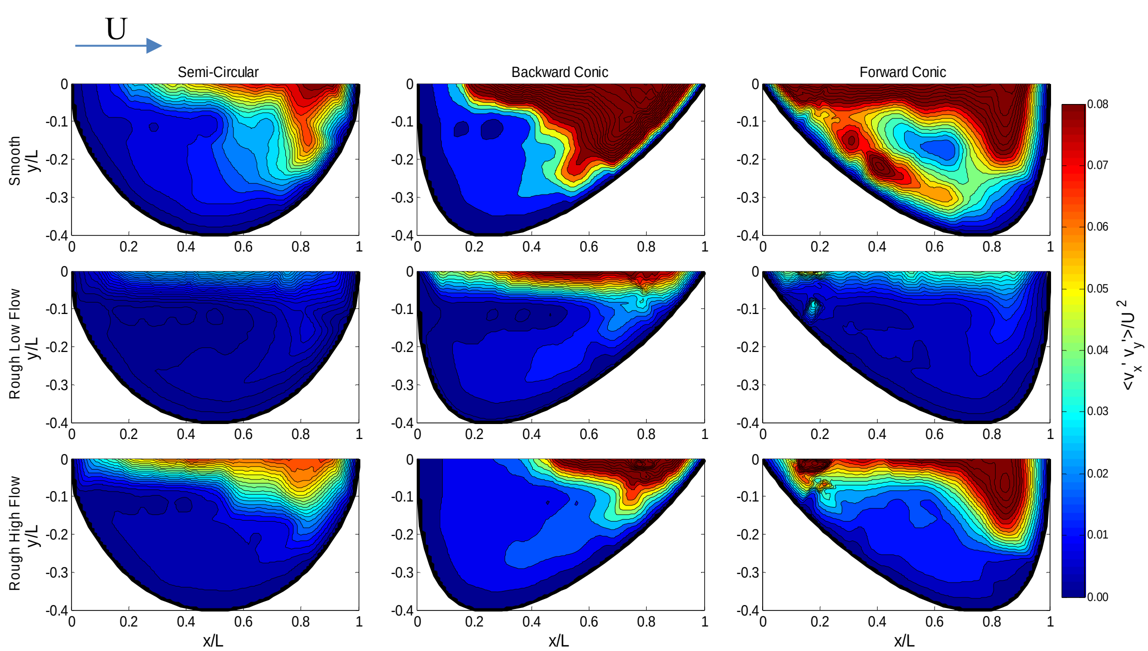

Figure 6.7. Plan view of time-averaged Reynolds stress fields, $<v_x'v_y'>U^{-2}$, at $0.5D_C$ for semi-circular (left column), backward conic (center column), and forward conic (right column) cavity shapes at three roughness conditions: hydraulically smooth (U = 0.55 ms^{-1}), rough low flow (U = 0.33 ms^{-1}), and rough high flow (U = 0.47 ms^{-1}). Main channel flow is from left to right.

6.4.5 Mean Residence Time

6.4.5.1 Effect of Bed Roughness and Cavity Shape

The rough high flow cases have smaller mean residence times (MRTs) and the rough low flow cases have larger MRTs (Table 6.1; compare τ_L). The rough high flow cases have MRTs that are approximately 10 to 35 percent smaller than the rough low flow cases for each cavity shape. Thus, an increase to the flow depth by a factor of 1.5 decreases the MRT by about 10 to 35 percent. The hydraulically smooth cases have MRTs that are approximately 5 to 15 percent smaller than the rough low flow cases for each cavity shape. Thus, the addition of roughness elements (while holding the flow depth constant at 0.15 m) increases the MRT by about 5 to 15 percent.

The semi-circular cavities have the smallest MRTs and the backward conic cavities have the largest MRTs (Table 6.1; compare τ_L). The backward conic cavities have MRTs that are approximately 2 times greater than the semi-circular cavities for each bed roughness experiment. The backward conic cavities have larger MRTs because of the lower mean circulation of the asymmetrical primary gyre. The forward conic cavities have MRTs that are approximately 30 to 45 percent greater than the semi-circular cavities and are approximately 20 to 25 percent smaller than the backward conic cavities for each bed roughness experiment. The forward conic cavities have smaller MRTs than the backward conic cavities because of the higher mean circulation of the symmetrical primary gyre.

6.4.5.2 Comparison to Langmuir's Predictive Relationship using the Entrainment Hypothesis

MRT (τ_L from Eq. 2) agrees with the predicted MRT relationship incorporating the entrainment hypothesis (Eq. 3): $\tau_L = WD_C/kUD_E$, where the empirical entrainment coefficient, k, is the inverse slope (Figure 6.8). For this study, the mean hydraulic residence time varies linearly with WD_C/UD_E and yields an entrainment coefficient of k = 0.026 (R^2 = 0.88; Figure 6.8a). However, when MRTs from 13 other numerical, experimental, and field studies are included in the analysis, there is a weaker linear

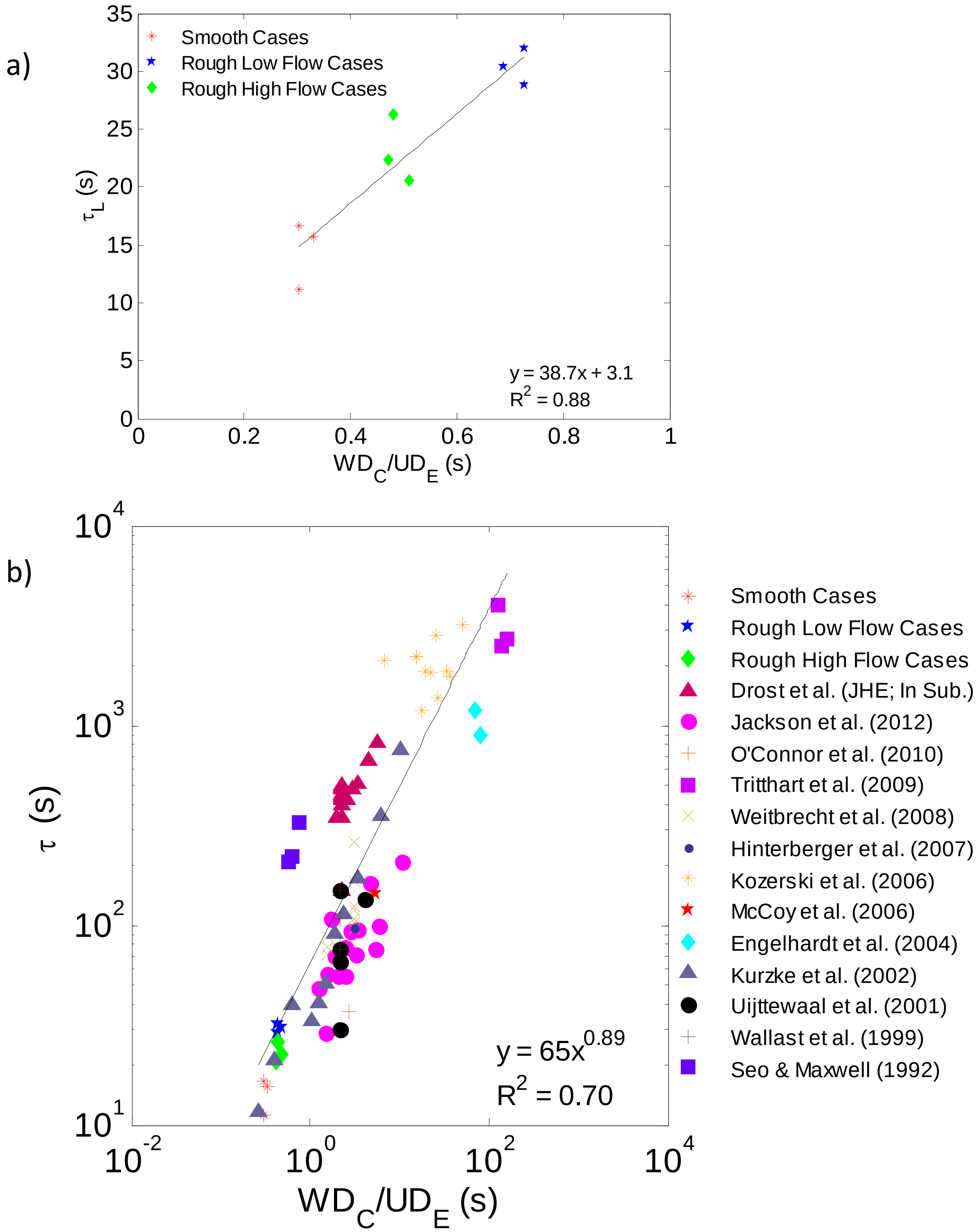

Figure 6.8. Comparison of mean residence time to a predicted mean residence time (WD_C/UD_E) from Eq. 3 for (a) laboratory experiments; and (b) comparison to other studies. Note that (a) plots mean residence time from Eq. 2 versus WD_C/UD_E and (b) plots either Eq. 2 or 8 versus WD_C/UD_E. Marker size indicates a measurement percent error of $\pm$ 5 percent.

correlation with an entrainment coefficient of k = 0.023 (R^2 = 0.70; Figure 6.8b). [Note: in Figure 6.8b the MRT (τ) is used, indicating that MRT was computed using either Eq. 2 (if detailed measurements allowed for the computation of an entrainment velocity) or Eq. 8 (if only injection experiments were used)].

6.4.5.3 Comparison to Jackson et al.'s Predictive Relationship

Experimental data from the hydraulically smooth and rough flow cases was compared separately to the predicted MRT relationship derived by *Jackson et al.* [2013] (Eq. 4). The data was separated because *Jackson et al.*'s predicted relationship was derived for gravel-bed fluvial systems, where the shear velocity is a function of a Manning roughness coefficient that is computed using empirical relations based on a median gravel diameter. Furthermore, bed roughness has a discernible influence on the flow structure and exchange dynamics, where primary gyre symmetry and turbulence and mixing across the mixing layer interface are strongly affected by interactions with bed roughness elements (see Figure 6.4 and 6.6). Thus, idealized (hydraulically smooth) and rough bed lateral cavities produce differing flow fields and are not directly comparable. To illustrate, when the predicted relationship was tested using data from the hydraulically smooth cases and from 6 other experimental (smooth flume) studies, a poor linearly correlation was observed (R^2 = 0.46). Note that Manning roughness coefficients were assigned based on the flume bed material (e.g., steel: n = 0.10; wood: n = 0.014; see *Schall et al.* [2008]).

MRTs from the hydraulically smooth cases and smooth flume studies were compared to the original equation derived by *Jackson et al.* [2013] (i.e., prior to regression analysis used to account for the scaling from small streams to larger rivers):

$$\frac{\tau_1 U}{L} = \frac{u_*}{U} \cdot \frac{UD_E}{\upsilon} \cdot \frac{U}{\sqrt{gD_E}} \cdot \frac{W}{L} \cdot \frac{D_C}{D_E} \cdot \frac{\sqrt{WD_C}}{L} \tag{8}$$

We neglect the roughness term (u_*/U) because the flume experiments have hydraulically smooth beds with nearly the same bed roughness and simplify Eq. 8 to:

$$\frac{\tau_1 U}{L} = \frac{UD_E}{\upsilon} \cdot \frac{U}{\sqrt{gD_E}} \cdot \frac{W}{L} \cdot \frac{D_C}{D_E} \cdot \frac{\sqrt{WD_C}}{L} \tag{9}$$

When Eq. 9 is further simplified by solving for τ_1 we find that $\tau_1 \propto U$, which is physically implausible because increasing mean channel velocity increases mass and momentum exchange across the mixing layer interface, thereby decreasing MRT [*Rockwell and Knisely*, 1980]. Therefore, $\tau_1 \propto U^{-1}$, and the nondimensional groups in Eq. 9 are not equally weighted. Physically, the non-equal weighting implies that some nondimensional groups have a greater influence on MRT compared to other nondimensional groups. More specifically, repeated parameters between nondimensional groups are associated with more than one mechanism that influences cavity flow structure and momentum exchange.

We use linear regression to empirically derive a MRT relationship for hydraulically smooth lateral cavities and log transform Eq. 9 into a product of power-laws:

$$\begin{aligned} \log\left[\frac{\tau_1 U}{L}\right] &= \log a + +b \log \mathrm{Re} + c \log Fr + d \log\left[\frac{W}{L}\right] \\ &\quad + e \log\left[\frac{D_C}{D_E}\right] + f \log\left[\frac{\sqrt{WD_C}}{L}\right] \end{aligned} \tag{10}$$

Plots of log[τ_1U/L] versus log[nondimensional group] were used to obtain power-law correlations between normalized MRT and nondimensional groups. The power-law correlations were used to ascertain each nondimensional group's predictive capacity to estimate normalized MRT. Table 6.2 provides a summary of the regression analysis using smooth flume experimental data from this study and 6 other laboratory studies (33 experiments total). (A listing of nondimensional groups used in the regression analysis has been compiled in Table 6.3). The nondimensional groups with the strongest correlations to normalized MRT were W/L (R^2 = 0.68) and $[WD_C]^{0.5}/L$ (R^2 = 0.64). The *Re*, *Fr*, and D_C/D_E had very weak correlations to normalized MRT ($R^2 < 0.10$) because, as

Table 6.2. Summary of regression analysis of experimental data used to formulate a mean residence time relationship for hydraulically smooth lateral cavities.

Independent Variable	**Regression Coefficient**	**Correlations**		**Nondimensional Products**	
		R^2	***p*-values**	**Case 1[a]**	**Case 2[b]**
log *Re*	0.23	0.07	1.9×10^{-1}	X	-
log *Fr*	0.15	0.01	5.7×10^{-1}	X	-
log (W/L)	1.20	0.68	9.9×10^{-9}	-	-
log (D_C/D_E)	0.07	0.0003	7.0×10^{-1}	-	-
log $(\sqrt{WD_C} / L)$	1.17	0.64	1.7×10^{-6}	-	-
$\log(W/L \cdot D_C/D_E \cdot \sqrt{WD_C} / L)$	0.73	0.82	9.7×10^{-9}	X	X
Case 1[a]	0.92	0.82	2.8×10^{-9}	-	-
Case 2[b]	1.00	0.82	1.1×10^{-9}	-	-

[a]For case 1, the following nondimensional groups were used in the formulation of a nondimensional mean residence time: *Re*, *Fr*, W/L, D_C/D_E, and $[WD_C]^{1.5}/L$.
[b]For case 2, the following nondimensional groups were used in the formulation of a nondimensional mean residence time: W/L, D_C/D_E, and $[WD_C]^{1.5}/L$. A dash denotes unused nondimensional groups.

shown in Table 6.3, the flume studies had a wide range of cavity geometries ($0.17 \leq W/L \leq 1.11$), but a relatively narrow range in other nondimensional parameters. *Re* is equal to 7.4×10^3 in 19 of the 33 cases and is equal to 2.1×10^4 in 8 of the 33 cases. *Fr* is equal to 0.24 in 19 of the 33 cases and is equal to 0.46 in 8 of the 33 cases. D_C/D_E is equal to 0.83 in 19 of the 33 cases and is equal to 1.0 in 12 of the 33 cases. We expect *Re*, *Fr*, and D_C/D_E to have stronger correlations to normalized MRT for hydraulically smooth cavities if laboratory studies are done over a wider range of flow velocities and cavity depth ratios.

We developed two MRT relationships for hydraulically smooth lateral cavities and refer to these relationships as case 1 and case 2 (see Table 6.2). Case 1 includes 5 nondimensional groups: *Re*, *Fr*, W/L, D_C/D_E, and $[WD_C]^{0.5}/L$, where W/L, D_C/D_E, and $[WD_C]^{0.5}/L$ are combined into a lumped geometric factor because, as discussed in *Jackson et al.* [2013], the geometric factors and shape factor do not 'scale up' between small and large fluvial systems. The *Re* and *Fr* are included in case 1 because, even though these nondimensional parameters have weak correlations to MRT, previous studies have shown that *Re* and *Fr* do influence MRT [*Yao et al.*, 2004; *Faure et al.*, 2007; *Jackson et al.*, 2013]. Furthermore, as stated above, the weak correlations between normalized MRT and *Re* and *Fr* are because of the relatively narrow range of flow velocities used in the laboratory experiments and are not because these parameters do not influence MRT.

Table 6.3. Summary of nondimensional parameters used in mean residence time relationship for hydraulically smooth lateral cavities.

Study	Cavity Geometry	$\tau_1 U / L$	Re	Fr	W/L	D_c/D_E	$\sqrt{WD_C} / L$
This study	Semi-Circle	19.6	8.3×10^4	0.45	0.40	1.00	0.32
	Backward Conic	25.0	8.3×10^4	0.45	0.40	1.00	0.32
	Forward Conic	48.9	8.3×10^4	0.45	0.40	1.00	0.32
Weitbrecht et al. [81]	Rectangular	9.9	7.4×10^3	0.24	0.34	1.00	0.10
		12.1	7.4×10^3	0.24	0.40	1.00	0.12
		14.9	7.4×10^3	0.24	0.48	1.00	0.14
		26.7	7.4×10^3	0.24	0.59	1.00	0.18
		33.4	7.4×10^3	0.24	0.77	1.00	0.23
		50.5	7.4×10^3	0.24	1.11	1.00	0.34
		4.9	7.4×10^3	0.24	0.17	1.00	0.07
		11.4	7.4×10^3	0.24	0.25	1.00	0.11
		18.9	7.4×10^3	0.24	0.40	1.00	0.17
Hinterberger et al. [30]	Rectangular	12.4	7.4×10^3	0.24	0.40	1.83	0.12
McCoy et al. [46]	Rectangular	18.2	8.2×10^3	0.17	0.70	0.83	0.20
Kurzke et al. [41]	Rectangular	54.8	7.4×10^3	0.24	1.11	0.83	0.32
		36.4	7.4×10^3	0.24	0.77	0.83	0.27
		29.2	7.4×10^3	0.24	0.59	0.83	0.23
		16.3	7.4×10^3	0.24	0.48	0.83	0.21
		13.2	7.4×10^3	0.24	0.40	0.83	0.19
		10.6	7.4×10^3	0.24	0.34	0.83	0.18
		7.4	7.4×10^3	0.24	0.17	0.83	0.18
		13.6	7.4×10^3	0.24	0.25	0.83	0.21
		25.6	7.4×10^3	0.24	0.40	0.83	0.27
Uijttewaal et al. [78]	Rectangular	11.7	2.1×10^4	0.46	0.33	0.83	0.09
		46.5	2.1×10^4	0.46	0.66	0.83	0.19
		10.1	2.1×10^4	0.46	0.33	0.83	0.09
		4.7	1.1×10^4	0.65	0.33	0.67	0.07
		10.8	1.1×10^4	0.23	0.33	0.83	0.09
Wallast et al. [80]	Rectangular	33.4	2.1×10^4	0.46	0.67	0.83	0.19
		11.8	2.1×10^4	0.46	0.33	0.83	0.09
		46.5	2.1×10^4	0.46	0.67	0.83	0.19
		25.4	2.1×10^4	0.46	0.67	0.83	0.19
		25.4	2.1×10^4	0.46	0.67	0.83	0.19

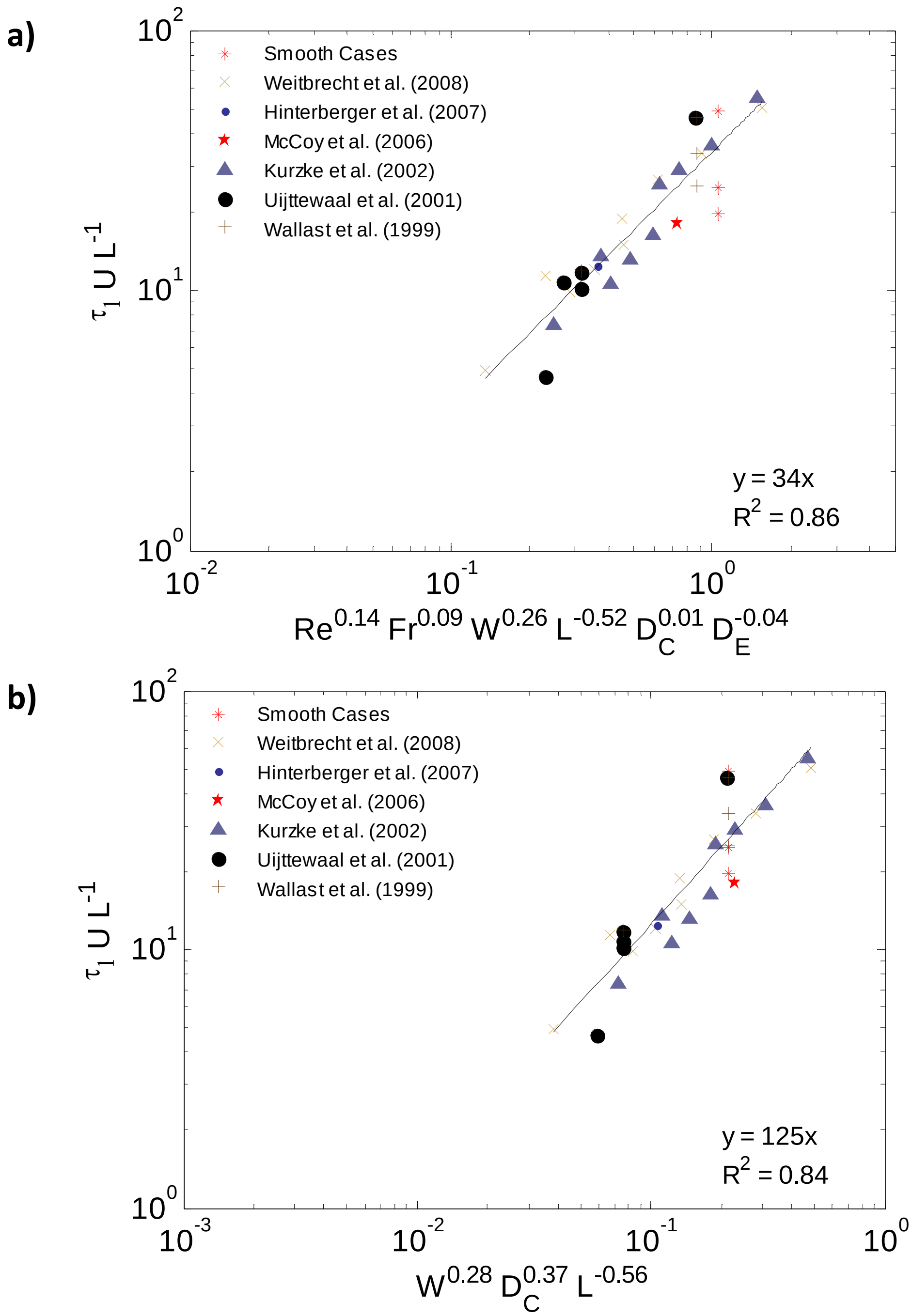

Figure 6.9. Comparison of experimental data (smooth flumes; no roughness elements) using the predicted mean residence time relationships for hydraulically smooth lateral cavities from Eq. 11 (a) and Eq. 12 (b).

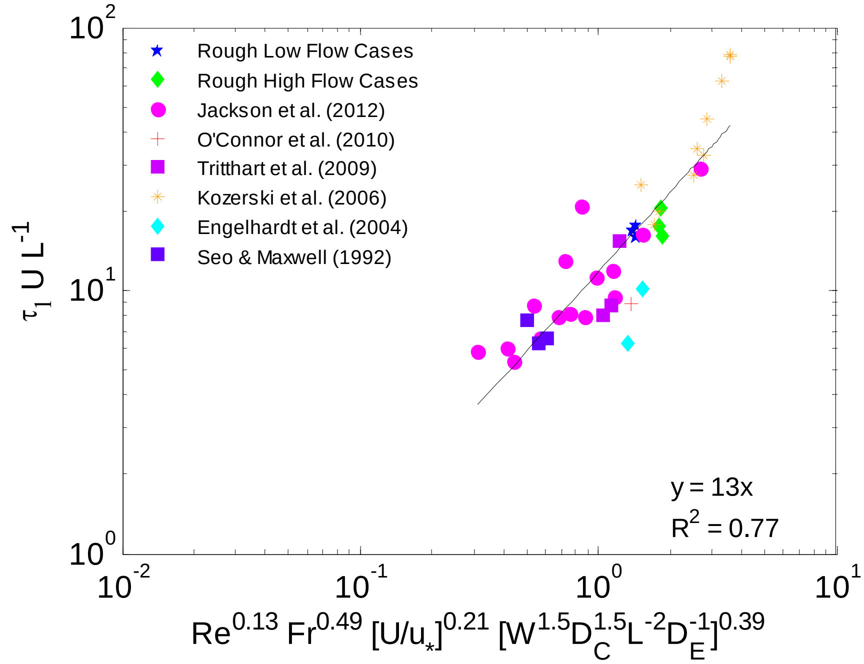

Figure 6.10. Comparison of field and laboratory data (with roughness elements) using the predicted mean residence time from Eq. 4 and a Manning roughness coefficient computed using either Eq. 5 for deeper flows (> 0.30 m) or Eq. 6 for shallow flows (≤ 0.30 m).

The empirically derived MRT relationship for case 1 is given by:

$$\frac{\tau_1 U}{L} = 17\left[\frac{UD_E}{\upsilon}\right]^{0.21} \cdot \left[\frac{U}{\sqrt{gD_E}}\right]^{0.14} \cdot \left[\frac{W^{3/2} D_C^{3/2}}{L^2 D_E}\right]^{0.67} \tag{11}$$

Case 1 has a strong power-law correlation to normalized MRT (R^2 = 0.82; Figure 6.9a) that is statistically significant at the $p < 0.001$ level (Table 6.2). Case 2 only includes the lumped geometric factor (nondimensional group with the highest correlation to normalized MRT). Only the lumped geometric factor is included in case 2 because *Re* and *Fr* do not vary significantly between experiments. The empirically derived MRT relationship for case 2 is given by:

$$\frac{\tau_1 U}{L} = 128\left[\frac{W^{3/2} D_C^{3/2}}{L^2 D_E}\right]^{0.73} \tag{12}$$

Case 2 has a strong power-law correlation to normalized MRT (R^2 = 0.82; Fig. 9b) that is statistically significant at the $p < 0.001$ level (Table 2).

Normalized MRTs from the rough flow cases have a strong power-law correlation to the predicted MRT relationship derived by *Jackson et al.* [2013] (R^2 = 0.77; Eq. 4; Figure 6.10). MRTs from the rough flow cases as well as from 6 other experimental and field studies are included in the analysis in Figure 6.10. The rough flow cases follow the trend derived by *Jackson et al.* [2013] and provide further support for this predicted relationship.

6.5 Discussion

6.5.1 Mean Flow Structure

Few studies have been done on flow past representative natural cavity shapes at similar *Re*. Experiments by *Migeon et al.* [2000] and *Ozalp et al.* [2010] studied turbulent channel flow past semi-circular cavities in the range of aspect ratios used for our study ($0.25 < W/L < 0.5$), and the asymmetrical one-gyre recirculation pattern observed in the smooth semi-circular cavity experiment is consistent with their work. To understand the contrasting effects of the smooth backward and forward conic cavities on the flow field, first the results are summarized. The decreased downstream width of the backward conic shape increases primary gyre asymmetry, which becomes more prominent at higher *Re*. Conversely, the increased downstream width of the forward conic shape increases primary gyre symmetry, which becomes more prominent at higher *Re*. These flow field results can be explained by comparison to studies of turbulent open channel flow past rectangular cavities [e.g., *Weitbrecht and Jirka*, 2001; *Cheng and Hung*, 2006]. For rectangular cavities with W/L less than 0.5, a two-gyre recirculation pattern forms with a large primary gyre in the downstream cavity region and a smaller counter-rotating gyre in the upstream corner. The present study has a one-gyre recirculation pattern at $W/L = 0.4$; however, for the smooth flow cases, the primary gyre core is located in the downstream cavity region, similar to rectangular cavities. Because the primary gyre is predominantly situated in the downstream region, the location of maximum cavity width controls the primary gyre's relative skewness (i.e., symmetry). For a smaller downstream cavity width (i.e., backward conic), less cavity volume (in the downstream region) is available for the primary gyre to form and the gyre becomes skewed, especially at higher velocities. For a larger downstream cavity width (i.e., forward conic), more cavity volume (in the downstream region) is available for the primary gyre to form and the gyre is always symmetrical.

A secondary gyre only forms in the rough low flow case of the forward conic cavity and can be explained by the effects of channel flow conditions, bed roughness, and shape. *Chiang et al.* [1998] show that an increase in *Re* increases the size of the primary gyre. This occurs because higher *Re* increases the velocity gradient across the mixing layer which, according to *Rockwell and Knisely* [1980] and *Yao et al.* [2004], intensifies the Kelvin-Helmholtz instabilities that drive momentum exchange and subsequently increase primary gyre size. In the smooth and rough high flow cases, the *Re* is sufficiently high (> 63,500) to cause the primary gyre to enlarge and dominate the entire cavity recirculation region. In the rough low flow cases, reduced *Re* and bed roughness decrease mean gyre circulation, reduce primary gyre size, and cause the gyre's core to be centered within the cavity, which can allow for a smaller counter-rotating secondary gyre to form. However, a secondary gyre only forms in the low flow rough forward conic cavity because of shape effects. As stated above, a secondary gyre typically forms in the upstream cavity region (for rectangular cavities at W/L = 0.4) and cavity shape in this study controls the primary gyre's relative symmetry. All of the rough low flow cases produce symmetrical primary gyres with their core region centered within the cavity. The symmetry of the semi-circular shape causes a centered symmetrical gyre to dominate the entire cavity at rough low flow conditions. The asymmetry of the backward conic shape "pushes" the symmetrical primary gyre farther upstream so that the gyre encompasses the upstream cavity region and does not allow for a secondary gyre to form. However, the asymmetry of the forward conic shape only reduces the primary gyre size in the downstream region, allowing for a smaller secondary gyre to form in the upstream cavity region.

.5.2 Mean Residence Time

6.5.2.1 Comparison to Langmuir's Predictive Relationship using the Entrainment Hypothesis

The predicted MRT relationship that incorporates the entrainment hypothesis (Eq. 3; Figure 6.8) is scale-dependent. The predicted relationship has a strong linear correlation to MRT when using experimental data from this study (Figure 6.8a). Our flume study was scaled to the size of a 3rd-order riffle-pool stream, Oak Creek, in Oregon. The predicted relationship has a weaker linear correlation to MRT when using experimental and field data from studies conducted at multiple scales from small headwater streams to larger rivers (Figure 6.8b). Comparison of experimental and field data at multiple scales suggests that other hydraulic and morphological parameters not accounted for in the predicted relationship influence MRT. Figure 6.8a shows a clear dependence of MRT on the cavity width, depth, and channel velocity. However, the weaker linear correlation at multiple scales (Figure 6.8b) indicates that this predicted relationship does not capture all effects of channel hydraulics, cavity geometry, and bed roughness at multiple scales. Therefore, the predicted relationship in Eq. 3 is suitable only for computing MRTs in lateral cavities along the same stream or along streams with similar hydraulic and roughness conditions.

6.5.2.2 Comparison to Jackson et al.'s Predictive Relationship

The predicted relationship derived by *Jackson et al.* [2013] (Eq. 4) is a good model for the MRT of lateral cavities with roughness elements. The rough flow cases further confirm this predicted relationship, which works well for gravel-bed fluvial systems with $0.2 < W/L < 0.75$ and $1 \times 10^4 < Re < 1 \times 10^7$. The predicted relationship has the advantage of being comprised of no more than seven easily measureable field parameters. However, this model does not work well for hydraulically smooth lateral cavities, even when a Manning roughness coefficient is specified based on flume bed material.

The MRT relationships derived for hydraulically smooth lateral cavities (Eq. 11 and 12) are good models for lateral cavities without roughness elements. These relationships have the advantage of being comprised of no more than five parameters that can be easily measured with limited data requirements. Eq. 11 and 12 will allow for a priori estimates of MRT in hydraulically smooth lateral cavities for a wide range of cavity aspect ratios ($0.17 \leq W/L \leq 1.11$) and a range of flow conditions ($7.4 \times 10^3 \leq Re \leq 8.3 \times 10^4$) representative of small streams. Lateral cavities in streams are hydraulically smooth if the bed substrate lacks roughness elements, such as if the bed substrate is bedrock or composed predominantly of clay.

6.5.2.3 Application of Mean Residence Time Relationships

A number of MRT relationships have been developed and care should be taken when applying these relationships to field and experimental studies. When the entrainment hypothesis is incorporated into the Langmuir timescale (Eq. 3), there is a large degree of uncertainty in the value of the entrainment coefficient (k). Laboratory (smooth flume) studies have computed values of k ranging from 0.01 to 0.03 [*Wallast et al.*, 1999; *Weitbrecht and Jirka*, 2001; *Chang et al.*, 2007], whereas field-based studies have computed values of k ranging from 0.03 to 0.04 [Seo and Maxwell, 1992; *Jackson et al.*, 2012]. Therefore, when choosing a value of k, one must consider cavity geometry and roughness conditions. The predicted MRT relationships derived for hydraulically smooth and rough bed lateral cavities support the argument that bed roughness influences MRT. Bed roughness affects the flow structure of a lateral cavity (i.e., primary gyre symmetry and circulation) and the flow structure influences MRT. The predicted MRT relationship derived by *Jackson et al.* [2013] does not hold for hydraulically smooth lateral cavities, even when a Manning roughness coefficient is specified for the smooth bed, because the flow structure and exchange dynamics change from smooth to rough bed lateral cavities. The MRT relationships derived for hydraulically smooth lateral cavities differ from the MRT relationship derived for hydraulically rough lateral cavities only in a roughness term. This study shows that bed roughness and cavity shape influence MRT and that care should be taken to ensure predicted MRT relationships developed for ideal (hydraulically smooth) lateral cavities are not used for lateral cavities with roughness elements.

6.6 Conclusions

The objective of this study is to investigate the effect of three representative natural cavity shapes—semi-circular, backward conic, and forward conic—and three roughness conditions—hydraulically smooth, low flow rough, and high flow rough—on the flow structure and mean residence time (MRT) of a lateral cavity in a turbulent open channel flow. Experimental results reveal mean flow fields dominated by one-gyre recirculation patterns for representative natural cavity shapes (W/L = 0.4) at high Re, which contrasts the two-gyre recirculation pattern observed for rectangular cavities at similar W/L and Re. The formation of a small secondary gyre was only observed for the low flow rough forward conic shape, and was due to the effects of high bed roughness, shape (i.e., maximum cavity width located in the downstream cavity region), and Re (i.e., low flow conditions reduce the size of the primary gyre). Primary gyre isotropy depends on the location of maximum cavity width. A symmetric primary gyre forms when the maximum width is located in the downstream cavity region (i.e., forward conic shapes), promoting higher mean circulation velocities and smaller MRTs. An asymmetric primary gyre forms when the maximum width is located in the upstream cavity region (i.e., backward conic shapes), promoting lower mean circulation velocities and larger MRTs.

Cavity shape and bed roughness influence the MRT of a lateral cavity. For each cavity shape, the hydraulically smooth cases have smaller MRTs and the rough flow cases have larger MRTs. For each roughness experiment, the backward conic shapes have larger MRTs due to primary gyre asymmetry and the forward conic shapes have smaller MRTs due to primary gyre symmetry.

The predicted MRT relationship that incorporates the entrainment hypothesis (Eq. 3) is scale-dependent. At multiple scales (from small streams to larger rivers), weaker correlations are observed because this predicted relationship does not capture all effects of channel hydraulics, cavity geometry, and bed roughness at multiple scales. Therefore, the predicted relationship in Eq. 3 is suitable only for computing MRTs in lateral cavities along the same stream or along streams with similar hydraulic and roughness conditions.

Predicted MRT relationships derived in this study for hydraulically smooth beds and by *Jackson et al.* [2013] for rough beds are good models for the MRT of lateral cavities. The rough flow cases further confirm the predicted relationship derived by *Jackson et al.* [2013], which works well for gravel-bed fluvial systems with $0.2 < W/L < 0.75$ and $1 \times 10^4 < Re < 1 \times 10^7$. However, this predictive model does not work well for hydraulically smooth lateral cavities. Therefore, two MRT relationships were derived for hydraulically smooth lateral cavities. The first relationship, referred to as case 1, includes 5 nondimensional groups: Re, Fr, W/L, D_C/D_E, and $[WD_C]^{0.5}/L$ (Eq. 11) and has a strong power-law correlation to normalized MRT ($R^2 = 0.82$). The second relationship, referred to as case 2, includes the geometric ratios and shape factor, which have the highest correlation to normalized MRT (Eq. 12), and also has a strong power-law correlation to normalized MRT ($R^2 = 0.82$). Eq. 11 and 12 will allow for a priori estimates of MRT in hydraulically smooth lateral cavities (e.g., cavities with bedrock or clay substrates) for a wide range of cavity aspect ratios ($0.17 \leq W/L \leq 1.11$) and a range of flow conditions ($7.4 \times 10^3 \leq Re \leq 8.3 \times 10^4$) representative of small streams.

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CHAPTER 7

EFFECT OF MULTIPLE LATERAL CAVITIES ON STREAM SOLUTE TRANSPORT UNDER NON-FICKIAN CONDITIONS AND AT THE FICKIAN ASYMPTOTE

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ABSTRACT

In field studies of solute and pollutant transport, transient storage within lateral cavities and other stream features generates breakthrough curves (BTCs) that have pronounced and persistent skewness. Current solute transport theory requires that the coefficient of skewness (*CSK*) decrease over time because the system eventually reaches Fickian conditions. However, published data show that *CSK* is constant in time. To aid the development of solute transport theory that explains field observations, we quantify the effect of lateral cavities on solute transport under non-Fickian and Fickian conditions. Six hydrodynamics models were developed: one with no lateral cavities, three with lateral cavities in series, and two with lateral cavities in parallel. Our results show that lateral cavities in series have longer tails and smaller peak concentrations compared to lateral cavities in parallel. Lateral cavities in series cause greater dispersion and require larger distances to reach Fickian conditions (x_{Fick}) compared to lateral cavities in parallel. Cavity configuration has a greater influence on longitudinal dispersion and x_{Fick} than the number of cavities present, and must be considered to accurately quantify stream solute transport. *CSK* changes with monitoring location and maximum *CSK* (= 10 to 20) near lateral cavities is higher than empirical estimates (≈ 1.18). We postulate that adding more transient storage zones would increase channel complexity and yield closer results between simulated and empirical *CSK*, and testing this hypothesis warrants future research.

7.1. Introduction

The fate and transport of solutes is an active field of research due to the increased loading of metals, nutrients, sediments, radionuclides, and other pollutants to fluvial ecosystems. Understanding and accurately quantifying the dispersive behavior of open channel flows is imperative for the prediction of solute migration. The classical dispersive behavior of solute migration in open channel flows is comprised of three phases: (1) solute dilution following an initial injection due to convective mechanisms (i.e., momentum forces); (2) cross-sectional solute mixing due to turbulence; and (3) homogenization of the solute concentration profile downstream as a function of time due to the mechanisms of longitudinal shear and transverse diffusion, resulting in Fickian dispersion [*Taylor*, 1953; 1954]. In field tracer studies, solute migration undergoes phases one and two; however, phase three is rarely achieved. *Nordin and Sabol* [1974; also *Nordin and Troutman*, 1980] first noted the persistent skewness in concentration breakthrough curves (BTCs). The pronounced and persistent skewness—a non-Fickian condition—is attributed to incomplete transverse mixing due to mass and momentum exchange between the main channel flow and transient storage zones [*Hays*, 1966; *Nordin and Sabol*, 1974; *Stream Solute Workshop*, 1990]. Transient storage zones can refer to either recirculation regions in the surface stream such as pools (surface transient storage), or the hyporheic zone (hyporheic transient storage).

Conventional models of solute transport that include transient storage [e.g., OTIS, *Bencala and Walters*, 1983; *Runkel*, 1998] do not adequately predict the skewness in stream solute transport. *González-Pinzón et al.* [2013] show solute transport theory is inconsistent with field tracer data. In their meta-analysis of tracer data, *González-Pinzón et al.* demonstrate that the coefficient of skewness (*CSK*) is constant over time (*CSK* = 1.18 $\pm$ 0.08) in tracer studies, whereas solute transport theory has a *CSK* that decreases over time. *Gooseff et al.* [2013] show that well-optimized simulations of stream solute transport, using data obtained for individual sub-reaches and combinations of sub-reaches, result in varying interpretations of tracer exchange with transient storage zones. Thus, there is an approximate equifinality of model solutions (i.e., similar model fits using different parameter sets) that is dependent on reach length. This has resulted in the contrasting results observed among field tracer studies when quantifying the effect of transient storage zones on downstream solute transport. For example, field tracer studies by *Valett et al.* [1996; 1997], *Morrice et al.* [1997] and *Mulholland et al.* [1997] show that nutrient uptake length is positively correlated to transient storage area, whereas *Hall et al.* [2002], *Lautz and Siegel* [2007], and *Argerich et al.* [2011] show no clear relationship between transient storage area and nutrient uptake length, indicating transient storage area does not adequately describe nutrient uptake and retention.

To better predict solute transport in streams, we need to understand the effect of transient storage on the dispersive behavior of open channel flows. Solute transport theory assumes that the skewness of a concentration BTC increases to a maximum value and then decreases to zero, indicating the fluvial system has reached Fickian conditions [*Taylor*, 1954; *Chatwin*, 1971]. However, most fluvial systems never asymptotically approach Fickian conditions and little is known about the effect of transient storage on stream solute transport when Fickian dispersion is *not* assumed. Specifically, we ask the question: what is the effect of one or more transient storage zones on the in-stream concentration BTC, if we do not assume Fickian dispersion? To answer this question, we use a computational fluid dynamics model and focus on one type of transient storage: emergent lateral cavities.

Emergent lateral cavities, also referred to as lateral surface transient storage zones, are a prevalent and well-studied type of surface transient storage in open channel flows. Emergent lateral cavities are lateral cut outs that form along a channel typically by erosion either along the cutbank of a meander bend, downstream of a riffle reach, or behind an obstacle protruding from the streambank, such as a log bole or tree root [*Jackson et al.*, 2013a]. The flow structure of an emergent lateral cavity is characterized by an entrained recirculation region comprised of one or more gyres and a shear layer that spans the entire entrance (Figure 7.1). The recirculation region entrains and enhances solute and suspended sediment mean residence time, which increases the potential for biogeochemical reactions that can improve water quality.

The purpose of this paper is to quantify the effect of emergent lateral cavities on the migration of a conservative tracer under non-Fickian conditions and to determine the transport conditions at the Fickian asymptote. We define non-Fickian conditions as phases one and two of classical dispersive behavior where, after a conservative tracer is injected, the tracer undergoes dilution and cross-sectional mixing due to convection and turbulence. At non-Fickian conditions, the tracer breakthrough curve is skewed ($CSK > 0$). The Fickian asymptote is achieved when the tracer breakthrough curve approaches a Gaussian distribution ($CSK \rightarrow 0$). This numerical study uses three-dimensional

Reynolds-Averaged Navier Stokes (RANS) computational fluid dynamics (CFD) models to understand conservative solute migration in the main channel due to the presence of transient storage zones (i.e., lateral cavities). This detailed study is unique because the flow field is solved and solute migration is simulated based on the underlying flow physics, unlike solute transport studies that parameterize solute transport and exchange processes with transient storage zones.

We developed six RANS CFD models of open channel flow: one model with no lateral cavities and five models with one or more emergent semi-circular lateral cavities (Figure 7.2). Case CO denotes 'channel only', indicating open channel flow with no lateral cavities. Cases S1, S2, and S3 denote 'series', indicating that lateral cavities are configured in series, and the numbers 1, 2, and 3 indicate that one, two, or three lateral cavities are configured in series, respectively. Cases P1 and P2 denote 'parallel', indicating that lateral cavities are configured in parallel, and the numbers 1 and 2 indicate that one or two sets of lateral cavities are configured in parallel, respectively. The models were verified using detailed experimental data from a flume study by *Jackson et al.* [In

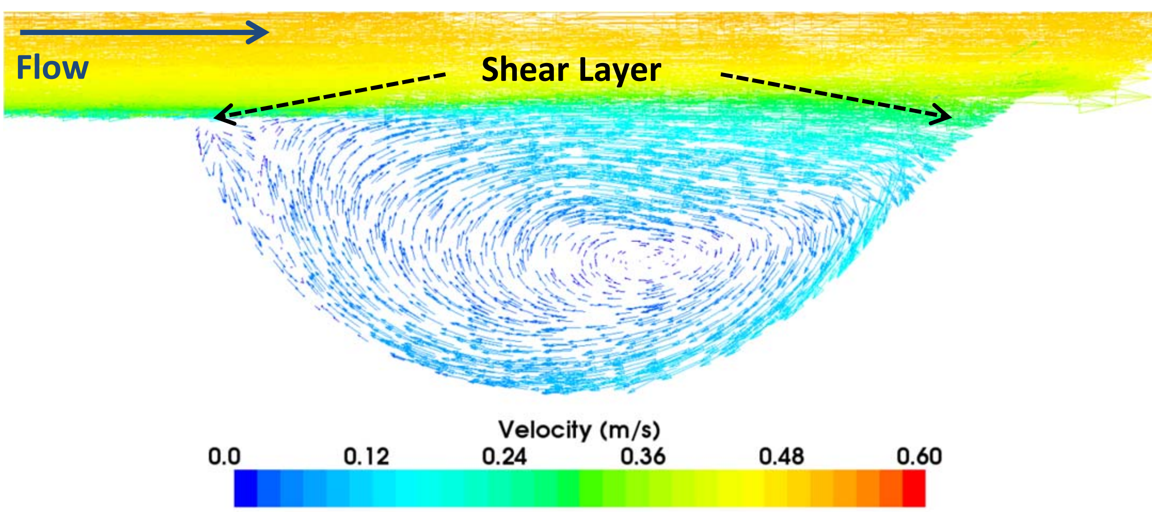

Figure 7.1. Plan view of the flow structure for flow past a lateral semi-circular cavity with W/L = 0.4. Velocity vector field (at the water surface) obtained from a RANS CFD model of Case S1 (flow past a single semi-circular cavity).

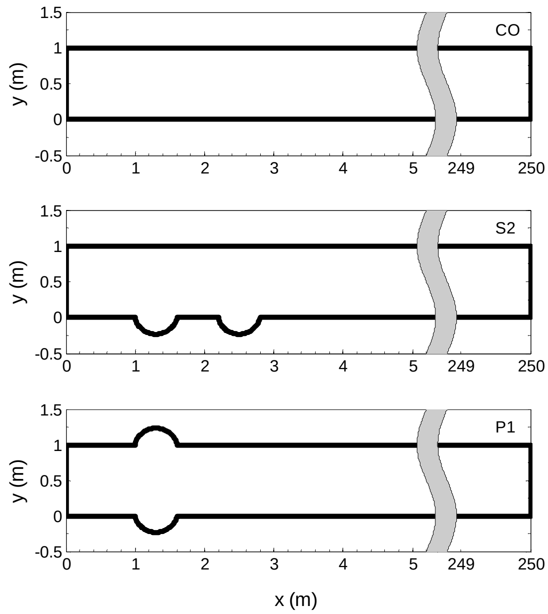

Figure 7.2. Conceptualization of lateral cavity configurations in RANS CFD simulations. All model configurations have a 250-m grid domain.

Review; EFM]. Model results show the downstream evolution of conservative tracer breakthrough curves, the *CSK*, and longitudinal dispersion coefficients due to differing configurations of lateral cavities. These results may aid the development of mechanistic solute transport theory that is consistent with field observations.

7.2. Background

7.2.1 Flow Structure

All emergent lateral cavities have shear layers that drive mass and momentum exchange between the main channel and lateral cavity. The shear layer forms by flow separation at the upstream cavity edge and reattaches to the channel wall at a point downstream of the downstream cavity edge [*Rockwell and Knisely*, 1980]. The shear layer is comprised of streamwise-oriented rollers that merge and grow downstream from the leading cavity edge due to Kelvin-Helmholtz instabilities [*Lin and Rockwell*, 2001]. The impingement of convected streamwise-oriented rollers forces the unsteady transport of vorticity into the downstream cavity region, which causes flow recirculation [*Lin and Rockwell*, 2001].

The flow structure of flow past a single emergent square or rectangular lateral cavity has been well studied. The flow structure is largely dependent on the cavity width (W; normal to flow) to length (L; parallel to flow) aspect ratio. For shallow rectangular cavities ($W/L < 1$), a large primary gyre is situated in the downstream cavity region and a smaller counter-rotating secondary gyre is situated in the upstream cavity region, isolated from the shear layer [*Sinha et al.*, 1982; *Shen and Floryan*, 1985; *Shankar*, 1993; *Grace et al.*, 2004; *Cheng and Hung*, 2006]. For square cavities ($W/L \sim 1$), a large primary gyre dominates the cavity [*Burggraf*, 1966; *Benjamin and Denny*, 1979; *Ghia et al.*, 1982; *Kimura and Hosoda*, 1997; *Cheng and Hung*, 2006]. For deep rectangular cavities ($W/L >> 1$), a large primary gyre spans the cavity length and is situated adjacent to the shear layer, and one or more secondary gyres of similar size are stacked on top of one another between the cavity wetted perimeter and primary gyre [*Cheng and Hung*, 2006].

The shape of natural lateral cavities is more complex than that of the conventional cavity shapes (i.e., square and rectangular); however, few studies have considered the effect of alternative cavity shapes on the cavity flow structure. *Chang and Cheng* [1999] numerically investigated the flow structure and heat transfer behavior of a lid-driven semi-circular cavity ($W/L = 0.3$) with Reynolds numbers (Re) ranging from 100 to 2,000. At $Re = 100$, a single large primary gyre is centered in the semi-circular cavity whereas, at $Re = 2{,}000$, a large primary gyre is located in the downstream cavity region and a small counter-rotating secondary gyre forms in the upstream cavity region far from the shear layer. *Migeon et al.* [2000] performed a laboratory experiment of flow past a semi-circular cavity ($W/L = 0.5$) at $Re = 1{,}000$ and showed the development of a uniform recirculation region comprised of a large primary gyre. *Mercan and Atalik* [2009] used the unsteady stream function-vorticity transport formulation to study the effect of cavity aspect ratio and Re on the flow structure of lid-driven semi-circular cavities. *Mercan and Atalik* found that, for $W/L < 0.5$ and $Re = 8{,}000$, the stationary flow solution is comprised of a large primary gyre in the downstream cavity region and one smaller secondary gyre in the upstream cavity region whereas, for $W/L > 0.5$ and $Re = 8{,}000$, the stationary flow solution is comprised of a large primary gyre in the downstream cavity region, a smaller secondary gyre in the upstream cavity region, and two smaller gyres near the cavity wetted perimeter. *Ozalp et al.* [2010] conducted laboratory experiments of flow past a rectangular, triangular, and semi-circular cavity ($W/L = 0.5$) at high Re. Particle image velocimetry revealed that all cavity shapes had recirculation regions comprised of a large primary gyre and no secondary gyres. *Jackson et al.* [2012] used a detailed streambed survey and acoustic Doppler velocimetry data to investigate the flow structure of a natural lateral cavity in Oak Creek, Oregon using a steady RANS model. RANS simulation results show that, for a natural lateral cavity of $W/L = 0.32$ and $Re = 32{,}000$, a large primary gyre is located in the downstream cavity region and a smaller secondary gyre is located in the upstream cavity region. The irregular wetted perimeter boundary of the lateral cavity induced the formation of additional secondary gyres. Each secondary gyre exchanges mass and momentum with the primary gyre; however, each secondary gyre does not exchange mass and momentum with any other secondary gyre. Recently, *Jackson et al.* [In Review] performed laboratory experiments to investigate the effect of three irregular cavity shapes on the flow structure of an emergent lateral cavity. The three cavity shapes are idealized representations of natural lateral cavities in streams: semi-circular, backward-facing conic, and forward-facing conic. All cavity shapes have a $W/L = 0.4$ because, in natural fluvial systems, typical lateral cavity aspect ratios range between 0.2 and 0.75 with a mean of 0.4 [*Jackson et al.*, 2012; 2013b]. Flow field results show that all cavity shapes have a flow structure dominated by a large primary gyre; however, the forward-facing conic shape produces a symmetrical primary gyre that increases mean circulation velocity and the backward-facing conic shape produces an asymmetrical primary gyre that decreases mean circulation velocity.

Within the last decade, studies have focused on the structure of flow past a series of emergent lateral cavities, termed groyne fields. Groynes are structures erected at an angle to the streambank to prevent bank erosion, encourage channel scouring for ship navigation, control flooding, and enhance flora and fauna biodiversity [*Engelhardt et al.*, 2004; *Constantinescu et al.*, 2009]. Groyne fields are the recirculation regions formed between individual groynes. We briefly note that our lateral cavity configurations differ from studies of open channel flow past groyne fields. In a groyne field, the shear layer grows downstream from the leading edge of the first groyne and stabilizes (usually around the 4th to 6th groyne) to form a fully developed shear layer [*Uijttewaal*, 2005]. Furthermore, the relative size of entrained gyres increases and the mass exchange rate decreases as groyne field rank increases until the shear layer reaches an equilibrium width [*Constantinescu et al.*, 2009]. At the equilibrium point the flow structure and mass exchange rate stabilize for subsequent groyne fields. The configuration of lateral cavities in this study prevents the growth and amalgamation of shear layers among adjacent lateral cavities. The 1-m channel width is of sufficient transverse distance to prevent the interference of streamwise adjacent shear layers, which have maximum widths of less than 0.20 m. Lateral cavities located along the same wall are spaced 1 cavity length (0.6 m) apart, which is of sufficient longitudinal distance to prevent shear layer interference for streamwise-adjacent lateral cavities because wall reattachment occurs at a distance of no more than 0.3 m.

7.2.2 Mean Residence Time

The mean residence time of a single emergent lateral cavity has been well-studied. The simplest definition is given by the mean hydraulic residence time. The mean hydraulic residence time (τ_L) is the ratio of cavity volume to the discharge leaving the cavity through the shear layer interface (i.e., interface between the main channel and lateral cavity) [*Langmuir*, 1908]:

$$\tau_L = \frac{WLD_C}{ELD_E} = \frac{WD_C}{ED_E} \tag{1}$$

where W is the cavity width (normal to flow), [L]; L is the cavity length (parallel to flow), [L]; D_C is the mean cavity depth, [L]; D_E is the mean depth at the shear layer interface, [L]; and E is the entrainment velocity, [LT^{-1}]. The entrainment velocity is the velocity of fluid particles leaving the cavity through the shear layer interface.

The mean residence time of a lateral cavity also can be estimated from the inverse slope of the exponential residence time distribution (i.e., semi-log plot of concentration as a function of time). The residence time distribution is a probability density function representing the age distribution of fluid parcels entrained within the lateral cavity since their time of initial entrainment at t = 0 [*Nauman*, 1981]. Lateral cavities have exponential residence time distributions [*Uijttewaal et al.*, 2001; *Engelhardt et al.*, 2004; *Weitbrecht et al.*, 2008; *Jackson et al.*, 2012; 2013b]. The residence time distribution is obtained by uniformly saturating the lateral cavity with a tracer and monitoring the tracer concentration within the lateral cavity over time. The characteristic mean residence timescale, τ_1, is given by:

$$C(t) = \frac{1}{\tau_1}\exp(-t/\tau_1) \tag{2}$$

where $C(t)$ is the residence time distribution; t is time, [T]; and τ_1 is obtained from the inverse slope of the exponential residence time distribution. Note that care should be taken when using Eq. 2 to compute the mean residence time of a lateral cavity, as discussed by *Jackson et al.* [2012]. *Jackson et al.* investigated the influence of gyre dynamics on mean residence time and found that lateral cavity mean residence time is given by the mean residence time of the primary gyre. For a one-exponential residence time distribution, the cavity is dominated by a large primary gyre and the mean residence time is the inverse slope of the exponential decay function. For two-exponential residence time distribution, the cavity flow structure is comprised of a large primary gyre and one or more secondary gyres that exchange mass and momentum with the primary gyre. The primary gyre mean residence time is captured by the early time exponential decay function; therefore, for a two-exponential residence time distribution, τ_1 is computed from the inverse slope of the first exponential decay function.

7.3. Methodology

The development and solution of the numerical models was a multi-step process. First, a Reynolds-Averaged Navier Stokes (RANS) computational fluid dynamics (CFD) model was formulated to simulate open channel flow with no lateral cavities (Case CO) (Figure 7.2). The converged flow solution was verified through comparison to velocity measurements obtained from a detailed flume study by *Jackson et al.* [In Review]. Case CO is used to verify the main channel flow field and is a base case for comparing the effects of transient storage. After Case CO was verified, a RANS CFD model was formulated to simulate open channel flow past a single lateral semi-circular cavity (Case S1). The converged flow solution and cavity mean residence time were verified through comparison to the velocity and mean residence time results reported in *Jackson et al.* [In Review]. The verification process for Case S1 also included a grid refinement study to estimate the uncertainty error bands for the converged numerical solutions. After Case S1 was verified, RANS CFD models were formulated using the multiple cavity configurations shown for Cases S2, S3, P1, and P2 in Figure 7.2. The RANS CFD models have the same geometric configuration and flow parameters as *Jackson et al.*'s flume study (see Table 7.1).

Table 7.1. Summary of constant model parameters for all model cases.

Hydraulic and Morphologic Paramters

[1]Re_R	[2]Fr	U (m/s)	[3]u_* (m/s)	D_E (m)	D_C (m)	E (m/s)	W/L	[4]τ_L (s)	[4]τ_I (s)
34,700	0.39	0.48	0.094	0.15	0.15	0.0728	0.4	2.5	12.3

Turbulent Diffusion and Dispersion Parameters

[5]$D_{t,x}$ (m^2/s)	[5]$D_{t,y}$ (m^2/s)	[5]$D_{t,z}$ (m^2/s)	[6]$D_{L,LVP}$ (m^2/s)	[7]$D_{L,ENG}$ (m^2/s)	[8]$D_{L,Deng}$ (m^2/s)	[9]Sc
2.1×10^{-3}	2.1×10^{-3}	9.4×10^{-4}	0.084	0.178	0.97	9.1×10^{5}

[1] Re_R is the Reynolds number computed using the channel hydraulic radius.
[2] Fr is the Froude number computed using the shear layer depth, D_E.
[3] u_* is the shear velocity.
[4] Mean residence times reported are for cases S1, S2, S3, P1, and P2.
[5] D_t is the turbulent diffusion coefficient and is computed for longitudinal (x), lateral (y), and vertical (z) directions.
[6] Longitudinal dispersion coefficient computed using the logarithmic velocity profile (LVP).
[7] Longitudinal dispersion coefficient computed using engineering estimates (ENG).
[8] Longitudinal dispersion coefficient computed using the method of *Deng et al.* [2001].
[9] Schmidt number, $Sc = D_t/D_m$, where $D_m = 2.3 \times 10^{-9}$ m^2/s is the molecular diffusion coefficient.

7.3.1 Governing Equations

Numerical modelling of the 3-D turbulent flow problem was accomplished using RANS CFD models. The governing equations include the steady RANS continuity and momentum equations, the unsteady advection-diffusion equation, and the steady transport equations for turbulent kinetic energy (k) and its specific energy dissipation rate (ω). We used the shear stress transport (SST) k-ω turbulence model for turbulence closure because this model exhibits good behavior for flow problems involving separating flows and recirculation, which is characteristic of open channel flow past lateral semi-circular cavities [*Menter*, 1993; 1994]. The governing equations are described below.

Continuity Equation

$$\frac{\partial \overline{u}_i}{\partial x_i} = 0 \tag{3}$$

Momentum Equation

$$\frac{\partial \overline{u}_i \overline{u}_j}{\partial x_j} + \frac{\partial \tau_{ij}}{\partial x_j} = -\frac{1}{\rho}\frac{\partial \overline{p}}{\partial x_i} + \frac{\partial}{\partial x_j} 2\nu S_{ij} \tag{4}$$

$$\tau_{ij} = \overline{u_i' u_j'}$$

$$S_{ij} = \frac{1}{2}\left(\frac{\partial \overline{u}_i}{\partial x_j} + \frac{\partial \overline{u}_j}{\partial x_i}\right)$$

Scalar Transport Equation

$$\frac{\partial \overline{C}}{\partial t} + \frac{\partial \overline{u}_j \overline{C}}{\partial x_j} = \frac{\partial}{\partial x_j}\left(D_t \frac{\partial \overline{u}_j \overline{C}}{\partial x_j}\right) \tag{5}$$

where i and j are Einstein summation indices; x_i is the i^{th} component of the distance along the respective Cartesian coordinate axis, [L]; x_j is the j^{th} component of the distance along the respective Cartesian coordinate axis, [L]; u_i is the i^{th} component of the velocity vector, $[LT^{-1}]$; u_j is the j^{th} component of the velocity vector, $[LT^{-1}]$; ρ is the fluid density, $[ML^{-3}]$; p is pressure, $[ML^{-1}T^{-1}]$; ν is the kinematic viscosity, $[L^2T^{-1}]$; t is time, [T]; τ_{ij} is the Reynolds (turbulent) stress tensor, $[LT^{-1}]$; S_{ij} is the mean rate of strain tensor, $[T^{-1}]$; C is the concentration of the passive (conservative) scalar, $[ML^{-3}]$; μ_t is the eddy viscosity, $[ML^{-1}T^{-1}]$; Sc_t is the turbulent Schmidt number; and D_t is the eddy diffusivity, $D_t = \mu_t/Sc_t$, $[L^2T^{-1}]$. For all model simulations, $Sc_t = 0.9$. The overbar symbol denotes time-averaged quantities and the prime symbol denotes fluctuations about time-averaged quantities.

Turbulence Closure Equations

Kinematic Eddy Viscosity (ν_T)

$$\nu_T = \frac{a_1 k}{\max(a_1\omega,\ SF_2)} \tag{6}$$

$$F_2 = \tanh\left[\left[\max\left(\frac{2\sqrt{k}}{\beta^*\omega y}, \frac{500\nu}{y^2\omega}\right)\right]^2\right]$$

$$S = \sqrt{2S_{ij}S_{ij}}$$

$$a_1 = 0.31$$

Turbulent Kinetic Energy (k)

$$\frac{\partial \overline{u}_j k}{\partial x_j} = P_k - \beta^* k\omega + \frac{\partial}{\partial x_j}\left[\left(\nu + \sigma_k \nu_T\right)\frac{\partial k}{\partial x_j}\right] \tag{7}$$

$$P_k = \min\left(\tau_{ij}\frac{\partial \overline{u}_i}{\partial x_j}, 10\beta^* k\omega\right)$$

$$\beta^* = 9/100$$

$$\sigma_{k1} = 0.85 \qquad \sigma_{k2} = 1$$

Specific Dissipation Rate (ω)

$$\frac{\partial \overline{u}_j \omega}{\partial x_j} = \alpha S^2 - \beta \omega^2 + \frac{\partial}{\partial x_j}\left[\left(\nu + \sigma_{\omega} \nu_T \right) \frac{\partial \omega}{\partial x_j} \right] + 2(1 - F_1) \sigma_{\omega 2} \frac{1}{\omega} \frac{\partial k}{\partial x_i} \frac{\partial \omega}{\partial x_i} \tag{8}$$

$$F_1 = \tanh\left[\left[\min\left[\max\left(\frac{\sqrt{k}}{\beta^* \omega y}, \frac{500\nu}{y^2 \omega} \right), \frac{4\sigma_{\omega 2} k}{CD_{k\omega} y^2} \right] \right]^4 \right]$$

$$CD_{k\omega} = \max\left(2\rho\sigma_{\omega 2} \frac{1}{\omega} \frac{\partial k}{\partial x_i} \frac{\partial \omega}{\partial x_i}, 10^{-10} \right)$$

$$S = \sqrt{2 S_{ij} S_{ij}}$$

$$\alpha_1 = 5/9 \qquad \alpha_2 = 0.44$$

$$\beta_1 = 3/40 \qquad \beta_2 = 0.0828$$

$$\sigma_{\omega 1} = 0.5 \qquad \sigma_{\omega 2} = 0.856$$

7.3.2 Computational Approach

7.3.2.1 RANS vs URANS

The RANS and SST *k-ω* turbulent transport equations were used to solve for the steady (time-averaged) flow field. We employed a steady RANS-type flow model in place of an unsteady RANS (URANS) approach for the following reasons. First, while the shear layer is characterized by shear instability, which generates large scale vortex shedding that can influence exchange between the main channel and lateral cavities, the Froude number (*Fr*) is less than 0.4. For *Fr* < 0.4, unsteadiness and free-surface oscillation are very weak and do not govern the exchange phenomena [*Chaudhry*, 2008]. Second, while the RANS approach does not resolve transient flow behavior, the URANS approach has the disadvantage in that the unsteady effects are not correctly captured [*Salim et al.*, 2011]. *Salim et al.* [2011] show that, as the flow is developing at early times, the URANS approach will capture some of the shear instabilities; however, once a stationary state is reached, the URANS model will approach the steady RANS model results. We confirmed that the URANS model approaches the steady RANS model flow field results in our simulations by running a RANS and URANS simulation for Case S1. Third, to accurately resolve shear instabilities in the shear layer, more high-fidelity turbulence closures are required, such as large-eddy simulation (LES) [*Salim et al.*, 2011]. Due to the computational cost (i.e., large grid resolutions and small time steps) associated with the LES approach [*Keylock et al.*, 2005] and the large size of our model domains (i.e., 250 m long), we used a steady RANS model.

7.3.2.2 Conservative Tracer Transport

To capture conservative tracer migration, an unsteady passive scalar transport model is employed. The steady flow solution was mapped to a transient simulation and the flow solvers frozen in time to simulate conservative tracer transport using the unsteady passive scalar transport model. The benefit of using an unsteady passive scalar transport model is that the conservative tracer is advected by the mean flow field (RANS flow solution) obtained for the turbulent flow. We note that the unsteady passive scalar transport model solves the unsteady advection-diffusion equation, which is derived using Fick's law of diffusion and assumes Fickian transport at sufficiently long distances. As stated earlier, we define non-Fickian conditions as phases one and two of classical dispersive behavior where, after a conservative tracer is injected, the tracer undergoes dilution and cross-sectional mixing due to convection and turbulence. At non-Fickian conditions, the tracer breakthrough curve is skewed ($CSK > 0$). The Fickian asymptote is achieved when the tracer breakthrough curve approaches a Gaussian distribution ($CSK \rightarrow 0$). To simulate transport at non-Fickian conditions and at the Fickian asymptote, we generated 'sufficiently long' numerical model domains (i.e., all model domains are 250 m long). By monitoring conservative tracer time series at 1-m intervals along the 250-m long main channel, we show the evolution of breakthrough curves from non-Fickian conditions (near the inflow boundary and in the vicinity of lateral cavities) to a Fickian asymptote at distances far from the lateral cavities.

7.3.3 Numerical Method and Implementation

The steady RANS and SST *k-ω* turbulent transport equations were solved using the commercial finite volume solver STAR-CCM+ [*CD-Adapco*, 2006]. A segregated flow solver employing the SIMPLE algorithm was used to solve for the velocity and pressure fields. Convection terms were discretized using a 2nd-order upwind scheme. The Hybrid Gauss-Least Squares method was used to compute pressure gradients, secondary gradients for the diffusion terms, and the strain-rate and rotation-rate in the turbulence models [*Xu*, 1990]. An implicit 1st-order scheme was used to discretize time. Wall functions were used to resolve the logarithmic velocity profile in the turbulent boundary layer (See *Wilcox* [2006] and *CD-Adapco* [2006] for further details).

Grid geometries were formulated in Pointwise—a commercial grid generation software [*Pointwise*, 2003]. Case CO—a rectangular open channel flow—has a uniform structured grid with grid cells of dimension 0.03 m x 0.03 m x 0.01 m. For Cases S1, S2, S3, P1, and P2, reconstruction of the semi-circular cavity shape was obtained from detailed cavity design plans used in the flume study by *Jackson et al.* [In Review]. All grids with lateral cavities have a non-uniform unstructured tetrahedral mesh with control volumes ranging in size from a minimum of 0.0032 m to a maximum of 0.03 m (Figure 7.3; zoomed in plan view image and perspective view). The mean grid cell size is 0.0045 m in and around each cavity and increases to 0.03 m far from the cavity.

The RANS CFD models have different boundary conditions. Case CO has periodic flow boundary conditions specified for the inlet and outlet. The mass flow rate is 71.5 kg/s, which is based on a fluid density of 997.56 kg/m^3 and stream discharge of 0.072 m^3/s. Using periodic flow boundary conditions, we assume that Case CO represents ‘infinitely long’ open channel flow. Cases S1, S2, S3, P1, and P2 have the same boundary conditions. Periodic flow boundary conditions were used to obtain fully developed velocity profiles to specify as the inflow boundary conditions. Cases S1, S2, S3, P1, and P2 have a fully developed velocity profile inlet boundary condition. The inlet is located 1 m upstream of the first cavity in each case (Figure 7.2). A pressure outlet boundary condition is located at a distance 250 m downstream of the inlet (250-m model domain length). The streambanks and streambed are no-slip boundaries. Because all cases have subcritical flow ($Fr \ll 1$), the water surface is a slip boundary condition.

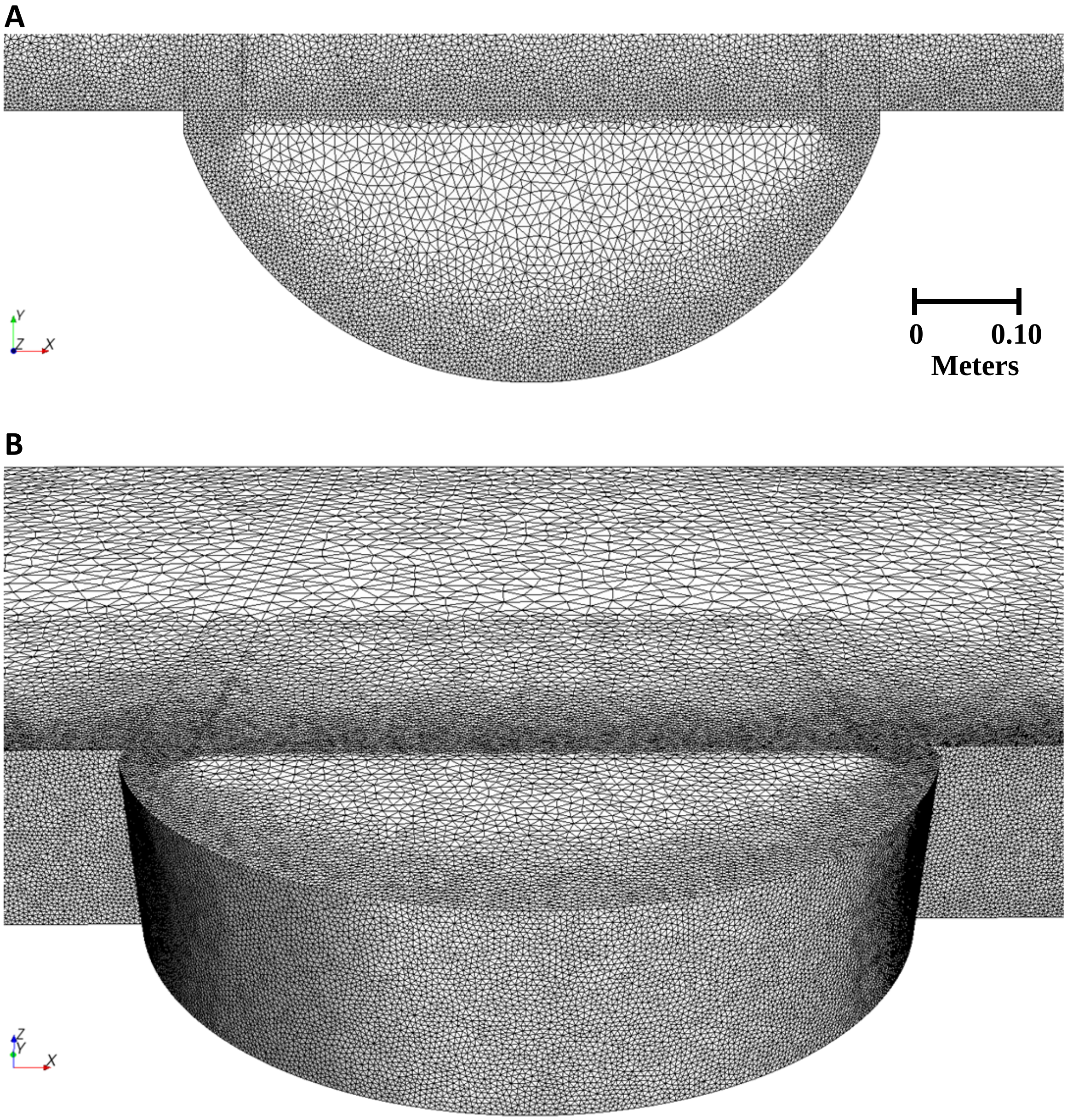

Figure 7.3. Unstructured tetrahedral grid in the vicinity of the lateral cavity for Case S1: (**A**) Plan view (X-Y). (**B**) Perspective view looking up +Y showing fine vertical grid resolution near lateral cavity and coarser grid resolution toward main channel flow.

Once fully converged (steady-state) flow solutions were obtained, conservative tracer transport was simulated using the unsteady passive scalar transport model. A passive scalar concentration of 0 was specified as the initial condition. Across the inlet boundary, the passive scalar concentration was uniform and set equal to 1. In the transient passive scalar simulations, we monitored the time series of conservative tracer migration within the main channel and lateral cavities at fixed spatial locations. Conservative tracer concentrations were obtained at the end of each time step (i.e., at 1-s intervals). For the main channel, the conservative tracer concentrations were recorded at 1-m longitudinal (x) spatial increments and are volume integrals of concentration along y-z planes (i.e., volume integrals of concentration obtained along 2-D transverse-vertical cross-sections). The total longitudinal monitoring distance differed between Case CO and Cases S1, S2, S3, P1, and P2. For Case CO, time series of conservative tracer concentration were obtained at 1-m spatial increments beginning at x = 1 m. We ran the periodic channel flow model until the head of the concentration front coming through the inlet boundary converged with the tail of the concentration front (i.e., until the concentration front had a maximum longitudinal spreading equivalent to the total model domain length of 250 m). Head-to-tail concentration plume convergence occurred at about 815 m for Case CO; therefore, we set the total longitudinal monitoring length to 800 m. For Cases S1, S2, S3, P1, and P2, time series of conservative tracer concentration were obtained at 1-m spatial increments from x = 1 m to the model outlet at x = 250 m. In the lateral cavities, conservative tracer concentrations were recorded at four locations corresponding to the electrical conductivity sensor measurement locations in the study by *Jackson et al.* [In Review] (see Figure 7.7A). In the CFD models, these four monitor locations have volumes equal to 1 cm^3, which is equivalent to the sampling volume of the electrical conductivity sensors. We also monitored the total conservative tracer concentration over time within each lateral cavity by computing the volume integral of tracer concentration using all model cells located within each lateral cavity.

7.3.4 Grid Refinement Study

We completed a grid refinement study for Case S1 to quantify the uncertainty error band in the CFD simulation results. The uncertainty error was estimated using the grid convergence index (*GCI*), which is a metric computed based on the use of Richardson's extrapolation and measures the uncertainty in grid convergence [*Roache*, 1998]. The *GCI* quantifies the error associated with a numerical solution, indicating how far away the grid solution is from the asymptotic numerical solution (i.e., the grid-independent solution).

To compute the uncertainty error, we used three non-uniform, unstructured, tetrahedral grids with non-equal refinement ratios. The grids have a maximum included angle—a measure of grid cell skewness—of less than 125°, where a maximum included angle of less than 170° indicates good grid quality for unstructured grids [*Pointwise*, 2003]. In and around the cavity and along the upstream and downstream walls adjacent to the cavity, the mean grid cell size (Δ) for the coarse, medium, and fine grid is 0.0118 m, 0.0062 m, and 0.0036 m, respectively. Far from the cavity the grids have a maximum grid cell size of 0.03 m. The mean grid cell size for the coarse, medium, and fine grids are denoted Δ_3, Δ_2, and Δ_1, respectively.

The local apparent order of accuracy, $P(x)$, defined as the order of accuracy for the discretized equation at specific locations within the grid, is given by [*Celik et al.*, 2008]:

$$P(x) = \frac{1}{\ln(r_{21})}\left| \ln\left|\frac{\varepsilon_{32}(x)}{\varepsilon_{21}(x)}\right| + \ln\left(\frac{r_{21}^{P(x)} - sign[\varepsilon_{32}(x)/\varepsilon_{21}(x)]}{r_{32}^{P(x)} - sign[\varepsilon_{32}(x)/\varepsilon_{21}(x)]}\right)\right| \qquad (9)$$

where $r_{21} = \Delta_2/\Delta_1$ is the grid refinement ratio between the medium and fine grids; $r_{32} = \Delta_3/\Delta_2$ is the grid refinement ratio between the coarse and medium grids; f_3 is the coarse grid solution; f_2 is the medium grid solution; f_1 is the fine grid solution; $\varepsilon_{21}(x) = f_2(x) - f_1(x)$ is the residual between the medium and fine grid solution at specified point locations (nodes); and $\varepsilon_{32}(x) = f_3(x) - f_2(x)$ is the residual between the medium and fine grid solution at specified point locations (nodes). $P(x)$ is solved using a fixed-point iteration because $r_{21} \neq r_{32}$ in our grid refinement study.

The global order of convergence, P_G, is defined as the order of accuracy due to the propagation and accumulation of discretization errors within the grid. P_G is the arithmetic mean of $P(x)$ at all grid point locations where $sign[\varepsilon_{32}(x)/\ \varepsilon_{21}(x)] > 0$ indicates monotonic grid convergence. Our computed order of convergence is $P_G = 2.87$ for Case S1, whereas the theoretical order of convergence is $P_G = 2.0$ because the central differencing scheme used to discretize diffusion, upwind scheme used to discretize advection, and discretization schemes used to discretize the pressure and turbulence quantities are all second-order accurate. Possible explanations for the discrepancy between the computed and theoretical order of convergence include the grid quality of the unstructured mesh, grid stretching, and turbulence modelling [*Roache*, 1998].

The local *GCI* for the fine grid solution, which is the local uncertainty error band with the same units as the solution variable *f*, is given by:

$$GCI(x) = F_s \left| \frac{f_1(x) - f_2(x)}{1 - r_{21}^{P_G}} \right| \tag{10}$$

where $F_s = 1.25$ is the factor of safety recommended by *Roache* [1998] for the comparison of three or more grids. To express the local *GCI* as a relative percent uncertainty error:

$$GCI(x) = F_s \left| \frac{\left(f_1(x) - f_2(x)\right)/\ f_{REF}}{1 - r_{21}^{P_G}} \right| \cdot 100 \tag{11}$$

where f_{REF} is a reference value equal to the spatial arithmetic mean of the root mean square of $f_1(x)$. The global *GCI*, GCI_G, is the arithmetic mean of $GCI(x)$. In the grid refinement study, the for the fine grid solution in Case S1. Therefore, all CFD simulation results that we report (all have fine grids) have uncertainty error bands of 3.09%.

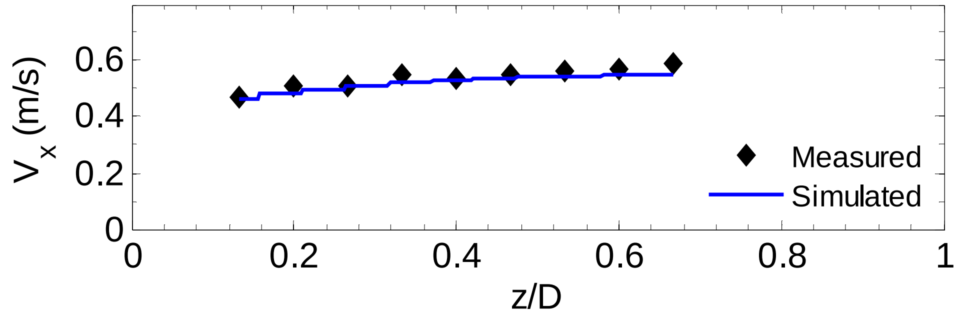

Figure 7.4. Mean velocity vertical profile for Case CO (straight channel flow with no lateral cavity). Vertical measured (black diamond markers) and simulated (blue line) mean longitudinal velocities at the channel centerline (x = 1 m and y = 0.5 m). Diamond marker size indicates an ADV measurement error of 2 percent. Root mean square error between measured and simulated velocities is 0.02 m/s.

7.3.5 Verification

7.3.5.1 Case CO

The converged velocity field for Case CO was verified through comparison to velocity measurements obtained from the detailed flume study by *Jackson et al.* [In Review]. The simulated fully developed velocity profile (solid line) is a good prediction of the measured velocity profile (Figure 7.4). The mean velocity profiles were obtained along a vertical transect located 1 m downstream of the inflow boundary at the channel centerline. The measured longitudinal velocities were obtained with a Sontek FlowTracker Handheld acoustic Doppler velocimeter (ADV).

7.3.5.2 Case S1

The converged flow field along the shear layer interface and inside the cavity for Case S1 was verified through comparison to velocity measurements reported in *Jackson et al.* [In Review]. Measured mean velocity magnitudes were obtained with a Sontek microADV. Point measurements of velocity were obtained at 50 percent depth (0.075 m) in the cavity (see Figure 7.5A for point measurement locations), and along linear transects at 3 different depths (0.050 m, 0.075 m, and 0.095 m) in the shear layer. Inside the cavity, simulated (blue) and measured (black) mean velocity vectors have similar directionality, with small deviations in vector directions at each measurement location

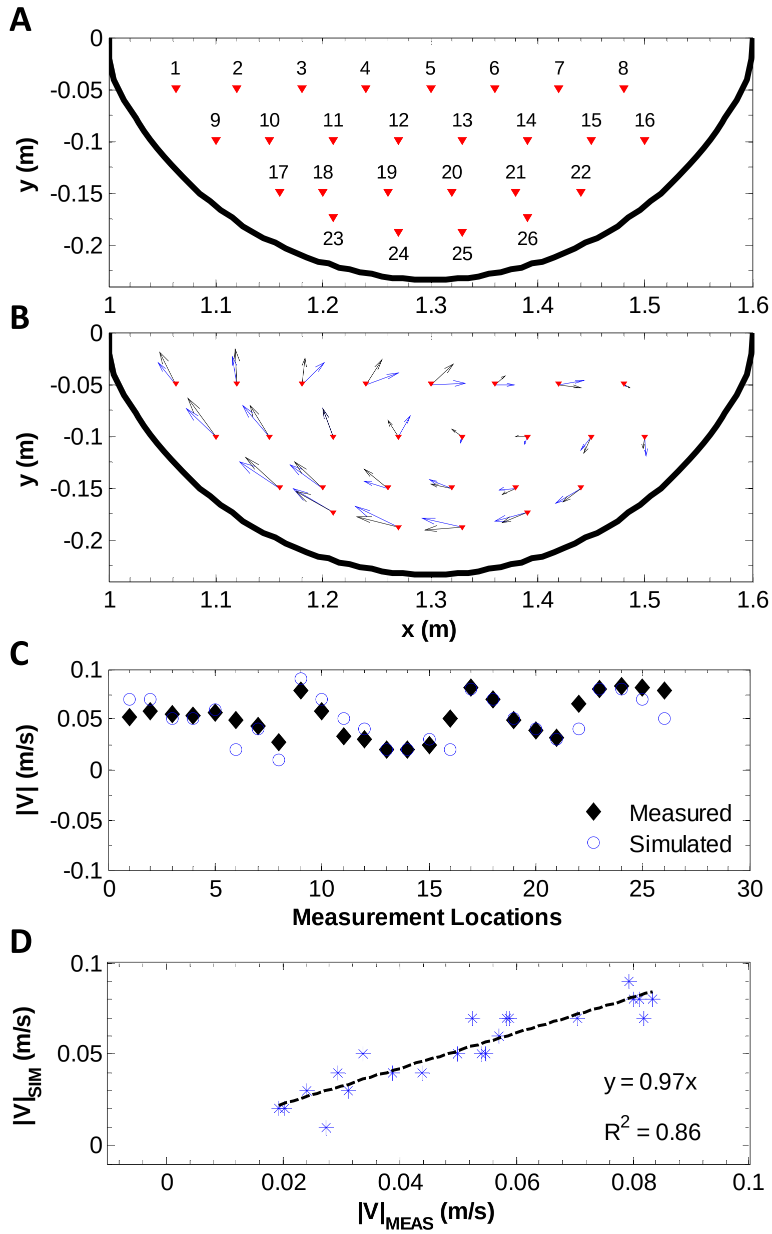

Figure 7.5. Comparison of measured ADV data to simulated data inside cavity for Case S1 (flow past a single semi-circular cavity): (**A**) Numbered ADV measurement locations (triangle markers) inside cavity at 0.075 m depth; (**B**) Measured (black) and simulated (blue) velocity vectors at ADV measurement locations located at 0.075 m depth; (**C**) Measured (diamond markers) and simulated (circle markers) velocity magnitude at each ADV measurement location. Diamond marker size indicates an ADV measurement error of 2 percent and circle marker size indicates a grid convergence index error of 2.8 percent; and (**D**) Comparison of simulated and measured velocity magnitude. Root mean square error between measured and simulated velocities is 0.009 m/s.

(Figure 7.5B). Deviations in velocity vector directionality occur because the primary gyre core position in the RANS CFD simulation is not aligned with the measured primary gyre core position. Simulated mean velocity magnitudes inside the cavity are good predictions of their corresponding measured velocities at each measurement location (Figure 7.5C). Of the 25 measurement locations, 19 measurement locations have fits between measured and simulated data that are within the 3.09% measurement error range. Comparison of simulated to measured velocity magnitudes shows a good linear correlation with an R^2 = 0.86 (Figure 7.5D). In the shear layer, the simulated velocity magnitudes are good predictions of their corresponding measured velocities at each depth (Figure 7.6).

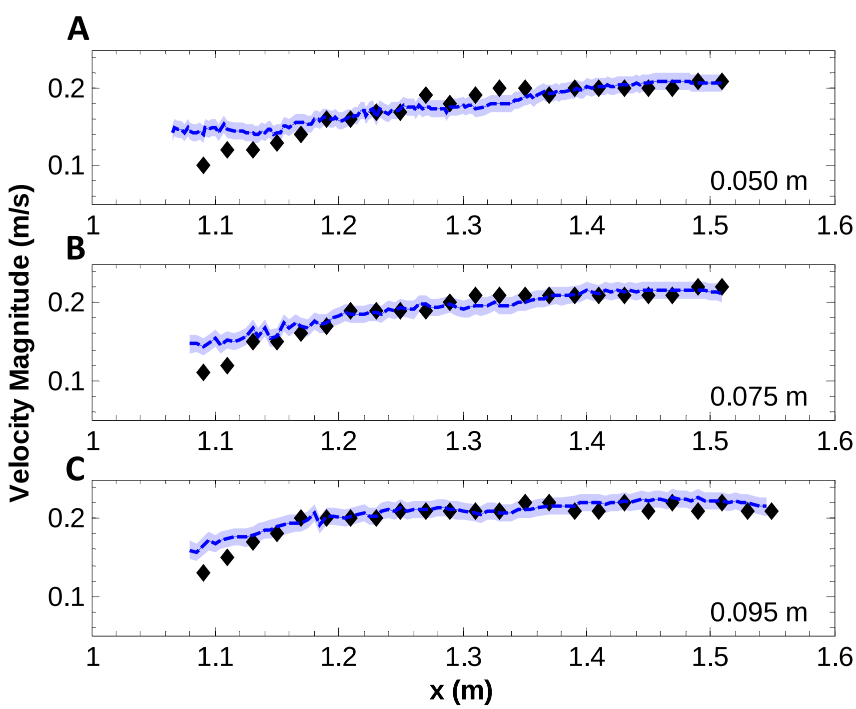

Figure 7.6. Comparison of measured ADV data (markers) to simulated data (dashed lines) along shear layer for Case S1 (flow past a single semi-circular cavity): (**A**) Longitudinal transect along shear layer at 0.050 m depth. Root mean square error between measured and simulated velocities is 0.016 m/s; (**B**) Longitudinal transect along shear layer at 0.075 m depth. Root mean square error between measured and simulated velocities is 0.014 m/s; and (**C**) Longitudinal transect along shear layer at 0.095 m depth. Root mean square error between measured and simulated velocities is 0.01 m/s. Marker size indicates a measurement error of 3 percent. Shaded bounded indicate a grid convergence index uncertainty band of 0.011 m/s based on a grid convergence study.

Mean residence times at point locations within the cavity were verified through comparison to mean residence times computed in *Jackson et al.* [In Review]. *Jackson et al.* positioned four electrical conductivity sensors on the flume bed and recorded specific conductivity (i.e., NaCl concentration) over time during NaCl injection experiments. In the transient numerical simulations, we monitored conservative tracer concentration over time at the four measurement locations to obtain simulated concentration breakthrough curves. The measurement locations are shown in Figure 7.7A. Computed mean residence times (using Eq. 2) from simulated and measured concentration breakthrough curves show good agreement (Figure 7.7B) with a linear correlation (R^2 = 0.82; Figure 7.7C).

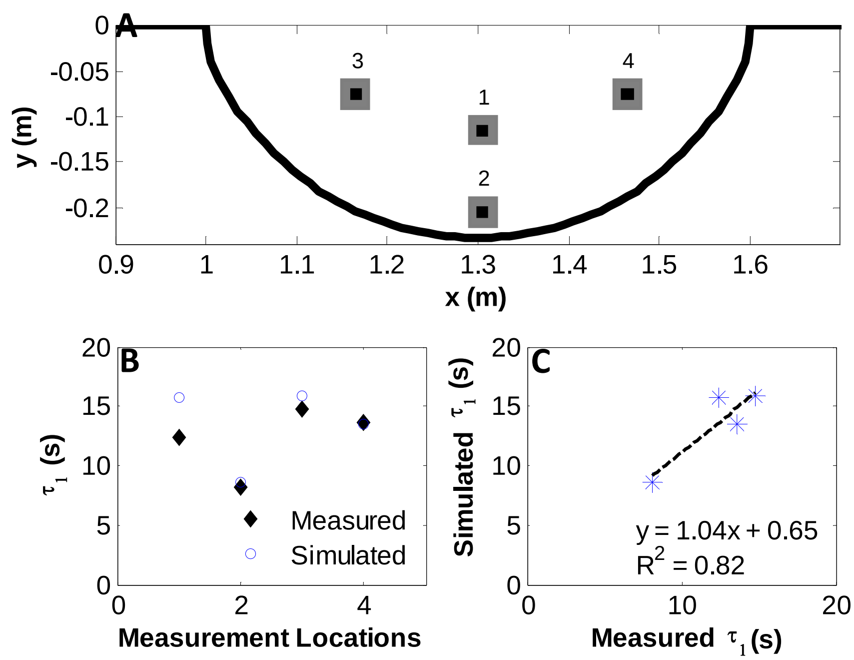

Figure 7.7. Comparison of measured to simulated mean residence times inside cavity for Case S1 (flow past a single semi-circular cavity): (**A**) Numbered electrical conductivity sensor measurement locations (black square markers) inside cavity at 0.01 m depth. Gray region indicates a measurement location error of ± 0.01 cm in the longitudinal and transverse directions; (**B**) Measured (diamond markers) and simulated (circle markers) mean residence times at each measurement location. Diamond marker size indicates a measurement error of 2 percent and circle marker size indicates a grid convergence index error of 2.8 percent; and (**C**) Comparison of simulated and measured mean residence times. Root mean square error between measured and simulated mean residence times is 1.73 s.

7.3.6 Temporal Moment Analysis of Tracer Migration

Conservative tracer migration within the main channel due to a uniform pulse injection across the channel inflow boundary was evaluated using temporal moments. At each monitoring location within the main channel, the time series of cross-sectional mean tracer concentration was recorded at 1-s intervals. We used temporal moments to quantify the evolution of simulated concentration breakthrough curves (concentration time series) due to the absence and presence of one or more lateral cavities.

Temporal moment analysis is a widely used and recognized technique for quantifying the transport behavior of solutes in open channel flows [*Sardin et al.*, 1991; *Das et al.*, 2002]. The n^{th} absolute temporal moment (i.e., temporal moment about 0) for concentration as a function of time, $C(t)$, at a fixed spatial location, x, is given by [*Nauman*, 1981]:

$$\mu_n(x) = \int_0^\infty t^n C(x,t)\, dt \tag{12}$$

and the n^{th} normalized absolute temporal moment at a fixed spatial location is $\mu_n(x)/\mu_0$ [*Nauman*, 1981]. The first normalized absolute temporal moment is the mean travel time.

To examine skewness, the n^{th} normalized central temporal moment (i.e., temporal moment about the mean) is used. It is [*Nauman*, 1981; *Sardin et al.*, 1991]:

$$m_n = \frac{1}{\mu_0}\int_0^\infty \left(t - \frac{\mu_1}{\mu_0}\right)^n C(t)\, dt \tag{13}$$

The 2nd normalized central temporal moment (i.e., variance) is:

$$m_2 = \frac{1}{\mu_0}\int_0^\infty \left(t - \frac{\mu_1}{\mu_0}\right)^2 C(t)\, dt = \frac{\mu_2}{\mu_0} - \left(\frac{\mu_1}{\mu_0}\right)^2, \tag{14}$$

and the 3rd normalized central temporal moment (i.e., skewness) is:

$$m_3 = \frac{1}{\mu_0}\int_0^\infty \left(t - \frac{\mu_1}{\mu_0}\right)^3 C(t)\, dt = \frac{\mu_3}{\mu_0} - \frac{3\mu_2\mu_1}{(\mu_0)^2} + 2\left(\frac{\mu_1}{\mu_0}\right)^3. \tag{15}$$

The coefficient of skewness (*CSK*) is [*González-Pinzón et al.*, 2013]:

$$CSK = \frac{m_3}{(m_2)^{3/2}} \tag{16}$$

7.4. Results

7.4.1 Simulated Tracer Breakthrough Curves

Simulated tracer concentration breakthrough curves (BTCs) have pronounced tailing in the vicinity of the lateral cavities (Figure 7.8). Simulated concentration BTCs were plotted at 2-m intervals starting from the inflow boundary at x = 0 m to 30 m downstream. For all cases, concentration BTCs show an evolution to Gaussian-type distributions farther downstream. For Case CO, concentration BTCs have variance that grows linearly with distance downstream. For lateral cavities in series (Case S1, S2, and S3), concentration BTCs have pronounced tailing where increasing the number of cavities increases the skewness of the distributions. For two lateral cavities in parallel

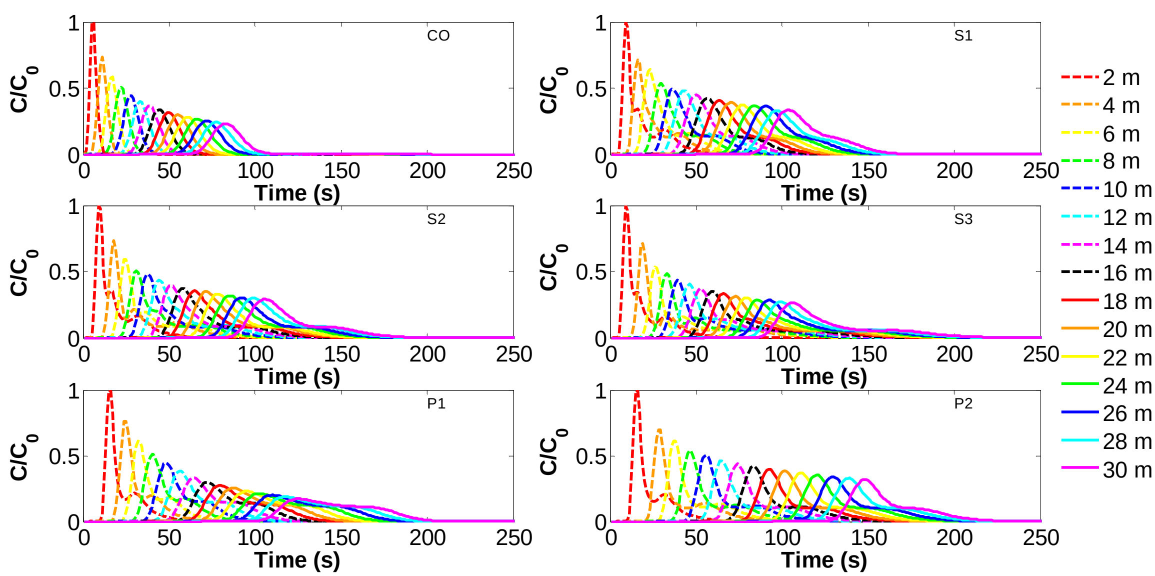

Figure 7.8. Simulated tracer concentration breakthrough curves plotted at 2-m intervals from the model inflow boundary to 30 m downstream. Concentrations are normalized by C_0, which is the peak concentration of the concentration breakthrough curve at x = 1 m.

(Case P1), concentration BTCs show a downstream evolution with BTCs rapidly approaching a Gaussian-type distribution compared to the other cases. For two sets of lateral cavities in parallel (Case P2), concentration BTCs are more skewed and have a longer distance for evolution to Gaussian-type distributions compared to Case P1.

When comparing simulated concentration BTCs at a fixed downstream distance of x = 5 m, the addition of lateral cavities to an open channel flow reduces peak concentrations and increases the skewness of concentration BTCs (Figure 7.9). Normalized peak concentration for Case CO is approximately 0.66. For a single lateral cavity, normalized peak concentration decreases by approximately one-half to 0.30 (Case S1). For each additional lateral cavity oriented in series the normalized peak concentration decreases by 0.01, where normalized peak concentrations for cases S2 and S3 are 0.29 and 0.28, respectively. When two lateral cavities are oriented in parallel, normalized peak concentration is 0.34 and, when two sets of lateral cavities are oriented

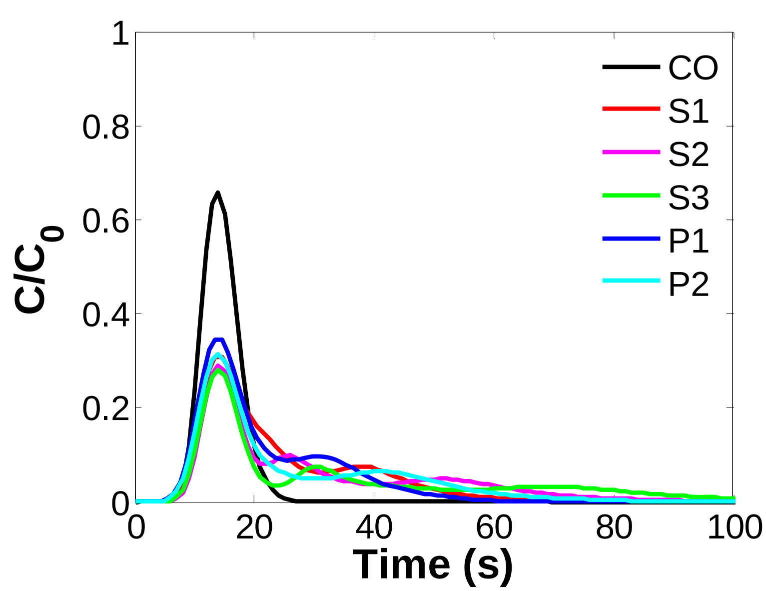

Figure 7.9. Simulated tracer concentration breakthrough curves 5 m from the model inflow boundary. Concentrations are normalized by C_0, which is the peak concentration of the concentration breakthrough curve at x = 1 m.

in parallel, normalized peak concentration is 0.32. For both lateral cavities oriented in series and parallel, increasing the number of cavities increases the skewness of the concentration BTCs immediately downstream of the lateral cavities compared to Case CO. However, lateral cavities oriented in series have longer tails compared to lateral cavities oriented in parallel.

7.4.2 Coefficient of Skewness

CSK decreases with downstream distance for all cases (Figure 7.10). *CSK* was computed using Eq. 16 for all simulated concentration BTCs (i.e., *CSK* was computed for each BTC, where BTCs were obtained at 1-m intervals from the inflow boundary at $x = 0$ m to the outflow boundary at $x = 250$ m). Note that Case CO has periodic boundary conditions and tracer evolution was simulated for four passes of the tracer through the model domain for a total downstream distance of $x = 800$ m. *CSK* for Case CO begins at approximately 1 and decreases toward zero with downstream distance. The addition of lateral cavities causes the maximum value of *CSK* first to increase then decrease and tend toward zero farther downstream. For a single lateral cavity (Case S1), *CSK* increases to a maximum of about 17; however, two lateral cavities in series (Case S2) causes *CSK* to increase to a maximum of about 10 and three lateral cavities in series (Case S3) causes *CSK* to increase to a maximum of about 8. Similarly, for two lateral cavities in parallel (Case P1), *CSK* increases to a maximum of about 15 and, when two sets of lateral cavities are in parallel (Case P2), *CSK* increases to a maximum of about 12. Therefore, increasing the number of lateral cavities decreases the maximum value of *CSK*.

We estimated the downstream distance required for each case to reach Fickian conditions. At Fickian conditions, concentration BTCs have Gaussian distributions and the *CSK* approaches zero. By fitting a best-fit regression line through *CSK* as a function of downstream distance and setting *CSK* equal to 0, we estimate the distance required for each system to reach Fickian conditions. In all cases, logarithmic trend lines provide the best fit through *CSK* as a function of downstream distance, where each trend line begins at the point of maximum *CSK* (see Table 7.2). For Case CO, a best-fit logarithmic line

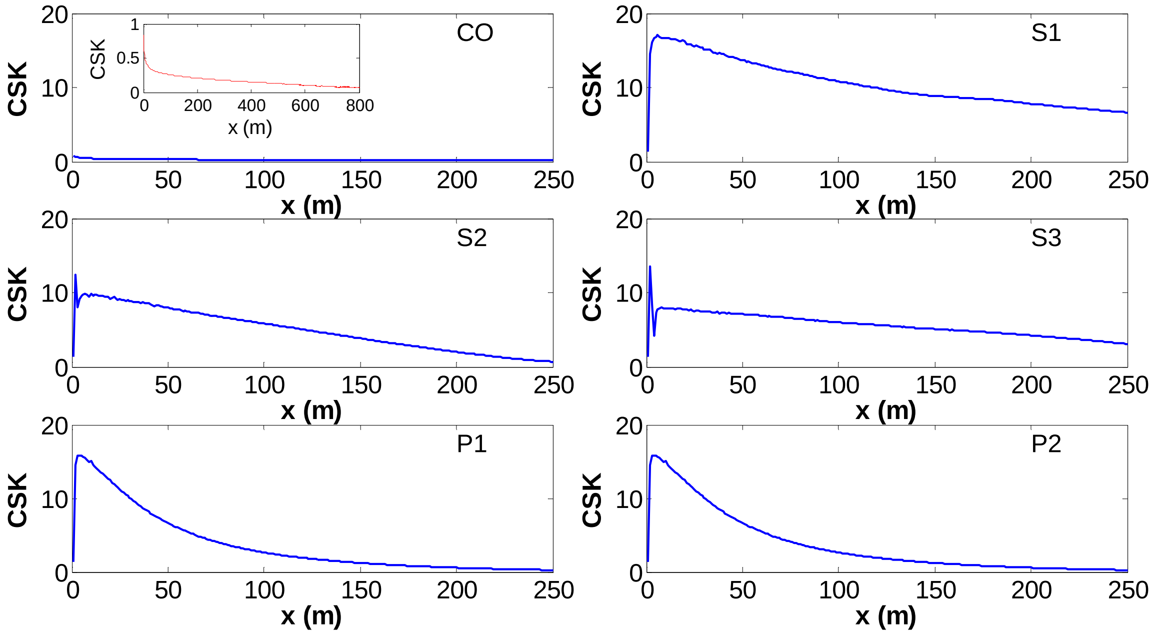

Figure 7.10. Coefficient of skewness (*CSK*) as a function of longitudinal channel distance (*x*) from the model inflow boundary.

Table 7.2. Summary of estimated distances to Fickian conditions and transport parameters.

Case	x_{Fick}					
	(m)	**Best-Fit Line (BFL)**[a]	R^2	V_C/V_{MC}	***Dam***	***Pe***
CO	2127	$CSK = -0.09 \cdot \ln(X) + 0.65$	0.98	-	-	7140
S1	1254	$CSK = -4.23 \cdot \ln(X) + 30.2$	0.99	8.5×10^{-5}	212	4210
S2	1519	$CSK = -1.95 \cdot \ln(X) + 14.3$	0.64	1.4×10^{-4}	257	5100
S3	2272	$CSK = -1.80 \cdot \ln(X) + 13.9$	0.91	1.4×10^{-4}	385	7630
P1	231	$CSK = -4.03 \cdot \ln(X) + 17.5$	0.85	9.2×10^{-4}	39	780
P2	617	$CSK = -2.72 \cdot \ln(X) + 21.9$	0.82	6.9×10^{-4}	105	2070

[a] Best-fit lines (BFLs) are fitted through *CSK* data starting at maximum value of *CSK*.

through the *CSK* data from 0 m $\leq x \leq$ 800 m is: $CSK = -0.09 \cdot \ln(x) + 0.65$ with $R^2 = 0.98$ (Table 7.2). Setting the best-fit logarithmic line equal to zero (i.e., $CSK = 0$) and solving for x yields an estimated distance to Fickian conditions of x_{Fick} = 2127 m. Therefore, with no lateral cavities present, a conservative tracer injection will reach Fickian conditions at a downstream distance of about 2127 m. For lateral cavities oriented in series, the estimated distance to Fickian conditions increases as the number of lateral cavities increases where x_{Fick} is 1254 m, 1519 m, and 2272 m for cases S1, S2, and S3, respectively. For lateral cavities oriented in parallel, the estimated distance to Fickian conditions also increases as the number of lateral cavities increases where x_{Fick} is 231 m and 617 m for cases P1 and P2, respectively.

7.4.3 Longitudinal Dispersion

Four methods were used to compute the longitudinal dispersion coefficient, D_L, and estimated D_L values are within the same order of magnitude for each case (see Table 7.1). In the first method, the longitudinal dispersion coefficient for an infinitely wide turbulent open channel flow is [*Socolofsky*, 2012]:

$$D_{L,LVP} = 5.93 D u_* \tag{17}$$

where D is main channel depth, [L]; u_* is the shear velocity, [LT^{-1}]; and $D_{L,LVP}$ = 0.084 m^2/s for all cases. The equation above was derived using the fully developed mean logarithmic velocity profile (LVP) and an analytical solution developed by *Fischer et al.* [1979] for $D_{L,LVP}$. In the second method, the longitudinal dispersion coefficient is computed based on engineering estimates [*Fischer et al.*, 1979]:

$$D_{L,ENG} = 0.011 \frac{U^2 W^2}{D u_*} \tag{18}$$

where U is the mean main channel velocity, [LT^{-1}]; and $D_{L,ENG}$ = 0.178 m^2/s for all cases. In the third method, the longitudinal dispersion coefficient is estimated using geomorphological parameters [*Deng et al.*, 2001]:

$$\varepsilon_{t0} = 0.145 + \left[\frac{1}{3520}\right]\left[\frac{W}{D}\right]^{1.38}\left[\frac{U}{u_*}\right]$$
$$D_{L,Deng} = \frac{0.15 D u_*}{8\varepsilon_{t0}}\left[\frac{W}{D}\right]^{5/3}\left[\frac{U}{u_*}\right]^2 \tag{19}$$

where ε_{t0} is a dimensionless number and $D_{L,Deng}$ = 0.97 m^2/s for all cases. In the fourth method, the longitudinal dispersion coefficient is estimated using simulated concentration BTCs [*Socolofsky*, 2012]:

$$D_{L,BTC} = \frac{U^2 \sigma_t^{\ 2}}{2t}. \tag{20}$$

where σ_t^2 is the variance of the BTC and t is the time associated with σ_t, [T]. At each main channel monitoring location, probability density functions (PDFs) of simulated tracer concentration BTCs were converted to normalized cumulative density functions (CDFs). Noting that a normalized CDF concentration of 0.5 corresponds to the centroid of tracer mass and that normalized CDF concentrations of 0.16 and 0.84 correspond to one standard deviation to the left and right of the centroid, respectively, the time associated with σ_t is:

$$t = t_{C=0.16} + [t_{C=0.84} - t_{C=0.16}]/2. \tag{21}$$

For Case CO, $D_{L,BTC}$ increases from near 0 and asymptotically approaches 0.14 m^2/s at long distances (Figure 7.11). When lateral cavities are present, $D_{L,BTC}$ has a different trend as a function of downstream distance, where $D_{L,BTC}$ reaches a maximum value in the vicinity of the lateral cavities and decreases to approach 0.14 m^2/s at long distances. For lateral cavities oriented in series, maximum values of $D_{L,BTC}$ increase from 0.84 m^2/s (Case S1) to 1.43 m^2/s (Case S2) and 3.17 m^2/s (Case S3) as the number of lateral cavities in series increases. For lateral cavities oriented in parallel, maximum values of $D_{L,BTC}$ increase from 0.76 m^2/s (Case P1) to 0.84 m^2/s (Case P2) as the number of lateral cavities in parallel increases.

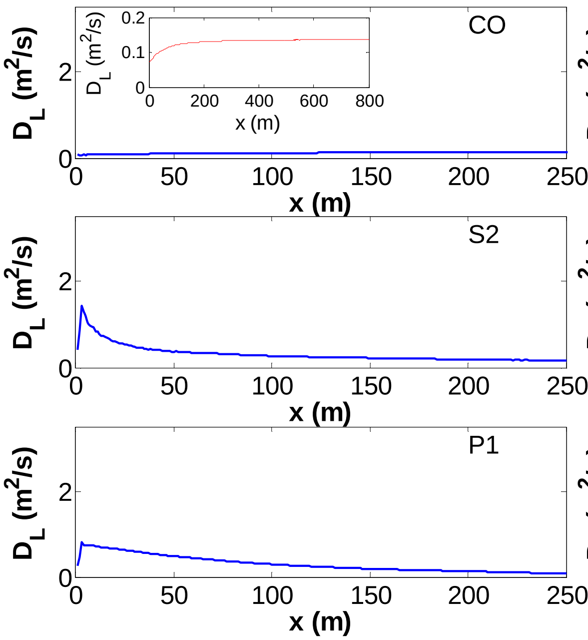

Figure 7.11. Longitudinal dispersion coefficient ($D_{L,BTC}$) as a function of longitudinal channel distance (x) from the model inflow boundary.

7.4.4 Transport Parameters

Damköhler numbers (*Dam*)—ratios of mass exchange rate to advective transport rate—were computed from:

$$Dam = \frac{(1 + V_C / V_{MC})L}{\tau_1 U} \tag{22}$$

where the characteristic length scale, L, is the estimated distance required to reach Fickian conditions, x_{Fick}; V_C is the total volume of lateral cavities along the channel reach, [L^3]; and V_{MC} is the main channel volume, [L^3]. We computed V_{MC} from: channel depth × channel width × x_{Fick}.

Damköhler numbers estimated at Fickian conditions increase as the number of lateral cavities increases (Table 7.2). For lateral cavities oriented in series, *Dam* increases from 212 to 257 and 385 for cases S1, S2, and S3, respectively. For lateral cavities oriented in parallel, *Dam* increases from 39 (Case P1) to 105 (Case P2). At non-Fickian conditions in the vicinity of the lateral cavities, *Dam* is consistent and is around 0.85. Therefore, in the vicinity of lateral cavities the flow field is dominated by both mass exchange and advective transport, and *Dam* on the order of 10^2 is required for fluvial systems with lateral cavities to reach Fickian conditions.

Péclet numbers (*Pe*)—ratios of advective to dispersive transport rate—were computed using longitudinal dispersion coefficients estimated from Eq. 20:

$$Pe = \frac{UL}{D_L} = \frac{Ux_{Fick}}{D_{L,BTC}} \tag{23}$$

where the characteristic length scale, *L*, is the estimated distance required to reach Fickian conditions, x_{Fick} and $D_{L,BTC} = 0.14$ m^2/s.

Péclet numbers estimated at Fickian conditions increase as the number of lateral cavities increases (Table 7.2). For lateral cavities oriented in series, *Pe* increases from 4210 (Case S1) to 5100 (Case S2) and 7630 (Case S3). For lateral cavities oriented in parallel, *Pe* increases from 780 (Case P1) to 2070 (Case P2). At non-Fickian conditions in the vicinity of the lateral cavities, *Pe* range from 1 to 1.13 for lateral cavities in series and *Pe* range from 1.7 to 3 for lateral cavities in parallel. Therefore, in the vicinity of the lateral cavities the flow field is dominated by the effects of advection and dispersion whereas, at Fickian conditions, the fluvial system is highly advective.

7.5. Discussion

7.5.1 Simulated Tracer Breakthrough Curves

Comparison of simulated concentration BTCs at a fixed downstream distance (x = 5 m) shows that lateral cavities oriented in series have longer tails and smaller peak concentrations compared to lateral cavities oriented in parallel (Figure 7.9). Lateral cavities oriented in series have longer tails because there is a greater affinity for tracer that is entrained in an upstream lateral cavity to become entrained in downstream lateral cavities. When tracer exits an upstream lateral cavity through the shear layer interface, tracer travels with the fluid in the near-wall region and is in close proximity to shear layers at the interface of downstream lateral cavities, which increases the potential for the tracer to become subsequently entrained [*Uijttewaal et al.*, 2001; *Constantinescu et al.*, 2009]. Conversely, lateral cavities oriented in parallel, such as Case P1, do not have subsequent tracer mass entrainment either in downstream lateral cavities or between adjacent lateral cavities because of sufficient transverse channel distance between shear layers. Because lateral cavities in series have BTCs with more pronounced tailing, by conservation of mass, the BTCs have smaller peak concentrations.

The shape of concentration BTCs is dependent on lateral cavity configuration (Figure 7.9). For example, when comparing concentration BTCs between cases S2 and P1, the BTC tailings have different shapes. Case S2 has two oscillations in BTC tailing and Case P1 has one oscillation in BTC tailing. These tailings provide information about how tracer is being entrained in lateral cavities and about the configuration of lateral cavities in the fluvial system that has not been accounted for in solute transport models. Current models parameterize mass transport and exchange using an effective mass exchange coefficient and a relative volume ratio (i.e., ratio of transient storage volume to the main channel volume). While cases S2 and P1 have the same mass exchange rate and volume ratio, the measured tracer concentration BTCs differ. Therefore, we need to consider the configuration and interaction of transient storage zones to accurately quantify stream solute transport.

7.5.2 Coefficient of Skewness

The coefficient of skewness (*CSK*) has an initial 'spike' and then decreases and tends toward zero with downstream distance for all cases (Figure 7.10). For Case CO, a uniform tracer injection across the inflow boundary causes the initial spike in *CSK* of about 1. When lateral cavities are added to the model domain, *CSK* has an initial spike in *CSK* of about 1 due to the uniform tracer injection and then increases to a maximum value around 10 to 20 as tracer exchanges between the main channel and lateral cavities. Increasing the number of lateral cavities decreases the maximum value of *CSK* and this phenomenon can be explained by the evolution of concentration BTCs. Computed variances along the channel reach show that, when comparing lateral cavities oriented either in series or in parallel, variance increases with downstream distance (i.e., variance increases when comparing Case S1 to S2 and S3 and variance increases when comparing

Case P1 to P2). Variance increases because each lateral cavity causes greater spreading of concentration BTCs. Since *CSK* is a ratio of BTC skewness to variance, an increase in variance causes a subsequent decrease in maximum values of *CSK*.

The estimated downstream distance required to reach Fickian conditions (x_{Fick}) increases as the number of lateral cavities increases, but is dependent on lateral cavity configuration (Table 7.2). When lateral cavities are oriented in series, x_{Fick} increases nearly two-fold from Case S1 (1254 m) to Case S3 (2272 m). When lateral cavities are oriented in parallel, x_{Fick} increases nearly four-fold from Case P1 (231 m) to Case P2 (617 m). Lateral cavities oriented in series have larger values of x_{Fick} compared to lateral cavities oriented in parallel because their concentration BTCs have more pronounced tailing due to subsequent tracer entrainment; therefore, a greater downstream distance is required for concentration BTCs of lateral cavities in series to evolve into Gaussian distributions.

The trend in estimated values of x_{Fick} is more dependent on the configuration, not the number, of lateral cavities. For example, while cases S2 and P1 have two lateral cavities, the estimated value of x_{Fick} is an order of magnitude smaller for Case P1 compared to Case S2. Interestingly, when no lateral cavities are present, a conservative tracer injection will reach Fickian conditions at a downstream distance of about 2127 m (Case CO), which is close to Case S3 (2272 m). Therefore, there is a limiting condition for x_{Fick} that is dependent on the number and configuration of lateral cavities. We postulate that a small number of lateral cavities causes increased lateral mixing, which decreases the distance to Fickian conditions; however, there is a limiting condition for the number of lateral cavities oriented in series where, above a threshold quantity, subsequent tracer mass entrainment causes greater spreading of concentration BTCs, which increases x_{Fick}. Furthermore, orientations of lateral cavities in parallel causes greater lateral mixing, which significantly decreases the distance to Fickian conditions compared to lateral cavities oriented in series, which counteracts the effects of subsequent tracer mass entrainment.

A meta-analysis of 384 BTCs from 98 stream tracer experiments by *González-Pinzón et al.* [2013] shows that *CSK* is constant over time and is equal to 1.18 ± 0.08; however, *CSK* values obtained from simulated concentration BTCs show that *CSK* changes with monitoring location. The empirical estimate of *CSK* from the meta-analysis was obtained from tracer BTCs measured in a variety of lotic systems, including hyporheic flow paths, large rivers, headwater streams in forested and desert environments, and urban canals. Our simulation results show that *CSK* approximates 1.18 between 150 to 230 m for the model cases. We postulate that, because the maximum value of *CSK* in the vicinity of lateral cavities decreases (toward 1) as the number of lateral cavities increases, the addition of more lateral cavities and other types of surface and hyporheic transient storage would increase channel complexity and yield closer results between estimated simulated and empirical *CSK* values. Increasing the flow complexity of the numerical simulations through the addition of different types of transient storage is needed to test this hypothesis and warrants future research.

7.5.3 Longitudinal Dispersion

The longitudinal dispersion coefficient was computed using four different approaches that yield variable results (see Table 7.1). The lowest estimate of D_L was obtained using an equation developed for an infinitely wide, fully developed, turbulent open channel flow using the mean logarithmic velocity profile (LVP), where $D_{L,LVP}$ = 0.084 m^2/s. The low estimate of D_L occurs because the model domain does not uphold the stipulation of an infinitely wide channel, which assumes that channel width >> channel depth. In the simulations, channel width (= 1 m) > channel depth (= 0.15 m). The highest estimate of D_L was obtained from *Deng et al.* [2001] using geomorphological parameters and empirical relationships, where $D_{L,Deng}$ = 0.97 m^2/s. The high estimate of D_L occurs because the model domain is an idealized channel and *Deng et al.* [2001] uses empirical relationships for morphologically complex natural channels. When D_L is computed based on engineering estimates, $D_{L,ENG}$ = 0.178 m^2/s. Different values of D_L are estimated for each case when using simulated concentration BTCs ($D_{L,BTC}$). At long distances, all cases have $D_{L,BTC}$ that asymptotically approach 0.14 m^2/s because the last lateral cavity always is terminated by a long rectangular channel (Figure 7.11).

Longitudinal dispersion coefficients computed from simulated concentration BTCs have maximum values in the vicinity of lateral cavities that increase with the number of lateral cavities present (Figure 7.11). When lateral cavities are oriented in series, $D_{L,BTC}$ in the vicinity of the lateral cavities increases nearly four-fold from Case S1 (0.84 m^2/s) to Case S3 (3.17 m^2/s). When lateral cavities are oriented in parallel, $D_{L,BTC}$ in the vicinity of the lateral cavities increases by about 10 percent from Case P1 (0.76 m^2/s) to Case P2 (0.84 m^2/s). Therefore, lateral cavities oriented in series cause greater dispersion and mixing compared to lateral cavities oriented in parallel and increasing the number of lateral cavities present increases dispersion. However, the configuration of lateral cavities has a greater influence on longitudinal dispersion than the number of lateral cavities present.

7.6. Conclusions

The objective of this paper is to quantify the effect of emergent lateral cavities on the migration of a conservative tracer under non-Fickian conditions and to determine the transport conditions at the Fickian asymptote. Six Reynolds-Averaged Navier Stokes computational fluid dynamics models were developed: (1) Case CO, denoting ‘channel only’, is an open channel flow with no lateral cavities; (2) Case S1 has one lateral cavity in series; (3) Case S2 has two lateral cavities in series; (4) Case S3 has three lateral cavities in series; (5) Case P1 has two lateral cavities in parallel; and (6) Case P2 has two sets of two lateral cavities in parallel.

Comparison of simulated concentration BTCs shows that lateral cavities oriented in series have longer tails and smaller peak concentrations compared to lateral cavities oriented in parallel. Lateral cavities oriented in series have longer tails because there is a greater affinity for tracer that is entrained in an upstream lateral cavity to become entrained in downstream lateral cavities. Lateral cavities oriented in series also have smaller peak concentrations because, by conservation of mass, their BTCs have more pronounced tailing.

Transport parameters are computed for each case under non-Fickian and Fickian conditions. At non-Fickian conditions *CSK* has an initial ‘spike’ that is inversely proportional to the number of lateral cavities and then decreases with a logarithmic trend; at Fickian conditions *CSK* is zero. At non-Fickian conditions, lateral cavities oriented in series cause greater dispersion and require longer distances to reach Fickian conditions (x_{Fick}) compared to lateral cavities oriented in parallel. The configuration of lateral cavities has a greater influence on longitudinal dispersion and x_{Fick} than the number of lateral cavities present. At Fickian conditions, the longitudinal dispersion coefficient asymptotically approaches 0.14 m^2/s. Damköhler and Péclet numbers estimated in the vicinity of lateral cavities (i.e., at non-Fickian conditions) indicate the flow field is dominated by the combined effects of advection, dispersion, and mass exchange. Damköhler numbers on the order of 10^2 are required for fluvial systems with lateral cavities to reach Fickian conditions, and Péclet numbers estimated at Fickian conditions indicate the fluvial system is highly advective.

Results from this numerical study can be potentially useful for the development of new mechanistic solute transport theory that is consistent with non-Fickian transport field observations. The main finding is that concentration BTC shape and transport parameters are dependent on lateral cavity configuration; therefore, the configuration and interaction of transient storage zones must be considered to accurately quantify stream solute transport. Furthermore, our study shows *CSK* changes with monitoring location, while a meta-analysis of 384 BTCs from 98 stream tracer experiments by *González-Pinzón et al.* [2013] shows *CSK* is constant over time (*CSK* = 1.18 ± 0.08). Our simulation results have *CSK* approximating 1.18 between 150 to 230 m. We postulate that, because maximum *CSK* in the vicinity of lateral cavities decreases as the number of lateral cavities increases, the addition of more lateral cavities and other types of surface and hyporheic transient storage would increase channel complexity and yield closer results between estimated simulated and empirical *CSK* values. Increasing the flow complexity of the numerical simulations through the addition of different types of transient storage is needed to test this hypothesis and warrants future research.

Acknowledgements

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Notation

C	Concentration of the passive (conservative) scalar, [ML^{-3}]
C_0	Peak concentration of breakthrough curve at x = 1 m, [ML^{-3}]
$C(t)$	Residence time distribution, [ML^{-3}]
CSK	Coefficient of skewness, [-]
D	Main channel depth, [L]
Dam	Damköhler number, [-]
D_C	Mean cavity depth, [L]
D_E	Mean depth at the shear layer interface, [L]
D_L	Longitudinal dispersion coefficient, [L^2T^{-1}]
$D_{L,BTC}$	D_L computed using simulated breakthrough curves, [L^2T^{-1}]
$D_{L,Deng}$	D_L computed geomorphological parameters, [L^2T^{-1}]
$D_{L,ENG}$	D_L computed based on engineering estimates, [L^2T^{-1}]
$D_{L,LVP}$	D_L for fully developed mean logarithmic velocity profile (LVP), [L^2T^{-1}]
D_t	Eddy diffusivity (Turbulent diffusion coefficient), [L^2T^{-1}]
E	Entrainment velocity, [LT^{-1}]
F_s	Factor of safety, [-]
f_{REF}	Reference value: spatial arithmetic mean of root mean square of $f_1(x)$
f_1	Fine grid solution, [LT^{-1}]
f_2	Medium grid solution, [LT^{-1}]
f_3	Coarse grid solution, [LT^{-1}]
$GCI(x)$	Local grid convergence index for fine grid solution, [LT^{-1}]
GCI_G	Global grid convergence index, [LT^{-1}]
i	Einstein summation index, [-]
j	Einstein summation index, [-]
k	Turbulent kinetic energy, [L^2T^{-2}]
L	Lateral cavity length (parallel to flow), [L]
m_n	n^{th} normalized central temporal moment
m_1	1^{st} normalized central temporal moment (i.e., mean travel time)
m_2	2^{nd} normalized central temporal moment (i.e., variance)
m_3	3^{rd} normalized central temporal moment (i.e., skewness)
$P(x)$	Local apparent order of accuracy, [LT^{-1}]
Pe	Péclet number, [-]
P_G	Global order of convergence, [LT^{-1}]
p	Pressure, [$ML^{-1}T^{-1}$]
Re	Reynolds number, [-]
r_{21}	Grid refinement ratio between the medium and fine grids, [-]
r_{32}	Grid refinement ratio between the coarse and medium grids, [-]
Sc_t	Turbulent Schmidt number, [-]
S_{ij}	Mean rate of strain tensor, [T^{-1}]

t	Time, [T]
u_i	i^{th} component of the velocity vector, [LT^{-1}]
u_j	j^{th} component of the velocity vector, [LT^{-1}]
u_*	Shear velocity, [LT^{-1}]
U	Mean main channel velocity, [LT^{-1}]
V_C	Total volume of lateral cavities along a channel reach, [L^3]
V_{MC}	Main channel volume, [L^3]
W	Lateral cavity width (normal to flow), [L]
x	Downstream distance, [L]
x_{Fick}	Distance required to reach Fickian conditions, [L]
Δ	Mean grid cell size, [L]
Δ_1	Mean grid cell size for fine grid, [L]
Δ_2	Mean grid cell size for medium grid, [L]
Δ_3	Mean grid cell size for coarse grid, [L]
ε_{t0}	Dimensionless number, [-]
$\varepsilon_{21}(x)$	Residual between the medium and fine grid solution at point locations
$\varepsilon_{32}(x)$	Residual between the medium and fine grid solution at point locations
ρ	Fluid density, [ML^{-3}]
σ_t^2	Variance of the breakthrough curve
τ_{ij}	Reynolds (turbulent) stress tensor, [LT^{-1}]
τ_L	Mean hydraulic residence time, [T]
τ_1	Mean residence time, [T]
μ_n	n^{th} absolute temporal moment
μ_t	Eddy viscosity, [$ML^{-1}T^{-1}$]
μ_0	Zeroth absolute temporal moment
μ_1	1st absolute temporal moment
μ_2	2nd absolute temporal moment
μ_3	3rd absolute temporal moment
ν	Kinematic viscosity, [L^2T^{-1}]
ν_T	Kinematic eddy viscosity, [L^2T^{-1}]
ω	Specific energy dissipation rate, [L^2T^{-2}]

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CHAPTER 8
SUMMARY AND CONCLUSIONS

Shall we compare you to a laminar flow?
You are more lovely and more sinuous.
Rough winter winds shake branches free of snow,
And summer's plumes churn up in cumulus.

How do we perceive you? Let me count the ways.
A random vortex field with strain entwined.
Fractal? Big and small swirls in the maze
May give us paradigms of flows to find.

Orthonormal forms non-linearly renew
Intricate flows with many free degrees
Or, in the latest fashion, merely few —
As strange attractor. In fact, we need Cray 3's.

Experiment and theory, unforgiving;
For serious searcher, fun ... and it's a living!

-S. Corrsin
Sonnet To Turbulence, 1984

8.1 Classification Scheme for Surface Transient Storage

Transient storage is comprised of surface transient storage (STS) and hyporheic transient storage (HTS), and both have functional significance in stream ecology and hydrology. STS and HTS provide refugia for aquatic communities and their longer mean residence times (compared to advective transport in the main flow) increase the potential for biogeochemical reactions that can improve water quality. As STS resides in localized areas of the surface stream and HTS resides in the hyporheic zone, these contrasting environments have different storage and exchange mechanisms with the main flow.

To better quantify transient storage effects on in-stream solute transport among morphologically diverse streams, hydrologists have proposed quantitatively separating the effects of STS from HTS. To quantitatively separate STS from HTS, *Jackson et al.* [2013; HESS; Chapter 2] propose a fluid-mechanics-based approach, whereby different types of STS are classified based on their mean flow structure and studied to: (1) gain insight into mechanisms driving mass and momentum exchange between the main flow and STS zones; and (2) identify key hydraulic and morphologic parameters influencing mean residence time. The long-term goal is to use these key hydraulic and morphologic parameters to develop predictive mean residence time relationships for each STS type and obtain an effective STS mean residence time. The effective STS mean residence time can then be deconvolved from the transient storage residence time distribution (measured from a tracer test) to obtain an estimate of the HTS mean residence time.

As a first step for this fluid-mechanics-based approach, a classification scheme is needed to characterize different types of STS in riverine systems. *Jackson et al.* [2013; HESS; Chapter 2] propose a classification scheme that identifies (and, in some cases, subcategorizes) eight types of STS based on their characteristic mean flow structure: (1) lateral cavities (emergent and submerged); (2) protruding in-channel flow obstructions (backward- and forward-facing step); (3) isolated in-channel flow obstructions (emergent and submerged); (4) cascades and riffles; (5) aquatic vegetation (emergent and submerged); (6) pools (vertically submerged cavity, closed cavity, and recirculating reservoir); (7) meander bends; and (8) confluence of streams. Emergent lateral cavities, which have been the focus of this dissertation, have flow fields characterized by a shear layer spanning the length of the cavity entrance, and a recirculation region comprised of one or more gyres. To date, predictive mean residence time relationships only have been developed for emergent lateral cavities and submerged aquatic vegetation.

8.2 Defining and Measuring the Lateral Cavity Mean Residence Time

After volume, mean residence time is the most important metric for quantifying surface transient storage. A number of residence timescales have been used to characterize mean residence time: (1) the mean hydraulic residence time (volume to discharge ratio or Langmuir timescale) [*Langmuir*, 1908]; (2) the first temporal moment normalized by the zeroth temporal moment of the residence time distribution [*Aris*, 1956; 1958]; and (3) the characteristic time of exponential decay [*Nauman*, 1981]. For lateral cavities, the mean hydraulic residence time is the minimum mean residence time. The best estimate of lateral cavity mean residence time, which represents the mean residence time of the primary gyre, is the first characteristic time of exponential decay.

When measuring the mean residence time of lateral cavities using NaCl injection experiments, either one-exponential or two-exponential residence time distributions arise. One-exponential residence time distributions indicate that either the lateral cavity is dominated by a large primary gyre or electrical conductivity probes were placed in the lateral cavity within the primary gyre region. Two-exponential residence time distributions indicate that the lateral cavity is comprised of a large primary gyre and one or more smaller, counter-rotating secondary gyres. If electrical conductivity probes are placed within poorly mixed regions [e.g., probes placed within secondary gyre(s)], then an apparent mean residence time will arise, which is considerably larger than the lateral cavity mean residence time.

8.3 Lateral Cavity Mean Residence Time Relationships

Two mean residence time relationships have been developed for lateral cavities in open channel flows with hydraulically smooth beds. The empirically derived mean residence time relationships were developed using dimensional analysis and verified through comparison to flume data of open channel flow past square, rectangular, semi-circular, and conical-shaped lateral cavities. One relationship equates normalized mean residence time [i.e., mean residence time is scaled by the convective timescale of L/U] to five non-dimensional groups: Reynolds number (Re), Froude number (Fr), cavity width to length (W/L) aspect ratio, cavity depth ratio (ratio of cavity depth to shear layer depth), and a cavity shape factor representing the degree of cavity equidimensionality. Because the experimental studies were conducted at similar scales and flow conditions, the relationship can be further reduced by equating normalized mean residence time to two non-dimensional groups: cavity W/L and cavity shape factor. Both relationships have strong power-law correlations ($R^2 \approx 0.85$). These relationships are applicable for lateral cavities with hydraulically smooth beds (e.g., cavities with bedrock or clay substrates) over a range of cavity aspect ratios ($0.17 \leq W/L \leq 1.11$), shape, and flow conditions (7.4×10^3 to 8.3×10^4) representative of small streams.

Two mean residence time relationships have been developed for lateral cavities in gravel-bed rivers and streams. The empirically derived mean residence time relationships were developed using dimensional analysis and verified through comparison to field data and experimental studies of open channel flow past lateral cavities with roughness elements. One relationship equates normalized mean residence time to five non-dimensional groups: *Re*, *Fr*, cavity *W*/*L*, cavity depth ratio, and a cavity shape factor. The other relationship includes an additional non-dimensional group, a roughness factor, which is a ratio of the shear velocity to mean main channel velocity. Both relationships have strong power-law correlations ($R^2 \approx 0.83$). Two mean residence time relationships are presented because, while regression analysis showed that streambed roughness does not significantly contribute to mean residence time, previous studies have shown otherwise. These relationships are applicable for gravel-bed fluvial systems with a range of cavity aspect ratios ($0.2 \leq W/L \leq 0.75$), shape, and flow conditions ($1 \times 10^4 \leq Re \leq 1 \times 10^7$).

Jackson and Roemeling [WRR; Chapter 5] and *Jackson et al.* [EFM; Chapter 6] show that streambed roughness does influence mean residence time and a roughness factor should be included in the mean residence time relationship for lateral cavities in gravel-bed fluvial systems. Two roughness factors have good correlations with normalized mean residence time when the median gravel diameter is computed using gravels measured along the shear layer: ratio of median gravel diameter to mean channel depth and a Chèzy friction factor—ratio of shear velocity (function of median gravel diameter) to mean main channel velocity—that is computed using the *Chen and Cotton* [1988] empirical relationship.

8.4 Shape and Bed Roughness Effects on Cavity Flow Structure and Mean Residence Time

Nine flume experiments were conducted to investigate the effect of natural cavity shapes and bed roughness on the flow structure and mean residence time of lateral cavities in open channel flows. The experiments consisted of three representative natural cavity shapes (semi-circular, backward-conic, and forward-conic) and three bed roughness conditions (hydraulically smooth, rough low flow, and rough high flow). Hydraulically smooth cases had no roughness elements (i.e., stainless steel flume bed) and a water depth of 0.15 m. Rough flow cases had gravel (0.032 m median diameter) in the channel and pea gravel (0.005 m median diameter) in the cavities, where rough low flow indicates roughness elements with a water depth of 0.15 m and rough high flow indicates roughness elements with a water depth of 0.225 m. Flow field results show that all cavity shapes have a one-gyre recirculation pattern, which contrasts results of well-studied square and rectangular cavities at similar *Re* and *W*/*L*. Backward-conic cavities cause asymmetric primary gyres to form, which decreases mean circulation velocities and increases mean residence times. Forward-conic cavities cause symmetric primary gyres to form, which increases mean circulation velocities and decreases mean residence times. The hydraulically smooth cases have the fastest circulation velocities and smallest mean residence times, whereas the rough low flow cases have the slowest circulation velocities and largest mean residence times due to increased bed friction. These results were incorporated into the development of a cavity shape factor and bed roughness factor for the lateral cavity mean residence time relationships.

8.5 Advancing Solute Transport Theory

Current solute transport theory is inconsistent with field observations of in-stream solute transport. Solute transport theory implies the coefficient of skewness (*CSK*) decreases asymptotically toward zero and the tailing disappears—a Fickian condition, whereas tracer studies measure concentration breakthrough curves (BTCs) with pronounced and persistent tailing and a CSK constant in time—a non-Fickian condition. To aid development of new solute transport theory that is consistent with non-Fickian field observations, six Reynolds-Averaged Navier Stokes computational fluid dynamics models were developed to investigate the effect of one or more lateral cavities on stream solute transport under non-Fickian conditions and at the Fickian asymptote. Of the six hydrodynamic models of open channel flow, one had no lateral cavities present, three had lateral cavities oriented in series, and two had lateral cavities oriented in parallel. Lateral cavities oriented in series have smaller peak concentrations, longer tails, and greater longitudinal dispersion coefficients in the near cavity region, and require longer distances to reach Fickian conditions compared to lateral cavities oriented in parallel.

The most compelling finding is that cavity configuration (e.g., series versus parallel) has a greater influence on concentration BTC shape and transport parameters than the number of lateral cavities present; therefore, the configuration and interaction of transient storage zones must be considered to accurately quantify stream solute transport. This result was most evident when comparing BTC tailings between an open channel with two lateral cavities oriented in series to an open channel with two lateral cavities oriented in parallel. The distinctly different tailings shows that BTCs provide information on storage and exchange processes among individual transient storage zones with the main flow as well as on how upstream conditions affect solute entrainment in downstream transient storage zones. Current solute transport models account for mass exchange and storage using a mass exchange rate coefficient and a volume ratio (i.e., ratio of transient storage volume to main channel volume). In the cases of either two lateral cavities oriented in series or parallel, both have the same mass exchange rate coefficients and volume ratio, but different BTCs. Hence, these parameters do not adequately parameterize transient storage configuration and interactions on stream solute transport, which is a missing component in the current theory.

APPENDICES

FLUME EXPERIMENT DATA LIBRARY

To be published in Dryad Digital Depository (DataDryad.org)

Upon acceptance of *Jackson et al.* [EFM; Chapter 6]

APPENDIX A

SONTEK MICROADV MEASUREMENTS FOR LATERAL CAVITIES

FLUME EXPERIMENTS

A.1 Data Collection and Post-Processing

Three-dimensional instantaneous velocities were measured in the cavity and along the mixing layer (main channel-cavity interface) using a Sontek 16 MHz MicroADV probe. The MicroADV probe has a sampling volume of less than 0.09 cm^3, a 5 cm distance from the transducer to the sampling volume, and a sampling rate of 50 Hz. Velocity measurements were collected over 2.75-min intervals (8,000 data samples total) at each sampling location. All MicroADV measurements were post-processed using WinADV32 version 2.028 to filter and de-spike instantaneous velocity data. Data was filtered using phase-space filtering, a signal-to-noise ratio less than 5, and an average correlation score less than 50. The choice of filtering options was based on the convergence of ADV data to validated PIV data for moderate and highly turbulent flows using a range of filter options.

A.2 Summary of Data Tables

For the nine flume experiments, velocities and higher order velocity statistics are listed at each measurement point in the mixing layer and cavity. Time-averaged and root-mean-square velocities as well as the skewness, kurtosis, and covariance of instantaneous velocity distributions are presented.

Table A.1 Semi-circular cavity with hydraulically smooth bed (Velocity = 0.55 m/s; depth = 0.150 m): velocities

X[1]	Y[2]	Z[3]	Loc[4]	Avg Vx[5]	Avg Vy[5]	Avg Vz[5]	Mag V-Avg[6]	Avg Vmag[7]	RMS[Vx'][8]	RMS[Vy'][8]	RMS[Vz'][8]	|RMS[V']|[9]	RMS[Vmag'][10]
(m)	(m)	(m)		(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)
0.05	0	0.05	ML	-1.493	0.715	-0.161	1.66	21.11	18.86	12.26	3.15	22.71	8.54
0.07	0	0.05	ML	-1.877	0.748	-0.262	2.04	21.15	18.06	13.34	3.13	22.67	8.42
0.09	0	0.05	ML	-2.370	-0.084	-0.043	2.37	21.80	17.92	14.72	3.17	23.41	8.84
0.11	0	0.05	ML	-1.338	0.923	-0.014	1.63	21.13	17.31	14.59	3.04	22.84	8.81
0.13	0	0.05	ML	-1.470	0.060	0.006	1.47	21.72	18.45	13.96	3.12	23.35	8.67
0.15	0	0.05	ML	-1.925	0.486	-0.064	1.99	21.37	18.38	13.29	3.16	22.90	8.44
0.17	0	0.05	ML	-1.859	-0.310	-0.069	1.89	21.64	18.71	13.24	3.10	23.13	8.38
0.19	0	0.05	ML	-1.780	-0.032	0.161	1.79	21.48	18.48	13.41	3.13	23.05	8.54
0.21	0	0.05	ML	-1.522	-0.347	0.133	1.57	21.34	18.52	13.06	3.08	22.87	8.37
0.23	0	0.05	ML	-0.284	0.015	0.065	0.29	21.93	18.78	13.91	3.06	23.58	8.64
0.25	0	0.05	ML	-2.288	-0.657	0.087	2.38	21.82	19.05	12.75	3.01	23.12	7.99
0.27	0	0.05	ML	-0.695	-1.213	-0.055	1.40	21.47	18.91	12.38	3.01	22.80	7.81
0.29	0	0.05	ML	-2.638	-1.799	0.091	3.19	20.81	18.52	11.54	3.00	22.03	7.89
0.31	0	0.05	ML	-3.661	-1.952	0.042	4.15	20.93	18.26	11.43	3.01	21.75	7.21
0.33	0	0.05	ML	-2.784	-1.812	0.159	3.33	20.97	18.40	11.84	3.00	22.08	7.68
0.35	0	0.05	ML	-3.376	-2.075	0.049	3.96	20.83	18.42	10.96	3.07	21.65	7.11
0.37	0	0.05	ML	-5.148	-2.724	0.171	5.83	20.06	17.12	10.84	3.01	20.49	7.15
0.39	0	0.05	ML	-4.239	-3.132	0.220	5.28	20.29	17.78	10.56	3.03	20.90	7.27
0.41	0	0.05	ML	-5.117	-3.207	0.420	6.05	19.96	17.12	10.59	3.13	20.37	7.29
0.43	0	0.05	ML	-3.476	-2.723	0.555	4.45	19.81	17.08	11.59	3.22	20.89	7.97
0.45	0	0.05	ML	-6.769	-2.957	0.206	7.39	17.96	14.55	9.88	3.17	17.87	7.15
0.47	0	0.05	ML	-6.308	-3.209	0.467	7.09	16.56	13.32	9.39	3.35	16.64	7.28

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.49	0	0.05	ML	-7.033	-2.953	0.343	7.64	15.38	11.52	9.21	3.31	15.12	7.08
0.53	0	0.05	ML	-6.390	-3.812	1.053	7.51	10.68	5.27	6.35	3.10	8.82	4.49
0.55	0	0.05	ML	-4.574	-3.849	1.375	6.13	8.88	4.14	5.24	3.24	7.43	3.73
0.05	0	0.075	ML	-4.054	-3.861	1.226	5.73	8.60	4.25	5.23	3.10	7.42	3.72
0.07	0	0.075	ML	-5.283	-4.112	0.246	6.70	9.57	4.76	5.42	3.23	7.90	3.97
0.09	0	0.075	ML	-7.325	-4.825	-0.033	8.77	11.33	5.18	5.58	3.29	8.29	4.15
0.11	0	0.075	ML	-7.275	-4.317	0.608	8.48	12.07	7.00	6.08	3.40	9.87	4.88
0.13	0	0.075	ML	-6.143	-4.227	0.326	7.46	14.98	11.76	8.10	3.28	14.65	6.78
0.15	0	0.075	ML	-7.257	-4.257	0.413	8.42	14.86	11.09	7.42	3.26	13.74	6.22
0.17	0	0.075	ML	-7.237	-4.485	0.355	8.52	15.55	12.24	7.06	3.16	14.48	6.36
0.19	0	0.075	ML	-6.652	-4.524	0.063	8.04	17.12	14.04	8.15	3.18	16.54	6.73
0.21	0	0.075	ML	-3.999	-2.815	0.109	4.89	19.01	16.17	11.12	3.21	19.89	7.61
0.23	0	0.075	ML	-5.314	-3.898	0.006	6.59	18.57	16.15	8.91	3.08	18.70	6.94
0.25	0	0.075	ML	-4.434	-3.293	0.091	5.52	19.33	16.68	10.44	3.10	19.92	7.30
0.27	0	0.075	ML	-4.080	-3.071	-0.225	5.11	19.18	17.34	9.11	3.07	19.83	7.17
0.29	0	0.075	ML	-3.550	-3.389	-0.132	4.91	19.91	18.06	9.22	2.96	20.49	6.88
0.31	0	0.075	ML	-1.568	-1.754	-0.229	2.36	20.85	18.69	11.20	3.05	22.00	7.39
0.33	0	0.075	ML	-2.746	-1.523	-0.053	3.14	20.76	18.42	11.41	3.09	21.88	7.60
0.35	0	0.075	ML	-2.564	-1.480	-0.146	2.96	20.88	18.80	10.94	3.04	21.96	7.41
0.37	0	0.075	ML	-1.544	-1.251	-0.104	1.99	21.11	18.65	12.31	3.20	22.58	8.23
0.39	0	0.075	ML	-2.522	-0.735	-0.169	2.63	21.30	19.08	11.66	3.11	22.57	7.92
0.41	0	0.075	ML	-1.014	-0.319	-0.028	1.06	20.96	19.00	11.84	3.22	22.62	8.55
0.43	0	0.075	ML	-1.763	0.033	-0.061	1.76	21.17	18.88	12.18	3.23	22.70	8.37

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.45	0	0.075	ML	-1.142	0.937	0.097	1.48	21.31	18.80	12.75	3.19	22.94	8.61
0.49	0	0.075	ML	-0.987	-0.081	0.028	0.99	21.87	18.77	13.85	3.14	23.54	8.76
0.51	0	0.075	ML	-2.240	0.822	-0.064	2.39	21.76	18.58	13.50	3.09	23.17	8.31
0.53	0	0.075	ML	-1.510	0.606	-0.207	1.64	22.01	18.50	14.36	3.04	23.62	8.70
0.55	0	0.075	ML	-2.074	0.523	-0.345	2.17	21.64	18.60	13.55	3.12	23.22	8.69
0.05	0	0.095	ML	-2.125	0.640	-0.186	2.23	21.59	18.71	13.44	3.12	23.25	8.89
0.07	0	0.095	ML	-2.168	0.371	-0.111	2.20	21.47	18.41	13.65	3.16	23.14	8.89
0.09	0	0.095	ML	-1.261	0.797	0.047	1.49	21.04	17.80	13.78	3.25	22.75	8.76
0.11	0	0.095	ML	-1.619	0.571	0.206	1.73	20.94	18.20	13.00	3.18	22.59	8.64
0.13	0	0.095	ML	-2.559	0.451	0.079	2.60	19.92	17.79	11.66	3.22	21.51	8.52
0.15	0	0.095	ML	-2.051	0.359	0.135	2.09	20.08	18.80	10.19	3.28	21.63	8.30
0.17	0	0.095	ML	-3.310	-0.471	0.143	3.35	20.43	18.50	10.98	3.20	21.75	8.19
0.19	0	0.095	ML	-3.613	-0.311	0.041	3.63	19.57	18.03	9.81	3.25	20.78	7.84
0.21	0	0.095	ML	-2.719	-1.071	0.362	2.94	20.24	17.76	12.03	3.26	21.70	8.34
0.23	0	0.095	ML	-4.578	-1.302	0.066	4.76	19.17	17.58	9.28	3.12	20.12	7.73
0.25	0	0.095	ML	-4.811	-1.761	0.056	5.12	19.54	17.44	10.17	3.17	20.44	7.86
0.27	0	0.095	ML	-3.689	-1.525	-0.144	3.99	19.71	18.05	9.75	3.12	20.75	7.63
0.29	0	0.095	ML	-3.979	-2.408	-0.218	4.66	19.23	17.33	9.54	3.15	20.03	7.27
0.31	0	0.095	ML	-5.043	-2.666	0.016	5.70	18.43	15.42	10.68	3.19	19.03	7.42
0.33	0	0.095	ML	-7.062	-3.504	0.070	7.88	18.80	15.87	8.83	3.10	18.42	6.92
0.35	0	0.095	ML	-6.776	-3.704	-0.111	7.72	17.18	14.23	8.35	3.05	16.78	6.78
0.37	0	0.095	ML	-6.755	-4.474	0.020	8.10	16.70	13.81	7.48	3.06	16.00	6.55
0.39	0	0.095	ML	-7.147	-4.474	0.154	8.43	16.21	13.00	7.54	3.12	15.35	6.61

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.41	0	0.095	ML	-6.674	-4.324	0.120	7.95	15.89	12.39	8.46	3.33	15.37	6.84
0.45	0	0.095	ML	-9.609	-4.882	-0.122	10.78	12.95	5.81	5.37	3.18	8.52	4.59
0.47	0	0.095	ML	-7.164	-4.925	0.546	8.71	11.82	6.19	6.05	3.28	9.25	4.67
0.49	0	0.095	ML	-7.698	-4.993	-0.007	9.18	11.94	5.83	5.71	3.25	8.78	4.32
0.51	0	0.095	ML	-6.813	-4.275	0.100	8.04	10.49	5.01	5.09	3.18	7.82	3.97
0.53	0	0.095	ML	-5.481	-4.322	0.648	7.01	9.30	4.20	4.94	2.81	7.07	3.56
0.55	0	0.095	ML	-3.643	-4.440	0.359	5.75	8.18	4.00	4.59	3.01	6.79	3.50
0.063	-0.05	0.075	CAV	0.221	-6.473	0.859	6.53	9.41	5.03	4.87	3.33	7.75	3.76
0.12	-0.05	0.075	CAV	-0.735	-4.940	0.741	5.05	9.00	5.64	5.19	3.40	8.38	3.84
0.18	-0.05	0.075	CAV	-2.780	-4.403	-0.389	5.22	9.94	6.81	5.72	3.43	9.53	4.39
0.24	-0.05	0.075	CAV	-4.072	-3.766	-0.451	5.57	10.01	6.59	5.84	3.54	9.49	4.55
0.3	-0.05	0.075	CAV	-1.779	-1.561	-0.176	2.37	12.87	10.96	9.07	3.69	14.70	7.48
0.36	-0.05	0.075	CAV	-3.851	0.663	0.026	3.91	13.01	11.26	8.26	3.69	14.44	7.37
0.42	-0.05	0.075	CAV	-1.243	0.746	0.077	1.45	18.27	15.27	13.57	3.44	20.71	9.85
0.48	-0.05	0.075	CAV	3.552	-5.674	0.684	6.73	9.56	5.46	4.78	3.16	7.91	4.06
0.1	-0.1	0.075	CAV	1.863	-5.054	0.273	5.39	9.23	6.06	5.15	3.19	8.57	4.17
0.15	-0.1	0.075	CAV	1.908	-2.965	-0.128	3.53	9.03	6.43	5.80	3.72	9.43	4.44
0.21	-0.1	0.075	CAV	1.875	-1.268	-0.125	2.27	10.80	8.82	7.38	3.85	12.13	5.96
0.27	-0.1	0.075	CAV	2.134	0.076	-0.181	2.14	11.15	9.33	8.04	3.84	12.90	6.83
0.33	-0.1	0.075	CAV	1.343	3.161	-0.230	3.44	13.65	10.10	11.20	3.60	15.50	8.11
0.39	-0.1	0.075	CAV	4.991	-4.669	0.572	6.86	9.44	5.37	4.87	3.00	7.85	4.42
0.45	-0.1	0.075	CAV	4.240	-3.445	0.220	5.47	9.59	6.56	5.33	3.32	9.08	4.51
0.5	-0.1	0.075	CAV	3.790	-0.726	-0.007	3.86	9.65	7.51	6.21	3.47	10.34	5.36

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.159	-0.15	0.075	CAV	2.575	1.294	-0.900	3.02	10.82	8.95	7.15	3.75	12.05	6.10
0.26	-0.15	0.075	CAV	2.903	-6.034	2.941	7.31	9.36	4.29	4.54	3.00	6.93	3.73
0.32	-0.15	0.075	CAV	5.020	-7.031	1.454	8.76	10.32	4.22	4.23	3.13	6.74	3.95
0.38	-0.15	0.075	CAV	5.869	-5.693	0.453	8.19	10.30	5.40	4.57	2.99	7.68	4.46
0.44	-0.15	0.075	CAV	0.407	2.231	-0.573	2.34	17.53	12.99	14.68	3.61	19.93	9.75
0.21	-0.174	0.075	CAV	4.539	1.753	-2.138	5.32	10.13	7.64	5.41	3.54	10.01	5.07
0.27	-0.188	0.075	CAV	6.813	0.500	-1.426	6.98	10.42	6.85	5.18	3.46	9.26	5.09
0.33	-0.188	0.075	CAV	7.387	-2.063	-0.549	7.69	10.71	6.70	5.01	3.30	8.99	5.02
0.39	-0.174	0.075	CAV	6.786	-4.008	-0.038	7.88	10.17	5.55	4.46	3.26	7.83	4.47

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.2 Semi-circular cavity with hydraulically smooth bed (Velocity = 0.55 m/s; depth = 0.150 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	0.108	-0.606	0.048	-0.993	1.396	-0.490	10.64	-10.66	-0.08
0.07	0	0.05	ML	0.099	-0.571	0.042	-0.971	0.807	-0.461	15.89	-7.67	2.90
0.09	0	0.05	ML	0.093	-0.510	-0.020	-0.815	0.235	-0.401	17.19	-5.24	2.74
0.11	0	0.05	ML	-0.012	-0.574	0.033	-0.797	0.328	-0.198	15.35	-5.54	2.03
0.13	0	0.05	ML	0.078	-0.405	0.074	-0.936	0.395	-0.351	18.96	-8.90	2.65
0.15	0	0.05	ML	0.108	-0.375	-0.007	-0.975	0.911	-0.507	21.62	-8.38	1.71
0.17	0	0.05	ML	0.133	-0.136	0.065	-0.997	0.722	-0.339	12.98	-7.75	1.28
0.19	0	0.05	ML	0.174	-0.106	-0.061	-0.996	0.895	-0.488	20.03	-9.51	1.98
0.21	0	0.05	ML	0.167	0.030	0.029	-1.016	0.936	-0.456	33.19	-10.67	1.55
0.23	0	0.05	ML	-0.002	0.137	0.033	-1.025	0.649	-0.268	24.27	-6.95	3.34
0.25	0	0.05	ML	0.166	0.359	0.079	-1.111	1.137	-0.341	21.99	-8.58	3.20
0.27	0	0.05	ML	0.168	0.478	0.107	-1.138	1.172	-0.516	24.36	-9.19	2.74
0.29	0	0.05	ML	0.367	0.478	0.067	-0.968	1.536	-0.303	15.37	-7.31	2.60
0.31	0	0.05	ML	0.501	0.646	0.084	-0.954	1.397	-0.498	27.40	-8.19	3.84
0.33	0	0.05	ML	0.416	0.548	0.073	-0.972	1.317	-0.492	24.02	-6.86	3.51
0.35	0	0.05	ML	0.461	0.672	0.125	-1.077	2.010	-0.520	30.16	-8.38	3.65
0.37	0	0.05	ML	0.802	0.968	0.120	-0.456	2.158	-0.511	33.43	-5.13	2.39
0.39	0	0.05	ML	0.711	0.962	0.031	-0.681	2.493	-0.508	31.26	-7.47	2.77
0.41	0	0.05	ML	0.774	0.726	0.110	-0.439	2.214	-0.513	24.15	-5.37	2.96
0.43	0	0.05	ML	0.780	0.548	0.080	-0.402	1.563	-0.547	25.43	-7.70	3.42
0.45	0	0.05	ML	1.225	0.722	0.114	0.992	2.275	-0.612	25.15	-2.78	1.91

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.49	0	0.05	ML	1.695	0.992	0.070	3.672	3.230	-0.599	21.61	0.03	3.31
0.51	0	0.05	ML	1.912	0.911	0.052	5.882	3.663	-0.701	7.38	1.02	0.97
0.53	0	0.05	ML	0.617	0.463	-0.190	3.710	2.594	-0.293	-2.38	2.17	-0.57
0.55	0	0.05	ML	0.042	0.053	-0.205	2.214	1.540	-0.521	-2.05	1.43	0.21
0.05	0	0.075	ML	0.212	0.062	-0.181	1.455	1.209	-0.195	-3.07	1.54	-0.17
0.07	0	0.075	ML	-0.083	0.020	-0.018	0.870	0.954	-0.513	-4.52	3.23	-0.35
0.09	0	0.075	ML	0.207	0.124	0.080	1.195	1.225	-0.594	-6.27	2.86	1.37
0.11	0	0.075	ML	1.361	0.317	-0.017	5.531	2.250	-0.674	-2.61	1.89	1.65
0.13	0	0.075	ML	1.773	1.024	0.120	3.416	4.287	-0.556	10.45	-1.04	2.07
0.15	0	0.075	ML	1.798	0.648	0.009	3.658	3.564	-0.627	7.17	-2.13	2.19
0.17	0	0.075	ML	1.859	0.741	0.100	3.407	3.855	-0.622	11.01	-4.56	0.99
0.19	0	0.075	ML	1.407	1.029	0.042	1.349	4.065	-0.638	16.66	-4.14	2.00
0.21	0	0.075	ML	0.846	0.875	0.126	-0.223	1.945	-0.553	39.72	-5.67	4.05
0.23	0	0.075	ML	0.971	1.021	0.176	-0.036	3.082	-0.502	25.15	-5.38	3.07
0.25	0	0.075	ML	0.839	0.883	0.026	-0.385	2.481	-0.449	28.62	-6.54	3.59
0.27	0	0.075	ML	0.811	1.090	0.171	-0.537	3.331	-0.460	20.26	-6.93	2.74
0.29	0	0.075	ML	0.642	0.918	0.111	-0.898	2.688	-0.543	20.01	-6.46	2.43
0.31	0	0.075	ML	0.439	0.945	0.204	-1.113	1.921	-0.462	25.91	-6.61	5.27
0.33	0	0.075	ML	0.471	0.837	0.145	-0.968	1.809	-0.425	22.95	-9.00	3.41
0.35	0	0.075	ML	0.440	0.681	0.123	-1.075	1.888	-0.440	21.42	-9.25	3.51
0.37	0	0.075	ML	0.352	0.412	0.114	-0.984	1.500	-0.419	18.49	-7.96	4.52
0.39	0	0.075	ML	0.391	0.141	0.148	-1.042	1.753	-0.528	22.90	-9.91	1.81
0.41	0	0.075	ML	0.264	0.128	0.082	-1.006	1.589	-0.439	6.06	-10.33	1.64
0.43	0	0.075	ML	0.253	-0.332	0.041	-0.971	1.359	-0.566	11.16	-10.71	2.94

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.47	0	0.075	ML	0.278	-0.479	0.030	-1.072	1.244	-0.360	7.80	-10.49	1.28
0.49	0	0.075	ML	0.226	-0.550	0.072	-0.897	0.590	-0.323	12.14	-9.85	1.35
0.51	0	0.075	ML	0.164	-0.560	0.042	-0.971	0.603	-0.440	15.14	-9.00	2.28
0.53	0	0.075	ML	0.145	-0.452	0.072	-0.876	0.426	-0.374	15.90	-6.47	2.25
0.55	0	0.075	ML	0.234	-0.515	0.070	-0.890	0.650	-0.417	12.05	-5.62	2.00
0.05	0	0.095	ML	0.301	-0.386	-0.033	-0.817	0.777	-0.496	11.82	-7.83	1.80
0.07	0	0.095	ML	0.262	-0.524	0.046	-0.797	0.538	-0.258	-3.86	-5.82	0.94
0.09	0	0.095	ML	0.279	-0.463	-0.018	-0.825	0.574	-0.328	6.23	-6.49	0.07
0.11	0	0.095	ML	0.242	-0.523	-0.024	-0.902	0.961	-0.407	8.88	-10.67	1.49
0.13	0	0.095	ML	0.434	-0.459	0.121	-0.748	1.356	-0.542	5.01	-9.16	0.80
0.15	0	0.095	ML	0.448	-0.127	0.019	-0.907	2.394	-0.591	13.24	-13.50	-0.16
0.17	0	0.095	ML	0.555	-0.169	0.091	-0.763	1.825	-0.503	21.34	-13.27	1.11
0.19	0	0.095	ML	0.580	-0.008	0.126	-0.774	2.440	-0.584	15.03	-9.39	2.29
0.21	0	0.095	ML	0.488	0.056	0.025	-0.753	1.338	-0.498	10.39	-9.72	2.03
0.23	0	0.095	ML	0.746	0.233	0.055	-0.491	2.809	-0.558	12.26	-9.42	1.42
0.25	0	0.095	ML	0.766	0.556	0.075	-0.419	2.619	-0.439	23.48	-8.86	2.09
0.27	0	0.095	ML	0.636	0.692	0.123	-0.753	2.519	-0.573	18.63	-9.60	3.38
0.29	0	0.095	ML	0.790	0.905	0.088	-0.518	2.817	-0.511	21.16	-7.01	3.09
0.31	0	0.095	ML	1.042	1.154	0.055	0.163	2.653	-0.532	26.10	-4.79	4.27
0.33	0	0.095	ML	1.101	1.059	0.067	0.319	3.393	-0.565	16.94	-5.82	2.88
0.35	0	0.095	ML	1.331	1.028	0.118	1.164	3.609	-0.558	13.45	-4.73	2.81
0.37	0	0.095	ML	1.500	0.961	0.056	1.603	3.854	-0.645	7.59	-5.25	2.90
0.39	0	0.095	ML	1.532	0.896	0.057	2.067	3.740	-0.656	6.56	-5.08	1.88
0.41	0	0.095	ML	1.445	1.036	0.084	2.366	3.180	-0.523	12.13	-1.48	4.26

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	0	0.095	ML	0.387	0.182	0.017	1.931	0.954	-0.563	-2.52	1.32	1.43
0.47	0	0.095	ML	0.899	0.275	-0.051	3.552	2.152	-0.432	-1.42	2.99	2.71
0.49	0	0.095	ML	0.568	-0.023	0.073	1.716	1.172	-0.628	-6.96	2.35	0.62
0.51	0	0.095	ML	0.088	-0.071	0.142	0.837	0.542	-0.475	-5.71	2.72	0.69
0.53	0	0.095	ML	0.273	-0.174	0.022	0.942	0.897	-0.166	-4.42	2.26	0.10
0.55	0	0.095	ML	0.001	-0.068	-0.244	0.576	0.619	-0.264	-3.19	2.06	-0.61
0.063	-0.05	0.075	CAV	0.276	0.100	-0.150	0.482	-0.028	-0.498	-2.91	4.61	0.17
0.12	-0.05	0.075	CAV	0.130	0.045	-0.164	0.091	0.001	-0.477	0.72	3.09	0.03
0.18	-0.05	0.075	CAV	0.238	0.088	0.045	0.521	0.194	-0.547	-3.03	3.19	-0.48
0.24	-0.05	0.075	CAV	0.592	0.070	0.115	1.941	0.961	-0.631	-4.04	1.78	1.61
0.3	-0.05	0.075	CAV	0.712	0.720	0.082	1.881	2.686	-0.691	-3.08	-0.38	2.85
0.36	-0.05	0.075	CAV	1.077	-0.563	0.080	2.191	3.208	-0.715	-7.43	0.71	0.77
0.42	-0.05	0.075	CAV	0.506	-0.791	-0.082	-0.022	0.536	-0.481	-29.49	-0.19	-4.09
0.48	-0.05	0.075	CAV	0.117	0.057	-0.068	0.055	0.037	-0.410	-0.68	3.88	1.45
0.1	-0.1	0.075	CAV	0.067	0.090	-0.113	0.972	0.194	-0.262	0.61	3.77	1.26
0.15	-0.1	0.075	CAV	-0.320	0.061	0.015	1.998	0.406	-0.613	1.15	4.02	0.71
0.21	-0.1	0.075	CAV	-0.698	-0.018	0.006	2.904	1.555	-0.684	0.94	2.40	0.33
0.27	-0.1	0.075	CAV	-0.443	-0.129	0.009	2.447	2.521	-0.711	1.94	0.29	0.70
0.33	-0.1	0.075	CAV	-0.310	-1.173	0.011	1.786	1.933	-0.592	9.24	0.66	-0.04
0.39	-0.1	0.075	CAV	0.143	0.063	-0.099	0.397	0.174	-0.317	-1.96	1.45	0.78
0.45	-0.1	0.075	CAV	-0.393	0.172	-0.051	1.691	0.532	-0.493	1.89	3.33	-0.55
0.5	-0.1	0.075	CAV	-0.453	0.170	0.029	2.649	1.323	-0.474	1.06	1.77	0.82
0.159	-0.15	0.075	CAV	-0.624	-0.018	0.172	3.190	1.980	-0.606	0.65	1.46	2.63
0.2	-0.15	0.075	CAV	-0.799	-1.134	0.164	3.004	3.362	-0.773	9.98	-0.46	1.37

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.32	-0.15	0.075	CAV	0.046	0.030	-0.253	0.311	0.185	-0.318	-2.74	1.39	0.94
0.38	-0.15	0.075	CAV	-0.109	0.036	-0.128	0.221	0.192	-0.238	-5.88	3.00	1.03
0.44	-0.15	0.075	CAV	-0.008	-0.956	-0.010	0.696	0.335	-0.573	9.49	3.39	1.66
0.21	-0.174	0.075	CAV	-0.425	0.027	0.413	2.771	0.907	-0.331	1.00	0.92	-0.41
0.27	-0.188	0.075	CAV	-0.357	0.131	0.183	1.972	0.945	-0.580	-1.68	2.05	-0.31
0.33	-0.188	0.075	CAV	-0.356	-0.025	0.029	1.655	0.707	-0.514	-1.10	1.82	-0.44
0.39	-0.174	0.075	CAV	-0.004	0.017	-0.029	0.102	0.573	-0.462	-2.06	2.36	0.28

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.3 Semi-circular cavity with rough bed at low flow (Velocity = 0.33 m/s; depth = 0.150 m): velocities

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.05	0	0.05	ML	-19.18	0.65	-0.72	19.21	19.64	4.40	3.45	2.00	5.94	4.30
0.07	0	0.05	ML	-19.84	0.95	-0.78	19.88	20.35	4.51	3.66	2.08	6.17	4.36
0.09	0	0.05	ML	-19.21	1.25	-0.54	19.26	20.23	6.43	3.83	2.19	7.80	4.73
0.11	0	0.05	ML	-17.82	1.19	-0.37	17.86	20.27	9.64	4.11	2.30	10.73	4.81
0.13	0	0.05	ML	-14.53	1.12	-0.28	14.58	20.11	13.96	4.14	2.43	14.76	5.07
0.15	0	0.05	ML	-14.74	1.21	-0.19	14.79	20.18	13.75	4.48	2.47	14.67	5.17
0.17	0	0.05	ML	-13.65	1.29	-0.08	13.71	20.54	15.28	4.42	2.47	16.10	5.03
0.19	0	0.05	ML	-13.74	1.30	0.15	13.80	20.36	15.06	4.30	2.53	15.87	5.24
0.21	0	0.05	ML	-14.25	1.61	0.23	14.34	20.95	15.27	4.57	2.53	16.14	5.22
0.23	0	0.05	ML	-14.32	1.68	0.23	14.42	20.79	15.10	4.48	2.60	15.96	5.49
0.25	0	0.05	ML	-15.88	1.74	0.22	15.98	20.70	13.12	4.48	2.58	14.10	5.07
0.27	0	0.05	ML	-13.05	1.64	0.15	13.16	21.15	16.57	4.42	2.55	17.34	5.11
0.29	0	0.05	ML	-12.15	1.86	0.30	12.30	20.92	17.07	4.49	2.55	17.83	5.59
0.31	0	0.05	ML	-13.02	2.50	0.31	13.26	21.66	17.26	4.47	2.40	17.99	5.51
0.33	0	0.05	ML	-12.54	2.34	0.21	12.76	21.68	17.69	4.53	2.50	18.44	5.70
0.35	0	0.05	ML	-12.97	2.62	0.37	13.23	22.23	17.97	4.56	2.55	18.71	5.57
0.37	0	0.05	ML	-13.44	2.98	0.37	13.77	21.93	17.29	4.33	2.49	17.99	5.67
0.39	0	0.05	ML	-16.35	3.34	0.61	16.70	22.14	14.71	4.47	2.51	15.58	5.63
0.41	0	0.05	ML	-14.58	3.60	0.41	15.02	22.14	16.46	4.50	2.44	17.24	5.69
0.43	0	0.05	ML	-19.42	4.72	0.73	20.00	23.09	11.96	4.12	2.40	12.87	5.71
0.45	0	0.05	ML	-16.19	4.20	0.64	16.74	22.64	15.57	4.09	2.43	16.28	5.72

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.49	0	0.05	ML	-21.27	5.01	0.76	21.86	22.87	7.33	4.38	2.47	8.89	5.82
0.51	0	0.05	ML	-20.87	4.85	0.76	21.43	23.38	9.91	4.34	2.37	11.08	5.97
0.53	0	0.05	ML	-19.58	4.16	0.80	20.03	21.73	9.07	4.33	2.55	10.37	6.06
0.55	0	0.05	ML	-21.35	3.27	0.82	21.61	22.42	6.60	4.11	2.57	8.19	5.64
0.05	0	0.075	ML	-23.74	0.80	0.13	23.76	24.13	4.67	3.42	2.10	6.15	4.45
0.07	0	0.075	ML	-21.94	0.75	0.08	21.96	23.33	8.47	3.61	2.21	9.47	5.22
0.09	0	0.075	ML	-15.94	0.81	0.14	15.96	22.31	16.03	3.75	2.19	16.60	5.73
0.11	0	0.075	ML	-15.84	1.06	0.23	15.88	22.86	16.81	3.97	2.27	17.42	5.77
0.13	0	0.075	ML	-14.08	0.89	0.21	14.11	22.19	17.47	4.08	2.34	18.10	5.85
0.15	0	0.075	ML	-14.03	1.00	0.21	14.07	21.71	16.83	4.40	2.43	17.56	5.91
0.17	0	0.075	ML	-13.53	0.71	0.28	13.55	21.99	17.58	4.59	2.48	18.34	6.03
0.19	0	0.075	ML	-13.61	0.74	0.27	13.63	21.88	17.33	4.69	2.56	18.14	6.00
0.21	0	0.075	ML	-14.71	0.59	0.16	14.72	21.93	16.60	4.66	2.56	17.43	6.28
0.23	0	0.075	ML	-13.56	0.88	0.25	13.59	22.10	17.67	4.79	2.52	18.48	6.14
0.25	0	0.075	ML	-13.10	0.84	0.41	13.14	21.49	17.14	4.64	2.56	17.94	5.70
0.27	0	0.075	ML	-13.24	0.80	0.52	13.27	21.67	17.48	4.73	2.58	18.29	6.39
0.29	0	0.075	ML	-14.75	1.10	0.49	14.80	22.19	16.80	4.66	2.50	17.61	6.06
0.31	0	0.075	ML	-12.08	1.40	0.48	12.17	21.89	18.51	4.66	2.53	19.25	6.27
0.33	0	0.075	ML	-12.53	1.32	0.29	12.60	22.17	18.53	4.84	2.57	19.32	6.37
0.35	0	0.075	ML	-13.99	1.79	0.50	14.12	22.75	17.99	4.79	2.54	18.78	5.85
0.37	0	0.075	ML	-13.10	2.18	0.47	13.29	22.12	17.92	4.58	2.54	18.67	5.97
0.39	0	0.075	ML	-15.50	2.25	0.52	15.67	22.47	16.34	4.57	2.57	17.15	5.90
0.41	0	0.075	ML	-16.65	2.53	0.49	16.85	22.51	15.27	4.52	2.55	16.13	6.14

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.45	0	0.075	ML	-12.97	3.12	0.41	13.34	22.63	18.56	4.51	2.53	19.27	6.09
0.47	0	0.075	ML	-14.78	3.91	0.60	15.30	23.16	17.71	4.37	2.37	18.40	6.00
0.49	0	0.075	ML	-15.61	3.78	0.60	16.07	22.73	16.42	4.29	2.48	17.15	5.96
0.51	0	0.075	ML	-18.64	4.02	0.69	19.08	23.19	13.65	4.30	2.48	14.53	6.09
0.53	0	0.075	ML	-20.10	3.79	0.65	20.46	23.43	11.73	4.27	2.49	12.72	5.64
0.55	0	0.075	ML	-19.66	2.70	0.72	19.86	23.19	12.44	4.23	2.53	13.38	6.00
0.05	0	0.095	ML	-23.83	0.41	0.57	23.84	24.87	7.88	3.39	2.27	8.88	5.34
0.07	0	0.095	ML	-21.75	0.62	0.47	21.76	24.40	11.91	3.64	2.25	12.65	6.19
0.09	0	0.095	ML	-19.93	0.75	0.54	19.96	23.69	13.57	3.70	2.40	14.27	6.37
0.11	0	0.095	ML	-16.41	0.34	0.57	16.42	22.35	15.83	4.11	2.43	16.54	6.59
0.13	0	0.095	ML	-17.60	0.72	0.54	17.62	22.88	15.15	4.18	2.46	15.91	6.34
0.15	0	0.095	ML	-18.45	0.76	0.28	18.46	22.70	13.75	4.51	2.35	14.66	6.38
0.17	0	0.095	ML	-16.56	0.67	0.56	16.58	22.68	15.90	4.57	2.45	16.72	6.33
0.19	0	0.095	ML	-15.67	0.62	0.45	15.69	21.79	15.63	4.74	2.62	16.54	6.71
0.21	0	0.095	ML	-15.14	0.09	0.53	15.15	20.81	14.68	4.70	2.65	15.64	6.38
0.23	0	0.095	ML	-16.62	0.39	0.51	16.63	21.61	14.31	4.76	2.56	15.29	6.59
0.25	0	0.095	ML	-17.63	0.80	0.50	17.65	21.93	13.41	4.63	2.53	14.41	6.18
0.27	0	0.095	ML	-16.92	0.62	0.56	16.94	22.12	14.50	4.85	2.57	15.50	6.16
0.29	0	0.095	ML	-15.03	0.50	0.38	15.05	21.35	15.51	4.88	2.54	16.46	6.45
0.31	0	0.095	ML	-15.61	0.94	0.59	15.65	22.00	15.72	4.90	2.61	16.67	6.25
0.33	0	0.095	ML	-18.34	1.05	0.54	18.38	22.01	12.52	4.85	2.57	13.67	6.33
0.35	0	0.095	ML	-16.62	1.05	0.47	16.66	21.69	14.15	4.83	2.57	15.17	6.08
0.37	0	0.095	ML	-15.39	1.52	0.40	15.47	21.92	15.86	4.63	2.69	16.74	6.26

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.41	0	0.095	ML	-17.27	2.04	0.54	17.40	21.68	13.37	4.47	2.63	14.34	6.20
0.43	0	0.095	ML	-17.62	1.99	0.48	17.73	21.23	12.05	4.66	2.63	13.19	6.13
0.45	0	0.095	ML	-14.90	2.54	0.30	15.11	21.74	16.07	4.55	2.58	16.90	6.41
0.47	0	0.095	ML	-15.96	2.43	0.39	16.15	21.14	14.00	4.50	2.59	14.93	6.06
0.49	0	0.095	ML	-16.88	2.95	0.43	17.15	21.76	13.78	4.34	2.59	14.68	5.98
0.51	0	0.095	ML	-16.75	2.98	0.38	17.02	22.18	14.74	4.31	2.57	15.57	6.34
0.53	0	0.095	ML	-20.11	2.69	0.59	20.30	22.73	10.79	4.26	2.54	11.87	6.04
0.55	0	0.095	ML	-19.62	1.76	0.60	19.71	21.76	9.78	4.31	2.59	10.99	6.01
0.063	-0.05	0.075	CAV	-1.04	-3.52	-0.83	3.76	4.54	1.76	2.10	1.41	3.09	1.74
0.12	-0.05	0.075	CAV	-3.80	-2.88	0.02	4.77	5.69	2.22	2.40	1.61	3.64	1.92
0.18	-0.05	0.075	CAV	-5.14	-2.60	0.76	5.81	6.62	2.39	2.51	1.72	3.87	2.21
0.24	-0.05	0.075	CAV	-6.42	-1.47	0.82	6.64	7.45	2.61	2.51	1.99	4.13	2.36
0.3	-0.05	0.075	CAV	-6.08	-1.10	0.64	6.21	7.18	3.03	2.67	2.17	4.59	2.83
0.36	-0.05	0.075	CAV	-7.42	-0.12	0.52	7.44	8.66	3.86	3.25	2.63	5.69	3.56
0.42	-0.05	0.075	CAV	-8.91	1.15	0.60	9.00	10.30	4.50	3.78	2.99	6.59	4.29
0.48	-0.05	0.075	CAV	-9.87	3.07	0.73	10.36	11.70	5.34	4.13	3.05	7.41	5.03
0.1	-0.1	0.075	CAV	1.01	-5.25	-0.31	5.35	6.02	2.08	2.32	1.61	3.51	2.18
0.15	-0.1	0.075	CAV	-0.03	-3.99	0.16	3.99	5.00	2.16	2.45	1.63	3.65	2.06
0.21	-0.1	0.075	CAV	-1.23	-2.57	0.34	2.87	4.53	2.39	2.61	1.89	4.01	1.94
0.27	-0.1	0.075	CAV	-1.65	-1.60	0.73	2.41	4.38	2.87	2.35	1.86	4.15	1.97
0.33	-0.1	0.075	CAV	-1.83	0.32	-0.49	1.92	4.01	2.53	2.29	2.07	3.99	1.88
0.39	-0.1	0.075	CAV	-1.38	1.42	0.23	1.99	4.46	3.12	2.58	2.12	4.57	2.22
0.45	-0.1	0.075	CAV	-1.77	3.35	0.58	3.83	6.51	4.41	3.06	2.82	6.06	3.02

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.159	-0.15	0.075	CAV	3.09	-4.50	-0.34	5.47	6.27	2.52	2.55	1.68	3.96	2.50
0.2	-0.15	0.075	CAV	2.53	-3.18	-0.50	4.10	5.33	2.71	2.45	1.89	4.11	2.30
0.26	-0.15	0.075	CAV	2.28	-1.26	-0.26	2.61	4.52	2.83	2.60	1.89	4.29	2.19
0.32	-0.15	0.075	CAV	2.94	-0.09	-0.83	3.06	5.04	2.97	2.64	2.35	4.62	2.29
0.38	-0.15	0.075	CAV	3.26	1.93	-0.09	3.79	5.79	3.70	2.77	2.34	5.18	2.77
0.44	-0.15	0.075	CAV	3.02	4.22	0.83	5.25	7.13	3.88	3.18	2.69	5.70	3.03
0.21	-0.174	0.075	CAV	5.34	-3.52	-0.60	6.43	7.20	3.03	2.52	1.81	4.33	2.87
0.27	-0.188	0.075	CAV	5.86	-1.74	-0.71	6.15	7.13	3.19	2.72	2.12	4.70	3.01
0.33	-0.188	0.075	CAV	5.76	0.55	-0.32	5.79	7.09	3.54	2.79	2.38	5.10	3.05
0.39	-0.174	0.075	CAV	5.20	2.55	0.03	5.79	7.19	3.66	2.93	2.42	5.27	3.10

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.4 Semi-circular cavity with rough bed at low flow (Velocity = 0.33 m/s; depth = 0.150 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	0.399	0.351	0.578	0.992	0.580	0.142	-2.00	1.44	0.60
0.07	0	0.05	ML	0.367	0.268	0.642	1.394	0.819	0.331	-2.98	0.90	1.03
0.09	0	0.05	ML	2.206	0.082	0.546	9.578	0.474	0.098	-5.41	1.99	0.91
0.11	0	0.05	ML	2.335	0.005	0.477	5.983	0.451	-0.136	-7.01	3.30	1.21
0.13	0	0.05	ML	1.608	0.057	0.397	1.489	0.538	-0.194	-7.23	5.30	1.44
0.15	0	0.05	ML	1.622	-0.009	0.238	1.595	0.220	-0.351	-9.13	3.04	2.00
0.17	0	0.05	ML	1.475	0.032	0.228	0.874	0.387	-0.392	-10.01	2.93	1.48
0.19	0	0.05	ML	1.438	-0.121	0.208	0.823	0.135	-0.400	-11.16	3.47	1.67
0.21	0	0.05	ML	1.480	0.005	0.209	0.914	0.255	-0.527	-11.47	1.66	1.62
0.23	0	0.05	ML	1.441	0.047	0.106	0.885	0.142	-0.423	-11.82	0.15	1.26
0.25	0	0.05	ML	1.792	-0.130	0.195	2.324	0.240	-0.570	-5.96	0.28	1.78
0.27	0	0.05	ML	1.252	-0.036	0.172	0.099	0.236	-0.348	-9.57	-0.43	1.24
0.29	0	0.05	ML	1.130	0.065	0.138	-0.153	0.105	-0.447	-11.76	-2.56	1.67
0.31	0	0.05	ML	1.155	-0.020	0.198	-0.164	0.099	-0.355	-14.46	-1.58	1.44
0.33	0	0.05	ML	1.067	-0.055	0.097	-0.372	0.087	-0.550	-16.68	-0.53	1.26
0.35	0	0.05	ML	1.064	-0.035	0.021	-0.437	-0.031	-0.473	-13.27	-1.99	1.33
0.37	0	0.05	ML	1.161	0.037	0.007	-0.119	0.126	-0.467	-13.10	-2.10	1.11
0.39	0	0.05	ML	1.568	-0.178	-0.018	1.345	0.081	-0.611	-12.82	-1.43	0.94
0.41	0	0.05	ML	1.288	-0.036	0.015	0.251	0.062	-0.429	-13.33	-0.12	1.23
0.43	0	0.05	ML	1.978	-0.074	0.028	3.549	-0.096	-0.588	-9.09	2.47	0.79
0.45	0	0.05	ML	1.474	0.015	0.030	0.890	0.197	-0.553	-11.79	0.77	0.62
0.47	0	0.05	ML	2.031	0.042	-0.016	4.016	0.084	-0.683	-11.96	2.26	0.68

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	0	0.05	ML	2.225	-0.029	0.052	6.016	0.362	-0.568	-10.01	1.89	0.40
0.53	0	0.05	ML	2.023	-0.232	0.049	6.115	0.624	-0.654	-11.95	2.05	0.45
0.55	0	0.05	ML	1.376	-0.312	0.042	5.447	0.737	-0.739	-8.30	1.11	0.69
0.05	0	0.075	ML	0.675	0.045	0.432	4.312	0.413	-0.342	-5.25	-0.74	0.54
0.07	0	0.075	ML	2.505	0.065	0.265	7.945	0.447	-0.445	-4.59	0.66	0.64
0.09	0	0.075	ML	1.350	-0.084	0.129	0.416	0.538	-0.468	-12.56	6.63	1.03
0.11	0	0.075	ML	1.281	-0.228	0.064	0.150	0.514	-0.323	-12.34	4.85	1.18
0.13	0	0.075	ML	1.128	-0.126	0.035	-0.227	0.553	-0.348	-14.58	1.86	1.33
0.15	0	0.075	ML	1.209	-0.195	0.077	0.070	0.172	-0.433	-13.00	0.22	1.78
0.17	0	0.075	ML	1.127	-0.201	0.080	-0.146	0.168	-0.454	-14.26	-0.10	1.58
0.19	0	0.075	ML	1.172	-0.065	0.043	0.015	0.074	-0.457	-14.37	-0.88	1.64
0.21	0	0.075	ML	1.322	-0.036	0.102	0.575	-0.053	-0.624	-14.96	-1.58	2.11
0.23	0	0.075	ML	1.156	-0.123	0.082	-0.031	-0.012	-0.548	-13.98	-2.80	2.06
0.25	0	0.075	ML	1.212	-0.093	0.103	0.081	-0.123	-0.473	-8.73	-1.57	1.07
0.27	0	0.075	ML	1.119	0.008	-0.021	-0.038	0.104	-0.485	-11.54	-5.08	1.29
0.29	0	0.075	ML	1.287	-0.069	-0.001	0.391	0.124	-0.437	-12.68	-2.64	1.03
0.31	0	0.075	ML	0.967	-0.020	0.118	-0.516	-0.224	-0.534	-13.08	-5.37	0.94
0.33	0	0.075	ML	1.052	-0.047	0.035	-0.286	-0.016	-0.569	-12.23	-3.54	1.49
0.35	0	0.075	ML	1.172	-0.125	0.057	-0.092	0.168	-0.587	-14.22	-5.26	0.67
0.37	0	0.075	ML	1.074	-0.215	0.058	-0.297	-0.045	-0.555	-8.18	-2.46	1.20
0.39	0	0.075	ML	1.397	-0.102	0.035	0.678	-0.074	-0.498	-9.80	-3.01	0.90
0.41	0	0.075	ML	1.481	-0.085	0.088	1.099	-0.038	-0.493	-8.44	-0.21	0.87
0.43	0	0.075	ML	1.440	-0.094	0.069	0.916	0.068	-0.493	-7.88	0.27	0.78
0.45	0	0.075	ML	1.074	-0.059	0.041	-0.334	-0.054	-0.555	-15.08	-5.42	1.29

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.49	0	0.075	ML	1.340	-0.134	0.025	0.452	0.004	-0.458	-8.34	-0.79	0.89
0.51	0	0.075	ML	1.796	-0.098	0.053	2.450	0.059	-0.579	-12.91	-1.36	0.18
0.53	0	0.075	ML	2.184	-0.308	0.034	4.646	0.269	-0.584	-9.52	-0.49	0.92
0.55	0	0.075	ML	2.029	-0.333	-0.086	3.957	0.659	-0.478	-11.56	-2.47	0.84
0.05	0	0.095	ML	2.562	0.092	0.261	9.334	0.403	-0.665	-7.41	0.92	0.19
0.07	0	0.095	ML	2.017	-0.153	0.134	3.656	0.609	-0.331	-8.52	2.35	0.81
0.09	0	0.095	ML	1.702	-0.156	0.072	2.068	0.463	-0.528	-7.72	3.41	1.19
0.11	0	0.095	ML	1.275	-0.083	-0.019	0.422	0.098	-0.483	-12.52	1.62	1.14
0.13	0	0.095	ML	1.517	-0.089	-0.038	1.261	0.265	-0.481	-11.82	0.92	1.68
0.15	0	0.095	ML	1.656	-0.332	0.121	2.059	0.148	-0.527	-12.62	1.92	1.60
0.17	0	0.095	ML	1.406	-0.154	0.027	0.866	-0.049	-0.493	-13.61	0.27	1.41
0.19	0	0.095	ML	1.340	-0.210	-0.022	0.872	-0.048	-0.554	-13.82	-1.66	1.31
0.21	0	0.095	ML	1.407	-0.117	0.001	1.229	-0.151	-0.574	-11.69	-1.10	1.27
0.23	0	0.095	ML	1.472	-0.028	0.031	1.517	-0.143	-0.598	-8.87	-0.65	1.06
0.25	0	0.095	ML	1.673	-0.046	0.079	2.265	-0.086	-0.640	-6.95	0.38	0.84
0.27	0	0.095	ML	1.579	-0.090	0.000	1.708	-0.179	-0.562	-11.95	-2.70	1.50
0.29	0	0.095	ML	1.344	0.038	0.136	0.908	-0.086	-0.565	-6.27	-2.93	1.19
0.31	0	0.095	ML	1.424	-0.068	0.042	0.981	-0.204	-0.618	-10.18	-3.95	1.33
0.33	0	0.095	ML	1.741	-0.024	0.037	3.047	-0.160	-0.587	-6.46	-1.38	0.50
0.35	0	0.095	ML	1.618	0.012	0.040	1.833	0.038	-0.527	-8.89	-2.18	0.93
0.37	0	0.095	ML	1.375	-0.070	-0.052	0.799	0.112	-0.573	-8.80	-2.69	0.64
0.39	0	0.095	ML	1.433	-0.061	0.082	1.142	-0.223	-0.557	-11.89	-0.90	0.45
0.41	0	0.095	ML	1.691	-0.097	0.048	2.411	-0.326	-0.505	-8.62	-2.24	0.79
0.43	0	0.095	ML	1.814	0.028	0.112	3.277	-0.232	-0.530	-10.05	-1.97	-0.05

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.47	0	0.095	ML	1.601	0.041	0.064	1.794	-0.024	-0.657	-8.06	-1.93	0.41
0.49	0	0.095	ML	1.775	-0.151	-0.009	2.468	0.246	-0.554	-7.30	-1.47	0.72
0.51	0	0.095	ML	1.554	-0.143	-0.041	1.560	-0.078	-0.461	-10.29	-1.86	1.03
0.53	0	0.095	ML	2.079	-0.148	0.025	5.098	0.163	-0.618	-8.26	-0.94	0.17
0.55	0	0.095	ML	2.033	-0.175	0.072	5.650	0.018	-0.574	-12.51	-1.45	0.50
0.063	-0.05	0.075	CAV	-0.084	-0.024	-0.013	0.139	0.094	-0.045	-0.17	0.04	-0.20
0.12	-0.05	0.075	CAV	0.044	0.014	-0.093	0.052	-0.044	0.156	-0.92	0.43	-0.36
0.18	-0.05	0.075	CAV	0.012	-0.165	-0.032	0.196	0.438	-0.045	-0.63	-0.34	-0.87
0.24	-0.05	0.075	CAV	0.174	0.134	0.120	0.317	0.193	0.389	-1.15	-0.24	-0.35
0.3	-0.05	0.075	CAV	-0.216	0.214	0.214	0.090	0.912	0.440	-1.46	-0.13	-0.48
0.36	-0.05	0.075	CAV	-0.342	0.204	0.072	0.449	0.377	-0.093	-3.62	-0.83	-1.05
0.42	-0.05	0.075	CAV	-0.462	0.360	-0.081	0.578	0.684	-0.427	-5.31	-0.66	-1.29
0.48	-0.05	0.075	CAV	-0.156	0.274	-0.038	0.460	0.501	-0.444	-6.23	-1.01	-0.58
0.1	-0.1	0.075	CAV	0.249	-0.027	-0.173	0.386	-0.081	-0.009	-0.37	-0.38	-0.19
0.15	-0.1	0.075	CAV	0.025	0.032	0.157	0.121	0.080	-0.055	-0.54	0.10	-0.48
0.21	-0.1	0.075	CAV	0.068	0.011	-0.308	-0.087	0.062	0.250	-0.08	-1.12	-0.91
0.27	-0.1	0.075	CAV	0.199	-0.053	-0.447	0.209	0.099	0.646	-0.98	-0.35	-0.41
0.33	-0.1	0.075	CAV	0.062	0.065	-0.486	0.189	0.262	0.368	-0.42	-0.51	-0.61
0.39	-0.1	0.075	CAV	-0.043	0.100	-0.062	0.210	0.163	0.198	-1.15	-1.43	-0.11
0.45	-0.1	0.075	CAV	0.008	0.159	-0.151	-0.133	0.382	0.009	-2.13	-2.13	-0.33
0.5	-0.1	0.075	CAV	0.029	0.142	-0.243	0.379	0.725	-0.112	-2.92	-1.91	-0.55
0.159	-0.15	0.075	CAV	0.165	0.076	-0.142	0.045	0.372	0.596	-0.88	-0.27	0.20
0.2	-0.15	0.075	CAV	0.202	0.140	-0.312	0.230	0.271	0.645	-0.41	-0.56	-0.56
0.26	-0.15	0.075	CAV	0.237	0.093	-0.464	0.010	0.006	0.591	-0.69	-0.03	-0.14

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.38	-0.15	0.075	CAV	0.170	0.006	-0.028	0.098	0.337	0.461	-0.39	-0.36	-0.13
0.44	-0.15	0.075	CAV	0.342	0.058	-0.149	0.291	0.154	-0.012	-0.45	-2.16	0.30
0.21	-0.174	0.075	CAV	0.131	0.016	-0.118	0.115	0.054	0.283	-1.63	-0.20	0.12
0.27	-0.188	0.075	CAV	0.338	0.104	-0.341	-0.031	0.396	0.516	-0.04	-0.34	-0.30
0.33	-0.188	0.075	CAV	-0.045	0.006	0.034	-0.032	0.276	0.099	0.63	0.27	-0.01
0.39	-0.174	0.075	CAV	0.091	0.024	-0.015	-0.017	0.304	0.112	0.15	-0.21	-0.30

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.5 Semi-circular cavity with rough bed at high flow (Velocity = 0.47 m/s; depth = 0.225 m): velocities

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.05	0	0.05	ML	-15.293	0.677	0.293	15.31	21.72	15.86	4.09	2.24	16.53	6.00
0.07	0	0.05	ML	-12.287	1.074	0.494	12.34	21.34	17.80	5.03	2.39	18.65	6.69
0.09	0	0.05	ML	-13.039	1.369	0.360	13.12	21.26	17.02	5.15	2.48	17.95	6.49
0.11	0	0.05	ML	-10.448	1.262	0.372	10.53	20.91	18.32	6.12	2.71	19.51	7.34
0.13	0	0.05	ML	-8.178	1.469	0.276	8.31	20.74	19.05	6.77	2.91	20.43	7.49
0.15	0	0.05	ML	-7.192	1.146	0.168	7.28	20.92	19.51	7.00	2.76	20.91	7.26
0.17	0	0.05	ML	-9.517	1.373	0.211	9.62	21.55	18.99	7.32	2.83	20.55	7.09
0.19	0	0.05	ML	-6.965	0.575	0.404	7.00	20.16	18.41	8.58	3.11	20.54	8.02
0.21	0	0.05	ML	-8.363	-0.127	0.101	8.36	19.39	16.77	8.65	2.95	19.09	7.65
0.23	0	0.05	ML	-5.924	0.769	-0.006	5.97	19.66	17.95	9.32	2.98	20.45	8.20
0.25	0	0.05	ML	-5.336	-0.430	0.218	5.36	20.33	18.57	10.15	3.10	21.39	8.53
0.27	0	0.05	ML	-7.217	-0.467	0.265	7.24	20.68	18.39	8.95	3.02	20.67	7.20
0.29	0	0.05	ML	-6.009	-0.085	0.372	6.02	19.89	18.44	8.10	3.00	20.36	7.43
0.31	0	0.05	ML	-8.965	0.276	0.435	8.98	20.31	18.07	6.84	2.97	19.55	7.06
0.33	0	0.05	ML	-7.444	0.463	0.731	7.49	19.74	18.00	7.34	2.95	19.66	7.27
0.35	0	0.05	ML	-8.342	0.797	0.490	8.39	20.85	18.56	7.89	3.06	20.40	7.19
0.37	0	0.05	ML	-10.768	0.741	0.788	10.82	19.36	15.95	6.41	2.85	17.42	6.77
0.39	0	0.05	ML	-11.033	2.154	1.080	11.29	20.57	17.27	6.16	2.94	18.57	7.01
0.41	0	0.05	ML	-9.562	1.716	0.819	9.75	20.53	17.85	6.96	2.97	19.39	7.02
0.43	0	0.05	ML	-8.801	2.820	0.876	9.28	20.96	18.50	7.51	2.85	20.17	7.32
0.45	0	0.05	ML	-9.512	3.637	0.754	10.21	22.11	19.31	7.48	2.81	20.90	7.21

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.49	0	0.05	ML	-11.311	4.173	1.079	12.10	21.60	17.83	6.99	2.88	19.37	7.42
0.51	0	0.05	ML	-10.000	3.707	0.916	10.70	23.12	20.08	7.95	2.84	21.79	7.38
0.53	0	0.05	ML	-10.629	3.693	1.093	11.31	22.15	19.12	6.91	2.83	20.52	7.64
0.55	0	0.05	ML	-11.017	3.167	1.276	11.53	21.93	19.00	6.18	2.86	20.18	7.70
0.05	0	0.085	ML	-9.931	2.409	1.355	10.31	20.95	20.29	4.22	2.37	20.86	10.12
0.07	0	0.085	ML	-12.336	2.112	1.306	12.58	22.26	20.03	4.38	2.42	20.65	9.44
0.09	0	0.085	ML	-10.151	2.532	1.393	10.55	21.51	20.60	4.84	2.58	21.32	10.14
0.11	0	0.085	ML	-9.640	1.786	1.091	9.86	21.79	21.02	5.22	2.65	21.82	9.91
0.13	0	0.085	ML	-9.976	0.886	0.795	10.05	21.56	20.08	6.08	2.84	21.17	9.16
0.15	0	0.085	ML	-6.331	1.796	0.959	6.65	21.01	21.13	6.18	2.82	22.19	9.76
0.17	0	0.085	ML	-9.971	1.619	0.774	10.13	22.08	20.28	6.38	2.79	21.44	8.64
0.19	0	0.085	ML	-8.559	0.754	0.729	8.62	21.74	20.45	7.37	2.86	21.92	9.07
0.21	0	0.085	ML	-7.695	0.635	0.583	7.74	22.05	20.90	7.50	2.98	22.40	8.70
0.23	0	0.085	ML	-7.515	2.041	0.616	7.81	22.13	21.42	6.98	2.94	22.72	9.36
0.25	0	0.085	ML	-6.285	1.041	0.472	6.39	21.96	21.11	8.26	2.83	22.84	8.95
0.27	0	0.085	ML	-7.164	0.258	0.472	7.18	21.71	20.12	9.13	2.94	22.29	8.77
0.29	0	0.085	ML	-6.281	0.306	0.477	6.31	21.43	19.90	9.14	2.98	22.10	8.28
0.31	0	0.085	ML	-7.213	1.194	0.801	7.35	21.61	20.33	8.24	2.97	22.14	8.77
0.33	0	0.085	ML	-7.192	1.080	0.838	7.32	21.63	20.28	8.17	2.85	22.05	8.47
0.35	0	0.085	ML	-7.437	0.950	0.620	7.52	22.27	20.76	8.74	2.89	22.71	8.71
0.37	0	0.085	ML	-4.475	1.927	0.664	4.92	21.48	20.87	8.58	2.85	22.74	8.93
0.39	0	0.085	ML	-7.722	1.265	0.641	7.85	22.56	20.71	9.54	2.97	23.00	9.01
0.41	0	0.085	ML	-5.767	0.763	0.595	5.85	22.35	20.44	10.35	2.87	23.09	8.21

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.45	0	0.085	ML	-7.500	2.009	0.485	7.78	22.65	20.37	10.33	2.88	23.02	8.78
0.47	0	0.085	ML	-5.822	3.696	0.701	6.93	22.14	20.64	9.78	2.94	23.03	9.38
0.49	0	0.085	ML	-6.681	3.566	0.744	7.61	22.36	20.74	9.26	2.91	22.90	9.08
0.51	0	0.085	ML	-5.201	3.289	0.762	6.20	22.36	21.07	9.68	2.89	23.37	9.19
0.53	0	0.085	ML	-7.960	1.864	0.781	8.21	22.84	20.45	10.73	2.82	23.26	9.32
0.55	0	0.085	ML	-6.638	3.193	0.777	7.41	21.82	20.94	8.31	2.94	22.72	9.73
0.05	0	0.12	ML	-9.885	2.010	1.748	10.24	20.44	20.82	4.25	2.74	21.43	12.08
0.07	0	0.12	ML	-10.714	2.117	1.678	11.05	21.15	21.17	4.46	2.74	21.81	12.25
0.09	0	0.12	ML	-11.501	2.445	1.557	11.86	22.49	21.73	5.14	2.97	22.52	11.92
0.11	0	0.12	ML	-7.793	2.389	1.345	8.26	21.09	21.66	5.65	3.08	22.59	11.55
0.13	0	0.12	ML	-6.648	1.703	0.998	6.94	21.22	21.35	7.01	2.97	22.67	10.56
0.15	0	0.12	ML	-5.144	1.756	0.961	5.52	20.79	21.06	7.60	2.92	22.58	10.39
0.17	0	0.12	ML	-5.894	0.864	0.648	5.99	21.09	20.73	8.03	3.01	22.44	9.71
0.19	0	0.12	ML	-5.670	0.707	0.564	5.74	21.71	21.05	9.14	2.91	23.13	9.82
0.21	0	0.12	ML	-5.636	1.127	0.614	5.78	21.09	20.38	9.52	3.00	22.70	10.17
0.23	0	0.12	ML	-5.268	0.659	0.293	5.32	21.19	20.56	8.91	3.02	22.61	9.51
0.25	0	0.12	ML	-5.070	0.611	0.400	5.12	21.38	20.19	10.63	2.93	23.00	9.90
0.27	0	0.12	ML	-5.377	1.095	0.602	5.52	21.58	20.26	10.80	2.94	23.15	10.02
0.29	0	0.12	ML	-3.908	0.322	0.556	3.96	21.41	19.88	11.42	3.11	23.13	9.60
0.31	0	0.12	ML	-5.466	0.153	0.120	5.47	22.51	20.64	11.52	2.99	23.83	9.53
0.33	0	0.12	ML	-5.187	0.587	0.507	5.25	22.02	20.56	11.12	3.02	23.57	9.89
0.35	0	0.12	ML	-4.113	0.895	0.428	4.23	21.26	20.18	9.96	2.95	22.69	8.99
0.37	0	0.12	ML	-4.174	0.929	0.415	4.30	21.81	20.18	11.17	3.06	23.26	9.16

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.41	0	0.12	ML	-4.811	1.770	0.465	5.15	21.68	20.06	11.10	3.07	23.13	9.53
0.43	0	0.12	ML	-4.933	1.983	0.631	5.35	22.04	20.17	11.79	2.96	23.55	9.86
0.45	0	0.12	ML	-6.818	1.482	0.720	7.01	22.03	19.74	11.17	2.99	22.87	9.31
0.47	0	0.12	ML	-5.350	1.254	0.565	5.52	22.28	20.40	11.32	2.92	23.51	9.30
0.49	0	0.12	ML	-5.063	1.968	0.650	5.47	21.71	19.69	11.76	3.04	23.14	9.67
0.51	0	0.12	ML	-5.579	1.777	0.697	5.90	21.97	20.19	10.88	2.96	23.13	9.33
0.53	0	0.12	ML	-6.405	2.105	0.612	6.77	22.26	20.09	11.42	3.02	23.31	9.67
0.55	0	0.12	ML	-6.890	1.184	0.353	7.00	22.68	20.25	11.86	3.07	23.67	9.72
0.05	0	0.155	ML	-11.214	2.106	1.700	11.54	21.60	21.73	4.48	3.00	22.39	12.95
0.07	0	0.155	ML	-9.073	1.767	1.462	9.36	20.88	21.43	5.60	3.10	22.37	12.32
0.09	0	0.155	ML	-8.688	1.741	1.204	8.94	21.08	21.00	6.61	3.09	22.23	11.39
0.11	0	0.155	ML	-6.369	1.231	0.863	6.54	20.44	20.42	8.17	3.23	22.23	10.91
0.13	0	0.155	ML	-7.148	0.182	0.649	7.18	21.89	20.87	10.06	3.22	23.39	10.92
0.15	0	0.155	ML	-7.291	-0.106	0.364	7.30	21.59	20.35	9.71	3.08	22.76	10.24
0.17	0	0.155	ML	-6.894	0.236	0.662	6.93	22.32	20.48	10.99	2.96	23.43	9.92
0.19	0	0.155	ML	-6.448	-0.841	0.001	6.50	21.80	19.26	11.87	3.08	22.83	9.39
0.21	0	0.155	ML	-5.491	-0.156	0.433	5.51	21.46	19.65	10.94	3.05	22.69	9.19
0.23	0	0.155	ML	-5.008	0.147	0.350	5.02	21.91	19.51	12.51	3.01	23.37	9.54
0.25	0	0.155	ML	-5.542	0.759	0.290	5.60	22.43	20.36	11.99	3.15	23.84	9.79
0.27	0	0.155	ML	-5.196	0.293	0.420	5.22	22.23	19.97	12.20	3.07	23.60	9.48
0.29	0	0.155	ML	-5.802	0.751	0.332	5.86	22.55	20.15	11.92	3.01	23.61	9.10
0.31	0	0.155	ML	-5.748	0.983	0.438	5.85	22.35	20.05	11.82	3.04	23.47	9.23
0.33	0	0.155	ML	-6.467	0.086	0.464	6.48	23.19	20.63	11.49	2.91	23.80	8.38

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.37	0	0.155	ML	-5.295	0.921	0.290	5.38	22.09	19.49	12.60	3.07	23.41	9.42
0.39	0	0.155	ML	-5.471	1.171	0.569	5.62	21.93	20.03	10.83	3.09	22.98	8.87
0.41	0	0.155	ML	-5.912	1.221	0.463	6.05	22.40	20.27	11.06	3.03	23.29	8.78
0.43	0	0.155	ML	-3.991	1.958	0.366	4.46	22.21	20.45	11.17	3.10	23.51	8.89
0.45	0	0.155	ML	-5.535	1.060	0.209	5.64	22.10	19.03	12.83	3.18	23.17	8.94
0.47	0	0.155	ML	-3.414	1.996	0.302	3.97	21.73	20.10	10.80	3.10	23.03	8.58
0.49	0	0.155	ML	-5.006	0.556	0.418	5.05	22.60	20.42	11.92	3.06	23.84	9.11
0.51	0	0.155	ML	-5.217	0.928	0.262	5.31	22.07	20.13	11.16	3.08	23.23	8.97
0.53	0	0.155	ML	-4.561	0.532	0.203	4.60	22.40	20.60	11.11	3.06	23.60	8.72
0.55	0	0.155	ML	-5.223	1.162	0.392	5.37	22.13	21.01	9.74	3.08	23.36	9.18
0.05	0	0.19	ML	-10.816	2.027	1.759	11.14	20.61	21.05	3.90	3.04	21.62	12.92
0.07	0	0.19	ML	-11.876	1.511	1.125	12.02	22.12	21.59	5.06	3.23	22.41	12.55
0.09	0	0.19	ML	-11.279	0.659	1.070	11.35	22.42	21.58	5.78	3.24	22.57	11.63
0.11	0	0.19	ML	-9.720	0.295	0.932	9.77	22.34	21.01	8.06	3.01	22.70	10.55
0.13	0	0.19	ML	-8.179	-0.729	0.739	8.24	21.94	20.66	8.93	2.98	22.70	10.09
0.15	0	0.19	ML	-8.683	-0.438	0.617	8.72	22.59	20.34	9.84	3.08	22.80	9.23
0.17	0	0.19	ML	-8.519	-0.555	0.490	8.55	22.31	20.37	9.32	3.06	22.61	9.27
0.19	0	0.19	ML	-7.653	-0.846	0.293	7.71	21.34	19.28	10.00	3.01	21.93	9.20
0.21	0	0.19	ML	-6.874	-1.274	0.269	7.00	22.04	19.02	11.96	3.10	22.68	8.79
0.23	0	0.19	ML	-6.142	-0.365	0.275	6.16	20.75	18.77	9.94	3.08	21.46	8.24
0.25	0	0.19	ML	-5.268	-1.057	0.027	5.37	21.53	18.96	12.25	3.19	22.80	9.19
0.27	0	0.19	ML	-6.096	-0.788	0.434	6.16	21.23	18.46	11.59	3.04	22.00	8.43
0.29	0	0.19	ML	-5.135	-0.008	0.291	5.14	20.81	18.90	10.71	3.07	21.94	8.65

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.33	0	0.19	ML	-5.280	0.573	0.159	5.31	21.06	18.51	11.57	3.12	22.05	8.41
0.35	0	0.19	ML	-5.816	-0.655	0.176	5.86	20.61	18.24	10.82	3.21	21.45	8.34
0.37	0	0.19	ML	-4.565	1.034	0.061	4.68	20.64	18.56	11.33	3.22	21.98	8.87
0.39	0	0.19	ML	-4.914	-0.383	0.172	4.93	20.69	18.46	11.23	3.29	21.86	8.59
0.41	0	0.19	ML	-3.863	0.303	0.134	3.88	21.17	19.18	11.54	3.17	22.61	8.80
0.43	0	0.19	ML	-5.157	2.356	0.255	5.68	21.63	19.59	11.11	3.31	22.76	9.07
0.45	0	0.19	ML	-4.515	0.875	-0.125	4.60	21.14	19.57	10.10	3.19	22.25	8.33
0.47	0	0.19	ML	-4.874	1.230	0.144	5.03	20.29	18.60	10.19	3.17	21.45	8.58
0.49	0	0.19	ML	-4.202	1.604	-0.113	4.50	21.28	19.81	10.52	3.16	22.65	8.96
0.51	0	0.19	ML	-6.212	0.741	0.040	6.26	21.27	19.86	9.00	3.08	22.02	8.46
0.53	0	0.19	ML	-3.372	0.152	0.231	3.38	21.39	19.50	11.24	3.08	22.72	8.36
0.063	0.05	0.12	CAV	-0.676	-4.015	-4.782	6.28	7.60	2.68	3.18	2.40	4.80	2.15
0.12	0.05	0.12	CAV	-2.700	-3.729	-2.938	5.46	7.73	3.59	4.10	2.82	6.14	2.77
0.18	0.05	0.12	CAV	-5.334	-2.746	-1.967	6.31	8.68	4.34	4.32	2.89	6.77	3.21
0.24	0.05	0.12	CAV	-7.239	-2.083	-0.687	7.56	10.02	4.87	4.78	3.33	7.59	3.80
0.3	0.05	0.12	CAV	-7.464	-1.961	-0.359	7.73	11.31	6.41	6.16	3.65	9.62	4.92
0.36	0.05	0.12	CAV	-5.034	-1.522	-0.356	5.27	14.21	12.41	8.81	3.54	15.63	8.36
0.42	0.05	0.12	CAV	-5.488	-0.100	0.461	5.51	15.18	13.32	8.69	3.44	16.27	8.03
0.48	0.05	0.12	CAV	-4.129	1.219	0.396	4.32	18.16	16.74	9.88	3.35	19.72	8.81
0.1	0.1	0.12	CAV	1.277	-5.901	-2.519	6.54	7.96	2.90	3.87	2.57	5.47	3.08
0.15	0.1	0.12	CAV	-0.796	-4.465	-2.046	4.98	7.10	3.29	3.82	2.85	5.79	2.81
0.21	0.1	0.12	CAV	-1.788	-2.319	-1.554	3.31	6.20	3.81	3.65	2.65	5.90	2.73
0.27	0.1	0.12	CAV	-2.774	-1.095	-0.029	2.98	6.65	4.05	4.22	3.01	6.58	2.81

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.39	0.1	0.12	CAV	-2.694	-0.058	1.417	3.04	8.07	5.76	4.94	3.40	8.31	3.65
0.45	0.1	0.12	CAV	-2.804	1.981	1.446	3.73	8.89	6.40	5.43	3.66	9.15	4.31
0.5	0.1	0.12	CAV	-1.846	3.949	1.365	4.57	11.34	9.14	7.49	3.70	12.38	6.74
0.159	0.15	0.12	CAV	1.376	-4.892	-1.436	5.28	7.15	3.38	3.59	2.86	5.70	3.04
0.2	0.15	0.12	CAV	0.953	-3.485	-1.379	3.87	6.57	3.59	3.90	2.90	6.04	2.86
0.26	0.15	0.12	CAV	-0.749	-0.829	0.351	1.17	5.57	3.73	3.59	3.02	6.00	2.51
0.32	0.15	0.12	CAV	-1.359	0.103	1.393	1.95	5.81	3.88	3.67	2.86	6.06	2.61
0.38	0.15	0.12	CAV	-0.820	0.885	2.015	2.35	6.81	4.71	3.91	3.38	6.99	2.83
0.44	0.15	0.12	CAV	0.377	3.698	2.617	4.55	8.37	5.35	4.59	3.34	7.80	3.38
0.21	0.174	0.12	CAV	2.405	-3.035	-0.613	3.92	6.73	3.92	4.14	2.85	6.37	3.26
0.27	0.188	0.12	CAV	1.977	-0.670	0.458	2.14	5.64	3.86	3.47	2.86	5.92	2.81
0.33	0.188	0.12	CAV	1.991	0.449	1.755	2.69	6.32	4.13	3.56	3.21	6.33	2.70
0.39	0.174	0.12	CAV	1.691	2.152	2.521	3.72	7.08	4.43	3.91	3.15	6.70	2.95

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.6 Semi-circular cavity with rough bed at high flow (Velocity = 0.47 m/s; depth = 0.225 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	1.273	0.155	0.213	0.278	0.798	-0.445	-9.36	5.59	1.23
0.07	0	0.05	ML	0.879	-0.052	-0.029	-0.632	0.346	-0.308	-15.77	5.82	1.52
0.09	0	0.05	ML	1.070	-0.155	0.035	-0.154	0.642	-0.423	-16.32	2.62	1.27
0.11	0	0.05	ML	0.725	-0.095	0.043	-0.736	0.782	-0.463	-21.73	-0.62	2.26
0.13	0	0.05	ML	0.615	-0.096	0.074	-0.855	1.520	-0.384	-16.50	0.23	2.59
0.15	0	0.05	ML	0.575	-0.582	0.018	-1.015	2.851	-0.472	-26.81	-3.20	3.22
0.17	0	0.05	ML	0.754	-0.246	0.066	-0.731	1.668	-0.395	-24.59	-2.43	3.45
0.19	0	0.05	ML	0.524	-0.456	-0.041	-0.792	2.593	-0.502	-20.57	-7.40	2.11
0.21	0	0.05	ML	0.760	-0.157	-0.078	-0.270	2.437	-0.476	-13.28	-2.05	3.55
0.23	0	0.05	ML	0.595	0.251	-0.009	-0.642	2.873	-0.507	-3.12	-8.07	3.50
0.25	0	0.05	ML	0.630	0.031	0.052	-0.553	2.772	-0.519	-5.77	-7.65	4.50
0.27	0	0.05	ML	0.667	-0.293	-0.072	-0.769	3.279	-0.611	-8.96	-8.86	3.63
0.29	0	0.05	ML	0.669	-0.070	-0.020	-0.756	2.960	-0.555	-2.96	-9.18	1.98
0.31	0	0.05	ML	0.772	-0.005	0.034	-0.563	2.449	-0.660	-7.81	-8.08	2.00
0.33	0	0.05	ML	0.758	-0.111	-0.051	-0.567	3.330	-0.582	-6.15	-9.03	2.12
0.35	0	0.05	ML	0.715	-0.521	0.004	-0.691	3.807	-0.678	-5.96	-10.22	1.96
0.37	0	0.05	ML	1.213	-0.566	0.023	0.604	3.955	-0.589	-11.52	-8.43	1.48
0.39	0	0.05	ML	1.049	-0.283	-0.031	0.043	1.913	-0.678	-11.77	-9.97	0.10
0.41	0	0.05	ML	0.872	-0.878	-0.052	-0.391	3.809	-0.644	-11.98	-11.04	1.77
0.43	0	0.05	ML	0.638	-0.734	-0.135	-0.853	3.934	-0.534	-16.78	-8.29	2.15
0.45	0	0.05	ML	0.696	-1.129	-0.064	-0.832	4.383	-0.554	-18.77	-10.68	1.89
0.47	0	0.05	ML	0.591	-1.570	-0.126	-0.996	4.835	-0.519	-15.69	-5.67	1.79

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	0	0.05	ML	0.624	-1.632	-0.123	-1.018	5.313	-0.516	-23.13	-10.13	2.27
0.53	0	0.05	ML	0.676	-0.807	-0.112	-0.866	4.810	-0.618	-14.94	-8.00	1.31
0.55	0	0.05	ML	0.700	-0.514	-0.229	-0.778	3.524	-0.572	-14.20	-9.09	0.42
0.05	0	0.085	ML	0.053	0.113	-0.191	-1.696	0.811	-0.135	-9.31	6.41	1.18
0.07	0	0.085	ML	0.398	-0.129	-0.194	-1.445	0.935	-0.299	-13.72	4.16	1.24
0.09	0	0.085	ML	0.098	-0.119	-0.395	-1.593	0.609	-0.086	-11.19	4.74	2.33
0.11	0	0.085	ML	0.142	-0.310	-0.332	-1.521	0.627	-0.251	-20.89	2.41	3.20
0.13	0	0.085	ML	0.387	-0.654	-0.295	-1.207	1.946	-0.411	-18.12	-3.26	3.99
0.15	0	0.085	ML	-0.041	-0.425	-0.272	-1.458	0.717	-0.454	-27.54	-1.19	5.90
0.17	0	0.085	ML	0.420	-0.463	-0.132	-1.204	1.487	-0.497	-14.37	-2.64	4.27
0.19	0	0.085	ML	0.264	-0.327	-0.152	-1.208	2.792	-0.548	-11.79	-3.72	5.02
0.21	0	0.085	ML	0.251	-0.337	-0.085	-1.304	3.461	-0.653	-15.90	-8.45	4.72
0.23	0	0.085	ML	0.078	-0.685	-0.151	-1.494	2.891	-0.589	-25.36	-4.47	5.50
0.25	0	0.085	ML	0.088	-0.544	-0.090	-1.426	3.619	-0.593	-19.43	-7.07	5.70
0.27	0	0.085	ML	0.229	-0.603	-0.094	-1.232	3.333	-0.467	-0.46	-8.74	4.48
0.29	0	0.085	ML	0.180	-0.771	-0.084	-1.306	3.418	-0.594	2.30	-6.61	4.45
0.31	0	0.085	ML	0.151	-0.355	-0.063	-1.334	3.890	-0.681	-7.35	-7.28	4.70
0.33	0	0.085	ML	0.185	-1.015	-0.074	-1.337	3.709	-0.523	-4.63	-9.32	4.04
0.35	0	0.085	ML	0.191	-0.968	-0.125	-1.377	3.874	-0.621	-5.95	-8.83	4.49
0.37	0	0.085	ML	-0.064	-0.876	-0.198	-1.377	3.604	-0.368	-11.88	-6.69	5.31
0.39	0	0.085	ML	0.171	-1.133	-0.113	-1.369	3.382	-0.415	-6.57	-11.23	4.13
0.41	0	0.085	ML	0.161	-1.231	-0.018	-1.377	2.973	-0.585	-10.74	-8.04	4.65
0.43	0	0.085	ML	0.112	-1.443	-0.123	-1.412	4.140	-0.645	6.81	-8.20	4.48
0.45	0	0.085	ML	0.134	-1.591	-0.039	-1.369	3.534	-0.607	-5.48	-7.41	4.60

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.49	0	0.085	ML	0.033	-1.585	-0.168	-1.398	3.885	-0.604	-7.66	-7.21	5.29
0.51	0	0.085	ML	-0.087	-1.662	-0.167	-1.435	4.126	-0.476	-10.87	-9.95	5.15
0.53	0	0.085	ML	0.101	-1.601	-0.174	-1.404	2.925	-0.489	-6.65	-8.00	4.87
0.55	0	0.085	ML	-0.072	-1.714	-0.174	-1.410	5.188	-0.595	-5.64	-11.08	3.69
0.05	0	0.12	ML	-0.171	0.013	-0.455	-1.611	0.334	0.348	-12.35	1.05	1.16
0.07	0	0.12	ML	-0.080	-0.121	-0.457	-1.568	1.219	0.292	-14.92	2.46	1.68
0.09	0	0.12	ML	0.055	-0.716	-0.383	-1.539	1.254	-0.030	-22.47	0.60	3.86
0.11	0	0.12	ML	-0.139	-0.675	-0.360	-1.370	2.025	-0.241	-30.60	-5.53	3.98
0.13	0	0.12	ML	-0.165	-0.876	-0.317	-1.381	2.508	-0.292	-22.32	-5.53	5.80
0.15	0	0.12	ML	-0.197	-1.109	-0.246	-1.294	3.755	-0.302	-15.34	-2.46	5.65
0.17	0	0.12	ML	-0.038	-0.804	-0.161	-1.274	3.093	-0.525	-11.66	-8.03	6.29
0.19	0	0.12	ML	-0.011	-0.828	-0.157	-1.317	3.190	-0.353	-18.40	-6.98	6.27
0.21	0	0.12	ML	-0.129	-0.937	-0.149	-1.252	3.175	-0.408	-6.61	-5.70	5.35
0.23	0	0.12	ML	-0.063	-1.107	-0.143	-1.266	3.111	-0.462	-1.32	-6.89	6.20
0.25	0	0.12	ML	-0.103	-0.510	-0.104	-1.197	2.779	-0.473	-5.26	-7.98	5.56
0.27	0	0.12	ML	-0.164	-1.098	-0.056	-1.263	2.510	-0.462	8.25	-2.99	8.45
0.29	0	0.12	ML	-0.166	-0.859	-0.102	-1.166	2.064	-0.576	8.51	-5.16	8.71
0.31	0	0.12	ML	0.025	-0.653	0.080	-1.322	2.130	-0.472	15.37	-8.92	6.09
0.33	0	0.12	ML	-0.140	-0.940	-0.129	-1.281	2.234	-0.513	14.21	-7.58	6.41
0.35	0	0.12	ML	-0.119	-0.981	-0.010	-1.355	3.201	-0.593	14.33	-9.40	3.52
0.37	0	0.12	ML	-0.092	-0.996	-0.134	-1.253	2.216	-0.653	15.84	-9.43	6.70
0.39	0	0.12	ML	-0.156	-0.920	-0.083	-1.210	1.895	-0.498	19.16	-2.73	7.81
0.41	0	0.12	ML	-0.186	-1.010	-0.140	-1.271	2.393	-0.531	13.76	-9.05	6.87
0.43	0	0.12	ML	-0.157	-1.080	-0.126	-1.255	2.101	-0.445	13.48	-5.89	7.17

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.47	0	0.12	ML	0.026	-1.135	0.017	-1.282	2.314	-0.557	17.54	-6.78	6.76
0.49	0	0.12	ML	-0.066	-1.327	-0.011	-1.146	2.474	-0.520	16.63	-10.69	6.36
0.51	0	0.12	ML	-0.076	-1.393	-0.055	-1.277	2.582	-0.568	7.88	-10.60	5.13
0.53	0	0.12	ML	-0.060	-1.259	-0.154	-1.331	2.689	-0.532	16.71	-7.78	6.49
0.55	0	0.12	ML	0.085	-1.179	0.072	-1.233	2.360	-0.567	13.80	-8.99	7.58
0.05	0	0.155	ML	-0.126	-0.297	-0.558	-1.567	0.976	0.228	-20.15	-1.17	1.41
0.07	0	0.155	ML	-0.184	-0.575	-0.484	-1.326	1.650	0.047	-16.12	-1.10	3.91
0.09	0	0.155	ML	-0.140	-0.780	-0.395	-1.420	3.550	-0.165	-18.36	-2.77	5.05
0.11	0	0.155	ML	-0.255	-0.947	-0.269	-1.194	3.836	-0.476	-2.89	-2.76	6.52
0.13	0	0.155	ML	-0.015	-0.860	-0.184	-1.126	3.001	-0.391	-2.01	-6.65	7.83
0.15	0	0.155	ML	0.016	-0.865	-0.176	-1.227	2.969	-0.472	-1.49	-5.34	7.33
0.17	0	0.155	ML	0.030	-0.478	-0.204	-1.249	2.129	-0.446	-2.55	-3.88	7.00
0.19	0	0.155	ML	0.220	-0.207	0.054	-0.946	1.634	-0.599	24.35	-4.71	9.16
0.21	0	0.155	ML	0.110	-0.506	-0.077	-1.082	1.802	-0.531	17.39	-2.80	6.63
0.23	0	0.155	ML	0.012	-0.394	0.020	-1.068	1.650	-0.588	19.48	-8.06	6.55
0.25	0	0.155	ML	0.021	-0.337	-0.046	-1.060	2.026	-0.593	11.28	-8.27	7.71
0.27	0	0.155	ML	0.131	-0.313	-0.067	-1.032	1.722	-0.579	19.16	-9.64	6.70
0.29	0	0.155	ML	0.170	-0.085	-0.030	-1.102	1.802	-0.549	14.01	-10.31	4.69
0.31	0	0.155	ML	0.103	-0.595	-0.038	-1.114	1.994	-0.581	5.33	-11.64	5.10
0.33	0	0.155	ML	0.203	-0.283	-0.063	-1.309	1.841	-0.437	3.21	-9.61	4.99
0.35	0	0.155	ML	0.200	-0.228	0.034	-1.125	2.054	-0.635	11.33	-10.50	4.81
0.37	0	0.155	ML	0.126	-0.704	0.001	-1.063	1.633	-0.569	23.30	-9.04	5.12
0.39	0	0.155	ML	0.109	-0.496	-0.018	-1.175	2.657	-0.635	10.03	-10.44	3.17
0.41	0	0.155	ML	0.194	-0.772	-0.111	-1.170	2.345	-0.558	9.93	-9.30	4.39

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	0	0.155	ML	0.252	-0.530	-0.067	-0.948	1.666	-0.621	23.63	-9.72	5.38
0.47	0	0.155	ML	0.058	-0.408	0.074	-1.145	2.316	-0.744	19.03	-10.59	3.93
0.49	0	0.155	ML	0.164	-0.915	-0.110	-1.178	2.237	-0.568	3.61	-14.64	5.12
0.51	0	0.155	ML	0.163	-0.811	0.014	-1.147	2.360	-0.699	11.66	-13.79	1.55
0.53	0	0.155	ML	0.189	-0.586	-0.016	-1.229	2.815	-0.574	-1.95	-13.17	5.09
0.55	0	0.155	ML	-0.022	-1.244	-0.023	-1.385	4.028	-0.675	5.96	-13.62	4.69
0.05	0	0.19	ML	-0.204	0.058	-0.656	-1.588	0.412	0.467	-11.54	-1.77	1.11
0.07	0	0.19	ML	-0.036	-0.528	-0.359	-1.556	1.143	-0.313	-14.97	-6.61	3.77
0.09	0	0.19	ML	0.082	-0.579	-0.403	-1.399	0.982	-0.230	-14.60	-7.33	4.36
0.11	0	0.19	ML	0.091	-0.552	-0.321	-1.363	2.727	-0.105	-15.90	-2.94	5.74
0.13	0	0.19	ML	0.099	-0.766	-0.278	-1.244	3.015	-0.282	-3.75	-1.08	5.29
0.15	0	0.19	ML	0.267	-0.305	-0.177	-1.166	2.611	-0.519	4.17	-9.66	5.91
0.17	0	0.19	ML	0.330	-0.165	-0.121	-1.037	3.093	-0.374	2.05	-8.05	5.58
0.19	0	0.19	ML	0.256	-0.174	-0.124	-0.990	2.627	-0.533	6.86	-9.48	3.84
0.21	0	0.19	ML	0.465	0.203	-0.075	-0.693	1.642	-0.658	16.30	-9.60	3.93
0.23	0	0.19	ML	0.458	0.390	-0.021	-0.776	2.189	-0.523	15.07	-6.38	5.08
0.25	0	0.19	ML	0.418	0.170	0.051	-0.663	1.640	-0.574	14.49	-8.86	3.60
0.27	0	0.19	ML	0.477	0.095	-0.019	-0.753	1.809	-0.554	10.94	-10.96	3.29
0.29	0	0.19	ML	0.393	-0.139	-0.017	-0.808	1.936	-0.575	11.39	-7.36	4.01
0.31	0	0.19	ML	0.410	0.151	-0.037	-0.888	2.475	-0.474	10.65	-10.99	2.08
0.33	0	0.19	ML	0.527	0.036	-0.069	-0.694	2.055	-0.619	24.00	-11.96	2.46
0.35	0	0.19	ML	0.652	-0.034	-0.057	-0.470	2.109	-0.708	16.08	-9.66	2.20
0.37	0	0.19	ML	0.511	-0.269	-0.050	-0.612	1.910	-0.551	10.12	-9.97	2.44
0.39	0	0.19	ML	0.554	-0.277	-0.022	-0.675	2.199	-0.585	12.85	-9.77	2.89

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.43	0	0.19	ML	0.439	-0.594	-0.021	-0.802	2.942	-0.656	1.71	-9.42	3.76
0.45	0	0.19	ML	0.487	-0.615	0.168	-0.887	2.981	-0.614	2.83	-10.38	4.43
0.47	0	0.19	ML	0.563	-0.356	0.032	-0.682	3.502	-0.697	4.49	-8.62	2.35
0.49	0	0.19	ML	0.412	-0.236	0.093	-0.866	2.795	-0.482	10.31	-11.28	3.00
0.51	0	0.19	ML	0.517	-0.658	0.134	-0.846	3.383	-0.684	-11.24	-9.44	3.83
0.53	0	0.19	ML	0.300	-0.082	0.069	-1.110	2.377	-0.599	5.40	-11.15	4.21
0.063	0.05	0.12	CAV	0.036	0.042	0.808	0.424	0.126	0.363	-0.22	-0.56	-0.80
0.12	0.05	0.12	CAV	0.170	-0.002	0.314	0.103	0.184	-0.205	-1.42	-1.67	-1.21
0.18	0.05	0.12	CAV	0.137	0.064	0.171	0.436	0.728	-0.265	-2.14	-2.41	-0.28
0.24	0.05	0.12	CAV	0.056	0.218	0.016	0.436	0.621	-0.643	-4.11	-1.52	-0.65
0.3	0.05	0.12	CAV	0.806	0.386	0.063	4.179	1.700	-0.681	-5.38	-1.87	-1.18
0.36	0.05	0.12	CAV	1.420	0.114	0.036	2.761	4.329	-0.515	-8.10	-5.19	0.70
0.42	0.05	0.12	CAV	1.444	0.064	-0.134	1.884	3.662	-0.489	-5.09	-5.45	-0.91
0.48	0.05	0.12	CAV	1.060	-0.626	0.031	0.138	3.520	-0.590	-12.33	-7.26	-1.83
0.1	0.1	0.12	CAV	-0.017	0.096	0.242	0.029	0.256	-0.224	-2.38	-0.70	-1.23
0.15	0.1	0.12	CAV	0.225	0.069	0.189	0.102	0.099	-0.100	0.33	-2.21	-2.42
0.21	0.1	0.12	CAV	0.227	-0.005	0.346	0.202	0.037	0.335	0.06	-2.93	-0.26
0.27	0.1	0.12	CAV	0.197	-0.110	-0.067	0.156	0.064	-0.243	-1.61	-2.30	-2.14
0.33	0.1	0.12	CAV	0.099	0.032	-0.192	0.064	-0.020	-0.098	-2.27	-3.02	-3.45
0.39	0.1	0.12	CAV	-0.017	0.155	-0.331	0.074	0.364	-0.314	-3.10	-3.84	-2.69
0.45	0.1	0.12	CAV	0.229	0.070	-0.321	1.209	1.143	-0.430	-2.94	-4.75	-2.01
0.5	0.1	0.12	CAV	1.466	-1.609	-0.252	4.655	6.012	-0.735	-13.15	-3.19	-0.51
0.159	0.15	0.12	CAV	0.008	-0.044	0.288	0.312	-0.101	0.189	-1.74	-2.09	-0.09
0.2	0.15	0.12	CAV	0.113	-0.060	0.222	0.036	0.113	0.146	-0.78	-1.85	-0.68

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.32	0.15	0.12	CAV	0.031	-0.266	-0.233	0.009	0.330	0.116	-1.62	-2.60	-0.58
0.38	0.15	0.12	CAV	0.275	0.118	-0.430	-0.110	0.481	-0.176	-1.74	-3.54	-1.43
0.44	0.15	0.12	CAV	0.374	0.106	-0.484	0.475	0.191	-0.178	-1.85	-1.90	-1.06
0.21	0.174	0.12	CAV	0.266	-0.050	0.094	0.237	-0.055	-0.095	-2.54	-2.96	1.05
0.27	0.188	0.12	CAV	0.196	-0.089	0.071	0.183	0.487	-0.093	-1.69	-3.74	0.37
0.33	0.188	0.12	CAV	0.184	-0.124	-0.158	0.241	0.161	-0.347	-0.55	-2.57	-0.60
0.39	0.174	0.12	CAV	0.195	0.126	-0.484	0.099	0.384	-0.115	-0.34	-3.32	0.35

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.7 Backward conic cavity with hydraulically smooth bed (Velocity = 0.55 m/s; depth = 0.150 m): velocities

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.05	0	0.05	ML	-7.292	-4.189	-0.605	8.43	10.18	4.01	5.03	2.75	7.00	4.06
0.07	0	0.05	ML	-9.332	-3.702	-0.550	10.05	11.84	4.48	5.36	2.80	7.53	4.19
0.09	0	0.05	ML	-10.808	-3.870	-0.900	11.52	13.43	5.32	5.67	2.77	8.26	4.51
0.11	0	0.05	ML	-10.097	-3.846	-0.490	10.82	15.31	9.80	6.61	2.86	12.16	5.51
0.13	0	0.05	ML	-8.607	-3.748	-0.007	9.39	16.41	12.28	7.80	2.96	14.85	6.27
0.15	0	0.05	ML	-7.238	-2.884	-0.042	7.79	17.69	15.30	7.38	2.86	17.22	6.66
0.17	0	0.05	ML	-5.468	-2.440	0.032	5.99	19.03	16.56	9.62	3.11	19.40	7.07
0.19	0	0.05	ML	-3.840	-2.160	-0.027	4.41	19.81	17.50	10.75	2.99	20.75	7.60
0.21	0	0.05	ML	-2.510	-1.711	0.054	3.04	20.97	18.40	12.00	3.11	22.19	7.85
0.23	0	0.05	ML	-5.924	-1.906	-0.142	6.22	20.42	18.16	9.45	2.84	20.66	6.97
0.25	0	0.05	ML	-2.740	-1.336	-0.048	3.05	20.98	18.75	11.08	3.05	21.99	7.26
0.27	0	0.05	ML	-3.650	-1.196	-0.025	3.84	20.82	18.79	10.46	2.99	21.72	7.26
0.29	0	0.05	ML	-1.949	-0.740	-0.050	2.09	21.10	18.92	11.55	3.14	22.39	7.76
0.31	0	0.05	ML	-1.524	-0.256	-0.148	1.55	21.76	19.31	12.44	3.07	23.17	8.10
0.33	0	0.05	ML	-0.891	-0.235	-0.268	0.96	21.66	18.82	12.99	3.05	23.07	7.99
0.35	0	0.05	ML	-1.355	-0.032	-0.064	1.36	21.88	18.88	13.30	2.95	23.29	8.06
0.37	0	0.05	ML	-2.177	0.722	0.071	2.29	21.24	18.55	12.67	3.10	22.67	8.25
0.39	0	0.05	ML	-1.736	-0.071	0.146	1.74	21.82	18.48	13.86	3.15	23.31	8.38
0.41	0	0.05	ML	-1.942	0.519	0.257	2.03	21.81	18.41	14.06	3.04	23.36	8.61
0.43	0	0.05	ML	-1.184	0.858	0.217	1.48	21.66	18.65	13.26	3.05	23.09	8.12
0.45	0	0.05	ML	-2.611	0.336	0.315	2.65	22.04	17.92	14.79	3.08	23.44	8.38

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.49	0	0.05	ML	-1.736	1.812	-0.228	2.52	21.98	18.75	13.78	3.03	23.47	8.58
0.51	0	0.05	ML	-1.575	0.536	-0.412	1.71	22.12	18.81	14.29	3.11	23.82	9.01
0.53	0	0.05	ML	-0.251	1.048	-0.773	1.33	21.64	18.89	13.24	3.10	23.27	8.65
0.05	0	0.075	ML	-8.083	-3.948	0.068	9.00	10.54	3.77	4.77	2.67	6.64	3.72
0.07	0	0.075	ML	-10.019	-4.640	-0.527	11.05	13.34	4.96	6.54	2.84	8.68	4.43
0.09	0	0.075	ML	-10.569	-3.807	-0.588	11.25	14.63	7.23	7.27	2.91	10.66	5.12
0.11	0	0.075	ML	-8.214	-3.275	-0.376	8.85	17.79	14.04	8.55	2.82	16.68	6.33
0.13	0	0.075	ML	-8.258	-3.061	-0.307	8.81	19.05	15.33	9.19	2.92	18.11	6.54
0.15	0	0.075	ML	-6.108	-2.760	-0.141	6.70	19.06	16.63	9.04	2.87	19.14	6.91
0.17	0	0.075	ML	-6.566	-2.153	0.286	6.92	20.31	17.16	10.51	2.94	20.33	6.97
0.19	0	0.075	ML	-2.894	-1.727	-0.117	3.37	21.31	19.18	11.01	2.95	22.31	7.42
0.21	0	0.075	ML	-2.823	-1.980	-0.142	3.45	21.65	18.94	12.01	2.91	22.62	7.37
0.23	0	0.075	ML	-2.735	-0.948	-0.007	2.89	21.45	18.74	12.16	2.95	22.54	7.49
0.25	0	0.075	ML	-2.425	-1.411	-0.117	2.81	21.91	19.22	12.32	2.99	23.02	7.59
0.27	0	0.075	ML	-1.931	-0.612	-0.090	2.03	21.61	18.88	12.74	2.98	22.97	8.03
0.29	0	0.075	ML	-1.436	-0.026	-0.081	1.44	22.07	19.26	13.00	3.05	23.44	8.00
0.31	0	0.075	ML	-0.924	-0.356	-0.002	0.99	22.32	19.36	13.18	2.96	23.61	7.74
0.33	0	0.075	ML	-1.843	0.048	0.047	1.84	22.01	19.02	13.35	3.04	23.44	8.25
0.35	0	0.075	ML	-2.020	-0.288	0.088	2.04	21.89	18.91	13.36	3.07	23.35	8.37
0.37	0	0.075	ML	-1.664	0.454	0.002	1.72	21.47	18.77	12.76	3.06	22.91	8.16
0.39	0	0.075	ML	-2.520	0.185	-0.006	2.53	21.99	19.00	13.12	2.97	23.28	8.05
0.41	0	0.075	ML	-2.492	0.827	0.069	2.63	21.71	17.89	14.32	3.04	23.11	8.33
0.43	0	0.075	ML	-0.797	0.883	-0.048	1.19	22.03	18.02	14.87	3.03	23.56	8.42

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.45	0	0.075	ML	-2.389	0.584	0.027	2.46	21.88	17.86	14.62	3.04	23.28	8.31
0.47	0	0.075	ML	-2.576	1.330	0.174	2.90	21.89	18.26	14.31	3.00	23.40	8.75
0.48	0	0.075	ML	-2.943	0.360	-0.135	2.97	22.15	18.28	14.69	3.00	23.65	8.79
0.49	0	0.075	ML	-1.729	1.087	-0.308	2.07	21.61	18.00	14.38	3.07	23.24	8.80
0.5	0	0.075	ML	-2.098	1.285	-0.283	2.48	21.25	18.51	13.17	3.08	22.92	8.92
0.51	0	0.075	ML	-2.223	1.920	-0.284	2.95	20.98	18.59	12.62	3.20	22.70	9.15
0.53	0	0.075	ML	-2.220	1.741	-0.504	2.87	20.58	19.40	10.52	3.26	22.31	9.07
0.05	0	0.095	ML	-8.228	-4.121	0.578	9.22	11.05	4.11	5.17	2.90	7.22	3.88
0.07	0	0.095	ML	-9.760	-4.311	0.305	10.67	12.77	4.87	6.15	2.74	8.31	4.46
0.09	0	0.095	ML	-10.610	-3.902	0.034	11.30	14.82	7.60	7.23	2.86	10.87	5.13
0.11	0	0.095	ML	-9.283	-3.603	-0.352	9.96	17.96	13.41	8.68	2.92	16.24	6.36
0.13	0	0.095	ML	-6.725	-1.988	-0.046	7.01	19.40	16.37	9.90	3.00	19.37	6.91
0.15	0	0.095	ML	-6.334	-2.332	-0.092	6.75	20.56	17.51	10.64	2.83	20.68	7.11
0.17	0	0.095	ML	-4.504	-2.003	0.163	4.93	21.55	18.70	11.58	2.92	22.19	7.21
0.19	0	0.095	ML	-4.280	-1.958	0.128	4.71	21.06	18.28	11.48	2.97	21.79	7.28
0.21	0	0.095	ML	-2.976	-2.044	0.117	3.61	21.81	18.61	12.87	2.91	22.81	7.57
0.23	0	0.095	ML	-2.897	-1.018	0.061	3.07	21.14	18.80	11.84	3.00	22.42	8.07
0.25	0	0.095	ML	-3.684	-1.611	0.082	4.02	21.79	18.61	12.72	2.95	22.73	7.62
0.27	0	0.095	ML	-2.915	-0.544	0.049	2.97	21.78	19.00	12.81	3.00	23.11	8.25
0.29	0	0.095	ML	-1.994	-0.760	0.082	2.14	21.55	18.78	12.97	3.00	23.02	8.36
0.31	0	0.095	ML	-1.543	0.119	-0.094	1.55	21.75	18.65	13.69	3.04	23.33	8.56
0.33	0	0.095	ML	-2.133	0.220	0.139	2.15	21.46	17.82	14.35	3.10	23.09	8.78
0.35	0	0.095	ML	-1.486	0.675	0.037	1.63	21.42	18.27	13.75	3.07	23.07	8.70

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.39	0	0.095	ML	-1.326	1.187	-0.112	1.78	20.98	18.03	13.41	3.11	22.69	8.81
0.41	0	0.095	ML	-1.637	1.824	0.159	2.46	21.22	18.19	13.45	3.14	22.84	8.79
0.43	0	0.095	ML	-2.839	0.270	-0.077	2.85	21.54	17.97	14.27	3.00	23.15	8.94
0.45	0	0.095	ML	-2.633	1.548	0.032	3.05	21.18	17.36	14.52	3.13	22.84	9.08
0.47	0	0.095	ML	-2.407	0.818	-0.100	2.54	21.44	17.74	14.53	3.11	23.14	9.06
0.49	0	0.095	ML	-1.436	1.794	-0.302	2.32	20.20	17.03	13.62	3.15	22.04	9.10
0.51	0	0.095	ML	-2.105	1.980	-0.260	2.90	20.26	18.22	12.04	3.27	22.08	9.25
0.53	0	0.095	ML	-1.950	1.647	-0.349	2.58	19.60	18.96	9.57	3.27	21.49	9.17
0.45	-0.01	0.075	CAV	-1.178	0.697	-0.208	1.38	22.21	18.25	14.75	2.96	23.65	8.22
0.465	-0.01	0.075	CAV	-2.230	0.766	-0.047	2.36	22.17	17.89	14.94	2.99	23.50	8.11
0.48	-0.01	0.075	CAV	-1.053	0.882	-0.247	1.40	21.86	18.34	14.18	2.90	23.36	8.34
0.49	-0.01	0.075	CAV	-1.812	0.591	-0.242	1.92	22.21	18.13	14.91	3.00	23.66	8.37
0.5	-0.01	0.075	CAV	-2.067	1.453	-0.311	2.55	21.42	18.34	13.44	3.11	22.95	8.60
0.51	-0.01	0.075	CAV	-2.007	1.639	-0.371	2.62	21.45	18.53	13.14	3.17	22.94	8.53
0.45	-0.02	0.075	CAV	-2.063	0.962	-0.123	2.28	22.04	18.27	14.53	3.06	23.54	8.58
0.465	-0.02	0.075	CAV	-0.731	1.387	-0.220	1.58	22.71	18.40	15.20	2.99	24.06	8.08
0.48	-0.02	0.075	CAV	-1.501	1.522	-0.343	2.16	21.98	17.69	15.04	3.00	23.41	8.32
0.49	-0.02	0.075	CAV	-0.842	0.878	-0.363	1.27	22.33	18.24	15.00	3.03	23.81	8.37
0.5	-0.02	0.075	CAV	-0.835	1.163	-0.461	1.50	21.82	18.34	14.24	3.11	23.43	8.64
0.45	-0.03	0.075	CAV	-1.635	0.619	-0.036	1.75	20.62	16.65	14.72	3.35	22.48	9.09
0.465	-0.03	0.075	CAV	-1.733	0.303	-0.177	1.77	21.80	17.25	15.54	3.13	23.43	8.75
0.48	-0.03	0.075	CAV	-1.898	0.235	-0.363	1.95	21.10	17.22	14.74	3.14	22.88	9.07
0.49	-0.03	0.075	CAV	-1.242	0.077	-0.326	1.29	21.12	17.60	14.38	3.16	22.94	9.04

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.465	-0.04	0.075	CAV	-1.616	1.163	-0.335	2.02	20.82	16.26	15.42	3.30	22.65	9.14
0.48	-0.04	0.075	CAV	-1.020	0.147	-0.307	1.08	20.63	16.62	15.09	3.31	22.68	9.50
0.052	-0.05	0.075	CAV	-0.308	-4.918	2.413	5.49	7.49	3.36	4.20	2.54	5.95	3.05
0.11	-0.05	0.075	CAV	-2.437	-3.635	0.869	4.46	7.71	4.52	4.47	2.99	7.03	3.14
0.17	-0.05	0.075	CAV	-3.577	-2.587	-0.094	4.42	8.05	5.09	4.43	3.24	7.49	3.26
0.23	-0.05	0.075	CAV	-3.739	-3.029	-0.877	4.89	9.68	6.60	5.62	3.48	9.34	4.18
0.29	-0.05	0.075	CAV	-0.937	-1.547	-0.496	1.88	13.07	11.99	8.86	3.83	15.39	8.33
0.35	-0.05	0.075	CAV	-1.199	0.120	-0.155	1.21	14.56	13.35	10.15	3.82	17.20	9.24
0.41	-0.05	0.075	CAV	-0.670	1.108	-0.346	1.34	18.34	14.65	14.39	3.66	20.85	10.00
0.45	-0.05	0.075	CAV	-0.657	0.914	-0.160	1.14	19.85	15.77	15.15	3.35	22.12	9.82
0.47	-0.05	0.075	CAV	-1.369	2.336	-0.414	2.74	18.13	14.98	13.49	3.52	20.46	9.87
0.45	-0.06	0.075	CAV	-0.279	0.455	-0.504	0.73	19.47	15.33	15.32	3.49	21.95	10.16
0.41	-0.093	0.075	CAV	0.179	1.844	-0.572	1.94	17.63	13.50	14.68	3.56	20.26	10.15
0.06	-0.1	0.075	CAV	0.821	-6.016	2.540	6.58	8.26	3.47	3.91	2.63	5.85	3.05
0.12	-0.1	0.075	CAV	0.034	-3.232	1.093	3.41	6.64	4.20	3.94	2.88	6.44	3.01
0.18	-0.1	0.075	CAV	-0.223	-1.890	-0.472	1.96	6.55	4.70	3.99	3.21	6.95	3.03
0.24	-0.1	0.075	CAV	0.960	-1.053	-0.643	1.56	8.05	6.16	5.14	3.61	8.80	3.88
0.3	-0.1	0.075	CAV	2.054	1.690	-0.978	2.83	9.45	7.46	6.14	3.64	10.33	5.03
0.36	-0.1	0.075	CAV	0.642	3.218	-0.604	3.34	13.50	10.40	10.69	3.80	15.39	8.10
0.33	-0.138	0.075	CAV	3.115	3.811	-1.081	5.04	12.84	10.46	8.35	3.56	13.85	7.22
0.09	-0.15	0.075	CAV	2.198	-4.613	1.467	5.32	7.37	3.73	3.58	2.78	5.87	2.90
0.15	-0.15	0.075	CAV	1.304	-2.260	0.338	2.63	6.35	4.13	3.96	3.10	6.51	2.99
0.21	-0.15	0.075	CAV	2.925	0.376	-0.224	2.96	7.36	5.49	4.29	3.27	7.70	3.73

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.23	-0.177	0.075	CAV	5.044	2.125	-0.920	5.55	8.71	5.73	4.70	3.12	8.04	4.43
0.11	-0.182	0.075	CAV	3.548	-2.898	0.195	4.58	6.97	3.99	3.52	3.14	6.18	3.27
0.17	-0.189	0.075	CAV	5.389	-0.581	-0.306	5.43	7.86	4.71	4.02	3.03	6.89	3.91

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.8 Backward conic cavity with hydraulically smooth bed (Velocity = 0.55 m/s; depth = 0.150 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	-0.035	-0.179	0.239	1.299	0.951	-0.116	-0.12	2.84	1.25
0.07	0	0.05	ML	-0.101	-0.094	0.269	1.745	0.977	-0.230	-3.41	2.03	1.42
0.09	0	0.05	ML	0.648	0.043	0.404	4.541	1.692	-0.195	-4.19	2.03	1.46
0.11	0	0.05	ML	2.078	0.025	0.314	5.919	2.654	-0.337	-4.78	0.75	2.93
0.13	0	0.05	ML	1.662	0.567	0.150	2.727	3.297	-0.453	4.58	-1.67	2.68
0.15	0	0.05	ML	1.260	0.303	0.190	0.644	2.708	-0.467	5.85	-4.70	2.21
0.17	0	0.05	ML	0.969	0.619	0.208	-0.162	2.699	-0.460	12.32	-7.06	1.58
0.19	0	0.05	ML	0.636	0.401	0.215	-0.673	1.827	-0.385	15.65	-6.87	3.32
0.21	0	0.05	ML	0.441	0.418	0.170	-0.931	1.518	-0.525	18.82	-10.34	3.33
0.23	0	0.05	ML	0.670	0.240	0.165	-0.805	2.224	-0.462	13.70	-5.88	3.65
0.25	0	0.05	ML	0.415	0.357	0.155	-1.117	1.728	-0.559	16.43	-11.17	2.87
0.27	0	0.05	ML	0.540	0.296	0.107	-0.991	1.908	-0.556	21.11	-9.83	3.16
0.29	0	0.05	ML	0.293	-0.025	0.153	-1.111	1.457	-0.440	15.28	-11.63	2.11
0.31	0	0.05	ML	0.259	-0.117	0.023	-1.076	1.213	-0.500	20.14	-12.11	1.83
0.33	0	0.05	ML	0.221	-0.188	0.157	-1.133	1.063	-0.406	28.90	-11.09	1.90
0.35	0	0.05	ML	0.221	-0.332	0.062	-1.047	0.702	-0.466	21.42	-10.34	2.34
0.37	0	0.05	ML	0.196	-0.501	0.121	-0.992	1.005	-0.340	13.56	-9.55	1.46
0.39	0	0.05	ML	0.220	-0.557	0.086	-0.961	0.504	-0.415	10.96	-9.39	1.00
0.41	0	0.05	ML	0.224	-0.613	0.050	-0.898	0.302	-0.375	-8.09	-6.56	-0.03
0.43	0	0.05	ML	0.159	-0.716	0.047	-1.054	0.791	-0.504	8.39	-9.76	-0.93
0.45	0	0.05	ML	0.103	-0.654	-0.015	-0.904	0.053	-0.452	-4.23	-7.20	-0.34
0.47	0	0.05	ML	0.097	-0.617	0.046	-0.911	0.077	-0.420	4.00	-5.00	0.79

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	0	0.05	ML	0.066	-0.459	0.073	-0.869	0.634	-0.277	10.66	-8.90	2.32
0.53	0	0.05	ML	-0.061	-0.100	0.049	-1.011	1.125	-0.551	21.91	-11.61	2.19
0.05	0	0.075	ML	-0.151	0.077	0.032	1.228	0.405	-0.267	-1.15	1.86	-0.61
0.07	0	0.075	ML	0.866	0.120	0.138	5.101	2.013	-0.471	-2.50	1.99	0.73
0.09	0	0.075	ML	1.824	0.605	0.252	7.027	3.118	-0.486	4.86	1.49	2.52
0.11	0	0.075	ML	1.520	0.317	0.238	1.640	2.330	-0.462	12.80	-1.62	2.82
0.13	0	0.075	ML	1.257	0.351	0.174	0.754	2.496	-0.449	13.50	-2.10	3.47
0.15	0	0.075	ML	1.024	0.585	0.296	-0.081	2.614	-0.335	13.90	-2.89	3.16
0.17	0	0.075	ML	0.790	0.461	0.062	-0.427	1.943	-0.503	25.07	-6.38	1.77
0.19	0	0.075	ML	0.477	0.170	0.206	-1.064	1.732	-0.416	15.77	-7.34	3.94
0.21	0	0.075	ML	0.356	0.389	0.148	-1.097	1.327	-0.406	26.84	-6.18	3.64
0.23	0	0.075	ML	0.265	0.301	0.071	-1.148	1.213	-0.442	22.22	-7.01	3.39
0.25	0	0.075	ML	0.207	0.283	0.073	-1.187	1.131	-0.400	18.88	-9.27	3.31
0.27	0	0.075	ML	0.169	0.024	0.075	-1.088	0.934	-0.369	15.71	-9.82	2.39
0.29	0	0.075	ML	0.088	-0.030	0.113	-1.137	0.727	-0.404	19.49	-11.29	3.90
0.31	0	0.075	ML	-0.027	-0.127	0.018	-1.218	0.672	-0.475	24.63	-9.46	3.81
0.33	0	0.075	ML	0.023	-0.108	0.060	-1.104	0.728	-0.404	17.98	-7.91	3.69
0.35	0	0.075	ML	0.076	-0.355	0.087	-1.030	0.635	-0.383	29.00	-7.76	3.04
0.37	0	0.075	ML	0.038	-0.368	0.076	-1.044	0.768	-0.438	17.95	-8.01	2.21
0.39	0	0.075	ML	0.019	-0.632	0.032	-1.142	0.638	-0.415	18.82	-8.93	2.72
0.41	0	0.075	ML	0.086	-0.573	0.005	-0.895	0.166	-0.400	33.43	-4.52	3.73
0.43	0	0.075	ML	-0.105	-0.661	-0.016	-0.870	0.133	-0.402	33.88	-9.70	1.97
0.45	0	0.075	ML	-0.075	-0.697	0.020	-0.913	0.161	-0.354	24.02	-6.01	2.41
0.45	0	0.075	ML	0.019	-0.781	-0.046	-0.902	0.120	-0.362	33.07	-6.37	3.45

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.48	0	0.075	ML	-0.044	-0.640	0.007	-0.940	0.094	-0.393	27.51	-8.33	3.54
0.49	0	0.075	ML	-0.152	-0.732	-0.080	-0.861	0.211	-0.394	31.33	-6.66	3.49
0.5	0	0.075	ML	-0.106	-0.762	-0.064	-0.944	0.974	-0.342	18.98	-6.72	2.84
0.51	0	0.075	ML	-0.194	-0.753	-0.078	-0.958	1.315	-0.377	15.35	-10.06	2.78
0.53	0	0.075	ML	-0.135	-0.487	0.012	-1.024	2.349	-0.478	13.54	-11.84	2.67
0.05	0	0.095	ML	0.158	0.238	0.061	1.827	1.273	-0.471	-0.28	1.30	-0.47
0.07	0	0.095	ML	0.401	0.200	0.036	3.494	1.688	-0.500	-1.21	2.18	-1.08
0.09	0	0.095	ML	1.951	0.458	0.046	6.773	3.516	-0.462	5.46	2.55	1.50
0.11	0	0.095	ML	1.507	0.439	0.292	1.976	2.629	-0.403	13.65	0.78	2.95
0.13	0	0.095	ML	0.996	0.545	0.186	-0.024	2.442	-0.495	24.66	-2.06	2.79
0.15	0	0.095	ML	0.734	0.335	0.272	-0.552	1.862	-0.303	22.34	-3.98	2.79
0.17	0	0.095	ML	0.440	0.259	0.118	-1.055	1.545	-0.388	29.37	-6.32	3.62
0.19	0	0.095	ML	0.561	0.350	0.100	-0.862	1.466	-0.364	26.12	-3.44	3.85
0.21	0	0.095	ML	0.229	0.214	0.012	-1.150	0.834	-0.465	19.93	-5.51	4.26
0.23	0	0.095	ML	0.223	0.129	0.126	-1.078	1.160	-0.434	19.71	-6.38	4.33
0.25	0	0.095	ML	0.228	0.035	-0.001	-1.125	0.710	-0.502	24.08	-7.97	2.96
0.27	0	0.095	ML	0.143	0.022	0.012	-1.059	0.791	-0.381	18.45	-6.92	2.99
0.29	0	0.095	ML	0.039	-0.023	0.018	-1.089	0.692	-0.425	27.84	-6.23	5.19
0.31	0	0.095	ML	-0.046	-0.250	-0.005	-1.000	0.499	-0.482	21.76	-5.05	5.20
0.33	0	0.095	ML	-0.076	-0.207	0.051	-0.908	0.278	-0.404	31.68	-7.28	5.31
0.35	0	0.095	ML	-0.165	-0.416	-0.007	-0.920	0.446	-0.419	22.69	-6.27	4.33
0.37	0	0.095	ML	-0.121	-0.494	-0.010	-0.923	0.395	-0.332	26.03	-7.40	3.09
0.39	0	0.095	ML	-0.155	-0.635	0.030	-0.844	0.650	-0.397	23.12	-7.99	3.16
0.41	0	0.095	ML	-0.139	-0.722	-0.067	-0.924	0.671	-0.387	23.68	-8.76	3.27

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	0	0.095	ML	-0.181	-0.731	-0.115	-0.760	0.197	-0.426	29.91	-5.64	4.35
0.47	0	0.095	ML	-0.072	-0.754	-0.038	-0.804	0.271	-0.347	24.27	-5.02	4.14
0.49	0	0.095	ML	-0.316	-0.726	-0.004	-0.704	0.709	-0.403	25.52	-5.55	1.95
0.51	0	0.095	ML	-0.186	-0.746	-0.044	-0.873	1.536	-0.405	18.48	-6.11	2.95
0.53	0	0.095	ML	-0.210	-0.157	-0.056	-0.985	2.842	-0.369	12.37	-9.60	1.45
0.45	-0.01	0.075	CAV	0.060	-0.655	0.022	-0.971	0.046	-0.368	16.43	-3.55	1.87
0.465	-0.01	0.075	CAV	0.122	-0.665	0.021	-0.928	0.009	-0.300	10.77	-5.88	1.07
0.48	-0.01	0.075	CAV	0.020	-0.793	-0.013	-0.975	0.249	-0.216	14.17	-5.84	1.44
0.49	-0.01	0.075	CAV	-0.009	-0.782	0.072	-0.939	0.004	-0.366	24.65	-5.72	4.03
0.5	-0.01	0.075	CAV	0.103	-0.662	0.116	-0.932	0.877	-0.238	22.42	-8.01	2.02
0.51	-0.01	0.075	CAV	0.037	-0.731	0.063	-0.989	1.098	-0.337	22.18	-9.34	2.25
0.45	-0.02	0.075	CAV	0.339	-0.758	0.004	-0.799	0.252	-0.354	-10.13	-8.03	-0.90
0.465	-0.02	0.075	CAV	0.117	-0.662	0.023	-0.985	-0.076	-0.449	8.88	-5.89	-0.73
0.48	-0.02	0.075	CAV	0.223	-0.649	0.011	-0.850	0.104	-0.398	9.81	-4.02	0.09
0.49	-0.02	0.075	CAV	0.096	-0.667	0.010	-0.922	0.084	-0.416	7.64	-8.34	0.64
0.5	-0.02	0.075	CAV	0.148	-0.732	0.082	-0.925	0.410	-0.350	2.32	-6.33	0.00
0.45	-0.03	0.075	CAV	0.359	-0.680	-0.043	-0.499	0.015	-0.453	-25.73	-3.90	-2.75
0.465	-0.03	0.075	CAV	0.314	-0.493	-0.039	-0.663	-0.364	-0.426	-20.43	-3.09	-3.01
0.48	-0.03	0.075	CAV	0.333	-0.596	0.092	-0.591	-0.027	-0.353	-16.72	-4.28	-1.52
0.49	-0.03	0.075	CAV	0.403	-0.738	0.027	-0.643	0.240	-0.371	-20.28	-6.04	-1.78
0.45	-0.04	0.075	CAV	0.493	-0.653	0.027	-0.332	0.231	-0.495	-32.49	-1.89	-4.08
0.465	-0.04	0.075	CAV	0.402	-0.578	-0.043	-0.437	-0.082	-0.467	-19.84	-1.20	-3.70
0.48	-0.04	0.075	CAV	0.425	-0.574	-0.004	-0.431	-0.083	-0.334	-32.31	-3.24	-2.92
0.052	-0.05	0.075	CAV	0.365	0.062	-0.171	0.264	0.079	-0.323	-0.22	2.41	0.60

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.17	-0.05	0.075	CAV	0.335	0.078	0.229	0.318	0.112	-0.353	-0.76	4.80	1.30
0.23	-0.05	0.075	CAV	0.469	0.146	0.272	1.333	0.876	-0.590	-3.41	1.53	-0.08
0.29	-0.05	0.075	CAV	0.666	0.694	0.141	1.900	2.996	-0.706	-5.29	-2.62	2.27
0.35	-0.05	0.075	CAV	0.711	-0.405	0.015	1.253	2.217	-0.682	-7.39	-3.99	-0.92
0.41	-0.05	0.075	CAV	0.470	-0.613	0.043	0.259	0.276	-0.520	-29.01	-0.93	-1.96
0.45	-0.05	0.075	CAV	0.391	-0.455	0.021	-0.263	-0.096	-0.407	-29.18	-0.19	-4.40
0.47	-0.05	0.075	CAV	0.466	-0.885	-0.012	0.237	0.767	-0.479	-25.86	-1.16	-2.18
0.45	-0.06	0.075	CAV	0.295	-0.668	-0.034	0.029	-0.222	-0.462	-41.37	2.23	-6.20
0.41	-0.093	0.075	CAV	-0.172	-0.920	0.009	0.654	0.298	-0.583	2.21	1.15	-0.35
0.06	-0.1	0.075	CAV	-0.013	0.116	-0.153	0.214	0.117	-0.291	0.18	1.10	1.12
0.12	-0.1	0.075	CAV	0.199	-0.075	0.041	0.430	0.081	-0.178	0.83	0.98	0.94
0.18	-0.1	0.075	CAV	0.375	0.003	0.338	0.357	0.320	-0.216	-0.23	1.78	0.79
0.24	-0.1	0.075	CAV	0.366	-0.018	0.062	0.467	0.732	-0.687	-0.01	4.02	-0.07
0.3	-0.1	0.075	CAV	-0.101	0.141	0.130	2.084	1.181	-0.592	-0.03	1.02	2.43
0.36	-0.1	0.075	CAV	-0.272	-1.007	0.128	1.509	2.173	-0.680	0.32	0.61	1.51
0.33	-0.138	0.075	CAV	-0.926	-0.986	0.094	2.466	3.739	-0.683	11.62	0.98	2.12
0.09	-0.15	0.075	CAV	0.182	0.185	-0.054	0.205	0.248	-0.228	0.63	0.46	1.19
0.15	-0.15	0.075	CAV	0.406	-0.016	0.008	0.570	0.088	-0.198	0.84	1.63	1.32
0.21	-0.15	0.075	CAV	0.358	0.146	0.153	-0.020	0.700	-0.319	-0.05	1.24	1.39
0.27	-0.15	0.075	CAV	-0.168	0.104	0.155	0.888	0.564	-0.607	2.28	2.59	2.81
0.23	-0.177	0.075	CAV	0.360	0.036	0.140	0.263	0.540	-0.173	0.10	0.58	0.36
0.11	-0.182	0.075	CAV	0.231	0.056	0.005	-0.063	0.238	-0.358	-1.77	0.37	0.72
0.17	-0.189	0.075	CAV	0.358	-0.132	0.055	0.310	0.374	-0.129	-1.53	0.72	0.63

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.

[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.9 Backward conic cavity with rough bed at low flow (Velocity = 0.33 m/s; depth = 0.150 m): velocities

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.05	0	0.05	ML	-13.42	0.01	-0.64	13.43	15.76	8.52	4.97	2.71	10.23	6.07
0.07	0	0.05	ML	-13.54	-0.50	-0.47	13.56	14.88	6.44	4.72	2.58	8.39	5.73
0.09	0	0.05	ML	-14.26	0.01	-0.28	14.26	16.16	7.79	4.99	2.66	9.63	5.90
0.11	0	0.05	ML	-14.81	0.33	0.24	14.81	16.62	7.84	4.68	2.64	9.50	5.77
0.13	0	0.05	ML	-15.52	-0.16	0.00	15.52	17.14	7.30	4.76	2.66	9.11	5.50
0.15	0	0.05	ML	-15.29	-0.08	0.08	15.29	17.23	7.89	4.75	2.79	9.62	5.42
0.17	0	0.05	ML	-14.49	0.27	0.40	14.50	18.24	10.95	5.13	2.80	12.41	5.61
0.19	0	0.05	ML	-14.63	0.51	0.34	14.64	18.84	11.68	5.08	2.80	13.04	5.41
0.21	0	0.05	ML	-12.89	1.04	0.41	12.94	20.11	15.29	5.58	2.66	16.49	5.91
0.23	0	0.05	ML	-14.02	0.74	0.16	14.04	19.93	14.06	5.43	2.71	15.31	5.85
0.25	0	0.05	ML	-12.02	0.87	0.20	12.05	20.44	16.52	5.56	2.75	17.65	6.24
0.27	0	0.05	ML	-12.26	1.68	0.22	12.38	21.04	16.98	5.52	2.78	18.07	6.10
0.29	0	0.05	ML	-12.19	1.64	0.20	12.30	20.66	16.58	5.34	2.73	17.63	5.95
0.31	0	0.05	ML	-11.84	2.45	0.33	12.10	21.48	17.66	5.51	2.75	18.71	5.90
0.33	0	0.05	ML	-11.31	2.63	0.27	11.61	21.50	18.01	5.24	2.76	18.96	5.64
0.35	0	0.05	ML	-10.29	3.46	0.51	10.87	21.44	18.44	5.38	2.58	19.39	5.85
0.37	0	0.05	ML	-11.74	3.90	0.63	12.39	22.65	18.99	5.09	2.65	19.84	5.82
0.39	0	0.05	ML	-12.71	4.39	0.49	13.46	22.29	17.91	4.91	2.62	18.76	6.01
0.41	0	0.05	ML	-12.80	4.37	0.65	13.54	22.13	17.59	5.19	2.72	18.54	6.08
0.43	0	0.05	ML	-13.39	5.05	0.69	14.33	22.44	17.34	5.15	2.71	18.29	6.03
0.45	0	0.05	ML	-13.53	4.92	0.67	14.41	22.29	17.13	5.16	2.65	18.09	6.15

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.49	0	0.05	ML	-14.59	4.27	0.74	15.22	21.77	15.75	4.94	2.69	16.72	6.09
0.51	0	0.05	ML	-13.38	3.42	0.66	13.82	21.56	16.65	4.72	2.64	17.51	5.71
0.53	0	0.05	ML	-13.11	2.08	0.52	13.29	21.87	17.42	4.91	2.62	18.29	5.71
0.05	0	0.075	ML	-15.26	0.50	0.05	15.27	18.38	11.13	4.85	2.69	12.44	7.07
0.07	0	0.075	ML	-14.84	0.12	0.13	14.84	17.92	10.72	5.16	2.63	12.19	6.89
0.09	0	0.075	ML	-14.59	-0.25	0.31	14.60	17.36	9.84	5.11	2.70	11.42	6.48
0.11	0	0.075	ML	-14.41	0.16	0.29	14.41	18.53	12.24	5.00	2.69	13.49	6.82
0.13	0	0.075	ML	-15.01	0.02	0.65	15.02	18.38	10.86	5.22	2.79	12.36	6.38
0.15	0	0.075	ML	-14.32	-0.32	0.56	14.33	18.96	12.51	5.14	2.77	13.80	6.04
0.17	0	0.075	ML	-13.32	0.17	0.46	13.33	19.45	14.24	5.59	2.74	15.54	6.39
0.19	0	0.075	ML	-13.99	0.21	0.29	13.99	19.97	14.10	5.83	2.78	15.50	6.12
0.21	0	0.075	ML	-13.34	0.09	0.57	13.36	19.63	14.44	5.32	2.72	15.63	6.12
0.23	0	0.075	ML	-11.91	0.43	0.55	11.93	20.10	16.25	5.32	2.86	17.34	6.23
0.25	0	0.075	ML	-12.29	1.18	0.50	12.35	21.64	17.70	5.60	2.78	18.77	6.04
0.27	0	0.075	ML	-11.95	0.81	0.41	11.99	21.09	17.42	5.72	2.72	18.54	6.52
0.29	0	0.075	ML	-10.78	1.07	0.48	10.84	21.14	18.18	5.53	2.77	19.21	6.28
0.31	0	0.075	ML	-11.54	1.79	0.64	11.69	21.48	18.18	5.56	2.70	19.20	6.61
0.33	0	0.075	ML	-11.85	2.05	0.41	12.03	21.67	18.17	5.50	2.77	19.19	6.55
0.35	0	0.075	ML	-12.11	2.60	0.53	12.40	22.30	18.59	5.55	2.69	19.58	6.33
0.37	0	0.075	ML	-10.47	2.79	0.36	10.84	21.78	18.96	5.45	2.75	19.92	6.30
0.39	0	0.075	ML	-12.06	3.14	0.55	12.48	21.94	18.25	5.29	2.65	19.18	6.48
0.41	0	0.075	ML	-12.10	3.45	0.51	12.59	21.82	18.08	5.07	2.72	18.98	6.51
0.43	0	0.075	ML	-13.23	3.94	0.47	13.81	22.51	18.05	5.08	2.68	18.94	6.54

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.45	0	0.075	ML	-10.73	4.27	0.60	11.56	23.06	20.20	4.93	2.63	20.96	6.41
0.47	0	0.075	ML	-12.92	4.25	0.70	13.62	22.63	18.44	5.05	2.60	19.30	6.75
0.48	0	0.075	ML	-12.58	3.84	0.48	13.16	22.08	18.02	4.90	2.74	18.88	6.47
0.49	0	0.075	ML	-12.89	3.65	0.44	13.40	22.49	18.28	5.04	2.68	19.15	6.34
0.5	0	0.075	ML	-11.62	3.27	0.38	12.08	22.44	19.20	4.68	2.65	19.94	6.33
0.51	0	0.075	ML	-12.94	3.18	0.50	13.33	22.91	18.94	4.83	2.68	19.73	6.49
0.53	0	0.075	ML	-11.67	1.71	0.52	11.81	21.97	18.87	4.84	2.75	19.68	6.63
0.05	0	0.095	ML	-15.40	0.58	0.09	15.41	18.86	11.61	5.12	2.76	12.99	7.10
0.07	0	0.095	ML	-15.27	0.43	0.43	15.29	18.53	11.29	5.05	2.71	12.66	7.09
0.09	0	0.095	ML	-15.11	0.26	0.35	15.12	18.45	11.07	5.36	2.82	12.61	6.86
0.11	0	0.095	ML	-14.29	0.26	0.54	14.30	19.47	13.62	5.70	2.68	15.01	7.12
0.13	0	0.095	ML	-13.80	-0.39	0.64	13.82	18.84	13.00	5.41	2.81	14.36	6.48
0.15	0	0.095	ML	-14.11	-0.39	0.93	14.14	18.72	12.44	5.37	2.77	13.83	6.39
0.17	0	0.095	ML	-13.62	-0.17	0.72	13.64	19.33	13.92	5.41	2.71	15.18	6.55
0.19	0	0.095	ML	-13.59	-0.05	0.79	13.61	19.18	13.59	5.28	2.85	14.86	6.18
0.21	0	0.095	ML	-13.33	0.51	0.70	13.36	20.91	16.19	5.87	2.80	17.45	6.76
0.23	0	0.095	ML	-11.75	0.41	0.57	11.78	20.52	16.81	5.77	2.88	18.01	6.48
0.25	0	0.095	ML	-12.31	0.66	0.68	12.35	20.82	16.81	5.65	2.92	17.97	6.49
0.27	0	0.095	ML	-12.50	0.84	0.51	12.54	20.71	16.46	6.09	2.74	17.76	6.63
0.29	0	0.095	ML	-11.80	1.08	0.64	11.87	21.42	17.78	6.00	2.81	18.97	6.46
0.31	0	0.095	ML	-10.95	1.45	0.45	11.05	21.36	18.38	5.54	2.82	19.41	6.52
0.33	0	0.095	ML	-11.05	1.99	0.45	11.23	21.88	18.83	5.72	2.70	19.86	6.47
0.35	0	0.095	ML	-12.63	2.58	0.56	12.91	22.19	18.17	5.62	2.75	19.22	6.59

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.39	0	0.095	ML	-12.48	3.22	0.46	12.89	21.83	17.95	4.99	2.75	18.84	6.66
0.41	0	0.095	ML	-12.56	3.23	0.33	12.97	21.74	17.73	5.10	2.74	18.65	6.59
0.43	0	0.095	ML	-11.49	3.53	0.41	12.03	22.35	19.12	5.26	2.80	20.03	6.79
0.45	0	0.095	ML	-11.07	3.55	0.40	11.63	21.84	18.93	5.10	2.80	19.80	7.08
0.47	0	0.095	ML	-12.20	3.36	0.35	12.66	21.42	17.63	4.93	2.70	18.51	6.60
0.49	0	0.095	ML	-11.95	3.39	0.55	12.43	21.84	18.41	4.98	2.63	19.25	6.94
0.51	0	0.095	ML	-13.97	2.50	0.45	14.20	21.88	16.87	5.00	2.73	17.81	6.30
0.53	0	0.095	ML	-13.45	1.10	0.32	13.50	21.21	16.60	4.80	2.84	17.51	6.24
0.45	-0.01	0.075	CAV	-11.86	4.21	0.35	12.59	20.80	16.67	5.36	2.91	17.75	6.39
0.465	-0.01	0.075	CAV	-12.25	4.02	0.64	12.91	20.17	15.72	5.09	2.88	16.77	6.39
0.48	-0.01	0.075	CAV	-11.48	3.69	0.25	12.06	20.40	16.73	5.25	2.93	17.78	6.73
0.49	-0.01	0.075	CAV	-12.72	3.96	0.58	13.33	20.99	16.39	5.08	2.83	17.39	6.29
0.5	-0.01	0.075	CAV	-12.07	3.24	0.33	12.50	20.26	16.17	5.22	2.88	17.23	6.55
0.51	-0.01	0.075	CAV	-13.55	3.16	0.42	13.92	20.42	15.16	5.00	2.88	16.22	6.31
0.45	-0.02	0.075	CAV	-12.54	4.25	0.66	13.25	17.91	12.37	5.17	3.00	13.73	6.59
0.465	-0.02	0.075	CAV	-10.78	4.05	0.48	11.53	18.31	14.58	5.22	2.94	15.76	6.79
0.48	-0.02	0.075	CAV	-12.23	4.10	0.39	12.91	18.23	13.36	5.03	3.00	14.59	6.87
0.49	-0.02	0.075	CAV	-11.94	4.08	0.48	12.63	18.66	14.13	5.04	3.02	15.30	6.73
0.5	-0.02	0.075	CAV	-12.03	3.47	0.75	12.55	17.58	12.90	4.96	3.00	14.14	6.95
0.45	-0.03	0.075	CAV	-10.71	3.83	0.57	11.39	14.22	8.97	4.88	3.14	10.68	6.44
0.465	-0.03	0.075	CAV	-10.93	4.05	0.61	11.68	14.28	8.51	4.87	3.28	10.34	6.27
0.48	-0.03	0.075	CAV	-10.78	4.06	0.48	11.53	16.04	11.44	5.28	3.32	13.03	6.74
0.49	-0.03	0.075	CAV	-11.75	4.19	0.80	12.50	15.35	9.15	5.01	3.28	10.94	6.34

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.465	-0.04	0.075	CAV	-9.62	4.44	0.43	10.61	12.83	7.03	4.90	3.40	9.21	5.73
0.48	-0.04	0.075	CAV	-8.86	4.13	0.80	9.81	12.35	7.18	4.86	3.41	9.31	5.51
0.052	-0.05	0.075	CAV	-2.21	-4.62	-0.53	5.15	5.74	1.90	2.21	1.35	3.21	1.98
0.11	-0.05	0.075	CAV	-3.77	-2.92	0.53	4.79	5.69	2.39	2.38	1.58	3.72	2.11
0.17	-0.05	0.075	CAV	-5.18	-1.72	0.82	5.52	6.33	2.51	2.30	1.71	3.81	2.22
0.23	-0.05	0.075	CAV	-5.29	-0.73	0.81	5.40	6.41	2.60	2.59	1.88	4.12	2.26
0.29	-0.05	0.075	CAV	-5.83	-0.21	0.48	5.85	7.14	3.18	2.93	2.40	4.95	2.77
0.35	-0.05	0.075	CAV	-5.72	0.83	0.70	5.82	7.72	4.26	3.60	2.84	6.26	3.66
0.41	-0.05	0.075	CAV	-6.35	2.85	0.65	6.99	9.60	5.72	4.52	3.34	8.02	4.57
0.45	-0.05	0.075	CAV	-6.51	4.34	0.58	7.85	10.27	6.11	4.46	3.48	8.33	5.03
0.47	-0.05	0.075	CAV	-6.71	4.68	0.77	8.21	11.12	7.25	5.07	3.23	9.42	5.70
0.45	-0.06	0.075	CAV	-4.01	4.42	0.69	6.01	9.21	5.87	4.64	3.53	8.27	4.43
0.41	-0.093	0.075	CAV	2.61	4.77	1.22	5.57	8.61	5.45	3.99	3.13	7.45	3.50
0.06	-0.1	0.075	CAV	-0.25	-5.61	-1.00	5.70	6.43	2.24	2.38	1.67	3.67	2.17
0.12	-0.1	0.075	CAV	-0.87	-3.65	-0.03	3.75	4.93	2.40	2.30	1.74	3.75	1.98
0.18	-0.1	0.075	CAV	-1.19	-1.15	0.17	1.66	4.19	2.85	2.39	2.02	4.23	1.78
0.24	-0.1	0.075	CAV	-1.81	-0.01	0.06	1.81	4.31	3.06	2.33	2.06	4.36	1.92
0.3	-0.1	0.075	CAV	-0.10	0.93	0.09	0.94	4.61	3.51	2.74	2.37	5.04	2.25
0.36	-0.1	0.075	CAV	1.68	2.62	0.57	3.16	6.13	4.02	3.21	2.95	5.93	2.76
0.33	-0.138	0.075	CAV	5.11	2.95	0.02	5.90	7.73	4.33	3.19	2.90	6.11	3.52
0.09	-0.15	0.075	CAV	1.59	-4.63	-0.74	4.95	5.94	2.63	2.57	1.87	4.13	2.49
0.15	-0.15	0.075	CAV	1.32	-2.23	-0.34	2.61	4.65	3.06	2.53	2.07	4.47	2.27
0.21	-0.15	0.075	CAV	1.05	0.05	-0.06	1.05	3.90	3.04	2.47	1.81	4.31	2.12

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.23	-0.177	0.075	CAV	4.98	0.97	-0.07	5.07	6.64	3.96	2.75	2.34	5.36	3.22
0.11	-0.182	0.075	CAV	4.12	-3.95	-0.53	5.73	6.69	3.15	2.36	1.95	4.39	2.71
0.17	-0.189	0.075	CAV	5.09	-1.17	-0.54	5.25	6.47	3.54	2.54	2.10	4.83	3.00

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.10 Backward conic cavity with rough bed at low flow (Velocity = 0.33 m/s; depth = 0.150 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	1.454	0.191	0.350	5.081	0.371	-0.136	-13.183	-1.300	2.263
0.07	0	0.05	ML	0.209	0.389	0.523	2.737	0.523	-0.058	-12.751	-1.325	1.843
0.09	0	0.05	ML	1.252	0.450	0.252	5.173	0.435	-0.526	-12.109	-0.093	2.090
0.11	0	0.05	ML	1.434	0.381	0.116	5.550	0.436	-0.519	-10.504	0.682	0.582
0.13	0	0.05	ML	1.373	0.257	0.246	6.331	0.476	-0.442	-10.936	-1.529	1.741
0.15	0	0.05	ML	1.768	0.467	0.244	6.909	0.423	-0.480	-9.806	0.089	0.938
0.17	0	0.05	ML	1.904	0.297	0.077	4.320	0.407	-0.551	-7.083	-1.687	1.204
0.19	0	0.05	ML	1.926	0.339	0.234	3.746	0.294	-0.557	-6.947	-0.769	0.925
0.21	0	0.05	ML	1.551	0.229	0.146	1.444	0.478	-0.585	-10.013	-4.899	1.399
0.23	0	0.05	ML	1.736	0.373	0.086	2.423	0.078	-0.617	-7.281	-4.192	1.695
0.25	0	0.05	ML	1.349	0.239	0.154	0.714	0.310	-0.549	-14.021	-7.063	1.759
0.27	0	0.05	ML	1.239	0.224	0.069	0.302	0.033	-0.731	-15.118	-6.277	2.541
0.29	0	0.05	ML	1.324	0.165	0.111	0.545	0.277	-0.698	-9.843	-5.077	2.405
0.31	0	0.05	ML	1.131	0.088	0.115	-0.126	-0.155	-0.703	-16.576	-7.316	2.003
0.33	0	0.05	ML	1.116	0.019	0.228	-0.205	0.558	-0.646	-9.222	-6.283	2.255
0.35	0	0.05	ML	0.908	0.034	0.051	-0.666	0.095	-0.620	-15.698	-5.622	2.303
0.37	0	0.05	ML	1.023	-0.004	-0.007	-0.472	0.010	-0.603	-18.489	-7.582	1.240
0.39	0	0.05	ML	1.155	0.056	0.106	-0.052	-0.050	-0.571	-15.752	-4.948	1.362
0.41	0	0.05	ML	1.198	-0.040	-0.018	0.083	-0.046	-0.661	-22.021	-6.543	1.694
0.43	0	0.05	ML	1.209	-0.070	0.012	0.138	0.280	-0.593	-20.691	-4.688	1.001
0.45	0	0.05	ML	1.285	-0.222	-0.056	0.376	0.833	-0.559	-22.037	-5.432	1.277
0.47	0	0.05	ML	1.212	-0.065	-0.067	0.214	0.290	-0.467	-18.236	-4.327	0.024

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	0	0.05	ML	1.321	-0.071	-0.022	0.446	0.105	-0.556	-16.950	-4.789	1.271
0.53	0	0.05	ML	1.229	-0.212	0.039	0.132	0.749	-0.611	-18.403	-5.240	1.394
0.05	0	0.075	ML	1.418	0.147	0.209	3.251	0.284	-0.519	-17.314	-2.332	2.442
0.07	0	0.075	ML	1.515	0.222	0.128	3.971	0.075	-0.316	-17.330	-1.924	2.059
0.09	0	0.075	ML	1.302	0.275	0.096	3.571	-0.039	-0.544	-14.287	-0.276	1.062
0.11	0	0.075	ML	1.492	0.154	0.198	2.878	0.004	-0.541	-12.398	-2.508	1.644
0.13	0	0.075	ML	1.632	0.308	-0.005	3.991	0.055	-0.617	-12.761	-2.560	0.502
0.15	0	0.075	ML	1.692	0.343	0.093	3.017	0.042	-0.636	-7.327	-2.513	0.761
0.17	0	0.075	ML	1.570	0.142	-0.018	2.070	0.390	-0.656	-11.407	-3.819	1.503
0.19	0	0.075	ML	1.586	0.031	0.108	2.027	0.396	-0.638	-10.382	-1.722	1.062
0.21	0	0.075	ML	1.532	0.310	0.080	1.726	0.304	-0.689	-3.760	-4.766	0.754
0.23	0	0.075	ML	1.287	0.253	0.025	0.576	0.133	-0.756	-9.659	-6.948	-0.084
0.25	0	0.075	ML	1.138	0.006	0.039	-0.031	0.587	-0.759	-12.477	-7.077	1.230
0.27	0	0.075	ML	1.107	0.159	0.004	0.076	0.242	-0.726	-10.606	-6.915	0.660
0.29	0	0.075	ML	1.110	0.172	0.032	-0.070	0.365	-0.731	-8.784	-8.602	1.129
0.31	0	0.075	ML	1.014	0.057	-0.083	-0.232	0.010	-0.677	-9.783	-4.907	0.862
0.33	0	0.075	ML	0.995	-0.067	0.051	-0.337	0.273	-0.735	-8.077	-7.901	1.400
0.35	0	0.075	ML	0.998	0.110	0.051	-0.424	0.187	-0.632	-8.555	-4.983	1.622
0.37	0	0.075	ML	0.903	-0.068	0.014	-0.629	1.287	-0.555	-10.394	-6.444	1.544
0.39	0	0.075	ML	1.032	-0.066	-0.004	-0.284	0.127	-0.541	-10.748	-6.843	1.307
0.41	0	0.075	ML	1.048	0.014	-0.023	-0.248	0.067	-0.642	-16.992	-6.502	0.981
0.43	0	0.075	ML	1.133	-0.094	0.022	-0.048	-0.059	-0.642	-14.390	-5.878	1.147
0.45	0	0.075	ML	0.895	-0.140	0.050	-0.587	0.069	-0.401	-15.033	-3.402	1.183
0.45	0	0.075	ML	0.814	-0.162	-0.013	-0.883	0.234	-0.591	-17.443	-6.180	1.231

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.48	0	0.075	ML	1.081	-0.171	-0.029	-0.198	0.287	-0.549	-16.895	-5.563	1.115
0.49	0	0.075	ML	1.114	-0.088	0.053	-0.162	0.156	-0.638	-18.385	-5.719	1.182
0.5	0	0.075	ML	0.957	-0.137	0.082	-0.562	0.160	-0.583	-18.862	-4.928	1.429
0.51	0	0.075	ML	1.064	-0.170	0.041	-0.265	0.288	-0.591	-23.778	-4.786	1.118
0.53	0	0.075	ML	0.942	-0.260	-0.010	-0.514	0.247	-0.623	-19.380	-8.017	1.663
0.05	0	0.095	ML	1.408	0.177	0.198	2.958	0.259	-0.569	-17.858	-3.235	2.763
0.07	0	0.095	ML	1.426	0.225	0.160	3.369	-0.044	-0.539	-17.090	-1.612	1.514
0.09	0	0.095	ML	1.387	0.219	0.106	3.344	0.337	-0.675	-15.058	-1.003	1.416
0.11	0	0.095	ML	1.514	0.224	0.068	2.474	0.196	-0.422	-15.894	-2.873	0.545
0.13	0	0.095	ML	1.620	0.303	0.000	2.940	0.437	-0.670	-12.958	-3.549	0.723
0.15	0	0.095	ML	1.675	0.370	-0.009	3.292	0.240	-0.726	-8.814	-1.910	-0.525
0.17	0	0.095	ML	1.581	0.329	-0.022	2.312	-0.031	-0.546	-12.692	-5.425	-0.151
0.19	0	0.095	ML	1.609	0.218	0.006	2.368	0.234	-0.659	-6.963	-5.301	-0.090
0.21	0	0.095	ML	1.334	0.267	0.012	0.998	0.269	-0.721	-9.197	-6.945	-0.012
0.23	0	0.095	ML	1.190	0.244	0.054	0.377	0.975	-0.747	-8.636	-5.995	-0.663
0.25	0	0.095	ML	1.295	0.037	-0.127	0.687	0.490	-0.721	-7.768	-9.412	0.501
0.27	0	0.095	ML	1.248	0.131	0.061	0.584	0.754	-0.620	-7.161	-2.578	0.254
0.29	0	0.095	ML	1.067	-0.100	-0.029	-0.102	1.000	-0.624	-6.498	-7.217	0.837
0.31	0	0.095	ML	1.015	0.023	-0.007	-0.267	0.302	-0.649	-10.468	-8.670	0.934
0.33	0	0.095	ML	0.911	-0.052	0.002	-0.566	0.464	-0.609	-6.567	-5.299	1.006
0.35	0	0.095	ML	1.101	-0.031	-0.040	-0.039	0.247	-0.710	-12.251	-5.246	0.736
0.37	0	0.095	ML	0.992	-0.140	0.083	-0.377	0.350	-0.750	-8.049	-4.392	0.430
0.39	0	0.095	ML	1.142	-0.003	-0.010	0.067	0.322	-0.651	-13.974	-5.132	0.522
0.41	0	0.095	ML	1.130	-0.071	0.044	0.012	0.122	-0.660	-10.187	-5.447	0.479

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	0	0.095	ML	0.880	-0.067	0.043	-0.554	0.094	-0.647	-14.409	-5.323	1.530
0.47	0	0.095	ML	1.204	0.001	-0.006	0.236	0.006	-0.483	-12.227	-5.894	1.137
0.49	0	0.095	ML	0.987	-0.046	0.031	-0.351	0.450	-0.647	-10.439	-4.995	0.571
0.51	0	0.095	ML	1.330	-0.298	0.021	0.608	0.573	-0.660	-12.532	-4.609	0.604
0.53	0	0.095	ML	1.372	-0.023	0.089	0.799	0.369	-0.698	-14.135	-9.007	0.756
0.45	-0.01	0.075	CAV	1.359	-0.097	0.084	0.684	1.704	-0.669	-13.861	-6.651	0.552
0.465	-0.01	0.075	CAV	1.439	0.047	0.061	1.122	0.479	-0.646	-10.998	-7.087	-0.287
0.48	-0.01	0.075	CAV	1.296	-0.237	0.015	0.568	0.834	-0.585	-19.216	-6.839	1.175
0.49	-0.01	0.075	CAV	1.444	-0.174	0.132	0.973	0.371	-0.641	-16.747	-7.725	0.629
0.5	-0.01	0.075	CAV	1.448	-0.047	0.038	1.098	0.788	-0.654	-18.861	-5.349	0.409
0.51	-0.01	0.075	CAV	1.515	-0.027	0.092	1.441	0.547	-0.589	-12.159	-4.511	0.565
0.45	-0.02	0.075	CAV	1.915	0.149	0.086	3.886	0.581	-0.604	-9.230	-3.045	-0.914
0.465	-0.02	0.075	CAV	1.606	0.028	0.097	1.874	0.343	-0.519	-9.205	-5.589	0.142
0.48	-0.02	0.075	CAV	1.777	0.104	0.038	3.056	0.174	-0.646	-10.485	-5.825	0.486
0.49	-0.02	0.075	CAV	1.760	-0.243	0.001	2.736	1.194	-0.625	-13.080	-6.902	0.028
0.5	-0.02	0.075	CAV	1.763	-0.186	-0.068	3.296	0.476	-0.624	-13.976	-5.147	0.158
0.45	-0.03	0.075	CAV	1.680	0.127	-0.069	5.354	0.923	-0.489	-10.570	-1.446	-0.047
0.465	-0.03	0.075	CAV	1.561	0.046	-0.098	5.616	0.449	-0.641	-10.870	-2.380	-1.071
0.48	-0.03	0.075	CAV	1.921	-0.179	-0.031	4.686	1.083	-0.609	-12.801	-5.122	-0.081
0.49	-0.03	0.075	CAV	1.815	-0.022	-0.009	6.101	0.301	-0.616	-9.877	-3.152	-0.547
0.45	-0.04	0.075	CAV	0.587	0.146	-0.026	2.741	1.084	-0.661	-9.417	-0.711	-0.804
0.465	-0.04	0.075	CAV	0.977	0.012	-0.074	4.207	0.434	-0.609	-9.008	-2.044	-0.292
0.48	-0.04	0.075	CAV	0.998	-0.019	-0.188	4.086	0.855	-0.524	-10.245	-1.947	-0.865
0.052	-0.05	0.075	CAV	0.179	0.095	-0.145	0.431	0.005	0.258	0.236	-0.199	-0.152

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.17	-0.05	0.075	CAV	0.150	0.089	0.220	0.326	0.187	0.134	-0.430	-0.643	-0.613
0.23	-0.05	0.075	CAV	0.080	-0.035	-0.305	0.200	0.408	0.265	-0.925	-0.335	-0.771
0.29	-0.05	0.075	CAV	0.099	0.192	-0.127	0.420	0.540	0.461	-1.819	-0.146	-1.099
0.35	-0.05	0.075	CAV	-0.312	0.357	-0.117	0.497	0.532	0.139	-4.578	0.487	-1.134
0.41	-0.05	0.075	CAV	0.016	0.211	-0.117	0.356	0.690	-0.488	-7.564	-2.132	-1.012
0.45	-0.05	0.075	CAV	-0.026	0.268	-0.005	0.572	0.770	-0.511	-7.533	-0.133	-1.134
0.47	-0.05	0.075	CAV	0.894	-0.022	-0.181	3.885	0.684	-0.542	-10.390	-3.249	0.048
0.45	-0.06	0.075	CAV	0.143	-0.021	-0.193	0.640	0.986	-0.447	-6.744	-1.987	-0.870
0.41	-0.093	0.075	CAV	0.142	-0.059	-0.176	0.090	0.433	-0.335	-4.503	-1.591	-0.311
0.06	-0.1	0.075	CAV	0.230	0.073	-0.084	0.250	0.153	0.179	0.177	-0.494	-0.429
0.12	-0.1	0.075	CAV	0.307	0.087	-0.125	0.384	0.339	0.484	0.420	-0.594	-0.134
0.18	-0.1	0.075	CAV	0.219	0.034	-0.401	-0.012	0.203	0.316	0.017	0.354	-0.560
0.24	-0.1	0.075	CAV	0.365	-0.129	-0.396	0.236	0.252	0.438	-0.489	-0.354	-0.540
0.3	-0.1	0.075	CAV	0.242	0.065	-0.211	0.171	0.287	0.388	-1.064	-0.770	-1.072
0.36	-0.1	0.075	CAV	0.219	0.050	-0.189	0.191	0.248	-0.180	-1.575	-0.342	-0.927
0.33	-0.138	0.075	CAV	0.311	-0.137	-0.153	-0.024	0.432	-0.224	-0.430	-1.240	-0.271
0.09	-0.15	0.075	CAV	0.268	-0.018	-0.191	0.068	-0.052	0.314	-0.918	0.071	0.097
0.15	-0.15	0.075	CAV	0.394	-0.050	0.063	0.156	0.221	0.645	-0.596	0.056	-0.245
0.21	-0.15	0.075	CAV	0.553	0.068	-0.256	0.635	0.236	0.723	0.142	-0.889	-0.563
0.27	-0.15	0.075	CAV	0.408	0.191	-0.051	-0.213	0.281	-0.054	1.547	-1.578	-0.694
0.23	-0.177	0.075	CAV	0.305	-0.065	-0.051	0.466	0.161	-0.075	-0.488	-0.188	0.033
0.11	-0.182	0.075	CAV	0.209	-0.041	-0.029	-0.017	0.049	0.418	-0.652	0.248	0.289
0.17	-0.189	0.075	CAV	0.270	0.026	0.079	-0.129	0.102	0.158	-0.743	-0.165	-0.225

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.

[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.11 Backward conic cavity with rough bed at high flow (Velocity = 0.47 m/s; depth = 0.225 m): velocities

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.05	0	0.05	ML	-11.24	-1.02	-0.41	11.29	15.33	10.63	5.81	2.74	12.42	6.83
0.07	0	0.05	ML	-11.62	-1.28	-0.09	11.69	15.22	9.85	5.66	2.93	11.73	6.52
0.09	0	0.05	ML	-10.41	-1.45	-0.11	10.51	15.38	11.39	5.79	2.91	13.11	6.74
0.11	0	0.05	ML	-7.89	-0.92	-0.09	7.94	18.07	15.96	7.43	3.10	17.88	7.48
0.13	0	0.05	ML	-8.47	-1.39	-0.26	8.59	18.52	16.07	7.76	3.10	18.11	7.65
0.15	0	0.05	ML	-7.07	-0.80	-0.01	7.12	18.52	16.70	7.67	3.19	18.66	7.45
0.17	0	0.05	ML	-8.81	-1.37	-0.15	8.92	18.52	15.73	7.41	3.10	17.67	6.98
0.19	0	0.05	ML	-8.44	-0.33	-0.01	8.44	19.17	16.82	7.55	3.15	18.71	7.33
0.21	0	0.05	ML	-6.56	-0.08	0.08	6.56	19.73	18.20	8.26	3.12	20.22	7.91
0.23	0	0.05	ML	-6.68	0.31	0.21	6.69	20.17	18.61	7.70	3.19	20.40	7.34
0.25	0	0.05	ML	-7.36	-0.14	0.38	7.37	20.01	18.18	7.82	3.05	20.02	7.40
0.27	0	0.05	ML	-7.89	0.80	0.07	7.93	21.20	19.06	8.15	2.99	20.94	7.22
0.29	0	0.05	ML	-5.89	1.16	0.14	6.00	20.97	19.78	7.52	2.92	21.36	7.22
0.31	0	0.05	ML	-7.13	2.73	0.45	7.65	21.87	20.20	7.49	2.92	21.74	7.25
0.33	0	0.05	ML	-6.59	2.86	0.14	7.18	22.32	20.86	6.98	2.84	22.18	6.72
0.35	0	0.05	ML	-9.10	2.27	0.51	9.40	21.72	19.09	7.51	2.89	20.72	6.74
0.37	0	0.05	ML	-8.40	2.95	0.32	8.91	22.86	20.20	9.01	2.71	22.29	7.32
0.39	0	0.05	ML	-8.99	3.63	0.48	9.71	22.21	19.34	8.11	2.76	21.15	6.96
0.41	0	0.05	ML	-8.59	3.52	0.73	9.31	22.20	19.52	8.24	2.87	21.38	7.16
0.43	0	0.05	ML	-9.85	3.80	0.63	10.57	22.59	19.12	8.86	2.80	21.26	7.29
0.45	0	0.05	ML	-9.43	3.76	0.80	10.18	22.03	18.75	8.42	2.91	20.76	7.01

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.49	0	0.05	ML	-9.04	3.14	0.69	9.60	21.59	19.03	7.10	2.97	20.53	6.86
0.51	0	0.05	ML	-9.46	2.64	0.56	9.84	22.10	19.69	6.85	2.78	21.03	7.09
0.53	0	0.05	ML	-7.79	1.56	0.47	7.96	20.89	19.43	5.92	2.92	20.52	6.93
0.05	0	0.085	ML	-9.40	-0.34	-0.89	9.45	19.81	17.72	6.77	2.91	19.19	8.07
0.07	0	0.085	ML	-7.41	-1.50	-1.05	7.63	20.56	19.40	6.50	2.78	20.65	7.84
0.09	0	0.085	ML	-9.50	-1.21	-0.69	9.61	19.88	17.72	5.92	2.85	18.90	7.36
0.11	0	0.085	ML	-10.76	-1.45	-0.66	10.88	19.30	16.06	5.81	2.79	17.31	6.75
0.13	0	0.085	ML	-10.00	-1.03	-0.17	10.05	20.32	17.66	6.32	2.83	18.97	6.93
0.15	0	0.085	ML	-10.77	-1.57	-0.14	10.88	20.29	17.05	6.37	2.80	18.42	6.77
0.17	0	0.085	ML	-8.95	-1.49	-0.19	9.08	21.38	19.14	6.67	2.81	20.46	6.61
0.19	0	0.085	ML	-7.21	-1.48	0.10	7.36	20.89	19.21	7.17	2.87	20.70	6.80
0.21	0	0.085	ML	-7.85	-0.72	0.22	7.89	21.90	19.81	8.20	2.86	21.63	7.07
0.23	0	0.085	ML	-8.08	-0.86	0.17	8.13	21.50	19.24	8.36	2.84	21.17	7.20
0.25	0	0.085	ML	-6.47	-0.70	0.09	6.51	21.75	20.15	8.84	2.86	22.18	7.82
0.27	0	0.085	ML	-6.65	-0.10	0.17	6.65	22.17	20.67	8.28	2.88	22.45	7.52
0.29	0	0.085	ML	-5.37	-0.23	0.15	5.37	22.48	20.72	9.69	2.88	23.05	7.39
0.31	0	0.085	ML	-6.52	0.37	0.19	6.54	22.70	21.03	8.95	2.99	23.05	7.63
0.33	0	0.085	ML	-5.46	0.53	0.27	5.49	22.34	21.19	8.20	2.91	22.91	7.47
0.35	0	0.085	ML	-4.08	0.85	0.25	4.17	21.87	20.74	9.04	2.97	22.81	7.71
0.37	0	0.085	ML	-6.13	1.20	0.25	6.25	23.02	20.95	10.29	2.84	23.51	7.87
0.39	0	0.085	ML	-8.21	1.76	0.55	8.41	22.76	20.40	8.95	2.80	22.45	7.51
0.41	0	0.085	ML	-6.44	2.21	0.63	6.84	21.85	19.85	9.20	2.87	22.07	7.47
0.43	0	0.085	ML	-5.93	2.09	0.74	6.33	22.79	20.92	9.73	2.90	23.26	7.82

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.47	0	0.085	ML	-6.41	2.58	0.54	6.94	22.67	20.93	9.57	2.96	23.20	8.50
0.49	0	0.085	ML	-5.71	3.23	0.78	6.61	21.31	20.52	7.19	2.83	21.93	8.38
0.51	0	0.085	ML	-6.76	2.20	0.57	7.13	21.78	20.53	7.72	2.80	22.11	8.07
0.53	0	0.085	ML	-6.46	1.18	0.37	6.58	21.54	20.86	6.74	2.95	22.12	8.27
0.05	0	0.12	ML	-8.70	-1.14	-0.74	8.80	21.09	19.31	7.31	3.10	20.88	8.28
0.07	0	0.12	ML	-8.67	-1.90	-0.95	8.93	19.89	18.03	6.28	2.91	19.31	7.54
0.09	0	0.12	ML	-8.37	-2.56	-0.72	8.78	20.08	18.06	6.52	2.83	19.41	7.11
0.11	0	0.12	ML	-8.52	-1.96	-0.45	8.75	21.00	18.89	6.90	2.76	20.30	6.90
0.13	0	0.12	ML	-9.56	-2.51	-0.13	9.89	20.63	17.96	6.39	2.79	19.26	6.54
0.15	0	0.12	ML	-8.07	-1.93	-0.13	8.30	22.16	19.72	8.89	2.83	21.81	7.30
0.17	0	0.12	ML	-10.54	-1.91	0.10	10.71	21.30	17.95	7.06	2.90	19.51	6.44
0.19	0	0.12	ML	-9.08	-1.45	0.30	9.20	21.89	19.08	8.40	2.83	21.04	6.91
0.21	0	0.12	ML	-9.76	-1.43	0.43	9.88	21.72	18.53	8.34	2.84	20.52	6.84
0.23	0	0.12	ML	-7.31	-0.79	0.15	7.36	21.70	19.64	8.49	2.93	21.60	7.02
0.25	0	0.12	ML	-7.65	-0.37	0.21	7.66	22.40	19.79	9.79	2.83	22.26	7.23
0.27	0	0.12	ML	-6.80	-0.85	0.47	6.87	22.46	19.93	10.50	2.88	22.71	7.64
0.29	0	0.12	ML	-7.22	-0.56	0.35	7.25	22.67	20.47	9.71	2.95	22.85	7.76
0.31	0	0.12	ML	-6.85	-0.10	0.54	6.88	22.13	20.03	9.58	2.87	22.39	7.64
0.33	0	0.12	ML	-5.71	0.27	0.45	5.73	21.92	19.96	10.09	2.97	22.56	7.80
0.35	0	0.12	ML	-5.27	0.57	0.57	5.33	21.55	19.53	10.50	2.88	22.36	8.00
0.37	0	0.12	ML	-5.94	1.62	0.57	6.18	22.58	20.73	10.38	2.92	23.37	8.60
0.39	0	0.12	ML	-5.11	1.56	0.51	5.37	22.77	20.98	10.52	3.05	23.67	8.39
0.41	0	0.12	ML	-5.90	2.12	0.74	6.32	22.30	20.77	9.86	3.10	23.20	9.00

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.45	0	0.12	ML	-5.22	2.24	0.47	5.70	21.90	20.52	9.43	2.98	22.78	8.46
0.45	0	0.12	ML	-6.66	2.54	0.67	7.16	22.49	20.59	10.05	3.08	23.11	8.93
0.47	0	0.12	ML	-6.38	1.91	0.39	6.67	22.41	20.67	9.88	2.98	23.10	8.70
0.48	0	0.12	ML	-6.91	2.13	0.26	7.23	21.88	20.35	8.63	3.02	22.31	8.44
0.49	0	0.12	ML	-6.84	2.05	0.58	7.17	22.12	20.28	9.60	2.99	22.63	8.61
0.5	0	0.12	ML	-5.34	2.22	0.61	5.81	21.85	21.17	7.85	2.97	22.77	8.64
0.51	0	0.12	ML	-6.46	1.37	0.67	6.63	21.43	20.54	7.64	2.94	22.11	8.58
0.53	0	0.12	ML	-5.53	0.30	0.41	5.55	21.79	20.93	7.93	3.03	22.59	8.13
0.05	-0.02	0.05	ML	-4.14	-4.83	-3.24	7.14	7.94	2.24	2.85	2.38	4.34	2.60
0.07	-0.02	0.05	ML	-5.82	-3.89	-2.28	7.36	8.11	2.40	2.82	2.09	4.26	2.56
0.09	-0.02	0.05	ML	-7.08	-3.22	-1.15	7.86	8.71	2.91	2.94	2.15	4.66	2.78
0.11	-0.02	0.05	ML	-8.08	-2.91	-0.30	8.60	9.48	2.90	3.02	2.38	4.81	2.69
0.13	-0.02	0.05	ML	-9.31	-2.68	0.05	9.69	10.45	2.98	3.06	2.24	4.82	2.81
0.15	-0.02	0.05	ML	-9.43	-2.58	0.55	9.79	10.69	3.46	3.28	2.42	5.34	3.20
0.17	-0.02	0.05	ML	-10.04	-2.85	1.13	10.49	11.48	3.72	3.67	2.57	5.82	3.50
0.19	-0.02	0.05	ML	-10.04	-2.68	0.88	10.43	11.43	3.96	3.57	2.52	5.90	3.60
0.21	-0.02	0.05	ML	-9.87	-2.70	0.93	10.28	11.44	4.33	3.90	2.65	6.40	3.97
0.23	-0.02	0.05	ML	-11.10	-2.67	0.78	11.44	12.60	4.61	4.08	2.82	6.77	4.22
0.25	-0.02	0.05	ML	-8.16	-2.67	0.91	8.63	12.46	8.65	5.19	3.24	10.59	5.60
0.27	-0.02	0.05	ML	-8.62	-2.56	1.07	9.06	12.78	8.58	5.25	3.20	10.56	5.49
0.29	-0.02	0.05	ML	-7.04	-1.71	0.72	7.28	14.99	13.33	6.34	3.39	15.15	7.60
0.31	-0.02	0.05	ML	-6.08	-0.84	0.50	6.16	16.81	15.38	7.63	3.56	17.53	7.92
0.33	-0.02	0.05	ML	-8.26	-0.21	0.64	8.28	16.07	13.88	6.35	3.22	15.60	7.32

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.37	-0.02	0.05	ML	-10.20	1.03	0.78	10.28	18.66	15.65	5.88	3.10	17.00	6.81
0.39	-0.02	0.05	ML	-9.76	1.50	0.58	9.89	18.41	15.66	6.28	3.00	17.14	7.24
0.41	-0.02	0.05	ML	-10.10	2.07	1.08	10.37	18.59	15.44	6.56	3.15	17.07	7.29
0.43	-0.02	0.05	ML	-9.78	2.47	0.87	10.12	18.67	15.55	6.51	3.18	17.15	6.94
0.45	-0.02	0.05	ML	-9.78	2.74	0.98	10.20	19.32	16.03	7.26	3.05	17.86	7.04
0.47	-0.02	0.05	ML	-8.53	3.07	1.07	9.12	19.09	16.77	6.75	3.15	18.35	7.47
0.49	-0.02	0.05	ML	-8.50	2.72	0.89	8.97	19.18	16.29	7.84	3.04	18.33	6.94
0.51	-0.02	0.05	ML	-9.70	2.43	0.62	10.02	17.54	14.57	6.09	3.12	16.10	7.19
0.53	-0.02	0.05	ML	-9.70	1.31	0.19	9.79	17.43	14.77	5.52	3.07	16.06	7.05
0.05	-0.02	0.085	ML	-4.30	-4.70	-3.11	7.09	8.01	2.45	2.87	2.59	4.58	2.66
0.07	-0.02	0.085	ML	-6.02	-3.84	-2.54	7.58	8.43	2.75	2.97	2.12	4.57	2.68
0.09	-0.02	0.085	ML	-7.72	-3.47	-1.49	8.59	9.48	2.91	3.09	2.35	4.85	2.73
0.11	-0.02	0.085	ML	-8.26	-2.95	-0.64	8.79	9.80	3.01	3.26	2.46	5.08	2.67
0.13	-0.02	0.085	ML	-8.99	-2.85	0.05	9.43	10.42	3.28	3.40	2.60	5.39	3.05
0.15	-0.02	0.085	ML	-9.99	-3.15	0.38	10.48	11.51	3.55	3.68	2.67	5.76	3.25
0.17	-0.02	0.085	ML	-10.05	-2.86	0.69	10.47	11.49	3.67	3.62	2.66	5.80	3.36
0.19	-0.02	0.085	ML	-10.73	-2.69	1.17	11.13	12.18	4.17	3.77	2.69	6.24	3.79
0.21	-0.02	0.085	ML	-11.22	-2.93	1.14	11.65	12.81	4.45	4.08	2.72	6.62	3.94
0.23	-0.02	0.085	ML	-11.18	-3.22	1.34	11.71	12.98	4.56	4.27	2.71	6.81	3.87
0.25	-0.02	0.085	ML	-10.91	-3.00	1.27	11.39	13.55	6.71	4.81	3.02	8.79	4.84
0.27	-0.02	0.085	ML	-10.62	-2.91	1.33	11.09	14.31	8.68	5.09	3.02	10.51	5.35
0.29	-0.02	0.085	ML	-6.85	-2.03	0.97	7.21	15.42	13.85	6.06	3.14	15.44	7.25
0.31	-0.02	0.085	ML	-7.05	-1.92	0.50	7.32	16.59	15.09	6.39	3.29	16.72	7.60

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.35	-0.02	0.085	ML	-7.91	-0.84	0.25	7.95	18.13	16.41	6.14	3.18	17.81	7.18
0.37	-0.02	0.085	ML	-8.11	0.25	0.57	8.13	18.74	16.92	6.24	3.24	18.32	7.10
0.39	-0.02	0.085	ML	-7.50	0.18	0.52	7.52	17.85	16.29	6.29	3.34	17.78	7.34
0.41	-0.02	0.085	ML	-5.73	0.60	0.58	5.79	20.06	19.20	6.60	3.19	20.55	7.31
0.43	-0.02	0.085	ML	-4.77	1.73	0.64	5.11	19.61	18.84	7.02	3.24	20.36	7.50
0.45	-0.02	0.085	ML	-5.67	1.39	0.52	5.87	20.17	18.74	8.50	3.11	20.81	7.78
0.47	-0.02	0.085	ML	-4.50	1.88	0.48	4.90	20.24	19.53	7.57	3.32	21.21	7.99
0.49	-0.02	0.085	ML	-5.70	1.96	0.70	6.07	20.11	18.88	8.04	3.22	20.77	8.00
0.51	-0.02	0.085	ML	-3.89	1.70	0.58	4.29	20.94	20.45	7.45	3.17	22.00	7.98
0.53	-0.02	0.085	ML	-5.30	0.43	0.36	5.33	19.55	18.82	7.27	3.32	20.44	8.00
0.05	-0.02	0.12	ML	-4.32	-4.93	-3.24	7.31	8.22	2.69	2.89	2.46	4.65	2.74
0.07	-0.02	0.12	ML	-6.12	-3.80	-2.56	7.65	8.61	2.91	3.18	2.15	4.82	2.76
0.09	-0.02	0.12	ML	-7.56	-3.55	-1.92	8.57	9.49	3.03	3.19	2.18	4.91	2.71
0.11	-0.02	0.12	ML	-8.98	-3.58	-0.96	9.71	10.71	3.27	3.39	2.57	5.37	2.91
0.13	-0.02	0.12	ML	-9.44	-3.39	-0.65	10.05	11.13	3.62	3.59	2.64	5.74	3.16
0.15	-0.02	0.12	ML	-10.53	-3.27	0.01	11.03	12.07	3.65	3.82	2.60	5.89	3.28
0.17	-0.02	0.12	ML	-11.44	-2.99	0.05	11.82	12.91	4.02	3.99	2.76	6.30	3.57
0.19	-0.02	0.12	ML	-11.60	-2.81	0.66	11.95	13.07	4.37	4.02	2.78	6.56	3.87
0.21	-0.02	0.12	ML	-11.52	-2.92	0.96	11.92	13.18	4.66	4.16	2.84	6.86	3.94
0.23	-0.02	0.12	ML	-12.80	-2.91	1.12	13.17	14.48	5.01	4.65	2.86	7.41	4.31
0.25	-0.02	0.12	ML	-11.73	-2.61	0.88	12.04	14.63	7.76	5.06	2.96	9.73	5.05
0.27	-0.02	0.12	ML	-9.52	-2.54	0.86	9.89	15.37	11.63	5.57	3.00	13.25	6.07
0.29	-0.02	0.12	ML	-9.75	-2.36	1.09	10.09	16.18	12.78	5.19	3.15	14.15	6.33

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.33	-0.02	0.12	ML	-7.49	-1.70	0.97	7.74	18.00	16.16	6.63	3.02	17.72	7.05
0.35	-0.02	0.12	ML	-6.16	-0.52	1.16	6.29	18.66	17.05	8.14	3.36	19.19	7.70
0.37	-0.02	0.12	ML	-5.89	-0.79	0.81	6.00	19.18	18.04	7.36	3.11	19.74	7.58
0.39	-0.02	0.12	ML	-4.07	0.10	0.84	4.16	20.25	19.62	8.44	3.31	21.62	8.63
0.41	-0.02	0.12	ML	-5.10	0.18	0.67	5.15	19.91	18.89	8.01	3.17	20.76	7.83
0.43	-0.02	0.12	ML	-4.73	0.86	0.70	4.85	19.66	19.21	7.02	3.20	20.70	8.08
0.45	-0.02	0.12	ML	-3.85	0.82	0.49	3.97	20.57	19.79	8.71	3.19	21.85	8.37
0.45	-0.02	0.12	ML	-3.49	1.58	0.41	3.86	20.25	20.10	7.38	3.26	21.66	8.58
0.47	-0.02	0.12	ML	-3.66	1.93	0.41	4.16	19.70	19.33	7.49	3.24	20.98	8.33
0.48	-0.02	0.12	ML	-3.84	1.45	0.54	4.13	20.56	19.91	8.33	3.31	21.83	8.42
0.49	-0.02	0.12	ML	-4.45	1.52	0.61	4.74	19.53	18.90	8.35	3.27	20.92	8.87
0.5	-0.02	0.12	ML	-3.71	0.94	0.37	3.85	19.53	19.06	8.12	3.40	21.00	8.61
0.51	-0.02	0.12	ML	-4.27	1.19	0.28	4.44	18.26	18.15	6.70	3.54	19.67	8.54
0.53	-0.02	0.12	ML	-3.89	0.18	0.61	3.94	19.21	18.87	7.84	3.43	20.72	8.71
0.05	-0.02	0.155	ML	-3.82	-4.83	-2.19	6.53	7.63	2.87	3.04	2.47	4.85	2.83
0.07	-0.02	0.155	ML	-5.63	-3.74	-1.98	7.04	8.19	3.08	3.21	2.18	4.95	2.66
0.09	-0.02	0.155	ML	-7.11	-3.36	-1.29	7.97	9.24	3.52	3.49	2.48	5.54	2.97
0.11	-0.02	0.155	ML	-7.75	-3.29	-0.70	8.45	9.73	3.72	3.57	2.58	5.76	3.13
0.13	-0.02	0.155	ML	-8.77	-3.55	-0.66	9.49	10.89	4.27	3.92	2.65	6.37	3.46
0.15	-0.02	0.155	ML	-9.15	-3.02	-0.41	9.65	11.25	4.51	4.22	2.94	6.84	3.66
0.17	-0.02	0.155	ML	-10.05	-3.14	0.40	10.54	12.01	4.47	4.26	2.96	6.85	3.71
0.19	-0.02	0.155	ML	-9.92	-3.18	0.59	10.43	12.02	4.80	4.42	2.93	7.16	3.94
0.21	-0.02	0.155	ML	-10.29	-2.76	0.25	10.65	12.93	6.20	4.90	3.26	8.55	4.41

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.25	-0.02	0.155	ML	-8.72	-2.66	0.62	9.14	14.68	11.29	6.04	3.17	13.19	6.47
0.27	-0.02	0.155	ML	-9.34	-1.56	0.67	9.49	15.88	12.73	6.16	3.16	14.49	6.92
0.29	-0.02	0.155	ML	-6.83	-1.04	1.16	7.00	17.25	15.18	8.38	3.38	17.67	7.96
0.31	-0.02	0.155	ML	-7.04	-0.83	0.92	7.15	17.54	15.47	8.17	3.33	17.81	7.78
0.33	-0.02	0.155	ML	-4.64	-0.22	0.76	4.71	18.37	17.53	8.43	3.53	19.77	8.68
0.35	-0.02	0.155	ML	-5.03	0.26	0.83	5.10	19.31	17.90	8.99	3.41	20.32	8.12
0.37	-0.02	0.155	ML	-4.90	0.23	0.74	4.97	19.03	17.99	8.63	3.35	20.24	8.48
0.39	-0.02	0.155	ML	-4.51	0.42	0.45	4.56	18.37	17.91	7.79	3.45	19.83	8.74
0.41	-0.02	0.155	ML	-4.02	0.49	0.59	4.09	19.47	18.50	9.03	3.34	20.86	8.51
0.43	-0.02	0.155	ML	-3.18	1.49	0.21	3.52	20.75	19.80	9.23	3.31	22.10	8.35
0.45	-0.02	0.155	ML	-3.37	1.07	0.49	3.57	19.24	18.53	9.23	3.39	20.97	9.07
0.47	-0.02	0.155	ML	-3.91	1.74	0.45	4.30	19.55	18.92	8.43	3.34	20.98	8.74
0.49	-0.02	0.155	ML	-4.31	1.12	0.42	4.47	19.08	18.56	8.11	3.42	20.54	8.82
0.51	-0.02	0.155	ML	-3.70	0.91	0.53	3.85	17.85	17.54	7.78	3.43	19.49	8.71
0.53	-0.02	0.155	ML	-4.23	0.11	0.75	4.30	17.94	17.73	7.47	3.40	19.53	8.84
0.05	-0.02	0.19	ML	-3.09	-4.37	-1.57	5.58	7.09	3.27	3.39	2.33	5.25	2.91
0.07	-0.02	0.19	ML	-4.92	-3.82	-0.83	6.28	7.93	3.77	3.49	2.39	5.67	2.94
0.09	-0.02	0.19	ML	-5.76	-3.47	-0.50	6.74	8.53	3.91	3.97	2.45	6.09	3.12
0.11	-0.02	0.19	ML	-7.23	-3.20	-0.09	7.91	9.69	4.59	4.00	2.55	6.60	3.50
0.13	-0.02	0.19	ML	-7.31	-3.03	-0.07	7.91	9.91	4.76	4.26	2.91	7.02	3.70
0.15	-0.02	0.19	ML	-7.52	-2.92	-0.01	8.06	10.39	5.33	4.84	2.77	7.71	4.07
0.17	-0.02	0.19	ML	-7.50	-3.18	-0.22	8.15	11.08	6.33	5.26	3.10	8.80	4.57
0.19	-0.02	0.19	ML	-8.14	-3.11	0.38	8.73	11.50	6.12	5.27	3.21	8.69	4.40

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.23	-0.02	0.19	ML	-6.33	-2.68	0.05	6.87	12.66	9.91	6.64	3.54	12.44	6.45
0.25	-0.02	0.19	ML	-7.51	-2.31	0.33	7.87	13.51	10.56	6.39	3.40	12.80	6.57
0.27	-0.02	0.19	ML	-6.79	-2.12	0.69	7.14	14.23	11.98	6.76	3.49	14.19	7.07
0.29	-0.02	0.19	ML	-5.96	-1.46	0.36	6.15	14.70	12.68	8.15	3.60	15.50	7.87
0.31	-0.02	0.19	ML	-4.67	-1.33	0.69	4.91	15.58	14.20	8.98	3.31	17.12	8.63
0.33	-0.02	0.19	ML	-4.25	-0.81	0.56	4.36	15.88	14.60	9.53	3.45	17.78	9.09
0.35	-0.02	0.19	ML	-3.62	-0.49	0.20	3.66	17.16	16.17	9.43	3.56	19.05	9.04
0.37	-0.02	0.19	ML	-4.51	0.65	0.48	4.58	17.44	16.50	8.98	3.55	19.12	9.07
0.39	-0.02	0.19	ML	-4.75	0.66	0.36	4.81	17.84	17.26	7.82	3.52	19.28	8.74
0.41	-0.02	0.19	ML	-3.57	1.26	0.27	3.80	18.65	17.83	9.06	3.51	20.31	8.89
0.43	-0.02	0.19	ML	-4.00	1.79	0.12	4.38	16.99	16.71	8.21	3.46	18.93	9.42
0.45	-0.02	0.19	ML	-3.23	2.50	0.29	4.10	18.92	18.62	8.21	3.50	20.65	9.23
0.47	-0.02	0.19	ML	-2.83	1.69	-0.15	3.30	17.54	17.26	8.40	3.47	19.51	9.14
0.49	-0.02	0.19	ML	-5.15	1.69	0.14	5.42	16.89	16.01	8.43	3.38	18.40	9.09
0.51	-0.02	0.19	ML	-2.29	1.98	0.15	3.03	19.07	18.98	8.50	3.37	21.07	9.44
0.53	-0.02	0.19	ML	-1.33	1.05	0.41	1.74	20.01	19.77	9.33	3.53	22.14	9.62
0.45	-0.03	0.12	CAV	-5.30	2.43	0.55	5.86	17.81	16.20	9.07	3.39	18.87	8.56
0.465	-0.03	0.12	CAV	-4.01	1.64	0.50	4.36	19.01	17.15	10.96	3.43	20.65	9.16
0.48	-0.03	0.12	CAV	-3.15	2.27	0.46	3.92	18.89	18.04	9.30	3.43	20.58	9.05
0.49	-0.03	0.12	CAV	-4.92	2.24	0.49	5.42	18.40	16.55	10.17	3.31	19.70	8.88
0.5	-0.03	0.12	CAV	-4.70	1.77	0.29	5.03	16.60	15.45	8.57	3.58	18.03	8.63
0.51	-0.03	0.12	CAV	-4.19	1.33	0.60	4.43	16.09	15.40	8.04	3.53	17.73	8.65
0.45	-0.04	0.12	CAV	-4.45	2.12	0.83	5.00	14.41	13.11	8.20	3.63	15.88	8.34

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.48	-0.04	0.12	CAV	-3.49	2.77	0.66	4.50	14.62	13.62	8.08	3.71	16.27	8.43
0.49	-0.04	0.12	CAV	-4.55	2.84	0.64	5.40	15.12	13.74	8.38	3.58	16.49	8.51
0.5	-0.04	0.12	CAV	-3.19	2.14	0.63	3.89	14.91	13.91	8.75	3.72	16.85	8.75
0.45	-0.05	0.12	CAV	-3.64	2.93	0.74	4.73	13.41	11.72	8.42	3.62	14.88	7.99
0.465	-0.05	0.12	CAV	-2.88	2.69	0.66	4.00	13.51	11.69	9.00	3.83	15.24	8.10
0.48	-0.05	0.12	CAV	-2.15	3.06	0.63	3.80	13.95	12.57	9.32	3.72	16.08	8.85
0.49	-0.05	0.12	CAV	-3.43	3.16	0.24	4.67	13.58	11.80	8.66	3.84	15.13	8.15
0.45	-0.06	0.12	CAV	-1.46	3.38	0.62	3.73	12.62	10.79	8.65	3.86	14.36	7.80
0.465	-0.06	0.12	CAV	-3.12	3.66	1.04	4.92	12.27	9.76	8.38	3.74	13.39	7.28
0.48	-0.06	0.12	CAV	-1.68	3.76	0.75	4.18	12.23	10.04	8.66	3.54	13.73	7.51
0.052	-0.07	0.12	CAV	-0.94	-7.62	-2.77	8.16	9.07	2.63	3.17	2.58	4.86	2.81
0.11	-0.07	0.12	CAV	-3.11	-4.70	-1.64	5.87	7.46	3.11	3.48	2.52	5.31	2.65
0.17	-0.07	0.12	CAV	-4.68	-2.09	-0.37	5.14	6.89	3.50	3.05	2.68	5.36	2.76
0.23	-0.07	0.12	CAV	-5.59	-0.42	1.23	5.74	7.50	3.68	3.31	2.82	5.69	3.02
0.29	-0.07	0.12	CAV	-4.61	0.41	1.70	4.93	7.53	4.42	3.64	2.96	6.44	3.01
0.35	-0.07	0.12	CAV	-2.99	1.84	1.74	3.92	8.39	6.04	4.48	3.47	8.28	3.69
0.41	-0.07	0.12	CAV	-1.78	3.81	1.59	4.49	10.26	8.47	5.19	3.76	10.63	5.27
0.45	-0.07	0.12	CAV	0.04	4.52	1.31	4.70	12.27	10.62	7.52	3.66	13.52	7.37
0.47	-0.07	0.12	CAV	-0.51	5.28	0.59	5.33	12.14	9.97	7.12	3.78	12.82	6.72
0.45	-0.08	0.12	CAV	1.40	5.71	0.86	5.94	12.75	10.14	7.61	3.66	13.19	6.83
0.41	-0.113	0.12	CAV	4.54	5.85	1.45	7.54	11.51	7.79	5.14	3.75	10.06	5.07
0.06	-0.12	0.12	CAV	1.95	-8.54	-2.61	9.14	10.10	3.21	3.26	2.52	5.22	2.95
0.12	-0.12	0.12	CAV	0.03	-4.73	-1.53	4.97	6.97	3.52	3.26	2.86	5.59	2.72

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.24	-0.12	0.12	CAV	0.42	0.59	1.29	1.48	6.05	4.31	3.36	3.33	6.40	2.54
0.3	-0.12	0.12	CAV	2.84	1.93	1.75	3.85	7.79	5.47	4.02	3.42	7.60	3.46
0.36	-0.12	0.12	CAV	4.25	3.90	2.20	6.18	9.38	6.14	4.20	3.34	8.15	4.07
0.33	-0.158	0.12	CAV	7.93	4.55	2.25	9.42	11.22	5.25	3.95	3.29	7.35	4.09
0.09	-0.17	0.12	CAV	5.22	-6.36	-2.48	8.60	9.78	3.73	3.28	2.62	5.62	3.13
0.15	-0.17	0.12	CAV	4.45	-2.91	-0.80	5.37	7.68	4.15	3.68	3.14	6.38	3.25
0.21	-0.17	0.12	CAV	5.96	0.16	0.72	6.00	8.31	5.27	3.55	3.24	7.13	4.22
0.27	-0.17	0.12	CAV	6.11	2.94	1.34	6.91	9.15	5.28	3.68	3.28	7.23	4.03
0.23	-0.197	0.12	CAV	9.75	1.74	0.97	9.96	11.27	4.66	3.58	3.12	6.65	4.05
0.11	-0.202	0.12	CAV	6.63	-4.31	-1.13	7.99	9.15	4.08	2.90	2.69	5.68	3.53
0.17	-0.209	0.12	CAV	9.62	-1.18	0.02	9.69	10.79	4.59	3.09	2.94	6.27	4.12

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.12 Backward conic cavity with rough bed at high flow (Velocity = 0.47 m/s; depth = 0.225 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	1.412	0.367	0.131	4.014	0.867	-0.245	-14.668	0.059	1.919
0.07	0	0.05	ML	1.304	0.434	0.126	4.267	0.417	-0.339	-11.266	-0.171	2.022
0.09	0	0.05	ML	1.622	0.316	0.170	3.963	1.159	-0.413	-11.445	-2.615	2.250
0.11	0	0.05	ML	1.228	-0.107	0.236	0.782	3.213	-0.479	-10.011	-2.383	1.568
0.13	0	0.05	ML	1.175	0.035	0.101	0.731	3.080	-0.523	-15.773	-5.910	3.443
0.15	0	0.05	ML	1.003	0.096	0.107	0.067	3.830	-0.577	-7.427	-7.251	2.621
0.17	0	0.05	ML	1.148	-0.232	0.107	0.515	3.232	-0.627	-5.503	-4.695	2.365
0.19	0	0.05	ML	1.033	0.473	0.148	0.196	3.470	-0.509	-4.948	-5.581	3.137
0.21	0	0.05	ML	0.837	0.099	0.096	-0.355	3.598	-0.509	-4.222	-7.953	2.229
0.23	0	0.05	ML	0.833	0.199	0.162	-0.512	4.089	-0.621	-5.639	-9.195	3.885
0.25	0	0.05	ML	0.845	-0.334	0.024	-0.440	3.807	-0.562	-11.741	-8.986	2.030
0.27	0	0.05	ML	0.762	-0.379	0.058	-0.702	3.741	-0.655	-13.723	-8.973	2.728
0.29	0	0.05	ML	0.564	-0.633	0.134	-1.049	3.062	-0.605	-20.010	-8.257	3.189
0.31	0	0.05	ML	0.468	-0.399	0.013	-1.213	4.042	-0.566	-15.826	-9.991	1.329
0.33	0	0.05	ML	0.484	-0.381	0.117	-1.281	2.827	-0.536	-16.922	-7.570	2.356
0.35	0	0.05	ML	0.804	-1.094	0.019	-0.718	4.480	-0.613	-13.708	-7.450	1.815
0.37	0	0.05	ML	0.526	-1.114	0.069	-1.160	3.795	-0.462	-22.819	-5.330	2.249
0.39	0	0.05	ML	0.662	-1.464	-0.019	-0.958	5.043	-0.622	-16.447	-6.417	2.150
0.41	0	0.05	ML	0.557	-1.594	-0.108	-1.054	4.635	-0.693	-19.979	-7.389	2.411
0.43	0	0.05	ML	0.722	-1.509	-0.050	-0.774	4.539	-0.489	-25.428	-6.133	1.809
0.45	0	0.05	ML	0.693	-1.581	-0.152	-0.839	4.788	-0.595	-25.887	-9.009	1.935
0.47	0	0.05	ML	0.815	-1.438	0.021	-0.646	5.812	-0.537	-22.005	-6.610	1.670

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	0	0.05	ML	0.674	-0.808	0.033	-0.946	3.612	-0.404	-24.444	-8.760	1.915
0.53	0	0.05	ML	0.542	-0.273	-0.067	-1.144	1.921	-0.438	-20.351	-7.522	1.833
0.05	0	0.085	ML	1.111	0.250	0.350	0.505	1.842	-0.519	-29.471	-2.568	6.878
0.07	0	0.085	ML	0.974	0.131	0.366	-0.213	2.510	-0.305	-34.097	-1.480	5.532
0.09	0	0.085	ML	1.123	0.146	0.318	0.333	0.991	-0.431	-17.636	-2.466	3.920
0.11	0	0.085	ML	1.320	0.044	0.395	1.053	2.456	-0.402	-9.734	-0.327	3.115
0.13	0	0.085	ML	1.003	-0.298	0.166	-0.067	2.509	-0.616	-13.951	-2.270	3.746
0.15	0	0.085	ML	1.203	-0.217	0.239	0.472	3.320	-0.438	-3.620	-2.290	4.242
0.17	0	0.085	ML	0.916	-0.099	0.159	-0.518	3.181	-0.595	-13.433	-6.297	3.069
0.19	0	0.085	ML	0.695	0.176	0.133	-0.837	4.347	-0.478	-6.685	-4.908	2.845
0.21	0	0.085	ML	0.605	-0.133	0.080	-1.017	3.568	-0.712	-9.253	-6.914	1.669
0.23	0	0.085	ML	0.699	-0.374	0.036	-0.779	3.607	-0.545	-2.071	-8.374	3.164
0.25	0	0.085	ML	0.459	-0.303	0.138	-1.079	3.407	-0.511	-1.481	-9.641	4.224
0.27	0	0.085	ML	0.387	-0.503	0.004	-1.268	3.785	-0.577	-6.125	-7.833	3.327
0.29	0	0.085	ML	0.324	-0.326	0.028	-1.320	3.612	-0.570	-4.782	-12.480	3.453
0.31	0	0.085	ML	0.323	-0.952	0.005	-1.365	3.748	-0.600	-14.752	-12.303	3.564
0.33	0	0.085	ML	0.263	-0.328	0.014	-1.368	3.824	-0.591	-6.559	-10.627	3.548
0.35	0	0.085	ML	0.141	-1.020	0.004	-1.433	3.531	-0.674	-9.678	-14.969	4.324
0.37	0	0.085	ML	0.211	-1.048	-0.072	-1.410	3.112	-0.532	-3.605	-10.068	5.143
0.39	0	0.085	ML	0.380	-1.184	-0.082	-1.327	3.932	-0.358	-7.149	-8.191	3.439
0.41	0	0.085	ML	0.291	-1.468	-0.081	-1.331	3.851	-0.544	-4.263	-7.410	2.585
0.43	0	0.085	ML	0.244	-1.437	-0.136	-1.368	4.193	-0.538	-7.871	-12.064	4.015
0.45	0	0.085	ML	0.225	-1.246	-0.065	-1.370	4.783	-0.584	-6.093	-10.932	3.152
0.47	0	0.085	ML	0.208	-1.539	-0.084	-1.308	4.178	-0.526	-9.836	-12.228	4.299

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	0	0.085	ML	0.231	-0.998	-0.074	-1.368	5.067	-0.510	-18.637	-8.898	3.011
0.53	0	0.085	ML	0.197	-0.526	-0.217	-1.417	3.285	-0.491	-18.055	-13.689	2.610
0.05	0	0.12	ML	0.964	-0.702	0.379	-0.031	3.232	-0.550	-32.347	-6.240	8.077
0.07	0	0.12	ML	1.080	0.004	0.320	0.250	2.938	-0.413	-13.176	-0.854	5.127
0.09	0	0.12	ML	1.077	-0.171	0.233	0.050	4.020	-0.381	-10.650	-1.030	3.735
0.11	0	0.12	ML	0.915	-0.098	0.257	-0.388	3.757	-0.400	-10.465	-2.115	3.371
0.13	0	0.12	ML	1.115	-0.020	0.210	0.101	3.870	-0.445	-2.583	-5.956	1.775
0.15	0	0.12	ML	0.721	0.089	0.235	-0.748	3.700	-0.517	10.264	-5.572	4.152
0.17	0	0.12	ML	1.006	-0.173	0.055	-0.203	4.749	-0.660	5.950	-7.389	2.116
0.19	0	0.12	ML	0.754	0.303	0.018	-0.717	4.604	-0.551	-2.004	-7.110	2.723
0.21	0	0.12	ML	0.863	0.488	-0.063	-0.470	4.602	-0.584	4.032	-7.987	1.994
0.23	0	0.12	ML	0.633	0.573	0.170	-0.968	4.242	-0.674	1.106	-13.002	2.935
0.25	0	0.12	ML	0.528	0.636	0.030	-1.088	3.946	-0.567	8.851	-7.197	3.004
0.27	0	0.12	ML	0.432	0.212	0.002	-1.104	2.875	-0.643	17.935	-8.787	2.888
0.29	0	0.12	ML	0.354	-0.083	-0.009	-1.279	3.139	-0.647	10.078	-9.029	4.165
0.31	0	0.12	ML	0.357	0.017	-0.002	-1.265	3.422	-0.568	14.136	-11.372	2.155
0.33	0	0.12	ML	0.216	-0.478	-0.059	-1.353	3.158	-0.647	4.522	-12.366	3.563
0.35	0	0.12	ML	0.224	-0.162	-0.062	-1.287	3.030	-0.600	13.577	-9.656	2.409
0.37	0	0.12	ML	0.061	-0.846	-0.135	-1.417	3.074	-0.605	2.322	-10.277	3.640
0.39	0	0.12	ML	0.083	-0.732	-0.020	-1.398	3.407	-0.690	4.240	-12.561	3.552
0.41	0	0.12	ML	0.047	-0.955	-0.128	-1.288	3.638	-0.674	-0.100	-13.589	5.432
0.43	0	0.12	ML	0.133	-1.308	-0.038	-1.339	3.921	-0.683	3.913	-11.934	3.632
0.45	0	0.12	ML	0.144	-1.230	-0.077	-1.310	4.382	-0.564	-6.450	-11.373	3.234
0.45	0	0.12	ML	0.133	-1.052	-0.177	-1.272	3.400	-0.557	-1.114	-13.407	4.429

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.48	0	0.12	ML	0.241	-1.088	-0.018	-1.265	4.308	-0.583	-4.650	-13.368	2.634
0.49	0	0.12	ML	0.241	-1.254	-0.019	-1.241	3.825	-0.483	-1.108	-8.895	4.494
0.5	0	0.12	ML	0.120	-1.154	-0.114	-1.339	4.620	-0.497	-5.715	-8.135	3.425
0.51	0	0.12	ML	0.198	-1.082	-0.129	-1.297	4.801	-0.497	-2.209	-10.208	2.812
0.53	0	0.12	ML	0.272	-0.080	-0.079	-1.275	4.300	-0.639	-9.719	-16.774	1.554
0.05	-0.02	0.05	ML	0.092	0.020	0.181	0.284	0.017	-0.565	0.608	1.397	0.931
0.07	-0.02	0.05	ML	-0.010	-0.073	0.014	0.212	0.247	-0.184	0.085	1.554	0.375
0.09	-0.02	0.05	ML	-0.022	-0.021	-0.171	0.110	0.238	-0.018	-0.543	2.170	-0.264
0.11	-0.02	0.05	ML	0.093	0.020	0.062	0.315	0.258	0.112	-0.898	1.194	-0.517
0.13	-0.02	0.05	ML	-0.041	0.010	-0.003	0.149	0.405	0.105	-1.129	0.826	-0.711
0.15	-0.02	0.05	ML	0.002	0.030	-0.057	0.421	0.637	-0.059	-1.522	0.471	-1.155
0.17	-0.02	0.05	ML	-0.247	0.082	-0.165	0.588	0.928	-0.208	-2.306	0.313	-0.981
0.19	-0.02	0.05	ML	-0.173	0.292	0.013	0.189	0.622	-0.119	-3.780	0.127	-1.174
0.21	-0.02	0.05	ML	-0.349	0.201	-0.051	0.539	1.160	-0.173	-4.135	0.089	-0.426
0.23	-0.02	0.05	ML	-0.193	0.160	0.040	0.918	0.841	-0.443	-4.093	-0.529	-0.640
0.25	-0.02	0.05	ML	1.455	0.257	-0.107	4.842	1.545	-0.589	-9.068	-0.746	-0.313
0.27	-0.02	0.05	ML	1.670	0.322	-0.084	6.091	1.429	-0.625	-6.287	-1.611	-0.165
0.29	-0.02	0.05	ML	1.518	-0.007	-0.084	2.576	3.244	-0.650	-7.013	-9.617	1.059
0.31	-0.02	0.05	ML	1.286	0.308	0.014	0.986	4.646	-0.795	0.772	-9.906	0.724
0.33	-0.02	0.05	ML	1.480	-0.382	0.081	2.074	3.015	-0.743	-7.551	-7.096	0.669
0.35	-0.02	0.05	ML	1.202	-0.677	0.011	0.610	4.399	-0.616	-10.118	-11.761	0.316
0.37	-0.02	0.05	ML	1.504	-0.349	-0.057	1.473	3.283	-0.662	-5.792	-11.204	0.105
0.39	-0.02	0.05	ML	1.371	-0.772	0.004	1.182	4.067	-0.583	-10.068	-10.919	1.582
0.41	-0.02	0.05	ML	1.362	-0.999	-0.053	1.302	5.261	-0.678	-12.391	-10.114	0.106

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	-0.02	0.05	ML	1.247	-1.345	-0.037	0.680	5.221	-0.815	-14.851	-9.697	0.787
0.47	-0.02	0.05	ML	1.184	-1.179	0.024	0.426	6.249	-0.840	-14.737	-11.932	0.180
0.49	-0.02	0.05	ML	1.160	-1.274	-0.026	0.341	5.333	-0.566	-12.451	-10.479	0.743
0.51	-0.02	0.05	ML	1.360	-0.354	-0.068	1.497	2.345	-0.428	-9.411	-7.877	1.197
0.53	-0.02	0.05	ML	1.534	-0.214	0.131	1.962	1.355	-0.575	-9.294	-8.414	1.387
0.05	-0.02	0.085	ML	0.090	0.112	0.379	0.231	0.151	-0.402	0.760	1.222	1.043
0.07	-0.02	0.085	ML	0.176	-0.004	0.020	0.257	0.105	-0.206	0.114	1.446	0.509
0.09	-0.02	0.085	ML	0.143	-0.041	0.030	0.104	0.088	-0.186	-0.884	1.220	-0.004
0.11	-0.02	0.085	ML	0.173	0.053	-0.013	0.663	0.200	-0.034	-1.718	0.774	-0.340
0.13	-0.02	0.085	ML	-0.097	0.148	0.156	0.425	0.314	-0.050	-1.519	1.094	-0.333
0.15	-0.02	0.085	ML	0.080	0.136	-0.010	0.268	0.428	-0.217	-2.139	0.672	-1.363
0.17	-0.02	0.085	ML	0.023	0.097	-0.024	0.302	0.738	-0.376	-2.289	0.411	-0.783
0.19	-0.02	0.085	ML	-0.063	0.190	-0.107	0.707	0.824	-0.385	-3.038	0.632	-0.993
0.21	-0.02	0.085	ML	-0.162	0.156	-0.123	1.074	0.569	-0.529	-4.861	0.966	-1.382
0.23	-0.02	0.085	ML	0.320	0.372	-0.120	3.056	1.052	-0.412	-3.891	0.049	-1.406
0.25	-0.02	0.085	ML	1.702	0.075	-0.197	8.231	1.995	-0.519	-3.346	-0.347	-0.179
0.27	-0.02	0.085	ML	2.045	0.541	-0.207	7.413	2.272	-0.576	-2.801	-1.693	-0.447
0.29	-0.02	0.085	ML	1.635	0.592	-0.098	2.338	3.271	-0.656	3.132	-5.861	-0.942
0.31	-0.02	0.085	ML	1.368	0.467	-0.003	1.322	3.797	-0.627	-5.545	-6.549	1.871
0.33	-0.02	0.085	ML	1.244	-0.012	-0.002	0.568	4.054	-0.662	-6.112	-7.866	0.706
0.35	-0.02	0.085	ML	1.279	-0.311	0.119	0.668	3.878	-0.725	-3.666	-10.389	0.802
0.37	-0.02	0.085	ML	1.220	-0.222	-0.026	0.440	3.522	-0.712	-7.991	-9.234	0.807
0.39	-0.02	0.085	ML	1.170	-0.396	0.075	0.469	4.148	-0.665	-3.398	-10.163	0.458
0.41	-0.02	0.085	ML	0.797	-0.523	0.065	-0.712	3.503	-0.675	-1.969	-15.613	0.285

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	-0.02	0.085	ML	0.673	-1.080	0.068	-0.728	4.190	-0.661	-6.135	-11.604	0.898
0.47	-0.02	0.085	ML	0.583	-0.822	0.095	-0.917	4.785	-0.703	-7.318	-19.256	0.044
0.49	-0.02	0.085	ML	0.682	-0.983	-0.034	-0.678	4.938	-0.687	-9.443	-13.054	0.317
0.51	-0.02	0.085	ML	0.524	-0.743	0.043	-1.030	4.428	-0.609	-15.929	-19.789	1.985
0.53	-0.02	0.085	ML	0.782	-0.225	-0.082	-0.581	4.312	-0.600	-13.775	-14.163	0.910
0.05	-0.02	0.12	ML	0.053	0.055	0.466	0.273	0.174	-0.051	1.276	1.024	0.997
0.07	-0.02	0.12	ML	0.177	0.041	0.182	0.369	-0.012	-0.176	0.532	0.329	0.759
0.09	-0.02	0.12	ML	0.109	0.011	0.150	0.353	0.018	-0.048	-1.241	0.945	-0.114
0.11	-0.02	0.12	ML	0.258	-0.002	0.087	0.286	0.256	-0.245	-1.675	0.197	-0.267
0.13	-0.02	0.12	ML	0.225	0.066	0.237	0.536	0.395	-0.106	-1.926	0.140	-0.627
0.15	-0.02	0.12	ML	0.173	-0.016	-0.127	0.343	0.376	-0.131	-2.258	-0.673	-0.825
0.17	-0.02	0.12	ML	0.255	-0.187	0.121	0.941	0.326	-0.285	-3.132	-0.652	-0.379
0.19	-0.02	0.12	ML	0.093	0.120	-0.088	0.661	0.644	-0.493	-3.537	-1.004	-0.800
0.21	-0.02	0.12	ML	0.313	0.170	-0.212	2.074	0.798	-0.295	-3.702	-1.068	-0.465
0.23	-0.02	0.12	ML	0.436	0.171	-0.095	3.781	1.525	-0.397	-4.434	-0.117	-0.262
0.25	-0.02	0.12	ML	2.013	0.120	-0.270	7.817	1.782	-0.396	-4.234	-3.372	-1.005
0.27	-0.02	0.12	ML	2.068	0.564	-0.108	4.659	3.533	-0.475	-0.669	-7.608	-0.995
0.29	-0.02	0.12	ML	1.994	0.195	-0.159	3.975	1.437	-0.665	-1.921	-6.766	-1.504
0.31	-0.02	0.12	ML	1.540	0.310	-0.112	1.467	2.897	-0.676	-5.779	-9.486	0.199
0.33	-0.02	0.12	ML	1.311	0.596	-0.127	0.747	4.185	-0.640	-2.899	-11.344	-0.333
0.35	-0.02	0.12	ML	1.000	0.694	-0.133	0.024	4.755	-0.751	13.066	-12.305	-0.048
0.37	-0.02	0.12	ML	0.976	0.084	-0.060	-0.263	5.036	-0.686	2.871	-14.160	0.456
0.39	-0.02	0.12	ML	0.643	0.055	-0.063	-0.723	4.413	-0.707	-11.332	-16.721	-0.656
0.41	-0.02	0.12	ML	0.799	-0.333	0.019	-0.562	4.039	-0.655	-5.295	-12.732	-0.880

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	-0.02	0.12	ML	0.591	-0.956	0.095	-0.823	4.303	-0.543	-2.151	-13.631	-0.732
0.45	-0.02	0.12	ML	0.594	-0.162	0.062	-0.875	4.664	-0.609	-13.054	-15.811	1.603
0.47	-0.02	0.12	ML	0.497	-0.810	0.065	-0.918	4.332	-0.552	-14.076	-13.463	0.582
0.48	-0.02	0.12	ML	0.540	-0.741	0.118	-0.919	4.786	-0.660	-11.288	-17.095	-0.112
0.49	-0.02	0.12	ML	0.642	-0.847	0.069	-0.566	4.478	-0.526	-13.004	-12.493	0.184
0.5	-0.02	0.12	ML	0.589	-0.286	0.087	-0.772	4.684	-0.670	-9.161	-15.286	0.802
0.51	-0.02	0.12	ML	0.757	-0.214	0.074	-0.384	4.070	-0.677	-12.121	-9.227	-0.199
0.53	-0.02	0.12	ML	0.759	0.148	0.030	-0.481	4.730	-0.565	-10.346	-14.061	0.550
0.05	-0.02	0.155	ML	0.011	0.088	0.089	0.264	-0.005	-0.239	1.546	0.233	0.411
0.07	-0.02	0.155	ML	0.154	-0.035	-0.140	0.135	0.112	0.038	-0.487	-0.322	0.190
0.09	-0.02	0.155	ML	0.314	-0.047	-0.036	0.637	0.167	0.012	-0.372	-0.859	-0.890
0.11	-0.02	0.155	ML	0.316	0.020	0.158	0.309	0.346	-0.198	-1.503	-0.882	-0.200
0.13	-0.02	0.155	ML	0.382	-0.119	0.003	0.414	0.166	-0.164	-2.500	-0.870	-0.338
0.15	-0.02	0.155	ML	0.459	0.041	0.006	0.505	0.882	-0.298	-2.657	-1.821	-0.699
0.17	-0.02	0.155	ML	0.300	0.075	-0.199	0.938	0.738	-0.402	-3.747	-1.360	-1.086
0.19	-0.02	0.155	ML	0.253	0.143	-0.122	0.733	1.110	-0.395	-5.305	-1.165	-0.984
0.21	-0.02	0.155	ML	0.917	0.123	-0.126	2.931	1.042	-0.604	-5.284	-4.925	-0.149
0.23	-0.02	0.155	ML	1.691	0.350	-0.203	5.927	1.443	-0.375	-3.916	-3.603	-0.105
0.25	-0.02	0.155	ML	1.875	0.453	-0.085	4.515	3.749	-0.533	-6.754	-6.286	0.231
0.27	-0.02	0.155	ML	1.971	0.847	-0.054	4.089	4.118	-0.641	-3.530	-7.082	-0.735
0.29	-0.02	0.155	ML	1.404	1.006	-0.135	1.400	4.886	-0.698	5.255	-10.309	-0.554
0.31	-0.02	0.155	ML	1.380	0.766	-0.179	1.276	5.086	-0.585	3.335	-11.781	0.071
0.33	-0.02	0.155	ML	1.053	0.534	-0.076	0.111	5.112	-0.749	1.005	-15.201	-0.092
0.35	-0.02	0.155	ML	0.937	0.424	-0.106	-0.255	4.269	-0.659	-2.095	-14.549	1.343

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.39	-0.02	0.155	ML	0.914	0.017	0.008	-0.123	4.385	-0.486	-3.242	-13.214	0.329
0.41	-0.02	0.155	ML	0.786	-0.439	0.156	-0.468	4.113	-0.708	-5.868	-13.551	-1.442
0.43	-0.02	0.155	ML	0.579	-0.907	0.107	-0.903	4.023	-0.646	-3.029	-16.409	0.057
0.45	-0.02	0.155	ML	0.688	-0.971	0.118	-0.532	4.128	-0.600	-11.290	-11.138	0.605
0.47	-0.02	0.155	ML	0.707	-0.772	0.081	-0.576	4.634	-0.613	-8.578	-13.672	1.455
0.49	-0.02	0.155	ML	0.743	-1.047	0.019	-0.426	4.711	-0.521	-11.393	-13.392	-0.569
0.51	-0.02	0.155	ML	0.775	-0.504	0.063	-0.307	4.570	-0.661	-17.695	-11.853	-0.745
0.53	-0.02	0.155	ML	0.684	0.204	-0.052	-0.317	4.304	-0.596	-14.440	-12.637	1.581
0.05	-0.02	0.19	ML	0.123	-0.003	-0.234	0.215	0.120	0.033	0.832	-0.667	-0.258
0.07	-0.02	0.19	ML	0.283	0.008	0.016	0.196	0.315	0.107	-0.975	-1.505	0.173
0.09	-0.02	0.19	ML	0.337	-0.030	-0.067	0.263	0.196	0.235	-1.803	-1.602	-0.243
0.11	-0.02	0.19	ML	0.357	-0.159	-0.101	0.231	0.302	0.076	-3.945	-1.899	-0.250
0.13	-0.02	0.19	ML	0.254	-0.037	-0.064	0.081	0.380	-0.137	-3.650	-2.720	-0.355
0.15	-0.02	0.19	ML	0.313	0.036	-0.146	0.296	0.585	0.025	-4.459	-2.517	-1.451
0.17	-0.02	0.19	ML	0.299	0.068	0.033	0.605	1.149	-0.249	-8.659	-2.928	-0.911
0.19	-0.02	0.19	ML	0.334	0.257	-0.019	0.550	1.152	-0.389	-7.675	-3.411	-0.873
0.21	-0.02	0.19	ML	1.210	0.178	-0.094	4.214	1.698	-0.463	-9.398	-2.884	-1.024
0.23	-0.02	0.19	ML	1.609	0.470	0.022	4.573	3.371	-0.574	-4.959	-5.961	1.055
0.25	-0.02	0.19	ML	1.875	0.773	-0.055	5.167	3.173	-0.506	-4.761	-4.891	-0.990
0.27	-0.02	0.19	ML	1.524	0.751	-0.136	3.207	3.687	-0.598	-9.653	-8.645	-0.167
0.29	-0.02	0.19	ML	1.523	0.997	-0.042	2.689	5.168	-0.637	6.023	-6.229	0.571
0.31	-0.02	0.19	ML	1.211	0.493	-0.134	1.266	4.367	-0.641	3.156	-8.579	0.010
0.33	-0.02	0.19	ML	1.133	0.790	-0.122	1.077	4.680	-0.545	4.265	-6.448	0.785
0.35	-0.02	0.19	ML	1.007	0.485	-0.102	0.345	3.944	-0.503	0.981	-9.738	1.181

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.39	-0.02	0.19	ML	1.010	-0.485	0.053	0.138	4.100	-0.649	-12.750	-11.562	-0.481
0.41	-0.02	0.19	ML	0.926	-0.646	-0.020	-0.139	4.304	-0.575	-11.420	-11.675	-0.461
0.43	-0.02	0.19	ML	0.909	-0.419	-0.093	0.381	4.263	-0.426	-11.423	-6.851	-0.510
0.45	-0.02	0.19	ML	0.838	-0.746	0.123	-0.355	4.386	-0.612	-11.623	-12.218	-0.155
0.47	-0.02	0.19	ML	0.823	-0.752	0.063	-0.101	3.683	-0.395	-12.647	-8.696	-0.828
0.49	-0.02	0.19	ML	0.988	-0.537	0.085	0.539	4.486	-0.484	-9.718	-7.510	0.037
0.51	-0.02	0.19	ML	0.643	-0.406	0.022	-0.622	4.449	-0.417	-13.732	-12.814	1.316
0.53	-0.02	0.19	ML	0.578	-0.527	0.112	-0.770	4.583	-0.589	-18.781	-15.377	0.216
0.45	-0.03	0.12	CAV	1.069	-1.340	0.024	0.432	3.967	-0.452	-11.536	-7.029	-1.613
0.465	-0.03	0.12	CAV	0.897	-1.218	0.058	-0.035	3.177	-0.469	-26.179	-7.455	-2.710
0.48	-0.03	0.12	CAV	0.856	-1.210	0.099	-0.294	4.267	-0.414	-19.118	-12.015	-0.830
0.49	-0.03	0.12	CAV	0.931	-1.196	0.059	0.109	3.756	-0.526	-22.124	-8.066	-1.113
0.5	-0.03	0.12	CAV	1.093	-1.110	0.132	0.752	4.507	-0.532	-22.038	-5.919	-0.003
0.51	-0.03	0.12	CAV	1.015	-0.729	-0.038	0.518	3.942	-0.537	-13.714	-9.814	-0.014
0.45	-0.04	0.12	CAV	1.363	-1.348	-0.077	2.408	4.459	-0.637	-17.619	-5.398	-1.656
0.465	-0.04	0.12	CAV	1.162	-1.219	-0.095	1.966	4.156	-0.583	-31.208	-3.944	-1.728
0.48	-0.04	0.12	CAV	0.913	-1.288	0.016	1.047	4.829	-0.595	-25.664	-5.852	-1.296
0.49	-0.04	0.12	CAV	1.136	-1.255	0.012	1.536	4.051	-0.611	-24.086	-4.438	-2.611
0.5	-0.04	0.12	CAV	1.134	-1.040	-0.153	1.357	4.177	-0.626	-19.856	-6.463	-1.768
0.45	-0.05	0.12	CAV	0.976	-1.487	-0.074	2.309	5.054	-0.662	-19.176	-4.498	-2.850
0.465	-0.05	0.12	CAV	1.109	-1.584	-0.169	2.072	4.647	-0.586	-23.930	-4.463	-2.223
0.48	-0.05	0.12	CAV	1.215	-1.355	-0.101	2.277	4.382	-0.589	-23.219	-2.501	-3.167
0.49	-0.05	0.12	CAV	1.118	-1.561	0.043	2.487	4.689	-0.717	-25.703	-1.774	-2.678
0.45	-0.06	0.12	CAV	0.636	-1.665	-0.109	2.445	5.061	-0.695	-27.142	-2.866	-2.718

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.48	-0.06	0.12	CAV	0.955	-1.533	-0.051	3.516	4.833	-0.564	-24.979	-1.106	-2.099
0.052	-0.07	0.12	CAV	0.037	0.120	0.193	0.143	0.128	-0.570	0.552	-0.168	-0.439
0.11	-0.07	0.12	CAV	0.180	0.189	0.148	-0.180	-0.027	0.057	0.620	-0.668	-0.994
0.17	-0.07	0.12	CAV	0.175	-0.002	0.085	0.496	0.026	-0.142	-0.334	-0.740	-0.259
0.23	-0.07	0.12	CAV	0.169	-0.140	-0.160	-0.076	0.258	-0.216	-1.788	-1.492	-1.979
0.29	-0.07	0.12	CAV	0.408	-0.146	-0.353	0.601	0.697	-0.055	-2.436	-2.818	-1.649
0.35	-0.07	0.12	CAV	0.356	-0.061	-0.306	0.467	0.726	-0.488	-5.778	-0.477	-1.681
0.41	-0.07	0.12	CAV	0.338	-0.054	-0.279	3.056	1.672	-0.596	-5.435	-2.614	-1.087
0.45	-0.07	0.12	CAV	0.058	-1.586	-0.307	2.776	5.798	-0.575	-13.275	-2.068	-1.328
0.47	-0.07	0.12	CAV	0.028	-1.400	-0.140	2.674	5.499	-0.739	-15.710	-1.771	-0.465
0.45	-0.08	0.12	CAV	-0.781	-1.483	-0.203	2.919	5.346	-0.632	-1.833	-0.947	0.404
0.41	-0.113	0.12	CAV	-0.742	-0.104	-0.247	4.848	1.321	-0.735	-5.990	-4.040	-0.755
0.06	-0.12	0.12	CAV	0.226	0.202	0.324	0.317	0.163	-0.331	-0.318	-0.182	-0.410
0.12	-0.12	0.12	CAV	0.255	0.002	0.122	0.001	-0.003	-0.266	0.575	-0.448	-0.540
0.18	-0.12	0.12	CAV	0.514	0.015	-0.328	0.571	-0.006	-0.138	-1.507	-1.475	-2.101
0.24	-0.12	0.12	CAV	0.228	-0.180	-0.267	0.104	0.159	-0.336	-2.047	-2.016	-1.085
0.3	-0.12	0.12	CAV	0.481	-0.098	-0.394	0.440	0.226	-0.276	-3.195	-1.837	-1.626
0.36	-0.12	0.12	CAV	0.260	0.069	-0.331	0.705	0.347	-0.480	-1.657	-4.059	-1.155
0.33	-0.158	0.12	CAV	0.221	-0.043	-0.514	0.183	0.178	-0.189	-1.370	-4.322	-0.360
0.09	-0.17	0.12	CAV	0.131	0.059	0.255	0.330	0.187	-0.077	-0.621	0.205	-1.042
0.15	-0.17	0.12	CAV	0.188	0.049	0.155	0.177	-0.052	-0.313	0.173	-0.151	-0.460
0.21	-0.17	0.12	CAV	0.386	-0.130	-0.089	0.015	0.203	-0.380	-0.921	-2.478	-0.518
0.27	-0.17	0.12	CAV	0.199	-0.038	-0.220	0.264	0.345	-0.458	1.290	-4.407	-0.768
0.23	-0.197	0.12	CAV	0.101	-0.061	-0.175	0.051	0.248	-0.505	-0.761	-1.725	0.161

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.11	-0.202	0.12	CAV	0.025	0.003	0.019	0.013	0.280	-0.123	-1.894	-0.491	-0.584
0.17	-0.209	0.12	CAV	-0.004	-0.043	-0.176	-0.062	0.214	-0.357	-0.693	-1.002	-0.366

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.13 Forward conic cavity with hydraulically smooth bed (Velocity = 0.55 m/s; depth = 0.150 m): velocities

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.05	0	0.05	ML	-2.67	-2.92	0.56	4.00	18.30	13.81	14.29	3.27	20.14	9.31
0.07	0	0.05	ML	-1.88	-2.02	0.41	2.79	19.69	15.19	15.09	3.25	21.65	9.43
0.09	0	0.05	ML	-1.68	-1.12	0.26	2.03	20.24	15.68	15.51	3.27	22.30	9.57
0.11	0	0.05	ML	-1.59	-1.48	0.40	2.21	19.68	15.49	14.96	3.30	21.78	9.59
0.13	0	0.05	ML	-1.42	-1.40	0.17	2.00	19.54	14.80	15.26	3.30	21.51	9.21
0.15	0	0.05	ML	-1.67	-2.17	0.22	2.75	19.93	14.64	15.60	3.26	21.64	8.86
0.17	0	0.05	ML	-2.06	-2.73	-0.16	3.42	20.56	15.73	14.91	3.10	21.89	8.25
0.19	0	0.05	ML	-2.00	-2.20	-0.24	2.98	21.55	16.03	16.01	3.02	22.85	8.18
0.21	0	0.05	ML	-2.31	-2.42	-0.15	3.34	22.06	16.41	16.12	3.01	23.20	7.91
0.23	0	0.05	ML	-2.48	-3.66	-0.43	4.44	22.10	16.95	15.08	2.92	22.87	7.36
0.25	0	0.05	ML	-2.09	-1.98	-0.13	2.88	21.69	16.90	15.09	3.04	22.86	7.76
0.27	0	0.05	ML	-3.62	-2.85	-0.05	4.61	21.43	17.13	14.04	3.03	22.35	7.84
0.29	0	0.05	ML	-3.82	-2.59	-0.30	4.63	22.22	18.25	13.78	2.95	23.06	7.69
0.31	0	0.05	ML	-3.72	-2.04	-0.12	4.25	22.11	18.18	13.64	2.86	22.91	7.35
0.33	0	0.05	ML	-3.85	-2.04	-0.06	4.36	22.34	18.74	13.47	3.03	23.28	7.85
0.35	0	0.05	ML	-2.68	-1.07	0.07	2.89	22.11	18.50	13.80	2.98	23.27	7.80
0.37	0	0.05	ML	-3.22	-1.25	0.04	3.46	21.24	18.90	11.68	3.10	22.43	7.98
0.39	0	0.05	ML	-3.25	-1.04	0.09	3.42	22.05	18.71	13.50	3.10	23.28	8.21
0.41	0	0.05	ML	-3.03	-0.57	0.09	3.09	21.64	18.69	12.71	3.15	22.83	7.87
0.43	0	0.05	ML	-2.33	-0.11	-0.06	2.33	21.51	18.66	13.05	3.03	22.97	8.40
0.45	0	0.05	ML	-2.55	-0.37	0.22	2.59	21.94	18.68	13.93	3.07	23.50	8.80

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.47	0	0.05	ML	-2.68	-0.11	0.30	2.70	21.18	18.42	12.98	3.17	22.76	8.73
0.49	0	0.05	ML	-2.32	0.09	-0.05	2.33	20.99	18.29	12.85	3.15	22.58	8.62
0.51	0	0.05	ML	-1.57	0.00	0.08	1.58	20.71	17.64	13.64	3.20	22.53	8.99
0.53	0	0.05	ML	-2.18	0.11	0.09	2.19	21.49	17.87	14.59	3.14	23.29	9.22
0.05	0	0.075	ML	-1.53	-1.16	0.48	1.98	19.78	15.75	15.01	3.36	22.02	9.85
0.07	0	0.075	ML	-1.89	-1.69	0.24	2.55	21.12	16.31	15.88	3.27	23.00	9.46
0.08	0	0.075	ML	-2.46	-0.94	0.34	2.66	20.75	16.20	15.47	3.29	22.64	9.43
0.09	0	0.075	ML	-0.59	-0.51	0.63	1.00	20.72	15.88	16.03	3.34	22.81	9.59
0.1	0	0.075	ML	-1.36	-0.35	0.27	1.43	20.96	16.69	15.54	3.11	23.01	9.59
0.11	0	0.075	ML	-1.26	-0.02	0.31	1.30	21.15	16.64	15.93	3.21	23.25	9.74
0.13	0	0.075	ML	-0.91	-0.19	0.15	0.94	21.19	16.54	15.80	3.24	23.10	9.25
0.13	0	0.075	ML	-1.38	-0.28	0.32	1.45	21.01	16.91	15.21	3.22	22.97	9.41
0.15	0	0.075	ML	-1.26	-0.58	0.47	1.46	21.04	16.37	15.81	3.32	23.00	9.40
0.17	0	0.075	ML	-1.75	-1.17	0.31	2.13	21.20	16.02	16.01	3.16	22.87	8.82
0.19	0	0.075	ML	-1.30	-0.46	0.09	1.38	22.12	17.22	16.00	3.19	23.72	8.67
0.21	0	0.075	ML	-1.08	-1.87	-0.18	2.17	22.78	17.53	16.17	3.02	24.04	7.99
0.23	0	0.075	ML	-1.32	-1.20	-0.14	1.79	22.27	16.95	16.07	3.01	23.55	7.87
0.25	0	0.075	ML	-1.37	-1.21	0.07	1.83	22.17	17.18	15.64	2.96	23.42	7.75
0.27	0	0.075	ML	-2.65	-1.60	0.05	3.10	21.99	17.26	15.05	2.96	23.09	7.69
0.29	0	0.075	ML	-1.29	-1.11	-0.03	1.70	22.64	18.15	15.27	3.00	23.91	7.85
0.31	0	0.075	ML	-2.77	-0.96	0.06	2.93	22.28	18.00	14.72	2.99	23.44	7.86
0.33	0	0.075	ML	-1.39	-1.17	0.12	1.83	22.50	18.43	14.94	3.07	23.93	8.34
0.35	0	0.075	ML	-2.80	-0.89	0.07	2.94	21.80	18.39	13.67	2.98	23.11	8.19

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.37	0	0.075	ML	-1.37	-0.27	0.10	1.40	22.08	18.66	14.02	3.13	23.55	8.29
0.39	0	0.075	ML	-2.09	-0.48	-0.13	2.15	22.24	18.59	14.42	3.01	23.72	8.51
0.41	0	0.075	ML	-2.47	0.16	0.00	2.48	21.88	17.96	14.75	3.14	23.45	8.80
0.43	0	0.075	ML	-1.53	-0.01	0.13	1.54	21.50	18.29	13.86	3.09	23.16	8.73
0.45	0	0.075	ML	-0.74	-0.17	-0.02	0.76	22.23	18.89	14.37	3.13	23.95	8.92
0.47	0	0.075	ML	-1.76	-0.32	0.02	1.79	22.31	18.75	14.44	3.02	23.86	8.62
0.49	0	0.075	ML	-2.28	0.22	0.13	2.29	21.37	18.36	13.57	3.25	23.07	8.96
0.51	0	0.075	ML	-1.94	-0.13	-0.03	1.95	22.35	18.49	15.00	3.08	24.01	8.98
0.53	0	0.075	ML	-2.24	0.15	-0.01	2.24	21.75	17.95	14.72	3.16	23.42	8.97
0.05	0	0.095	ML	-1.48	-0.96	0.48	1.83	20.25	16.16	15.11	3.22	22.36	9.63
0.07	0	0.095	ML	-2.02	-1.12	0.23	2.32	21.00	16.45	15.44	3.14	22.78	9.12
0.09	0	0.095	ML	-0.81	-0.39	0.30	0.95	21.16	16.85	15.30	3.21	22.99	9.01
0.11	0	0.095	ML	-0.99	-0.14	0.21	1.02	21.10	16.96	15.18	3.27	23.00	9.19
0.13	0	0.095	ML	-0.91	-0.23	0.49	1.06	21.53	16.99	15.86	3.33	23.48	9.42
0.15	0	0.095	ML	-1.28	-0.23	0.20	1.31	21.99	17.70	15.70	3.24	23.88	9.41
0.17	0	0.095	ML	-0.76	-0.40	0.30	0.91	21.74	17.08	15.94	3.16	23.57	9.16
0.19	0	0.095	ML	-0.92	-0.08	0.27	0.96	21.57	17.05	15.64	3.27	23.37	9.02
0.21	0	0.095	ML	-3.08	-1.27	0.20	3.33	21.77	16.98	15.41	2.91	23.11	8.45
0.23	0	0.095	ML	-0.65	-1.28	0.05	1.44	22.27	17.57	15.69	3.07	23.76	8.38
0.25	0	0.095	ML	-1.79	-1.66	0.14	2.45	22.56	18.16	15.23	3.02	23.89	8.21
0.27	0	0.095	ML	-1.18	-0.78	0.12	1.43	22.28	17.93	15.24	3.01	23.72	8.26
0.29	0	0.095	ML	-2.95	-0.67	0.17	3.03	22.34	17.60	15.74	3.15	23.82	8.79
0.31	0	0.095	ML	-0.88	0.90	0.12	1.27	22.26	17.90	15.57	3.00	23.91	8.82

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.33	0	0.095	ML	-1.98	-0.39	0.03	2.02	22.11	17.62	15.38	3.04	23.58	8.44
0.35	0	0.095	ML	-1.68	-0.79	0.08	1.85	22.59	18.39	15.49	3.11	24.24	8.96
0.37	0	0.095	ML	-2.14	0.02	0.01	2.14	22.05	18.29	14.68	3.08	23.65	8.82
0.39	0	0.095	ML	-2.56	-0.03	-0.01	2.56	22.10	18.37	14.59	3.02	23.65	8.78
0.41	0	0.095	ML	-0.78	-1.32	-0.08	1.53	22.48	18.41	15.16	3.00	24.04	8.64
0.43	0	0.095	ML	-1.10	-0.15	0.09	1.11	21.89	17.99	15.00	3.21	23.64	8.99
0.45	0	0.095	ML	-1.02	0.36	0.00	1.08	21.29	17.36	15.08	3.10	23.20	9.26
0.47	0	0.095	ML	-1.31	-0.05	-0.05	1.31	21.95	17.87	15.18	3.15	23.66	8.91
0.49	0	0.095	ML	-1.38	-0.21	0.06	1.40	22.25	17.72	15.80	3.11	23.95	8.95
0.51	0	0.095	ML	-1.00	0.51	0.05	1.12	22.13	18.05	15.14	3.12	23.76	8.72
0.53	0	0.095	ML	-2.30	0.98	-0.11	2.50	21.48	17.93	14.29	3.14	23.14	8.96
0.11	-0.001	0.075	CAV	-0.32	-0.56	0.32	0.72	20.43	16.01	15.76	3.45	22.73	9.98
0.09	-0.005	0.075	CAV	-0.38	-0.35	0.49	0.71	19.51	15.32	15.37	3.58	22.00	10.18
0.119	-0.005	0.075	CAV	-1.13	-0.71	0.41	1.40	20.41	15.59	16.05	3.41	22.64	9.88
0.11	-0.009	0.075	CAV	-0.32	-0.30	0.43	0.61	19.50	15.25	15.35	3.54	21.93	10.04
0.08	-0.01	0.075	CAV	-0.36	-2.14	0.81	2.32	18.25	13.79	15.06	3.49	20.72	10.07
0.1	-0.01	0.075	CAV	-0.13	-0.36	0.54	0.67	18.68	14.73	14.97	3.67	21.32	10.30
0.13	-0.01	0.075	CAV	-0.77	-1.87	0.23	2.04	18.26	14.21	14.52	3.55	20.63	9.79
0.09	-0.015	0.075	CAV	-0.63	-0.29	0.44	0.82	17.76	13.72	14.98	3.61	20.63	10.54
0.119	-0.016	0.075	CAV	-0.28	-1.45	0.69	1.63	18.04	13.60	15.22	3.44	20.70	10.28
0.08	-0.02	0.075	CAV	0.04	-0.89	0.84	1.23	17.76	14.08	14.42	3.66	20.48	10.28
0.1	-0.02	0.075	CAV	-0.02	-1.26	1.07	1.65	17.55	13.57	14.46	3.61	20.16	10.04
0.13	-0.02	0.075	CAV	-0.74	-1.55	0.45	1.78	17.90	13.60	14.84	3.61	20.45	10.05

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.109	-0.021	0.075	CAV	0.66	-1.74	0.49	1.92	17.77	13.93	14.40	3.61	20.36	10.11
0.09	-0.025	0.075	CAV	0.25	0.22	0.78	0.85	17.42	14.13	14.20	3.64	20.36	10.57
0.119	-0.026	0.075	CAV	0.89	-2.82	0.59	3.02	16.69	12.97	13.50	3.48	19.04	9.64
0.08	-0.027	0.075	CAV	-0.05	-0.09	0.78	0.78	16.98	14.11	13.49	3.75	19.87	10.34
0.1	-0.03	0.075	CAV	1.55	-2.46	1.00	3.07	16.31	13.19	12.43	3.61	18.48	9.21
0.13	-0.03	0.075	CAV	0.28	-2.96	0.25	2.98	16.22	12.35	13.09	3.50	18.34	9.06
0.109	-0.033	0.075	CAV	1.52	-1.95	0.48	2.52	16.10	12.98	12.59	3.64	18.45	9.36
0.119	-0.036	0.075	CAV	1.24	-2.53	0.72	2.91	16.41	12.85	12.76	3.56	18.45	8.92
0.1	-0.04	0.075	CAV	3.23	-3.13	1.17	4.65	14.26	11.84	9.59	3.39	15.61	7.87
0.13	-0.04	0.075	CAV	1.90	-3.62	0.44	4.12	15.28	11.53	11.75	3.49	16.83	8.16
0.109	-0.042	0.075	CAV	2.65	-3.54	0.69	4.47	14.89	11.57	11.05	3.46	16.37	8.12
0.119	-0.047	0.075	CAV	2.83	-3.93	0.72	4.90	15.19	11.73	11.21	3.33	16.56	8.21
0.108	-0.05	0.075	CAV	3.29	-2.95	0.85	4.50	14.70	11.59	10.68	3.52	16.15	8.07
0.13	-0.05	0.075	CAV	3.41	-4.46	0.07	5.62	14.95	10.38	11.53	3.48	15.90	7.80
0.16	-0.05	0.075	CAV	1.27	-5.76	0.06	5.90	16.68	10.71	13.37	3.27	17.44	7.79
0.22	-0.05	0.075	CAV	-1.02	-7.00	-0.34	7.08	16.34	9.79	12.83	3.32	16.48	7.39
0.28	-0.05	0.075	CAV	-2.87	-5.62	-0.27	6.32	14.14	8.95	10.73	3.49	14.40	6.89
0.34	-0.05	0.075	CAV	-2.38	-2.74	-0.28	3.64	15.72	13.02	11.27	3.74	17.62	8.75
0.4	-0.05	0.075	CAV	-2.57	-1.15	0.19	2.82	15.78	14.56	9.69	3.76	17.89	8.87
0.46	-0.05	0.075	CAV	-0.71	0.15	0.22	0.75	17.58	15.75	12.30	3.50	20.29	10.14
0.52	-0.05	0.075	CAV	-0.63	1.36	-0.10	1.50	19.68	15.94	14.67	3.40	21.93	9.79
0.13	-0.06	0.075	CAV	3.88	-4.69	0.01	6.09	15.57	10.76	11.72	3.29	16.25	7.66
0.182	-0.1	0.075	CAV	3.12	-5.24	-0.30	6.11	18.95	11.68	15.06	3.15	19.31	7.15

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.21	-0.1	0.075	CAV	4.06	-6.29	-0.20	7.49	18.72	10.99	14.46	2.93	18.40	6.64
0.27	-0.1	0.075	CAV	3.98	-6.92	-0.33	7.99	14.47	8.77	10.18	3.37	13.85	6.80
0.33	-0.1	0.075	CAV	2.45	-4.61	-0.32	5.23	10.50	7.23	6.74	3.69	10.55	5.33
0.39	-0.1	0.075	CAV	1.33	0.19	-0.02	1.34	8.65	6.41	6.18	3.64	9.62	4.42
0.45	-0.1	0.075	CAV	-0.02	1.23	0.11	1.23	13.84	11.10	11.52	3.85	16.46	8.99
0.51	-0.1	0.075	CAV	-0.01	1.77	0.15	1.78	18.51	12.64	15.86	3.35	20.56	9.12
0.242	-0.134	0.075	CAV	5.41	-6.04	0.22	8.11	21.18	14.94	13.84	2.83	20.56	6.30
0.29	-0.15	0.075	CAV	6.43	-6.19	0.33	8.94	20.09	15.44	10.89	2.82	19.10	6.41
0.35	-0.15	0.075	CAV	5.99	-3.72	0.34	7.06	15.76	13.35	8.16	3.11	15.95	7.47
0.41	-0.15	0.075	CAV	4.80	0.65	0.58	4.88	12.70	10.78	7.81	3.44	13.75	7.16
0.47	-0.15	0.075	CAV	2.53	3.59	0.00	4.39	12.73	9.23	9.95	3.69	14.07	7.42
0.324	-0.169	0.075	CAV	6.81	-6.27	0.43	9.27	20.51	17.43	7.77	2.73	19.28	6.06
0.381	-0.184	0.075	CAV	6.75	-2.30	0.41	7.14	19.44	17.46	7.65	2.94	19.28	6.70
0.444	-0.189	0.075	CAV	7.57	1.70	-0.20	7.76	14.31	11.15	6.99	3.50	13.62	6.40

1 X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
2 Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
3 Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
4 Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
5 Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
6 Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
7 Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
8 RMS[Vx’], RMS[Vy’], and RMS[Vz’] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
9 |RMS[V’]| is the magnitude of the root mean squares of the velocity components: RMS[Vx’], RMS[Vy’], and RMS[Vz’].
10 RMS[Vmag’] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.14 Forward conic cavity with hydraulically smooth bed (Velocity = 0.55 m/s; depth = 0.150 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	0.356	0.475	-0.090	0.353	0.256	-0.442	19.960	2.121	2.840
0.07	0	0.05	ML	0.339	0.264	-0.013	-0.094	-0.154	-0.387	17.365	0.822	0.635
0.09	0	0.05	ML	0.163	0.275	0.013	-0.252	-0.201	-0.355	5.158	-1.883	-1.108
0.11	0	0.05	ML	0.105	0.233	-0.045	-0.053	-0.165	-0.339	-0.262	0.983	-0.194
0.13	0	0.05	ML	0.253	0.466	-0.022	-0.186	-0.191	-0.503	26.151	-0.278	2.780
0.15	0	0.05	ML	0.309	0.517	-0.052	0.038	-0.313	-0.508	40.372	2.460	4.731
0.17	0	0.05	ML	0.535	0.655	-0.063	-0.122	-0.257	-0.437	39.576	-0.473	6.899
0.19	0	0.05	ML	0.275	0.350	0.034	-0.392	-0.581	-0.473	56.491	-0.068	7.620
0.21	0	0.05	ML	0.398	0.507	-0.066	-0.451	-0.550	-0.490	47.432	-1.473	7.881
0.23	0	0.05	ML	0.491	0.655	0.037	-0.670	-0.113	-0.384	53.818	-0.104	8.673
0.25	0	0.05	ML	0.407	0.686	-0.032	-0.673	-0.169	-0.487	49.885	-2.251	8.337
0.27	0	0.05	ML	0.512	0.799	-0.054	-0.572	0.514	-0.435	42.971	-3.757	7.229
0.29	0	0.05	ML	0.461	0.750	0.042	-0.841	0.443	-0.479	34.441	-4.919	5.949
0.31	0	0.05	ML	0.476	0.724	0.024	-0.875	0.520	-0.345	33.424	-5.346	5.386
0.33	0	0.05	ML	0.404	0.615	0.005	-0.950	0.943	-0.462	42.614	-8.692	5.354
0.35	0	0.05	ML	0.269	0.535	0.003	-1.023	0.617	-0.494	33.269	-8.673	3.710
0.37	0	0.05	ML	0.391	0.621	0.031	-0.942	1.518	-0.380	15.384	-12.187	2.168
0.39	0	0.05	ML	0.303	0.261	0.010	-0.997	0.895	-0.423	25.514	-11.080	2.677
0.41	0	0.05	ML	0.344	0.101	0.009	-1.051	1.266	-0.498	28.270	-10.117	3.095
0.43	0	0.05	ML	0.281	0.084	0.059	-0.956	0.875	-0.483	21.423	-7.826	3.136
0.45	0	0.05	ML	0.272	-0.085	0.037	-0.947	0.696	-0.342	20.825	-7.860	1.865
0.47	0	0.05	ML	0.393	-0.297	0.095	-0.793	0.952	-0.476	12.510	-11.172	1.059

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.49	0	0.05	ML	0.387	-0.320	0.099	-0.798	1.059	-0.498	9.175	-8.661	2.452
0.51	0	0.05	ML	0.242	-0.397	0.021	-0.719	0.522	-0.347	21.022	-8.365	0.877
0.53	0	0.05	ML	0.249	-0.246	0.039	-0.697	0.424	-0.512	5.296	-5.365	1.692
0.05	0	0.075	ML	0.288	0.250	-0.013	-0.178	-0.066	-0.408	24.102	-0.148	1.836
0.07	0	0.075	ML	0.304	0.194	0.038	-0.334	-0.279	-0.451	26.782	-2.138	2.777
0.08	0	0.075	ML	0.249	0.057	0.058	-0.296	-0.230	-0.435	19.127	-1.640	2.313
0.09	0	0.075	ML	0.125	0.122	-0.017	-0.334	-0.251	-0.462	31.500	-2.654	3.999
0.1	0	0.075	ML	0.249	0.012	-0.005	-0.430	-0.288	-0.453	21.960	-2.234	4.309
0.11	0	0.075	ML	0.151	-0.014	0.100	-0.388	-0.276	-0.346	26.576	-1.954	3.364
0.13	0	0.075	ML	0.160	0.046	0.011	-0.513	-0.287	-0.261	34.622	-4.284	2.543
0.13	0	0.075	ML	0.229	0.098	0.011	-0.378	-0.069	-0.348	24.661	-3.608	3.493
0.15	0	0.075	ML	0.221	0.216	-0.056	-0.384	-0.276	-0.426	46.420	-3.492	5.776
0.17	0	0.075	ML	0.273	0.248	-0.123	-0.445	-0.377	-0.412	45.713	-0.506	5.248
0.19	0	0.075	ML	0.170	0.154	0.013	-0.649	-0.458	-0.450	41.365	-2.117	8.035
0.21	0	0.075	ML	0.251	0.404	0.069	-0.823	-0.409	-0.437	55.663	-3.732	7.913
0.23	0	0.075	ML	0.237	0.389	0.010	-0.750	-0.600	-0.445	55.523	-1.203	8.269
0.25	0	0.075	ML	0.264	0.549	0.012	-0.813	-0.398	-0.379	52.125	-3.274	7.660
0.27	0	0.075	ML	0.340	0.683	-0.080	-0.765	-0.053	-0.441	47.203	-4.372	4.821
0.29	0	0.075	ML	0.201	0.524	0.041	-0.955	-0.123	-0.453	33.117	-5.769	5.936
0.31	0	0.075	ML	0.291	0.523	-0.032	-0.889	0.202	-0.488	35.394	-6.690	4.321
0.33	0	0.075	ML	0.143	0.345	0.007	-0.998	0.211	-0.471	24.309	-8.083	5.868
0.35	0	0.075	ML	0.178	0.476	-0.041	-0.992	0.570	-0.290	29.175	-8.427	3.053
0.37	0	0.075	ML	0.091	0.323	0.011	-1.019	0.477	-0.428	27.384	-11.843	3.286
0.39	0	0.075	ML	0.154	0.154	0.003	-0.930	0.488	-0.394	19.674	-8.444	2.640

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.41	0	0.075	ML	0.169	0.135	-0.021	-0.879	0.409	-0.327	20.262	-7.995	2.155
0.43	0	0.075	ML	0.096	-0.014	0.013	-0.917	0.707	-0.393	18.156	-9.137	2.580
0.45	0	0.075	ML	0.054	-0.202	0.069	-0.918	0.438	-0.444	24.077	-7.898	4.391
0.47	0	0.075	ML	0.170	-0.296	0.076	-0.963	0.304	-0.400	10.347	-5.784	1.032
0.49	0	0.075	ML	0.258	-0.368	-0.003	-0.806	0.620	-0.533	17.566	-7.900	2.286
0.51	0	0.075	ML	0.142	-0.366	-0.051	-0.866	0.141	-0.393	19.513	-6.785	1.643
0.53	0	0.075	ML	0.125	-0.384	0.007	-0.836	0.355	-0.342	17.514	-6.834	4.541
0.05	0	0.095	ML	0.379	0.140	0.070	-0.267	-0.051	-0.502	20.895	-2.641	4.173
0.07	0	0.095	ML	0.215	0.065	0.021	-0.509	-0.195	-0.425	33.523	-3.788	1.937
0.09	0	0.095	ML	0.213	-0.131	0.025	-0.513	-0.132	-0.559	39.678	-6.130	2.433
0.11	0	0.095	ML	0.175	-0.212	0.036	-0.607	-0.138	-0.415	33.916	-2.488	3.577
0.13	0	0.095	ML	0.090	-0.035	0.002	-0.546	-0.222	-0.423	34.780	-2.337	3.538
0.15	0	0.095	ML	0.152	-0.014	0.057	-0.621	-0.206	-0.278	34.983	-2.912	4.388
0.17	0	0.095	ML	0.152	0.080	-0.093	-0.600	-0.211	-0.480	54.283	-3.718	4.222
0.19	0	0.095	ML	0.114	0.063	0.000	-0.555	-0.238	-0.569	29.145	-3.425	4.950
0.21	0	0.095	ML	0.265	0.183	-0.031	-0.660	-0.293	-0.390	42.335	-3.260	3.985
0.23	0	0.095	ML	0.148	0.205	-0.049	-0.763	-0.347	-0.353	39.805	-2.573	5.978
0.25	0	0.095	ML	0.148	0.392	-0.111	-0.944	-0.133	-0.318	44.820	-3.545	5.588
0.27	0	0.095	ML	0.086	0.269	-0.040	-0.884	-0.161	-0.352	31.577	-4.823	2.790
0.29	0	0.095	ML	0.104	0.257	-0.056	-0.709	-0.328	-0.414	36.166	-3.716	5.632
0.31	0	0.095	ML	-0.007	0.132	-0.056	-0.790	-0.222	-0.298	25.604	-6.551	1.649
0.33	0	0.095	ML	0.066	0.160	-0.064	-0.875	-0.159	-0.339	30.604	-4.145	2.939
0.35	0	0.095	ML	0.030	0.140	-0.080	-0.856	0.085	-0.564	23.172	-7.291	2.739
0.37	0	0.095	ML	0.002	0.198	0.014	-0.905	0.232	-0.356	28.183	-7.187	3.304

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.39	0	0.095	ML	-0.006	0.042	0.004	-0.957	0.193	-0.293	11.158	-6.704	2.135
0.41	0	0.095	ML	0.010	-0.081	-0.045	-0.967	0.067	-0.392	15.782	-7.109	-0.391
0.43	0	0.095	ML	-0.014	-0.223	-0.075	-0.819	0.050	-0.351	25.670	-6.820	3.338
0.45	0	0.095	ML	-0.005	-0.283	-0.033	-0.670	0.174	-0.478	18.797	-4.427	1.153
0.47	0	0.095	ML	-0.027	-0.355	-0.049	-0.797	0.070	-0.448	18.135	-4.455	2.849
0.49	0	0.095	ML	0.060	-0.249	-0.034	-0.786	-0.149	-0.191	27.942	-3.195	4.061
0.51	0	0.095	ML	0.030	-0.428	-0.059	-0.913	0.212	-0.331	17.562	-6.062	3.139
0.53	0	0.095	ML	0.058	-0.470	-0.010	-0.828	0.564	-0.229	8.790	-8.552	0.828
0.11	-0.001	0.075	CAV	0.226	0.097	0.014	-0.216	-0.100	-0.522	14.246	-1.083	0.737
0.09	-0.005	0.075	CAV	0.237	0.252	0.049	0.150	-0.095	-0.454	-5.095	-1.152	-1.193
0.119	-0.005	0.075	CAV	0.214	0.145	0.049	-0.174	-0.315	-0.453	18.292	1.566	2.819
0.11	-0.009	0.075	CAV	0.274	0.116	-0.014	-0.048	-0.137	-0.586	-7.755	1.197	-1.741
0.08	-0.01	0.075	CAV	0.060	0.364	-0.092	0.650	-0.055	-0.514	-12.058	1.317	-2.576
0.1	-0.01	0.075	CAV	0.228	0.241	0.014	0.184	0.024	-0.668	-12.421	1.897	-2.692
0.13	-0.01	0.075	CAV	0.341	0.443	0.034	0.369	0.051	-0.515	-10.083	1.681	-0.802
0.09	-0.015	0.075	CAV	-0.060	0.269	-0.004	0.566	0.035	-0.550	-22.079	2.043	-4.125
0.119	-0.016	0.075	CAV	-0.026	0.438	-0.012	0.758	-0.078	-0.471	-17.860	2.765	-2.674
0.08	-0.02	0.075	CAV	-0.521	0.378	-0.063	0.627	0.191	-0.603	-28.352	1.242	-6.390
0.1	-0.02	0.075	CAV	-0.373	0.446	-0.042	0.651	0.130	-0.611	-33.656	4.012	-4.982
0.13	-0.02	0.075	CAV	0.064	0.411	0.034	0.729	-0.035	-0.512	-20.419	2.599	-1.721
0.109	-0.021	0.075	CAV	-0.205	0.487	-0.038	0.440	0.269	-0.636	-28.654	1.921	-3.850
0.09	-0.025	0.075	CAV	-0.494	0.436	-0.008	0.591	0.272	-0.655	-30.106	0.767	-7.698
0.119	-0.026	0.075	CAV	-0.516	0.662	-0.045	1.257	0.603	-0.582	-28.252	0.397	-3.181
0.08	-0.027	0.075	CAV	-0.655	0.505	-0.058	0.731	0.695	-0.692	-32.605	-2.115	-5.227

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.1	-0.03	0.075	CAV	-0.753	0.652	-0.123	0.819	0.893	-0.637	-25.604	3.971	-6.792
0.13	-0.03	0.075	CAV	-0.605	0.777	0.018	1.057	0.380	-0.582	-37.122	2.736	-2.662
0.109	-0.033	0.075	CAV	-0.896	0.674	-0.031	1.067	0.990	-0.611	-29.676	-0.179	-3.574
0.119	-0.036	0.075	CAV	-0.873	0.818	-0.067	0.938	0.676	-0.626	-39.334	0.982	-3.839
0.1	-0.04	0.075	CAV	-1.286	0.955	-0.184	2.128	2.249	-0.634	-20.539	-0.739	-2.301
0.13	-0.04	0.075	CAV	-0.839	0.991	-0.060	1.361	1.232	-0.620	-33.112	3.696	-3.590
0.109	-0.042	0.075	CAV	-1.143	1.015	-0.048	1.811	1.533	-0.545	-31.479	0.050	-2.709
0.119	-0.047	0.075	CAV	-1.144	0.966	-0.154	1.689	1.562	-0.530	-42.655	1.691	-3.655
0.108	-0.05	0.075	CAV	-1.413	1.195	-0.175	2.143	2.028	-0.598	-33.400	-0.381	-3.933
0.13	-0.05	0.075	CAV	-1.088	1.233	0.027	1.908	1.627	-0.601	-52.750	4.962	-4.581
0.16	-0.05	0.075	CAV	-0.770	1.098	0.167	0.975	0.523	-0.598	-65.884	5.631	-3.488
0.22	-0.05	0.075	CAV	0.154	1.248	0.080	1.485	0.959	-0.530	-9.427	4.343	1.440
0.28	-0.05	0.075	CAV	0.727	1.563	0.138	2.087	2.775	-0.648	11.650	2.925	3.742
0.34	-0.05	0.075	CAV	1.033	1.054	0.098	1.518	1.829	-0.738	15.202	-1.813	3.152
0.4	-0.05	0.075	CAV	1.035	0.061	0.065	0.819	2.503	-0.720	-3.242	-6.195	1.168
0.46	-0.05	0.075	CAV	0.587	-0.656	0.063	0.056	1.319	-0.489	-17.911	-5.952	-1.010
0.52	-0.05	0.075	CAV	0.450	-0.785	-0.024	-0.176	0.162	-0.463	-38.741	-0.446	-4.057
0.13	-0.06	0.075	CAV	-1.178	1.296	0.090	1.916	1.672	-0.530	-48.199	1.758	-4.145
0.182	-0.1	0.075	CAV	-0.765	1.041	0.161	0.357	-0.237	-0.569	-109.068	7.325	-8.244
0.21	-0.1	0.075	CAV	-0.906	1.089	0.153	0.343	-0.011	-0.420	-107.044	8.104	-8.291
0.27	-0.1	0.075	CAV	-1.043	1.640	0.105	2.714	3.101	-0.664	-38.988	4.654	-2.971
0.33	-0.1	0.075	CAV	-0.449	0.817	0.092	2.363	3.163	-0.748	-10.108	0.559	-1.034
0.39	-0.1	0.075	CAV	-0.130	0.107	-0.136	1.293	1.264	-0.627	-1.431	-0.541	0.940
0.45	-0.1	0.075	CAV	0.178	-0.990	-0.040	1.345	1.638	-0.731	-9.441	1.998	-1.332

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	-0.1	0.075	CAV	0.299	-0.713	-0.066	0.212	-0.583	-0.552	-28.262	3.902	-0.568
0.242	-0.134	0.075	CAV	-0.994	1.239	-0.002	-0.033	0.395	-0.542	-89.099	3.276	-6.980
0.29	-0.15	0.075	CAV	-1.231	1.580	-0.067	0.381	2.408	-0.525	-46.496	-2.050	-2.956
0.35	-0.15	0.075	CAV	-1.639	0.764	-0.090	2.210	3.294	-0.378	-15.158	-5.611	-0.051
0.41	-0.15	0.075	CAV	-1.676	-0.180	-0.141	3.679	2.758	-0.635	-2.027	-2.208	1.090
0.47	-0.15	0.075	CAV	-0.657	-1.178	0.060	2.256	2.702	-0.688	10.200	0.339	2.810
0.324	-0.169	0.075	CAV	-1.149	1.505	-0.188	-0.117	4.320	-0.427	-17.304	-7.046	-0.664
0.381	-0.184	0.075	CAV	-1.128	0.874	-0.214	-0.068	2.737	-0.446	-2.736	-10.062	0.172
0.444	-0.189	0.075	CAV	-1.860	-0.621	0.059	4.137	2.778	-0.693	9.276	-4.456	1.522

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.15 Forward conic cavity with rough bed at low flow (Velocity = 0.33 m/s; depth = 0.150 m): velocities

X[1]	Y[2]	Z[3]	Loc[4]	Avg Vx[5]	Avg Vy[5]	Avg Vz[5]	Mag V-Avg[6]	Avg Vmag[7]	RMS[Vx'][8]	RMS[Vy'][8]	RMS[Vz'][8]	|RMS[V']|[9]	RMS[Vmag'][10]
(m)	(m)	(m)		(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)	(cm/s)
0.07	0	0.05	ML	-9.79	0.12	-0.96	9.84	16.00	13.05	5.79	2.84	14.55	7.24
0.09	0	0.05	ML	-9.51	0.14	-0.88	9.56	16.38	13.61	5.70	2.93	15.05	7.02
0.11	0	0.05	ML	-8.12	-0.80	-0.70	8.19	15.27	13.34	5.74	3.34	14.91	7.49
0.13	0	0.05	ML	-7.56	-0.25	-0.83	7.61	16.64	15.10	5.79	3.19	16.48	7.24
0.15	0	0.05	ML	-5.87	-1.42	-1.02	6.13	16.60	15.74	6.03	3.00	17.12	7.42
0.17	0	0.05	ML	-7.55	-1.21	-0.85	7.69	16.96	15.70	5.38	3.13	16.89	7.54
0.19	0	0.05	ML	-8.71	-3.10	-0.98	9.30	16.18	13.34	5.56	3.00	14.76	6.50
0.21	0	0.05	ML	-10.01	-1.91	-0.47	10.20	17.73	14.69	5.65	3.03	16.03	6.84
0.23	0	0.05	ML	-9.06	-1.69	-0.43	9.22	19.30	16.93	5.81	2.97	18.14	6.45
0.25	0	0.05	ML	-10.99	-2.30	-0.41	11.23	17.45	13.11	5.60	2.92	14.56	5.80
0.27	0	0.05	ML	-8.53	-1.13	-0.48	8.62	19.22	17.38	5.43	3.07	18.46	6.76
0.29	0	0.05	ML	-8.71	-0.69	-0.54	8.76	19.40	17.52	5.48	2.91	18.59	6.77
0.31	0	0.05	ML	-6.40	0.37	-0.16	6.41	20.48	19.51	5.86	2.95	20.59	6.73
0.33	0	0.05	ML	-10.62	-0.36	-0.36	10.63	19.00	15.91	5.28	2.87	17.01	6.40
0.35	0	0.05	ML	-8.35	0.80	-0.11	8.39	20.90	19.25	5.44	2.97	20.22	6.53
0.37	0	0.05	ML	-9.25	1.14	-0.04	9.32	20.35	18.34	5.14	2.98	19.28	6.66
0.39	0	0.05	ML	-10.35	2.16	0.17	10.58	20.77	17.88	5.67	2.72	18.95	6.27
0.41	0	0.05	ML	-9.51	2.85	0.16	9.93	22.08	19.80	5.47	2.73	20.72	6.33
0.43	0	0.05	ML	-11.31	3.61	0.38	11.87	21.89	18.58	5.37	2.77	19.54	6.58
0.45	0	0.05	ML	-11.73	4.76	0.40	12.66	22.38	18.68	4.98	2.65	19.52	6.34
0.47	0	0.05	ML	-11.45	5.84	0.31	12.85	23.43	19.75	5.21	2.61	20.60	6.36

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.49	0	0.05	ML	-13.57	6.09	0.55	14.89	23.35	18.37	4.95	2.60	19.20	6.73
0.51	0	0.05	ML	-12.18	6.14	0.41	13.64	23.02	18.79	4.91	2.63	19.59	6.32
0.53	0	0.05	ML	-12.33	6.26	0.60	13.84	23.07	18.77	4.86	2.67	19.57	6.50
0.05	0	0.075	ML	-8.37	-0.32	-0.58	8.40	16.49	14.29	6.32	3.27	15.96	7.30
0.07	0	0.075	ML	-7.68	-1.08	-0.53	7.78	15.60	13.84	6.26	3.19	15.52	7.61
0.09	0	0.075	ML	-6.47	-1.80	-0.90	6.77	16.35	14.90	6.79	3.21	16.68	7.54
0.11	0	0.075	ML	-8.11	-2.63	-0.44	8.54	15.02	12.28	5.94	3.18	14.01	6.61
0.13	0	0.075	ML	-8.19	-3.72	-0.68	9.02	15.07	11.73	5.99	3.17	13.54	6.13
0.15	0	0.075	ML	-9.96	-4.27	-0.25	10.84	13.98	8.15	5.45	2.97	10.25	5.20
0.17	0	0.075	ML	-10.70	-3.85	-0.23	11.37	15.73	10.20	5.80	3.08	12.14	5.39
0.19	0	0.075	ML	-10.55	-3.70	-0.27	11.18	14.39	8.68	5.12	3.06	10.53	5.38
0.21	0	0.075	ML	-11.23	-2.87	0.12	11.59	17.06	12.33	5.59	3.02	13.87	5.95
0.23	0	0.075	ML	-12.50	-3.33	-0.04	12.93	15.07	7.20	5.04	3.08	9.31	5.19
0.25	0	0.075	ML	-11.41	-2.17	0.06	11.61	16.40	11.68	5.08	3.04	13.09	6.12
0.27	0	0.075	ML	-11.61	-1.78	0.01	11.74	16.54	11.38	5.61	2.89	13.02	5.79
0.29	0	0.075	ML	-11.61	-1.75	0.10	11.74	16.97	11.78	5.58	3.10	13.40	5.41
0.31	0	0.075	ML	-10.76	-1.25	0.03	10.83	18.35	14.58	6.22	2.95	16.12	6.35
0.33	0	0.075	ML	-12.11	-0.39	0.12	12.11	17.56	12.59	5.34	2.98	14.00	5.86
0.35	0	0.075	ML	-11.75	0.13	0.18	11.75	18.07	13.67	5.46	3.01	15.03	6.12
0.37	0	0.075	ML	-8.49	1.08	0.13	8.56	19.64	17.74	5.90	3.03	18.94	6.81
0.39	0	0.075	ML	-11.52	1.52	0.15	11.62	19.18	15.31	5.40	2.94	16.50	6.25
0.41	0	0.075	ML	-10.52	2.43	0.10	10.80	20.44	17.45	5.19	2.90	18.43	6.21
0.43	0	0.075	ML	-11.12	2.96	0.34	11.52	20.42	17.04	5.14	2.86	18.02	6.36

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.45	0	0.075	ML	-10.70	3.68	0.24	11.31	21.07	17.81	5.79	2.87	18.95	6.56
0.47	0	0.075	ML	-12.29	3.55	0.29	12.79	20.58	16.47	5.11	3.01	17.50	6.81
0.49	0	0.075	ML	-11.26	4.07	0.11	11.97	21.14	17.73	4.95	2.87	18.63	6.60
0.51	0	0.075	ML	-13.81	3.38	0.54	14.23	20.88	15.52	4.80	2.88	16.50	6.22
0.53	0	0.075	ML	-14.41	4.90	0.30	15.22	22.37	16.76	4.68	2.68	17.61	6.41
0.05	0	0.095	ML	-8.21	-0.25	-0.68	8.24	16.63	14.59	6.35	3.16	16.23	7.39
0.07	0	0.095	ML	-8.34	0.45	-0.53	8.37	17.22	15.40	6.42	3.20	16.99	7.86
0.09	0	0.095	ML	-9.50	-0.14	-0.28	9.51	16.65	13.70	6.87	3.13	15.64	7.59
0.11	0	0.095	ML	-7.33	-1.92	-0.63	7.61	15.18	13.05	6.86	3.20	15.09	7.41
0.13	0	0.095	ML	-7.30	-3.29	-0.28	8.01	13.67	10.95	6.14	3.00	12.91	6.61
0.15	0	0.095	ML	-8.71	-3.78	-0.44	9.51	13.59	9.10	6.03	3.00	11.32	5.81
0.17	0	0.095	ML	-10.68	-3.58	-0.34	11.27	14.38	8.05	5.92	3.05	10.44	5.40
0.19	0	0.095	ML	-11.28	-4.00	0.37	11.98	14.92	8.14	5.73	3.11	10.43	5.45
0.21	0	0.095	ML	-11.28	-4.34	0.57	12.09	14.71	7.38	5.75	2.91	9.80	5.07
0.23	0	0.095	ML	-10.74	-4.39	0.46	11.61	13.90	6.52	5.58	2.93	9.07	4.88
0.25	0	0.095	ML	-11.85	-3.45	0.61	12.36	14.30	6.51	5.22	2.93	8.85	5.14
0.27	0	0.095	ML	-12.75	-2.96	0.53	13.10	16.08	8.88	5.61	2.89	10.89	5.62
0.29	0	0.095	ML	-11.84	-2.45	0.41	12.10	14.73	8.22	5.24	2.85	10.15	5.70
0.31	0	0.095	ML	-12.59	-2.46	0.43	12.83	15.62	8.48	5.32	2.98	10.44	5.46
0.33	0	0.095	ML	-12.45	-1.66	0.38	12.56	16.25	9.81	5.56	3.18	11.72	5.57
0.35	0	0.095	ML	-12.57	-1.51	0.52	12.67	15.97	9.61	5.28	2.99	11.37	5.88
0.37	0	0.095	ML	-13.07	-0.72	0.33	13.09	15.85	8.72	5.33	3.01	10.65	5.79
0.39	0	0.095	ML	-11.73	-0.38	0.08	11.74	16.41	11.30	5.47	3.03	12.92	5.95

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.41	0	0.095	ML	-12.18	-0.12	0.23	12.18	16.30	10.82	5.51	2.93	12.49	6.21
0.43	0	0.095	ML	-11.71	1.40	0.13	11.80	17.28	12.95	5.21	2.89	14.26	6.61
0.45	0	0.095	ML	-12.79	1.59	0.15	12.89	17.66	12.20	5.45	2.97	13.68	6.45
0.47	0	0.095	ML	-12.96	2.45	0.16	13.19	18.14	12.69	4.87	2.91	13.90	6.17
0.49	0	0.095	ML	-12.79	2.77	0.14	13.09	18.42	13.08	5.24	2.96	14.40	6.26
0.51	0	0.095	ML	-11.66	2.55	0.13	11.94	17.72	13.31	5.08	3.02	14.56	6.38
0.53	0	0.095	ML	-11.78	2.55	0.03	12.05	18.50	14.45	5.21	3.05	15.66	6.93
0.1	0	0.075	CAV	-5.78	-1.70	-0.81	6.08	17.26	15.78	7.82	3.25	17.91	7.73
0.07	0	0.075	CAV	-5.25	-0.78	-0.68	5.35	17.08	15.60	8.77	3.38	18.21	8.26
0.05	0	0.075	CAV	-4.78	-0.63	-0.73	4.87	17.26	16.32	8.00	3.21	18.45	8.13
0.08	-0.001	0.075	CAV	-4.68	-1.42	-0.70	4.94	17.19	16.21	8.21	3.15	18.44	8.31
0.06	-0.005	0.075	CAV	-5.14	-2.09	-1.39	5.72	13.88	12.06	7.56	3.38	14.62	7.34
0.089	-0.005	0.075	CAV	-5.50	-2.58	-1.10	6.17	14.21	11.81	8.16	3.32	14.73	7.28
0.08	-0.009	0.075	CAV	-5.55	-4.47	-0.79	7.17	11.48	7.54	6.38	3.24	10.40	5.25
0.05	-0.01	0.075	CAV	-4.46	-2.61	-1.49	5.38	10.57	7.66	6.64	3.35	10.68	5.59
0.07	-0.01	0.075	CAV	-5.35	-3.00	-1.20	6.25	11.62	8.19	7.17	3.36	11.39	5.80
0.1	-0.01	0.075	CAV	-5.64	-4.36	-0.64	7.16	11.77	7.88	6.58	3.25	10.77	5.35
0.06	-0.015	0.075	CAV	-2.47	-3.58	-1.26	4.53	9.75	6.46	6.76	3.39	9.95	4.94
0.089	-0.016	0.075	CAV	-3.61	-5.51	-0.90	6.65	9.64	5.01	5.32	3.27	8.01	3.92
0.05	-0.02	0.075	CAV	-0.17	-3.15	-1.48	3.48	8.40	5.45	5.83	3.19	8.60	3.93
0.07	-0.02	0.075	CAV	-1.82	-4.21	-0.92	4.68	8.69	5.08	5.84	3.15	8.36	4.02
0.1	-0.02	0.075	CAV	-4.98	-6.06	-0.46	7.86	10.26	4.43	5.32	3.04	7.56	3.70
0.079	-0.021	0.075	CAV	-1.83	-5.60	-1.05	5.99	9.02	4.70	5.28	3.07	7.71	3.73

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.06	-0.025	0.075	CAV	0.79	-5.04	-1.21	5.24	8.15	4.24	5.08	2.97	7.25	3.69
0.089	-0.026	0.075	CAV	-1.69	-5.94	-0.72	6.22	9.07	4.61	4.98	3.16	7.49	3.54
0.05	-0.027	0.075	CAV	1.73	-3.90	-1.78	4.62	8.15	4.66	5.26	2.95	7.62	3.61
0.07	-0.03	0.075	CAV	1.38	-6.01	-1.14	6.27	8.41	3.88	4.67	2.76	6.67	3.61
0.1	-0.03	0.075	CAV	-2.12	-6.80	-0.47	7.14	9.30	4.19	4.88	2.94	7.07	3.81
0.079	-0.033	0.075	CAV	0.03	-6.54	-0.33	6.55	8.64	3.68	4.85	2.83	6.71	3.66
0.089	-0.036	0.075	CAV	0.32	-7.32	-0.26	7.33	9.04	3.68	4.56	2.76	6.47	3.74
0.07	-0.04	0.075	CAV	2.42	-7.02	-0.63	7.46	9.24	3.82	5.04	2.79	6.91	4.24
0.1	-0.04	0.075	CAV	-0.30	-7.46	0.10	7.47	9.26	3.85	4.60	2.83	6.63	3.74
0.079	-0.042	0.075	CAV	1.74	-7.49	-0.18	7.69	9.33	3.82	4.48	2.77	6.50	3.80
0.089	-0.047	0.075	CAV	1.47	-8.09	0.22	8.23	9.50	3.50	4.12	2.69	6.04	3.72
0.1	-0.05	0.075	CAV	1.32	-7.72	0.56	7.85	9.26	3.65	4.23	2.73	6.22	3.81
0.108	-0.05	0.075	CAV	-12.04	2.25	0.18	12.25	18.88	14.74	5.06	2.97	15.87	6.74
0.16	-0.05	0.075	CAV	3.10	-7.53	-0.49	8.16	9.15	3.14	3.84	2.30	5.46	3.57
0.22	-0.05	0.075	CAV	-0.30	-7.65	1.00	7.72	8.83	3.06	3.32	2.60	5.21	2.97
0.28	-0.05	0.075	CAV	-4.61	-3.11	1.28	5.70	7.71	3.94	3.54	2.76	5.98	2.95
0.34	-0.05	0.075	CAV	-5.76	-0.87	0.58	5.85	8.28	4.70	3.92	3.18	6.89	3.64
0.4	-0.05	0.075	CAV	-6.71	1.15	-0.09	6.80	8.66	4.45	3.74	3.05	6.56	3.79
0.46	-0.05	0.075	CAV	-7.01	3.30	0.09	7.75	9.89	5.74	4.26	3.28	7.87	4.91
0.52	-0.05	0.075	CAV	-7.67	6.56	0.75	10.13	12.82	7.46	4.96	3.24	9.52	5.37
0.1	-0.06	0.075	CAV	2.09	-8.82	0.41	9.08	10.20	3.49	4.33	2.64	6.16	4.04
0.182	-0.1	0.075	CAV	6.15	-8.21	0.32	10.26	10.96	3.06	3.25	2.53	5.13	3.39
0.21	-0.1	0.075	CAV	5.47	-7.37	0.91	9.22	10.02	3.03	3.24	2.55	5.11	3.28

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.27	-0.1	0.075	CAV	2.72	-4.44	0.95	5.29	6.86	3.19	3.22	2.83	5.34	3.07
0.33	-0.1	0.075	CAV	0.77	-1.42	0.45	1.68	4.98	3.65	2.85	2.67	5.34	2.56
0.39	-0.1	0.075	CAV	0.55	0.57	-0.66	1.03	5.40	3.91	3.27	2.98	5.90	2.60
0.45	-0.1	0.075	CAV	0.32	4.07	-0.42	4.11	7.44	4.77	3.93	3.31	7.02	3.28
0.51	-0.1	0.075	CAV	-2.04	9.01	0.69	9.26	11.29	5.56	4.30	3.03	7.65	4.12
0.242	-0.134	0.075	CAV	8.77	-6.67	-0.30	11.03	11.63	2.99	3.22	2.38	5.00	3.36
0.29	-0.15	0.075	CAV	9.05	-4.71	-0.30	10.21	10.94	2.93	3.17	2.44	4.96	3.04
0.35	-0.15	0.075	CAV	8.07	-1.70	-0.69	8.27	9.25	3.26	3.01	2.63	5.16	3.06
0.41	-0.15	0.075	CAV	6.06	1.79	-0.71	6.36	8.04	3.91	3.43	2.82	5.92	3.29
0.47	-0.15	0.075	CAV	3.06	5.69	-0.44	6.48	8.61	4.64	3.84	3.12	6.79	3.71
0.324	-0.169	0.075	CAV	10.71	-3.88	-0.59	11.40	12.12	3.01	3.28	2.59	5.15	3.11
0.381	-0.184	0.075	CAV	9.28	-1.43	-1.45	9.50	10.48	3.38	3.30	2.65	5.41	3.11
0.444	-0.189	0.075	CAV	7.14	2.52	-0.88	7.62	8.88	3.62	3.50	2.68	5.70	3.42

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.
[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.16 Forward conic cavity with rough bed at low flow (Velocity = 0.33 m/s; depth = 0.150 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.07	0	0.05	ML	1.461	-0.097	0.293	2.388	-0.241	-0.020	-25.38	-3.02	2.62
0.09	0	0.05	ML	1.463	-0.119	0.193	2.018	0.078	-0.204	-19.97	-4.44	3.66
0.11	0	0.05	ML	1.511	0.151	0.243	2.674	0.280	-0.400	-24.44	-6.99	3.46
0.13	0	0.05	ML	1.350	0.240	0.129	1.213	0.458	-0.374	-15.84	-9.49	3.01
0.15	0	0.05	ML	1.268	0.244	0.256	0.855	-0.117	-0.301	-6.46	-5.46	3.10
0.17	0	0.05	ML	1.483	0.289	0.204	1.517	0.086	-0.465	-13.48	-10.05	3.58
0.19	0	0.05	ML	1.668	0.435	0.240	2.717	0.049	-0.393	-8.35	-6.39	3.04
0.21	0	0.05	ML	1.599	0.254	0.056	2.163	-0.119	-0.528	-13.89	-8.35	1.89
0.23	0	0.05	ML	1.341	0.182	0.229	0.694	0.243	-0.640	-7.54	-12.29	2.36
0.25	0	0.05	ML	1.782	0.094	0.169	2.895	0.130	-0.566	-5.95	-5.45	1.44
0.27	0	0.05	ML	1.270	0.320	0.189	0.406	0.381	-0.671	-9.80	-12.33	2.54
0.29	0	0.05	ML	1.237	0.098	0.172	0.342	0.195	-0.489	-6.39	-10.51	1.66
0.31	0	0.05	ML	0.803	0.028	0.115	-0.796	0.548	-0.648	-3.40	-14.30	1.99
0.33	0	0.05	ML	1.379	0.215	0.196	0.953	0.038	-0.473	-8.79	-9.29	1.82
0.35	0	0.05	ML	0.926	-0.003	0.114	-0.558	-0.107	-0.819	-11.06	-15.78	1.39
0.37	0	0.05	ML	1.056	0.149	0.097	-0.163	0.187	-0.665	-9.51	-13.11	1.87
0.39	0	0.05	ML	1.094	-0.066	0.148	-0.138	0.493	-0.659	-8.80	-10.51	1.18
0.41	0	0.05	ML	0.891	-0.196	0.111	-0.730	0.735	-0.541	-17.13	-15.11	1.81
0.43	0	0.05	ML	1.016	-0.271	0.017	-0.327	0.753	-0.634	-15.57	-13.04	0.89
0.45	0	0.05	ML	1.088	-0.244	0.059	-0.210	0.243	-0.533	-14.91	-12.70	0.84
0.47	0	0.05	ML	0.971	-0.312	0.010	-0.556	0.512	-0.530	-28.42	-10.24	1.73
0.49	0	0.05	ML	1.170	-0.395	-0.084	0.043	0.665	-0.370	-20.65	-9.60	0.49

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.51	0	0.05	ML	1.149	-0.318	0.050	-0.083	1.094	-0.500	-20.24	-8.83	1.07
0.53	0	0.05	ML	1.138	-0.345	-0.031	-0.083	0.539	-0.533	-29.09	-9.59	1.81
0.05	0	0.075	ML	1.258	0.091	0.153	1.368	0.442	-0.487	-19.13	-5.89	3.69
0.07	0	0.075	ML	1.292	0.064	0.071	1.905	0.068	-0.408	-21.70	-6.07	2.50
0.09	0	0.075	ML	1.164	0.289	0.313	1.093	0.742	-0.299	-15.09	-7.32	4.72
0.11	0	0.075	ML	1.430	0.361	0.138	2.652	0.216	-0.529	-10.40	-5.45	2.03
0.13	0	0.075	ML	1.626	0.479	0.035	3.411	0.315	-0.576	-9.93	-5.87	2.89
0.15	0	0.075	ML	1.187	0.569	-0.025	4.723	0.408	-0.498	-11.17	-1.64	0.91
0.17	0	0.075	ML	1.745	0.368	0.094	4.641	0.513	-0.715	-8.53	-2.68	1.78
0.19	0	0.075	ML	1.456	0.377	0.088	4.815	0.298	-0.513	-7.03	-2.28	0.53
0.21	0	0.075	ML	1.782	0.300	0.025	3.484	0.292	-0.612	-9.87	-4.80	0.24
0.23	0	0.075	ML	0.988	0.327	0.062	5.308	0.315	-0.694	-8.28	-1.19	0.43
0.25	0	0.075	ML	1.715	0.268	0.106	3.631	0.391	-0.604	-3.97	-3.77	0.01
0.27	0	0.075	ML	1.742	0.175	0.140	3.650	0.397	-0.554	0.62	-3.19	0.00
0.29	0	0.075	ML	1.804	0.256	-0.011	3.439	0.297	-0.760	-0.79	-4.56	0.61
0.31	0	0.075	ML	1.577	0.436	0.164	1.906	1.153	-0.575	-3.39	-8.48	0.33
0.33	0	0.075	ML	1.693	0.230	0.115	2.590	0.059	-0.489	0.20	-4.53	0.12
0.35	0	0.075	ML	1.643	0.255	0.124	2.259	0.167	-0.639	-4.49	-5.36	0.60
0.37	0	0.075	ML	1.090	-0.016	0.089	-0.025	0.622	-0.640	-8.33	-11.55	1.16
0.39	0	0.075	ML	1.482	0.012	0.044	1.280	0.354	-0.578	-5.27	-6.46	-0.03
0.41	0	0.075	ML	1.244	0.065	0.226	0.258	0.133	-0.639	-10.47	-9.87	0.37
0.43	0	0.075	ML	1.214	-0.080	0.044	0.245	0.224	-0.624	-11.11	-10.30	0.19
0.45	0	0.075	ML	1.223	-0.212	0.137	0.252	0.551	-0.664	-16.85	-12.02	1.27
0.47	0	0.075	ML	1.419	0.006	-0.008	1.004	0.050	-0.685	-15.35	-11.69	0.33

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.49	0	0.075	ML	1.196	-0.216	0.090	0.145	-0.043	-0.693	-16.28	-9.92	1.45
0.51	0	0.075	ML	1.540	-0.105	0.008	1.396	0.181	-0.742	-12.92	-9.37	0.88
0.53	0	0.075	ML	1.453	-0.286	0.063	0.975	0.202	-0.487	-20.97	-5.57	0.88
0.05	0	0.095	ML	1.126	0.078	0.156	1.016	-0.123	-0.473	-18.75	-2.99	4.51
0.07	0	0.095	ML	0.985	-0.039	0.031	0.508	0.760	-0.388	-23.69	-3.45	4.00
0.09	0	0.095	ML	1.269	0.167	0.062	1.844	0.860	-0.258	-23.47	-6.83	3.88
0.11	0	0.095	ML	1.065	0.068	0.158	1.702	0.825	-0.365	-19.48	-4.47	2.69
0.13	0	0.095	ML	1.120	0.203	0.075	3.027	0.017	-0.395	-14.90	-2.51	1.31
0.15	0	0.095	ML	0.959	0.456	0.049	3.902	0.333	-0.519	-17.63	-1.31	1.33
0.17	0	0.095	ML	0.990	0.417	0.136	4.409	0.164	-0.607	-15.88	-0.40	0.36
0.19	0	0.095	ML	0.876	0.549	-0.034	4.181	0.132	-0.477	-15.41	-0.15	1.05
0.21	0	0.095	ML	0.696	0.436	-0.091	3.827	0.153	-0.545	-15.92	-0.31	0.39
0.23	0	0.095	ML	0.235	0.382	-0.148	2.829	0.421	-0.521	-15.27	0.02	-0.42
0.25	0	0.095	ML	0.381	0.431	-0.021	2.934	0.422	-0.534	-10.43	-0.25	-0.22
0.27	0	0.095	ML	1.375	0.197	-0.009	4.679	0.045	-0.540	-14.57	-0.55	-0.87
0.29	0	0.095	ML	1.040	0.422	-0.054	3.890	0.559	-0.433	-12.32	-2.69	0.53
0.31	0	0.095	ML	1.585	0.316	-0.083	5.719	0.085	-0.567	-9.42	-2.00	-0.20
0.33	0	0.095	ML	1.816	0.240	0.039	5.144	0.399	-0.765	-5.74	-2.74	-1.42
0.35	0	0.095	ML	1.564	0.382	-0.022	4.601	0.430	-0.619	-8.23	-2.05	-1.78
0.37	0	0.095	ML	1.470	0.362	-0.059	4.733	0.451	-0.587	-8.04	-2.06	-0.56
0.39	0	0.095	ML	1.760	0.180	0.154	3.653	0.277	-0.587	-3.98	-3.39	0.62
0.41	0	0.095	ML	1.651	0.192	0.073	3.642	-0.069	-0.689	-5.81	-2.71	-1.21
0.43	0	0.095	ML	1.658	0.070	0.093	2.736	0.084	-0.536	-7.67	-6.20	0.00
0.45	0	0.095	ML	1.723	0.017	0.141	3.225	0.336	-0.693	-10.60	-5.14	0.52

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.47	0	0.095	ML	1.714	0.048	0.113	2.766	0.196	-0.508	-4.65	-5.00	-0.24
0.49	0	0.095	ML	1.767	0.054	0.163	2.871	0.407	-0.651	-9.24	-5.50	-0.10
0.51	0	0.095	ML	1.624	-0.060	0.138	2.256	0.358	-0.698	-7.68	-6.14	-0.17
0.53	0	0.095	ML	1.483	-0.105	0.152	1.739	0.173	-0.490	-14.05	-7.27	0.43
0.1	0	0.075	CAV	0.992	0.638	0.181	0.413	2.228	-0.465	-5.14	-6.63	3.22
0.07	0	0.075	CAV	0.836	0.683	0.073	0.295	2.468	-0.491	-2.67	-4.26	3.71
0.05	0	0.075	CAV	0.776	0.341	0.163	-0.030	1.526	-0.453	-11.16	-5.10	4.45
0.08	-0.001	0.075	CAV	0.925	0.594	0.108	0.205	2.581	-0.386	-3.73	-3.57	4.52
0.06	-0.005	0.075	CAV	1.249	0.548	0.326	2.310	2.650	-0.386	-7.94	-3.81	4.90
0.089	-0.005	0.075	CAV	1.470	0.852	0.156	3.230	2.901	-0.398	-1.20	-3.03	4.09
0.08	-0.009	0.075	CAV	0.658	0.477	0.229	4.000	0.772	-0.417	-11.71	-1.42	2.57
0.05	-0.01	0.075	CAV	0.588	0.455	0.290	4.173	1.517	-0.137	-17.20	-2.06	2.47
0.07	-0.01	0.075	CAV	0.804	0.454	0.245	4.078	1.625	-0.365	-14.53	-2.54	2.06
0.1	-0.01	0.075	CAV	1.123	0.518	0.110	4.574	1.745	-0.388	-9.52	-2.42	0.50
0.06	-0.015	0.075	CAV	-0.143	0.385	0.229	2.293	2.275	-0.300	-14.91	-1.24	0.53
0.089	-0.016	0.075	CAV	-0.229	0.432	0.136	1.053	0.779	-0.286	-7.89	-1.48	1.41
0.05	-0.02	0.075	CAV	-0.350	0.514	0.169	0.666	0.892	-0.306	-13.09	-0.98	0.55
0.07	-0.02	0.075	CAV	-0.311	0.480	0.000	0.997	0.804	-0.060	-11.08	0.53	0.89
0.1	-0.02	0.075	CAV	-0.150	0.471	0.065	0.822	1.066	-0.248	-8.15	0.40	-1.98
0.079	-0.021	0.075	CAV	-0.391	0.522	0.110	0.731	1.095	-0.188	-7.76	-0.93	0.79
0.06	-0.025	0.075	CAV	-0.249	0.291	0.179	0.865	0.478	-0.025	-6.07	-0.35	1.01
0.089	-0.026	0.075	CAV	-0.086	0.374	-0.025	0.331	0.744	-0.243	-5.37	-0.78	-1.60
0.05	-0.027	0.075	CAV	-0.481	0.386	0.308	1.180	0.505	0.169	-7.61	-1.27	0.91
0.07	-0.03	0.075	CAV	-0.034	0.316	0.115	0.410	0.298	0.055	-4.35	-0.92	-0.81

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.1	-0.03	0.075	CAV	-0.177	0.291	0.049	0.712	0.404	-0.290	-4.33	-1.58	-0.64
0.079	-0.033	0.075	CAV	-0.110	0.459	-0.040	0.315	0.470	0.054	-4.20	-0.45	-1.76
0.089	-0.036	0.075	CAV	-0.013	0.202	0.011	0.327	0.097	0.036	-2.03	-2.08	-1.66
0.07	-0.04	0.075	CAV	-0.054	0.035	0.024	0.175	-0.019	0.072	-5.19	-0.79	0.05
0.1	-0.04	0.075	CAV	0.205	0.218	-0.132	0.345	0.191	0.100	-3.39	-1.57	-2.69
0.079	-0.042	0.075	CAV	-0.049	0.125	-0.003	0.283	0.242	0.058	-3.57	-1.48	-0.53
0.089	-0.047	0.075	CAV	-0.015	0.100	-0.040	0.399	0.318	0.063	-4.33	-0.33	-1.07
0.1	-0.05	0.075	CAV	0.146	-0.075	-0.108	0.500	-0.041	-0.093	-2.77	0.07	-1.41
0.108	-0.05	0.075	CAV	1.660	-0.029	0.178	2.170	0.185	-0.640	-19.45	-9.02	0.88
0.16	-0.05	0.075	CAV	0.078	0.206	0.042	0.303	0.382	0.421	-3.81	-0.21	1.05
0.22	-0.05	0.075	CAV	-0.073	-0.036	-0.085	-0.023	-0.056	-0.059	-2.99	0.35	-1.55
0.28	-0.05	0.075	CAV	-0.063	-0.001	0.004	0.200	-0.062	-0.105	-3.86	1.15	-0.91
0.34	-0.05	0.075	CAV	-0.187	0.138	-0.079	0.045	0.524	-0.413	-4.01	1.05	-1.41
0.4	-0.05	0.075	CAV	-0.030	0.061	0.014	0.166	0.517	-0.134	-3.75	-0.64	-0.60
0.46	-0.05	0.075	CAV	-0.077	0.333	-0.051	0.062	0.787	-0.414	-4.91	-3.48	-1.13
0.52	-0.05	0.075	CAV	1.640	-0.102	-0.272	6.371	0.982	-0.513	-2.56	-4.28	-0.56
0.1	-0.06	0.075	CAV	0.035	0.050	0.081	0.163	0.066	0.143	-3.08	-0.55	-1.39
0.182	-0.1	0.075	CAV	0.003	-0.015	0.013	0.127	-0.032	-0.063	-2.55	-0.32	0.46
0.21	-0.1	0.075	CAV	-0.095	-0.153	0.025	0.403	0.015	-0.239	-2.07	-0.02	0.54
0.27	-0.1	0.075	CAV	0.162	-0.093	0.035	0.092	0.417	-0.114	-2.60	-0.17	0.38
0.33	-0.1	0.075	CAV	0.249	-0.018	-0.139	0.488	0.447	0.653	-2.87	0.10	1.28
0.39	-0.1	0.075	CAV	-0.164	0.050	0.106	0.748	0.284	0.075	-2.96	-0.35	0.11
0.45	-0.1	0.075	CAV	-0.134	-0.086	-0.056	0.308	0.187	-0.289	-2.20	-1.95	0.18
0.51	-0.1	0.075	CAV	0.303	-0.009	-0.225	0.431	0.443	-0.376	-2.65	-3.27	0.24

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.242	-0.134	0.075	CAV	0.007	-0.021	-0.077	0.043	-0.042	-0.197	-2.55	-0.17	1.18
0.29	-0.15	0.075	CAV	0.168	-0.036	-0.089	0.188	0.195	-0.109	-1.11	-0.03	0.59
0.35	-0.15	0.075	CAV	0.009	-0.041	-0.016	0.043	0.243	-0.057	-0.42	0.40	0.21
0.41	-0.15	0.075	CAV	0.135	0.226	-0.054	0.210	0.133	-0.060	-0.65	0.78	-0.59
0.47	-0.15	0.075	CAV	0.127	0.157	0.189	0.057	0.099	-0.254	0.70	-1.22	-0.16
0.324	-0.169	0.075	CAV	0.013	-0.094	-0.104	-0.044	-0.036	-0.483	-1.13	0.34	0.49
0.381	-0.184	0.075	CAV	0.074	0.152	0.042	0.287	0.275	-0.339	0.56	0.52	0.41
0.444	-0.189	0.075	CAV	0.165	0.092	-0.050	-0.105	0.085	-0.062	1.49	1.18	-0.16

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

Table A.17 Forward conic cavity with rough bed at high flow (Velocity = 0.47 m/s; depth = 0.225 m): velocities

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.05	0	0.05	ML	0.83	-3.68	-0.17	3.78	8.58	5.55	5.78	3.45	8.73	4.11
0.07	0	0.05	ML	-0.45	-3.62	-0.35	3.67	9.31	6.40	6.30	3.62	9.68	4.52
0.09	0	0.05	ML	-2.98	-2.82	-0.84	4.19	11.39	8.52	8.20	3.60	12.36	6.38
0.11	0	0.05	ML	-4.70	-2.57	-0.74	5.41	13.06	11.25	7.78	3.53	14.13	7.63
0.13	0	0.05	ML	-2.94	0.55	-0.23	3.00	19.22	18.75	9.20	3.37	21.15	9.31
0.15	0	0.05	ML	-3.51	-0.10	-0.39	3.53	18.48	16.65	11.11	3.39	20.30	9.09
0.17	0	0.05	ML	-4.98	-0.93	-0.63	5.11	17.79	16.30	9.30	3.29	19.05	8.52
0.19	0	0.05	ML	-3.82	-0.26	0.05	3.83	20.21	18.29	11.40	3.41	21.82	9.07
0.21	0	0.05	ML	-3.66	0.68	-0.23	3.72	21.10	19.39	10.60	3.09	22.31	8.12
0.23	0	0.05	ML	-2.77	0.22	-0.12	2.78	21.03	19.27	11.09	3.23	22.47	8.37
0.25	0	0.05	ML	-5.15	-1.77	-0.18	5.45	17.62	15.95	9.44	3.23	18.81	8.54
0.27	0	0.05	ML	-3.24	0.74	-0.17	3.33	22.18	20.02	11.32	3.13	23.22	7.61
0.29	0	0.05	ML	-3.99	-0.49	0.03	4.02	19.37	17.60	10.73	3.27	20.87	8.74
0.31	0	0.05	ML	-4.61	-0.27	0.11	4.62	20.36	18.42	10.71	3.11	21.53	8.37
0.33	0	0.05	ML	-3.69	1.49	0.00	3.98	22.86	20.55	11.65	3.03	23.82	7.77
0.35	0	0.05	ML	-4.59	1.60	-0.03	4.86	21.99	19.74	11.47	3.02	23.03	8.37
0.37	0	0.05	ML	-4.77	1.79	0.17	5.10	21.62	19.25	11.51	3.06	22.63	8.40
0.39	0	0.05	ML	-4.08	3.23	-0.03	5.20	23.17	20.20	12.71	2.89	24.04	8.23
0.41	0	0.05	ML	-6.00	2.22	0.26	6.40	23.03	19.30	13.06	2.91	23.48	7.85
0.43	0	0.05	ML	-5.33	2.75	0.33	6.00	24.11	20.43	13.56	2.88	24.69	8.01
0.45	0	0.05	ML	-6.61	2.79	0.70	7.21	23.46	18.91	14.28	2.74	23.85	8.40

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.47	0	0.05	ML	-5.68	3.64	0.66	6.78	23.59	19.59	13.71	2.85	24.08	8.32
0.49	0	0.05	ML	-6.98	2.09	0.38	7.30	23.95	18.98	14.77	2.71	24.21	8.07
0.51	0	0.05	ML	-6.29	3.31	0.45	7.12	22.88	19.46	12.45	2.87	23.28	8.31
0.53	0	0.05	ML	-8.16	5.67	0.29	9.94	21.84	18.79	8.52	2.73	20.81	7.39
0.05	0	0.085	ML	-1.29	-2.77	-0.63	3.12	9.76	6.83	7.18	3.78	10.61	5.20
0.07	0	0.085	ML	-1.62	-2.64	-0.37	3.12	11.26	8.88	8.69	3.82	12.99	7.19
0.09	0	0.085	ML	-1.34	-0.96	-1.14	2.00	15.67	13.32	12.28	3.69	18.49	10.01
0.11	0	0.085	ML	-1.25	0.60	-1.04	1.74	18.74	16.92	12.59	3.74	21.41	10.50
0.13	0	0.085	ML	-1.88	-1.26	-0.56	2.33	16.76	14.59	12.07	3.54	19.27	9.78
0.15	0	0.085	ML	-1.08	0.30	-0.63	1.28	19.98	18.09	12.63	3.36	22.31	9.99
0.17	0	0.085	ML	-2.62	-0.35	-0.47	2.68	20.17	17.56	13.08	3.38	22.16	9.55
0.19	0	0.085	ML	-2.38	-1.41	-0.43	2.80	19.65	16.78	12.91	3.40	21.44	9.00
0.21	0	0.085	ML	-2.78	-0.95	-0.34	2.95	20.27	17.41	13.15	3.22	22.05	9.17
0.23	0	0.085	ML	-4.25	-1.71	-0.28	4.59	19.62	17.11	11.75	3.39	21.03	8.85
0.25	0	0.085	ML	-4.14	-1.13	-0.36	4.31	19.44	16.97	11.60	3.29	20.82	8.59
0.27	0	0.085	ML	-2.40	-2.07	-0.01	3.17	20.18	17.54	12.65	3.36	21.88	9.04
0.29	0	0.085	ML	-3.26	-0.98	-0.03	3.41	21.58	18.85	12.76	3.10	22.97	8.57
0.31	0	0.085	ML	-1.28	-0.40	0.06	1.35	21.60	18.27	14.29	3.10	23.41	9.12
0.33	0	0.085	ML	-1.78	-0.45	-0.12	1.84	22.04	19.38	13.25	3.11	23.68	8.82
0.35	0	0.085	ML	-3.07	-0.05	0.03	3.07	22.04	19.11	13.33	3.04	23.50	8.69
0.37	0	0.085	ML	-1.76	0.13	0.02	1.77	22.08	19.73	12.75	3.13	23.70	8.77
0.39	0	0.085	ML	-1.96	-0.07	0.10	1.97	21.66	19.15	12.65	3.18	23.17	8.45
0.41	0	0.085	ML	-3.08	0.71	0.00	3.16	21.90	19.63	11.99	3.04	23.20	8.27

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.43	0	0.085	ML	-3.07	1.54	0.06	3.44	22.91	19.56	13.98	3.01	24.23	8.60
0.45	0	0.085	ML	-3.70	1.74	0.01	4.09	23.08	19.71	13.96	3.04	24.34	8.74
0.47	0	0.085	ML	-2.23	3.04	0.19	3.78	22.91	19.33	13.96	3.00	24.03	8.16
0.49	0	0.085	ML	-3.95	2.50	0.27	4.69	23.55	19.95	13.87	2.86	24.47	8.09
0.51	0	0.085	ML	-3.40	2.12	0.08	4.01	23.14	19.61	13.82	2.92	24.17	8.01
0.53	0	0.085	ML	-2.63	2.43	0.33	3.59	22.85	20.06	12.69	2.79	23.90	7.87
0.05	0	0.12	ML	0.87	1.91	-0.91	2.29	17.78	15.02	15.09	4.20	21.70	12.64
0.07	0	0.12	ML	0.86	-0.01	-1.50	1.73	17.34	15.92	12.67	3.97	20.73	11.48
0.09	0	0.12	ML	-0.16	0.23	-1.66	1.69	18.09	16.23	13.50	3.69	21.43	11.62
0.11	0	0.12	ML	-0.85	0.02	-1.01	1.32	18.03	15.68	13.50	3.62	21.00	10.84
0.13	0	0.12	ML	-0.23	-0.06	-1.09	1.12	18.32	16.27	13.15	3.49	21.21	10.74
0.15	0	0.12	ML	-1.99	-1.12	-1.11	2.54	17.51	14.95	12.86	3.51	20.03	10.05
0.17	0	0.12	ML	-1.16	-1.83	-0.73	2.28	18.55	16.08	12.99	3.52	20.97	10.03
0.19	0	0.12	ML	-2.44	-2.00	-0.19	3.16	18.40	15.42	12.82	3.55	20.36	9.26
0.21	0	0.12	ML	-2.69	-2.97	-0.63	4.06	19.00	16.16	12.50	3.31	20.70	9.15
0.23	0	0.12	ML	-3.48	-3.09	-0.50	4.68	17.77	14.63	12.20	3.37	19.35	8.97
0.25	0	0.12	ML	-3.84	-1.99	-0.10	4.32	18.46	15.06	12.69	3.38	19.98	8.76
0.27	0	0.12	ML	-3.10	-2.29	-0.08	3.85	19.00	16.35	12.28	3.55	20.76	9.20
0.29	0	0.12	ML	-3.11	-1.41	0.07	3.42	18.84	16.35	12.20	3.32	20.67	9.16
0.31	0	0.12	ML	-3.83	-1.61	-0.10	4.16	19.18	16.54	11.90	3.34	20.65	8.70
0.33	0	0.12	ML	-3.47	-2.03	0.46	4.04	19.58	17.12	11.78	3.19	21.02	8.65
0.35	0	0.12	ML	-2.13	-1.38	0.12	2.54	20.50	18.01	12.83	3.28	22.36	9.28
0.37	0	0.12	ML	-2.08	-0.77	0.10	2.22	20.87	18.22	13.12	3.31	22.70	9.17

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.39	0	0.12	ML	-1.82	0.29	-0.05	1.84	21.09	19.40	11.75	3.16	22.90	9.09
0.41	0	0.12	ML	-1.96	-0.34	0.08	1.99	21.10	18.92	12.60	3.24	22.96	9.25
0.43	0	0.12	ML	-4.40	1.03	0.17	4.52	20.96	18.01	12.51	3.38	22.18	8.53
0.45	0	0.12	ML	-4.34	-0.29	0.10	4.35	20.96	18.56	11.89	3.21	22.28	8.70
0.47	0	0.12	ML	-3.62	0.81	0.21	3.72	20.11	18.30	11.12	3.20	21.65	8.83
0.49	0	0.12	ML	-2.37	1.29	0.23	2.71	21.19	18.93	12.29	3.16	22.79	8.79
0.51	0	0.12	ML	-2.87	1.53	0.39	3.27	21.57	18.94	12.91	2.99	23.12	8.93
0.53	0	0.12	ML	-1.82	1.14	0.31	2.17	21.82	19.70	12.05	3.05	23.29	8.42
0.05	0	0.155	ML	-1.10	0.18	-2.19	2.46	14.88	11.91	13.49	3.95	18.42	11.12
0.07	0	0.155	ML	-1.33	-1.88	-2.04	3.07	13.98	10.35	12.44	3.61	16.58	9.43
0.09	0	0.155	ML	-1.68	-2.43	-1.64	3.38	13.85	10.62	11.72	3.63	16.23	9.11
0.11	0	0.155	ML	-3.02	-3.12	-1.27	4.52	14.41	10.18	12.07	3.57	16.19	8.65
0.13	0	0.155	ML	-3.59	-3.98	-1.19	5.49	14.51	10.40	11.20	3.49	15.68	8.07
0.15	0	0.155	ML	-2.41	-4.92	-0.42	5.50	14.19	10.44	10.72	3.56	15.38	8.07
0.17	0	0.155	ML	-3.69	-4.83	-0.80	6.13	14.97	10.84	10.74	3.31	15.61	7.57
0.19	0	0.155	ML	-4.88	-5.18	-0.17	7.12	15.34	10.75	10.54	3.41	15.43	7.31
0.21	0	0.155	ML	-4.04	-2.99	-0.16	5.03	16.34	12.32	12.23	3.31	17.67	8.40
0.23	0	0.155	ML	-2.93	-3.25	-0.16	4.38	15.36	12.36	11.16	3.59	17.03	8.55
0.25	0	0.155	ML	-3.42	-3.32	-0.16	4.76	15.97	12.98	11.33	3.46	17.57	8.73
0.27	0	0.155	ML	-3.95	-2.20	0.25	4.53	17.43	14.29	12.05	3.43	19.01	8.83
0.29	0	0.155	ML	-3.34	-2.05	0.20	3.92	15.80	12.89	11.69	3.35	17.72	8.93
0.31	0	0.155	ML	-3.22	-2.36	-0.36	4.01	17.19	14.16	12.08	3.44	18.93	8.87
0.33	0	0.155	ML	-4.15	-1.25	0.36	4.35	17.44	14.91	11.51	3.44	19.15	9.01

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.35	0	0.155	ML	-3.49	-1.10	-0.23	3.67	16.40	14.26	11.11	3.43	18.40	9.10
0.37	0	0.155	ML	-4.49	-1.95	0.12	4.90	17.35	15.25	10.27	3.41	18.70	8.52
0.39	0	0.155	ML	-2.90	-0.53	0.39	2.97	18.50	16.83	11.15	3.54	20.49	9.29
0.41	0	0.155	ML	-2.98	0.20	0.25	3.00	18.32	16.88	11.03	3.49	20.46	9.58
0.43	0	0.155	ML	-3.88	-0.12	-0.72	3.95	17.04	15.37	10.74	3.50	19.07	9.42
0.45	0	0.155	ML	-3.53	1.25	0.13	3.75	18.65	17.35	10.23	3.49	20.44	9.15
0.47	0	0.155	ML	-3.06	0.22	0.03	3.07	19.54	17.59	12.01	3.41	21.57	9.64
0.49	0	0.155	ML	-3.36	0.82	0.17	3.47	17.65	16.48	9.81	3.39	19.48	8.93
0.51	0	0.155	ML	-3.21	0.75	0.18	3.30	20.31	18.15	11.76	3.45	21.90	8.83
0.53	0	0.155	ML	-3.02	0.52	0.55	3.11	19.48	17.87	11.44	3.35	21.48	9.56
0.05	0	0.19	ML	-0.43	-4.70	-2.26	5.23	10.85	7.01	8.31	3.11	11.31	6.12
0.07	0	0.19	ML	-1.25	-4.87	-1.94	5.39	11.60	7.39	9.00	3.24	12.09	6.37
0.09	0	0.19	ML	-2.76	-5.65	-1.05	6.38	11.37	7.09	7.57	3.31	10.89	5.48
0.11	0	0.19	ML	-2.37	-5.86	-0.77	6.37	12.76	8.48	9.17	3.27	12.91	6.66
0.13	0	0.19	ML	-2.20	-5.06	-0.38	5.53	12.94	8.94	9.75	3.44	13.67	7.08
0.15	0	0.19	ML	-2.48	-6.20	0.11	6.67	12.97	8.28	9.01	3.41	12.70	6.14
0.17	0	0.19	ML	-2.71	-6.14	0.63	6.74	14.40	9.80	10.48	3.27	14.72	7.40
0.19	0	0.19	ML	-3.35	-5.14	0.53	6.16	15.34	11.27	10.98	3.22	16.06	7.76
0.21	0	0.19	ML	-3.41	-4.01	0.55	5.30	14.51	10.30	11.22	3.45	15.62	7.84
0.23	0	0.19	ML	-4.08	-3.90	0.23	5.64	14.78	11.48	10.06	3.40	15.64	7.61
0.25	0	0.19	ML	-4.10	-4.00	0.78	5.79	14.67	11.64	9.55	3.53	15.46	7.56
0.27	0	0.19	ML	-3.46	-3.87	0.17	5.19	14.67	11.70	9.92	3.59	15.75	7.74
0.29	0	0.19	ML	-3.59	-2.34	0.10	4.28	16.25	14.00	10.86	3.37	18.04	8.92

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.31	0	0.19	ML	-3.41	-1.67	0.56	3.84	14.90	12.91	10.07	3.50	16.74	8.54
0.33	0	0.19	ML	-3.89	-1.36	0.29	4.13	15.60	13.62	10.14	3.68	17.37	8.68
0.35	0	0.19	ML	-5.66	-1.67	0.21	5.90	15.05	13.34	7.87	3.51	15.88	7.78
0.37	0	0.19	ML	-3.45	-0.91	0.34	3.58	15.94	14.13	10.65	3.55	18.04	9.18
0.39	0	0.19	ML	-3.47	-0.75	0.18	3.55	14.18	12.29	9.98	3.50	16.21	8.62
0.41	0	0.19	ML	-3.96	-0.76	-0.09	4.03	14.66	13.21	9.48	3.56	16.65	8.86
0.43	0	0.19	ML	-4.28	-0.48	0.03	4.31	16.57	14.92	10.16	3.41	18.37	9.02
0.45	0	0.19	ML	-3.53	0.16	-0.06	3.53	15.14	14.14	9.10	3.60	17.20	8.88
0.47	0	0.19	ML	-3.03	0.61	-0.37	3.11	16.80	15.45	10.35	3.55	18.93	9.26
0.49	0	0.19	ML	-2.42	-0.06	-0.29	2.44	15.97	15.09	10.21	3.69	18.59	9.80
0.51	0	0.19	ML	-3.70	0.07	0.23	3.70	15.41	14.06	9.67	3.67	17.46	8.98
0.53	0	0.19	ML	-3.97	-0.15	0.46	4.00	16.21	14.62	10.35	3.52	18.25	9.28
0.08	0	0.12	CAV	0.13	0.75	-0.66	1.01	21.39	19.04	13.04	3.18	23.30	9.29
0.1	0	0.12	CAV	-2.10	-0.32	-0.61	2.21	20.13	17.84	12.29	3.15	21.90	8.87
0.13	0	0.12	CAV	-1.56	0.09	-0.62	1.68	20.62	18.22	12.84	3.23	22.52	9.20
0.11	-0.001	0.12	CAV	-0.60	0.12	-0.67	0.91	20.46	18.00	12.84	3.14	22.33	9.00
0.09	-0.005	0.12	CAV	1.09	1.13	-1.11	1.92	20.60	18.10	13.51	3.43	22.85	10.04
0.119	-0.005	0.12	CAV	-0.64	-0.06	-0.77	1.01	20.30	17.61	13.63	3.28	22.51	9.78
0.11	-0.009	0.12	CAV	-0.49	0.08	-0.68	0.84	21.19	18.14	14.68	3.43	23.59	10.39
0.08	-0.01	0.12	CAV	-0.14	0.84	-1.01	1.32	20.14	17.74	14.09	3.51	22.92	11.01
0.1	-0.01	0.12	CAV	-0.14	0.31	-1.22	1.27	19.96	17.26	14.28	3.43	22.67	10.80
0.13	-0.01	0.12	CAV	-0.77	0.46	-0.65	1.11	20.55	17.00	15.08	3.52	22.99	10.36
0.09	-0.015	0.12	CAV	-0.64	0.79	-1.48	1.80	19.04	15.89	15.13	3.88	22.28	11.71

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.119	-0.016	0.12	CAV	-1.12	-0.06	-1.17	1.62	17.55	15.10	13.78	3.62	20.76	11.21
0.08	-0.02	0.12	CAV	-0.60	0.36	-1.26	1.44	16.12	13.30	13.92	3.96	19.65	11.32
0.1	-0.02	0.12	CAV	-0.66	0.13	-1.53	1.67	16.49	13.98	13.66	4.03	19.96	11.36
0.13	-0.02	0.12	CAV	-1.77	-1.81	-1.71	3.05	14.57	11.05	12.45	3.79	17.08	9.41
0.109	-0.021	0.12	CAV	-0.94	-1.80	-1.27	2.39	16.03	12.69	13.91	3.70	19.19	10.82
0.09	-0.025	0.12	CAV	-0.69	-0.86	-1.52	1.88	14.01	10.36	12.85	4.13	17.02	9.84
0.119	-0.026	0.12	CAV	-1.34	-2.23	-1.26	2.89	12.86	9.75	11.24	3.74	15.34	8.84
0.08	-0.027	0.12	CAV	0.00	-0.25	-1.12	1.15	14.60	11.28	13.50	4.20	18.08	10.73
0.1	-0.03	0.12	CAV	-0.38	-1.18	-1.95	2.31	13.57	10.18	12.54	3.85	16.60	9.84
0.13	-0.03	0.12	CAV	-0.11	-3.65	-2.00	4.16	12.68	8.86	10.88	3.58	14.48	8.13
0.109	-0.033	0.12	CAV	1.04	-2.28	-1.90	3.15	11.78	8.17	10.82	3.67	14.05	8.27
0.119	-0.036	0.12	CAV	0.08	-3.62	-1.68	3.99	11.90	7.91	10.21	3.71	13.44	7.41
0.1	-0.04	0.12	CAV	0.69	-0.29	-2.33	2.45	14.38	10.35	13.27	3.63	17.21	9.77
0.13	-0.04	0.12	CAV	0.48	-1.97	-1.81	2.72	14.92	11.03	13.32	3.70	17.68	9.86
0.109	-0.042	0.12	CAV	1.85	-2.11	-2.01	3.45	12.62	8.42	11.68	3.74	14.88	8.60
0.119	-0.047	0.12	CAV	1.18	-2.24	-1.47	2.93	14.11	10.30	12.41	3.69	16.55	9.13
0.108	-0.05	0.12	CAV	5.54	-5.18	-2.16	7.89	12.08	5.88	8.14	3.47	10.62	5.41
0.13	-0.05	0.12	CAV	2.88	-4.36	-1.61	5.47	12.18	7.22	9.72	3.69	12.66	6.45
0.16	-0.05	0.12	CAV	4.62	-6.77	-1.03	8.26	13.29	6.51	9.64	3.57	12.16	6.28
0.22	-0.05	0.12	CAV	0.49	-7.02	-0.31	7.05	12.16	7.29	8.35	3.40	11.59	6.02
0.28	-0.05	0.12	CAV	-1.41	-6.10	0.28	6.27	11.17	7.09	6.98	3.57	10.57	5.12
0.34	-0.05	0.12	CAV	-3.65	-2.71	0.03	4.54	10.23	7.34	6.80	3.73	10.68	5.47
0.4	-0.05	0.12	CAV	-3.59	-0.76	0.16	3.68	12.56	10.87	8.76	3.85	14.48	8.08

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Avg Vx[5] (cm/s)	Avg Vy[5] (cm/s)	Avg Vz[5] (cm/s)	Mag V-Avg[6] (cm/s)	Avg Vmag[7] (cm/s)	RMS[Vx'][8] (cm/s)	RMS[Vy'][8] (cm/s)	RMS[Vz'][8] (cm/s)	|RMS[V']|[9] (cm/s)	RMS[Vmag'][10] (cm/s)
0.46	-0.05	0.12	CAV	-1.96	0.61	0.39	2.09	16.80	15.14	11.68	3.66	19.47	10.07
0.52	-0.05	0.12	CAV	-1.38	2.23	0.73	2.73	19.23	14.91	14.91	3.47	21.37	9.72
0.13	-0.06	0.12	CAV	2.94	-4.93	-2.23	6.16	12.74	7.83	9.97	3.34	13.11	6.89
0.182	-0.1	0.12	CAV	6.05	-8.49	0.50	10.44	12.69	5.49	6.42	3.26	9.05	5.47
0.21	-0.1	0.12	CAV	6.14	-9.14	0.05	11.01	12.76	5.18	5.10	3.24	7.96	4.66
0.27	-0.1	0.12	CAV	3.84	-7.11	-0.09	8.08	10.82	5.48	5.23	3.56	8.37	4.28
0.33	-0.1	0.12	CAV	2.29	-2.66	-0.66	3.57	9.42	6.77	5.65	3.99	9.68	4.20
0.39	-0.1	0.12	CAV	0.43	-0.15	-0.01	0.45	8.51	6.37	5.87	3.71	9.42	4.06
0.45	-0.1	0.12	CAV	-1.34	2.21	0.36	2.61	11.57	10.11	8.32	3.77	13.62	7.65
0.51	-0.1	0.12	CAV	-0.03	2.70	1.45	3.06	16.43	12.22	14.08	3.78	19.02	10.05
0.242	-0.134	0.12	CAV	7.53	-7.69	0.33	10.77	12.80	5.78	5.41	3.23	8.55	5.03
0.29	-0.15	0.12	CAV	8.06	-5.40	-0.37	9.71	11.58	4.94	4.95	3.34	7.75	4.48
0.35	-0.15	0.12	CAV	6.19	-2.65	-0.42	6.75	9.30	4.86	4.75	3.31	7.56	4.03
0.41	-0.15	0.12	CAV	4.16	0.13	0.31	4.17	8.38	5.31	5.17	3.69	8.28	3.95
0.47	-0.15	0.12	CAV	0.87	3.42	2.10	4.10	8.93	5.90	5.63	3.66	8.93	4.11
0.324	-0.169	0.12	CAV	8.93	-4.60	0.23	10.05	11.93	5.18	5.05	3.27	7.94	4.67
0.381	-0.184	0.12	CAV	8.67	-1.60	0.81	8.85	11.37	5.54	4.90	3.70	8.27	4.17
0.444	-0.189	0.12	CAV	7.72	2.32	1.71	8.24	10.51	5.23	4.66	3.36	7.77	4.22

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Avg Vx, Avg Vy, and Avg Vz are arithmetic means of instantaneous velocities in the x, y, and z directions, respectively.
[6] Mag V-Avg is the magnitude of the arthimetic mean velocity components: Avg Vx, Avg Vy, and Avg Vz.
[7] Avg Vmag is the arithmetic mean of the magnitudes of instantaneous velocity components: Vx, Vy, and Vz.

[8] RMS[Vx'], RMS[Vy'], and RMS[Vz'] are the velocity fluctuations (root mean squares) of velocity in X, Y, and Z, respectively.
[9] |RMS[V']| is the magnitude of the root mean squares of the velocity components: RMS[Vx'], RMS[Vy'], and RMS[Vz'].
[10] RMS[Vmag'] is the root mean square of the magnitudes of the instantaneous velocity components: Vx, Vy, and Vz.

Table A.18 Forward conic cavity with rough bed at high flow (Velocity = 0.47 m/s; depth = 0.225 m): higher-order statistics

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.05	0	0.05	ML	-0.363	0.468	0.044	1.237	1.252	-0.413	-9.94	0.28	-1.51
0.07	0	0.05	ML	-0.180	0.589	-0.063	1.999	1.849	-0.590	-12.55	-0.69	0.22
0.09	0	0.05	ML	0.732	0.788	0.209	3.117	3.422	-0.542	-15.31	-0.47	0.53
0.11	0	0.05	ML	1.473	0.652	0.158	3.774	4.348	-0.620	-12.09	-4.08	1.91
0.13	0	0.05	ML	0.935	0.094	0.195	-0.316	3.443	-0.569	-12.54	-11.99	2.45
0.15	0	0.05	ML	0.924	0.251	0.069	0.025	2.602	-0.654	-0.99	-7.22	2.74
0.17	0	0.05	ML	1.189	0.690	0.185	0.613	3.383	-0.511	3.59	-6.88	3.16
0.19	0	0.05	ML	0.697	-0.104	0.149	-0.420	2.457	-0.622	-7.65	-13.59	2.48
0.21	0	0.05	ML	0.610	0.094	0.059	-0.843	2.000	-0.614	1.40	-10.72	2.49
0.23	0	0.05	ML	0.517	0.139	0.046	-0.904	2.320	-0.553	-1.51	-10.73	3.78
0.25	0	0.05	ML	0.834	0.234	0.055	0.148	2.957	-0.511	-1.27	-5.31	2.26
0.27	0	0.05	ML	0.316	-0.212	0.103	-1.260	2.300	-0.518	-1.40	-14.70	2.32
0.29	0	0.05	ML	0.565	0.186	0.080	-0.486	2.330	-0.768	8.81	-6.52	3.08
0.31	0	0.05	ML	0.515	-0.310	-0.054	-0.758	2.294	-0.557	-1.12	-11.79	1.32
0.33	0	0.05	ML	0.226	-0.715	0.124	-1.296	2.382	-0.544	-6.20	-12.84	3.24
0.35	0	0.05	ML	0.328	-0.800	-0.027	-1.091	2.430	-0.595	-8.32	-14.46	3.02
0.37	0	0.05	ML	0.227	-0.869	0.001	-1.074	2.197	-0.530	-2.46	-11.72	2.20
0.39	0	0.05	ML	0.112	-1.325	-0.002	-1.247	2.241	-0.561	-4.81	-13.41	3.50
0.41	0	0.05	ML	0.250	-1.221	-0.090	-1.196	1.618	-0.495	0.45	-14.06	2.69
0.43	0	0.05	ML	0.176	-1.385	0.000	-1.289	1.460	-0.585	-8.14	-11.15	3.89
0.45	0	0.05	ML	0.081	-1.363	-0.072	-1.196	0.829	-0.462	-13.43	-6.38	5.13
0.47	0	0.05	ML	0.148	-1.404	-0.097	-1.191	1.307	-0.371	-11.54	-5.35	3.99

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.49	0	0.05	ML	0.256	-1.183	-0.004	-1.082	0.446	-0.436	-16.56	-5.43	5.63
0.51	0	0.05	ML	0.386	-1.527	0.144	-0.972	1.933	-0.353	-24.03	-3.90	2.49
0.53	0	0.05	ML	0.632	-1.726	0.058	-0.813	5.669	-0.431	-20.49	-1.18	1.90
0.05	0	0.085	ML	-0.374	0.761	0.059	1.431	4.258	-0.599	-14.02	-1.42	2.06
0.07	0	0.085	ML	-0.039	1.149	-0.005	3.146	4.959	-0.609	-20.60	-0.76	-0.84
0.09	0	0.085	ML	0.842	0.789	0.099	1.172	1.805	-0.568	5.21	2.65	2.98
0.11	0	0.085	ML	0.831	0.684	0.056	0.026	1.658	-0.763	-7.13	-5.48	2.34
0.13	0	0.085	ML	0.932	0.667	0.047	0.843	1.971	-0.563	-0.10	-4.66	0.69
0.15	0	0.085	ML	0.659	0.333	0.168	-0.396	1.360	-0.523	5.75	-6.89	4.48
0.17	0	0.085	ML	0.719	0.418	-0.016	-0.322	0.991	-0.574	16.87	-8.41	2.93
0.19	0	0.085	ML	0.717	0.635	0.072	-0.262	1.224	-0.575	25.87	-5.78	4.71
0.21	0	0.085	ML	0.639	0.512	0.014	-0.351	1.029	-0.640	33.07	-3.75	2.47
0.23	0	0.085	ML	0.751	0.604	0.122	-0.158	2.045	-0.656	10.52	-6.60	3.71
0.25	0	0.085	ML	0.657	0.610	-0.003	-0.295	1.934	-0.617	21.83	-6.48	4.90
0.27	0	0.085	ML	0.710	0.557	-0.054	-0.406	1.656	-0.663	21.93	-8.54	4.42
0.29	0	0.085	ML	0.465	0.276	0.060	-0.846	1.390	-0.527	11.70	-10.91	3.33
0.31	0	0.085	ML	0.381	0.273	-0.039	-0.779	0.746	-0.475	23.61	-9.83	2.39
0.33	0	0.085	ML	0.307	0.057	-0.014	-0.982	1.096	-0.512	13.30	-11.60	4.38
0.35	0	0.085	ML	0.327	-0.183	0.006	-0.966	1.240	-0.352	8.34	-7.34	3.78
0.37	0	0.085	ML	0.230	-0.310	0.059	-1.053	1.335	-0.600	11.36	-8.72	3.41
0.39	0	0.085	ML	0.295	-0.310	0.065	-1.047	1.247	-0.554	19.00	-10.89	2.86
0.41	0	0.085	ML	0.243	-0.680	0.116	-1.111	1.908	-0.563	7.89	-11.03	3.13
0.43	0	0.085	ML	0.134	-0.766	0.086	-1.118	0.843	-0.412	13.55	-9.80	4.91
0.45	0	0.085	ML	0.183	-0.807	0.006	-1.069	1.115	-0.608	6.92	-14.82	3.15

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.47	0	0.085	ML	-0.027	-1.001	-0.006	-1.172	1.033	-0.441	21.12	-9.06	2.29
0.49	0	0.085	ML	0.103	-1.071	-0.017	-1.228	1.058	-0.391	1.77	-9.22	3.95
0.51	0	0.085	ML	0.120	-1.293	0.002	-1.185	1.011	-0.406	1.30	-6.93	2.67
0.53	0	0.085	ML	0.139	-1.373	0.001	-1.232	1.615	-0.476	0.52	-7.76	2.42
0.05	0	0.12	ML	0.744	0.977	-0.041	0.914	0.519	-0.979	14.38	-0.60	3.30
0.07	0	0.12	ML	0.915	1.106	0.190	0.358	1.923	-0.803	8.76	0.74	5.26
0.09	0	0.12	ML	0.794	0.902	0.261	0.260	1.628	-0.596	-1.69	0.36	3.14
0.11	0	0.12	ML	0.750	0.927	0.145	0.404	1.071	-0.633	12.06	-0.06	5.15
0.13	0	0.12	ML	0.663	0.627	0.047	0.157	0.727	-0.527	9.50	-2.04	4.53
0.15	0	0.12	ML	0.829	0.967	0.267	0.624	1.332	-0.510	8.62	-2.50	4.88
0.17	0	0.12	ML	0.715	0.741	0.103	0.287	1.268	-0.650	19.94	-3.60	5.78
0.19	0	0.12	ML	0.761	0.857	0.031	0.230	1.444	-0.613	22.28	-4.36	3.34
0.21	0	0.12	ML	0.926	0.939	0.127	0.233	1.462	-0.572	15.67	-3.27	2.83
0.23	0	0.12	ML	0.865	0.953	0.075	0.577	1.891	-0.667	22.76	-0.46	3.17
0.25	0	0.12	ML	0.887	0.867	0.050	0.558	1.204	-0.487	34.89	-2.95	4.29
0.27	0	0.12	ML	0.730	0.573	-0.022	0.113	1.723	-0.703	21.84	-6.97	2.93
0.29	0	0.12	ML	0.785	0.794	-0.022	0.028	1.424	-0.599	22.73	-2.81	3.58
0.31	0	0.12	ML	0.725	0.689	0.013	-0.188	1.578	-0.599	4.92	-4.16	2.20
0.33	0	0.12	ML	0.638	0.748	-0.054	-0.321	1.730	-0.642	29.96	-9.29	3.42
0.35	0	0.12	ML	0.517	0.364	0.040	-0.623	1.426	-0.604	20.18	-7.78	5.09
0.37	0	0.12	ML	0.562	0.478	-0.079	-0.694	1.470	-0.564	19.06	-7.53	3.40
0.39	0	0.12	ML	0.433	0.145	-0.058	-0.863	1.882	-0.563	14.99	-7.64	2.44
0.41	0	0.12	ML	0.448	0.176	-0.024	-0.783	1.433	-0.419	4.80	-11.74	2.87
0.43	0	0.12	ML	0.599	-0.523	0.036	-0.613	1.700	-0.611	0.06	-7.67	0.31

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.45	0	0.12	ML	0.628	-0.029	-0.050	-0.604	1.667	-0.572	7.40	-7.93	-0.10
0.47	0	0.12	ML	0.558	-0.525	-0.026	-0.641	2.046	-0.477	-0.09	-7.20	0.40
0.49	0	0.12	ML	0.409	-0.706	0.014	-0.887	1.840	-0.444	2.26	-9.78	1.13
0.51	0	0.12	ML	0.368	-0.754	0.129	-0.929	1.879	-0.411	-0.50	-8.83	0.56
0.53	0	0.12	ML	0.386	-0.900	0.094	-1.092	2.293	-0.448	1.39	-12.52	-0.42
0.05	0	0.155	ML	0.698	1.229	0.473	2.431	1.408	-0.503	-15.57	4.88	7.66
0.07	0	0.155	ML	0.869	1.376	0.433	2.747	2.052	-0.524	-16.04	4.86	4.55
0.09	0	0.155	ML	0.879	1.411	0.326	2.883	2.447	-0.578	-2.21	1.79	3.44
0.11	0	0.155	ML	0.863	1.506	0.263	2.890	2.328	-0.585	-15.63	0.41	2.14
0.13	0	0.155	ML	0.836	1.500	0.200	2.776	2.944	-0.640	-16.48	-0.54	2.05
0.15	0	0.155	ML	0.591	1.545	0.049	2.632	3.731	-0.759	-8.35	-0.34	1.82
0.17	0	0.155	ML	0.844	1.327	0.172	1.869	2.363	-0.505	9.02	0.79	3.54
0.19	0	0.155	ML	1.152	1.707	0.051	2.717	3.838	-0.629	18.11	-1.80	3.85
0.21	0	0.155	ML	0.962	1.070	-0.060	1.130	1.426	-0.482	20.55	-1.66	2.82
0.23	0	0.155	ML	1.040	1.123	0.021	2.027	2.214	-0.704	14.62	-1.40	4.41
0.25	0	0.155	ML	1.260	1.135	0.043	1.921	2.279	-0.613	8.19	-1.12	1.37
0.27	0	0.155	ML	1.002	1.154	-0.019	0.695	1.990	-0.582	32.96	-2.28	5.13
0.29	0	0.155	ML	0.984	1.220	0.002	1.381	2.022	-0.409	22.27	-1.26	0.19
0.31	0	0.155	ML	1.044	0.972	0.137	1.127	1.731	-0.535	15.32	-2.43	3.44
0.33	0	0.155	ML	0.958	0.795	0.027	0.578	2.066	-0.555	24.09	-4.68	2.59
0.35	0	0.155	ML	0.974	0.702	0.026	0.938	2.248	-0.478	17.18	-2.00	1.75
0.37	0	0.155	ML	1.014	0.503	-0.116	0.608	2.811	-0.463	-1.49	-6.23	1.50
0.39	0	0.155	ML	0.859	0.409	-0.068	-0.014	2.338	-0.581	14.97	-8.39	1.15
0.41	0	0.155	ML	0.874	0.423	-0.061	0.071	2.398	-0.474	8.74	-7.81	1.73

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.43	0	0.155	ML	0.900	0.264	0.030	0.657	2.710	-0.617	2.91	-5.86	0.09
0.45	0	0.155	ML	0.826	0.219	-0.026	-0.100	2.685	-0.516	-4.91	-7.15	2.55
0.47	0	0.155	ML	0.718	-0.216	-0.018	-0.283	2.091	-0.645	-1.38	-8.09	1.04
0.49	0	0.155	ML	0.875	0.018	0.160	-0.020	2.891	-0.405	-5.85	-5.67	0.72
0.51	0	0.155	ML	0.646	-0.528	-0.011	-0.562	1.874	-0.457	-3.39	-8.32	1.07
0.53	0	0.155	ML	0.716	-0.283	0.021	-0.407	2.558	-0.526	-8.49	-12.20	1.31
0.05	0	0.19	ML	-0.403	1.674	0.479	3.468	4.824	0.007	-15.81	-0.99	2.16
0.07	0	0.19	ML	-0.274	1.714	0.359	2.353	5.082	-0.260	-20.15	-1.16	0.00
0.09	0	0.19	ML	0.010	1.384	0.132	1.430	4.778	-0.489	-10.33	-2.63	1.11
0.11	0	0.19	ML	0.193	1.449	0.161	2.059	4.330	-0.381	-19.69	-2.57	1.08
0.13	0	0.19	ML	0.459	1.626	0.074	2.202	4.174	-0.601	-11.70	-1.52	1.08
0.15	0	0.19	ML	0.657	1.600	0.043	2.827	4.282	-0.582	-14.97	-1.68	0.99
0.17	0	0.19	ML	0.981	1.522	0.014	3.129	3.625	-0.497	-6.61	0.01	0.64
0.19	0	0.19	ML	0.953	1.445	-0.155	2.043	3.203	-0.491	8.80	-1.05	-0.72
0.21	0	0.19	ML	1.040	1.582	-0.082	2.127	2.969	-0.609	26.90	2.14	2.95
0.23	0	0.19	ML	1.143	1.375	0.028	2.267	3.484	-0.612	13.42	-1.21	3.31
0.25	0	0.19	ML	1.248	1.517	-0.122	2.329	4.189	-0.766	11.74	-4.40	3.66
0.27	0	0.19	ML	1.271	1.320	-0.098	2.279	3.456	-0.742	9.81	-3.21	2.24
0.29	0	0.19	ML	1.233	1.219	0.024	1.488	2.685	-0.484	19.14	-3.69	2.29
0.31	0	0.19	ML	1.065	1.195	-0.151	1.462	3.071	-0.494	8.81	-4.66	-0.36
0.33	0	0.19	ML	1.200	1.031	0.025	1.479	3.107	-0.695	6.30	-4.22	2.00
0.35	0	0.19	ML	1.348	0.585	-0.064	2.017	3.454	-0.700	0.69	-4.45	-0.16
0.37	0	0.19	ML	1.237	0.650	-0.020	1.326	2.878	-0.609	0.01	-5.67	-0.15
0.39	0	0.19	ML	1.196	0.713	-0.092	2.077	3.127	-0.413	-1.59	-3.06	-0.50

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.41	0	0.19	ML	1.185	-0.111	0.000	1.927	3.550	-0.579	-14.17	-3.78	-0.97
0.43	0	0.19	ML	1.236	-0.430	0.096	1.112	3.027	-0.474	-12.36	-6.74	-0.38
0.45	0	0.19	ML	1.018	0.032	0.002	1.131	3.633	-0.603	-5.23	-5.80	-1.00
0.47	0	0.19	ML	1.010	-0.366	0.110	0.558	2.925	-0.620	-7.38	-5.72	-0.98
0.49	0	0.19	ML	1.017	-0.247	0.140	0.848	3.344	-0.526	-2.67	-5.52	0.40
0.51	0	0.19	ML	1.074	-0.192	-0.080	1.091	3.488	-0.497	-4.69	-5.74	-1.90
0.53	0	0.19	ML	0.949	-0.034	-0.095	0.845	2.903	-0.477	-1.22	-5.52	0.94
0.08	0	0.12	ML	0.010	0.085	-0.036	-0.916	0.999	-0.668	10.27	-4.24	8.82
0.1	0	0.12	ML	0.197	0.004	0.077	-0.633	1.055	-0.610	30.80	-4.84	6.85
0.13	0	0.12	ML	0.212	0.242	0.010	-0.720	0.831	-0.469	16.61	-4.52	6.70
0.11	-0.001	0.12	CAV	0.249	0.466	0.047	-0.787	0.825	-0.537	25.33	-4.00	6.75
0.09	-0.005	0.12	CAV	0.387	0.614	0.100	-0.668	0.930	-0.648	27.12	-5.79	8.95
0.119	-0.005	0.12	CAV	0.434	0.447	0.061	-0.570	0.728	-0.507	23.33	-3.04	5.83
0.11	-0.009	0.12	CAV	0.446	0.418	0.045	-0.516	0.533	-0.527	11.10	-5.68	4.92
0.08	-0.01	0.12	CAV	0.548	0.623	0.132	-0.334	0.866	-0.596	5.33	-2.44	4.72
0.1	-0.01	0.12	CAV	0.696	0.755	0.117	-0.250	0.642	-0.638	9.71	0.32	8.43
0.13	-0.01	0.12	CAV	0.544	0.460	0.095	-0.330	0.334	-0.539	21.74	-2.05	4.67
0.09	-0.015	0.12	CAV	0.814	0.683	0.223	0.601	0.480	-0.796	-6.90	0.96	4.08
0.119	-0.016	0.12	CAV	0.806	0.834	0.189	0.755	1.154	-0.613	-3.77	1.50	3.04
0.08	-0.02	0.12	CAV	0.728	0.990	0.158	1.702	0.999	-0.837	-13.64	0.27	3.53
0.1	-0.02	0.12	CAV	0.507	0.836	0.242	1.604	1.259	-0.817	-22.74	1.04	3.38
0.13	-0.02	0.12	CAV	0.933	1.175	0.284	2.695	1.928	-0.723	-11.65	1.93	3.79
0.109	-0.021	0.12	CAV	0.744	0.936	0.235	2.040	1.403	-0.678	-22.95	2.44	1.17
0.09	-0.025	0.12	CAV	0.117	1.234	0.248	2.692	1.761	-1.002	-20.39	2.38	2.93

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.119	-0.026	0.12	CAV	0.519	1.400	0.274	3.410	3.085	-0.582	-28.62	3.10	-0.05
0.08	-0.027	0.12	CAV	0.025	1.045	0.162	2.536	1.500	-1.039	-24.43	4.48	1.84
0.1	-0.03	0.12	CAV	-0.112	1.194	0.353	3.560	2.198	-0.777	-42.49	0.59	-0.45
0.13	-0.03	0.12	CAV	0.074	1.495	0.466	3.538	3.577	-0.354	-26.94	1.24	1.29
0.109	-0.033	0.12	CAV	-0.729	1.551	0.411	3.863	3.750	-0.584	-34.01	0.40	-0.82
0.119	-0.036	0.12	CAV	-0.302	1.251	0.418	3.172	3.456	-0.495	-28.30	-0.17	0.70
0.1	-0.04	0.12	CAV	-0.889	1.302	0.580	2.172	1.389	-0.413	-73.11	0.10	-0.22
0.13	-0.04	0.12	CAV	-0.696	1.321	0.384	2.615	1.820	-0.534	-55.44	-0.76	0.96
0.109	-0.042	0.12	CAV	-0.880	1.279	0.414	3.011	2.959	-0.555	-40.90	1.82	-0.90
0.119	-0.047	0.12	CAV	-1.361	1.295	0.294	3.430	2.003	-0.647	-48.91	0.51	-4.55
0.108	-0.05	0.12	CAV	-1.200	1.414	0.454	4.100	4.592	-0.331	-20.93	0.68	-2.76
0.13	-0.05	0.12	CAV	-1.126	1.278	0.384	3.406	3.291	-0.593	-31.00	0.53	-2.84
0.16	-0.05	0.12	CAV	-0.841	1.556	0.224	2.270	4.342	-0.626	-26.93	-1.04	-3.62
0.22	-0.05	0.12	CAV	-0.073	1.597	-0.074	2.586	5.279	-0.526	-4.26	-1.10	-2.32
0.28	-0.05	0.12	CAV	0.196	0.967	-0.179	1.465	3.369	-0.620	1.44	-1.00	-2.32
0.34	-0.05	0.12	CAV	0.876	0.467	-0.015	3.815	3.129	-0.598	1.69	-1.17	-1.21
0.4	-0.05	0.12	CAV	1.147	0.073	-0.074	3.098	3.667	-0.700	-6.35	-3.41	-2.73
0.46	-0.05	0.12	CAV	1.072	-0.515	-0.144	0.814	2.333	-0.577	-15.52	-5.60	-1.67
0.52	-0.05	0.12	CAV	0.776	-0.942	-0.116	0.235	0.494	-0.433	-54.31	-0.18	-4.22
0.13	-0.06	0.12	CAV	-1.526	1.318	0.462	4.257	3.619	-0.375	-30.09	0.10	-3.30
0.182	-0.1	0.12	CAV	-0.359	0.461	-0.012	0.460	1.024	-0.581	-14.58	-1.35	-1.46
0.21	-0.1	0.12	CAV	-0.224	0.091	0.048	0.529	0.611	-0.636	-4.46	-4.99	-0.20
0.27	-0.1	0.12	CAV	-0.097	-0.034	-0.046	0.444	0.569	-0.665	-0.35	-3.56	-3.11
0.33	-0.1	0.12	CAV	0.011	0.042	0.210	1.159	0.663	-0.821	-1.17	-5.22	-2.66

X[1] (m)	Y[2] (m)	Z[3] (m)	Loc[4]	Skew-x[5] (cm^3/s^3)	Skew-y[5] (cm^3/s^3)	Skew-z[5] (cm^3/s^3)	Kurt-x[6] (cm^4/s^4)	Kurt-y[6] (cm^4/s^4)	Kurt-z[6] (cm^4/s^4)	Cov-XY[7] (cm^2/s^2)	Cov-XZ[7] (cm^2/s^2)	Cov-YZ[7] (cm^2/s^2)
0.39	-0.1	0.12	CAV	-0.048	0.108	-0.129	0.937	0.524	-0.673	-0.78	-3.86	-2.40
0.45	-0.1	0.12	CAV	0.967	-0.704	-0.026	3.548	3.834	-0.680	-2.17	-4.21	-0.16
0.51	-0.1	0.12	CAV	0.716	-1.307	-0.250	1.489	1.164	-0.653	-24.40	2.17	-0.87
0.242	-0.134	0.12	CAV	-0.414	0.081	0.087	0.473	0.117	-0.561	-7.68	-4.83	-0.04
0.29	-0.15	0.12	CAV	-0.114	-0.014	0.049	0.349	0.181	-0.621	-3.07	-3.66	-1.90
0.35	-0.15	0.12	CAV	-0.065	0.118	0.154	-0.006	0.499	-0.438	-3.90	-2.87	-1.83
0.41	-0.15	0.12	CAV	0.277	0.308	0.068	0.640	0.256	-0.599	-2.45	-2.70	-2.34
0.47	-0.15	0.12	CAV	-0.054	-0.138	-0.438	1.135	1.355	-0.493	1.71	0.63	-1.56
0.324	-0.169	0.12	CAV	-0.140	0.100	-0.078	0.487	0.128	-0.524	-6.50	-2.84	-1.12
0.381	-0.184	0.12	CAV	-0.478	0.158	-0.204	0.929	0.702	-0.826	-4.73	-4.61	0.85
0.444	-0.189	0.12	CAV	0.208	0.195	-0.366	0.850	0.497	-0.278	0.12	-3.68	-0.36

[1] X is a Cartesian coordinate in the longitudinal direction; X = 0 m is the upstream cavity edge and X = 0.60 m is the downstream cavity edge.
[2] Y is a Cartesian coordinate in the transverse direction; Y = 0 m is along the mixing layer and Y = -0.24 m is maximum cavity width.
[3] Z is a Cartesian coordinate in the vertical direction; Z = 0 m is the streambed (flume bed) and Z > 0 m is the distance above the streambed.
[4] Loc is the location of the measurement: ML indicates measurement along mixing layer and CAV indicates measurement inside cavity.
[5] Skew-x, Skew-y, and Skew-z are skewness (3rd moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[6] Kurt-x, Kurt-y, and Kurt-z are the kurtosis (4th moments) of the instantaneous velocities in the x, y, and z directions, respectively.
[7] Cov-XY, Cov-XZ, Cov-YZ are the co-variances of instantaneous velocities of VxVy, VxVz, and VyVz, respectively.

APPENDIX B

LASER-BASED BATHYMETRY FOR ROUGH BED LATERAL CAVITIES

FLUME EXPERIMENTS

B.1 Summary of Data Tables

Filtered laser-based streambed bathymetry data is listed in tables for the rough bed flow cases. Bathymetry data is listed in tables where X, Y, and Z correspond to longitudinal, transverse, and vertical dimensions, respectively. Streambed bathymetry was measured beginning 1 m upstream of the leading edge of the cavity and ending 0.9 m downstream of the trailing edge of the cavity (2.5 m longitudinal distance). The vertical datum (Z = 0 m) is the stainless steel flume bed. In the main channel, streambed bathymetry has a maximum longitudinal distance of X = 2.5 m and a maximum transverse distance of Y = 0.9 m. In the cavity, streambed bathymetry begins at a longitudinal distance of X = 1.0 m, ends at a longitudinal distance of X = 1.6 m, and has a transverse distance beginning at Y = 0 m and ending at Y = -0.24 m.

Table B.1 Semi-circular cavity streambed bathymetry

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.005	-0.022	0.034	1.145	-0.060	0.035	1.245	-0.112	0.041	1.335	-0.100	0.044	1.405	-0.216	0.055	1.455	-0.144	0.059
1.005	-0.020	0.033	1.145	-0.058	0.035	1.245	-0.110	0.041	1.335	-0.098	0.043	1.405	-0.214	0.056	1.455	-0.142	0.059
1.005	-0.018	0.031	1.145	-0.056	0.036	1.245	-0.108	0.042	1.335	-0.096	0.043	1.405	-0.212	0.057	1.455	-0.140	0.059
1.005	-0.016	0.030	1.145	-0.054	0.036	1.245	-0.106	0.042	1.335	-0.094	0.043	1.405	-0.210	0.057	1.455	-0.138	0.059
1.005	-0.014	0.028	1.145	-0.052	0.036	1.245	-0.104	0.043	1.335	-0.092	0.044	1.405	-0.208	0.057	1.455	-0.136	0.058
1.005	-0.012	0.027	1.145	-0.050	0.035	1.245	-0.102	0.043	1.335	-0.090	0.044	1.405	-0.206	0.057	1.455	-0.134	0.056
1.005	-0.010	0.025	1.145	-0.048	0.033	1.245	-0.100	0.042	1.335	-0.088	0.043	1.405	-0.204	0.057	1.455	-0.132	0.056
1.005	-0.008	0.024	1.145	-0.046	0.033	1.245	-0.098	0.041	1.335	-0.086	0.043	1.405	-0.202	0.056	1.455	-0.130	0.055
1.005	-0.006	0.022	1.145	-0.044	0.034	1.245	-0.096	0.041	1.335	-0.084	0.042	1.405	-0.200	0.056	1.455	-0.128	0.055
1.005	-0.004	0.021	1.145	-0.042	0.034	1.245	-0.094	0.042	1.335	-0.082	0.042	1.405	-0.198	0.056	1.455	-0.126	0.054
1.005	-0.002	0.019	1.145	-0.040	0.034	1.245	-0.092	0.042	1.335	-0.080	0.040	1.405	-0.196	0.055	1.455	-0.124	0.054
1.005	0.000	0.018	1.145	-0.038	0.033	1.245	-0.090	0.041	1.335	-0.078	0.040	1.405	-0.194	0.054	1.455	-0.122	0.056
1.015	-0.060	0.035	1.145	-0.036	0.032	1.245	-0.088	0.040	1.335	-0.076	0.040	1.405	-0.192	0.054	1.455	-0.120	0.056
1.015	-0.058	0.035	1.145	-0.034	0.032	1.245	-0.086	0.041	1.335	-0.074	0.041	1.405	-0.190	0.055	1.455	-0.118	0.054
1.015	-0.056	0.034	1.145	-0.032	0.033	1.245	-0.084	0.042	1.335	-0.072	0.042	1.405	-0.188	0.057	1.455	-0.116	0.053
1.015	-0.054	0.034	1.145	-0.030	0.034	1.245	-0.082	0.043	1.335	-0.070	0.041	1.405	-0.186	0.058	1.455	-0.114	0.053
1.015	-0.052	0.034	1.145	-0.028	0.033	1.245	-0.080	0.041	1.335	-0.068	0.039	1.405	-0.184	0.057	1.455	-0.112	0.053
1.015	-0.050	0.033	1.145	-0.026	0.032	1.245	-0.078	0.038	1.335	-0.066	0.039	1.405	-0.182	0.055	1.455	-0.110	0.054
1.015	-0.048	0.033	1.145	-0.024	0.033	1.245	-0.076	0.036	1.335	-0.064	0.040	1.405	-0.180	0.055	1.455	-0.108	0.056
1.015	-0.046	0.033	1.145	-0.022	0.033	1.245	-0.074	0.038	1.335	-0.062	0.040	1.405	-0.178	0.055	1.455	-0.106	0.057
1.015	-0.044	0.033	1.145	-0.020	0.034	1.245	-0.072	0.038	1.335	-0.060	0.040	1.405	-0.176	0.053	1.455	-0.104	0.057
1.015	-0.042	0.033	1.145	-0.018	0.033	1.245	-0.070	0.039	1.335	-0.058	0.041	1.405	-0.174	0.053	1.455	-0.102	0.057
1.015	-0.040	0.034	1.145	-0.016	0.032	1.245	-0.068	0.039	1.335	-0.056	0.041	1.405	-0.172	0.053	1.455	-0.100	0.055
1.015	-0.038	0.035	1.145	-0.014	0.032	1.245	-0.066	0.039	1.335	-0.054	0.041	1.405	-0.170	0.053	1.455	-0.098	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.015	-0.036	0.036	1.145	-0.012	0.032	1.245	-0.064	0.037	1.335	-0.052	0.039	1.405	-0.168	0.054	1.455	-0.096	0.054
1.015	-0.034	0.037	1.145	-0.010	0.033	1.245	-0.062	0.035	1.335	-0.050	0.039	1.405	-0.166	0.055	1.455	-0.094	0.054
1.015	-0.032	0.038	1.145	-0.008	0.033	1.245	-0.060	0.034	1.335	-0.048	0.040	1.405	-0.164	0.053	1.455	-0.092	0.053
1.015	-0.030	0.038	1.145	-0.006	0.033	1.245	-0.058	0.033	1.335	-0.046	0.041	1.405	-0.162	0.053	1.455	-0.090	0.052
1.015	-0.028	0.038	1.145	-0.004	0.034	1.245	-0.056	0.033	1.335	-0.044	0.040	1.405	-0.160	0.053	1.455	-0.088	0.051
1.015	-0.026	0.038	1.145	-0.002	0.033	1.245	-0.054	0.034	1.335	-0.042	0.040	1.405	-0.158	0.054	1.455	-0.086	0.049
1.015	-0.024	0.037	1.145	0.000	0.033	1.245	-0.052	0.034	1.335	-0.040	0.041	1.405	-0.156	0.053	1.455	-0.084	0.049
1.015	-0.022	0.035	1.155	-0.198	0.052	1.245	-0.050	0.034	1.335	-0.038	0.041	1.405	-0.154	0.051	1.455	-0.082	0.047
1.015	-0.020	0.033	1.155	-0.196	0.053	1.245	-0.048	0.034	1.335	-0.036	0.043	1.405	-0.152	0.051	1.455	-0.080	0.046
1.015	-0.018	0.031	1.155	-0.194	0.053	1.245	-0.046	0.037	1.335	-0.034	0.043	1.405	-0.150	0.052	1.455	-0.078	0.046
1.015	-0.016	0.030	1.155	-0.192	0.052	1.245	-0.044	0.038	1.335	-0.032	0.043	1.405	-0.148	0.051	1.455	-0.076	0.047
1.015	-0.014	0.028	1.155	-0.190	0.051	1.245	-0.042	0.037	1.335	-0.030	0.043	1.405	-0.146	0.050	1.455	-0.074	0.047
1.015	-0.012	0.027	1.155	-0.188	0.050	1.245	-0.040	0.035	1.335	-0.028	0.041	1.405	-0.144	0.049	1.455	-0.072	0.045
1.015	-0.010	0.026	1.155	-0.186	0.050	1.245	-0.038	0.034	1.335	-0.026	0.040	1.405	-0.142	0.050	1.455	-0.070	0.044
1.015	-0.008	0.025	1.155	-0.184	0.049	1.245	-0.036	0.034	1.335	-0.024	0.040	1.405	-0.140	0.052	1.455	-0.068	0.043
1.015	-0.006	0.024	1.155	-0.182	0.049	1.245	-0.034	0.034	1.335	-0.022	0.040	1.405	-0.138	0.052	1.455	-0.066	0.044
1.015	-0.004	0.023	1.155	-0.180	0.049	1.245	-0.032	0.034	1.335	-0.020	0.039	1.405	-0.136	0.051	1.455	-0.064	0.045
1.015	-0.002	0.021	1.155	-0.178	0.048	1.245	-0.030	0.034	1.335	-0.018	0.039	1.405	-0.134	0.051	1.455	-0.062	0.044
1.015	0.000	0.020	1.155	-0.176	0.048	1.245	-0.028	0.034	1.335	-0.016	0.039	1.405	-0.132	0.050	1.455	-0.060	0.044
1.025	-0.078	0.041	1.155	-0.174	0.048	1.245	-0.026	0.034	1.335	-0.014	0.039	1.405	-0.130	0.050	1.455	-0.058	0.044
1.025	-0.076	0.040	1.155	-0.172	0.047	1.245	-0.024	0.035	1.335	-0.012	0.040	1.405	-0.128	0.050	1.455	-0.056	0.044
1.025	-0.074	0.040	1.155	-0.170	0.046	1.245	-0.022	0.035	1.335	-0.010	0.041	1.405	-0.126	0.048	1.455	-0.054	0.044
1.025	-0.072	0.039	1.155	-0.168	0.045	1.245	-0.020	0.036	1.335	-0.008	0.041	1.405	-0.124	0.046	1.455	-0.052	0.046
1.025	-0.070	0.038	1.155	-0.166	0.045	1.245	-0.018	0.037	1.335	-0.006	0.040	1.405	-0.122	0.045	1.455	-0.050	0.046
1.025	-0.068	0.038	1.155	-0.164	0.046	1.245	-0.016	0.037	1.335	-0.004	0.038	1.405	-0.120	0.046	1.455	-0.048	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.025	-0.066	0.037	1.155	-0.162	0.048	1.245	-0.014	0.035	1.335	-0.002	0.037	1.405	-0.118	0.049	1.455	-0.046	0.045
1.025	-0.064	0.037	1.155	-0.160	0.049	1.245	-0.012	0.033	1.335	0.000	0.039	1.405	-0.116	0.051	1.455	-0.044	0.044
1.025	-0.062	0.036	1.155	-0.158	0.048	1.245	-0.010	0.032	1.345	-0.230	0.056	1.405	-0.114	0.050	1.455	-0.042	0.042
1.025	-0.060	0.036	1.155	-0.156	0.046	1.245	-0.008	0.031	1.345	-0.228	0.056	1.405	-0.112	0.049	1.455	-0.040	0.040
1.025	-0.058	0.035	1.155	-0.154	0.046	1.245	-0.006	0.031	1.345	-0.226	0.056	1.405	-0.110	0.048	1.455	-0.038	0.039
1.025	-0.056	0.035	1.155	-0.152	0.047	1.245	-0.004	0.032	1.345	-0.224	0.056	1.405	-0.108	0.047	1.455	-0.036	0.040
1.025	-0.054	0.035	1.155	-0.150	0.048	1.245	-0.002	0.033	1.345	-0.222	0.056	1.405	-0.106	0.046	1.455	-0.034	0.040
1.025	-0.052	0.035	1.155	-0.148	0.047	1.245	0.000	0.032	1.345	-0.220	0.055	1.405	-0.104	0.046	1.455	-0.032	0.042
1.025	-0.050	0.035	1.155	-0.146	0.047	1.255	-0.230	0.053	1.345	-0.218	0.054	1.405	-0.102	0.046	1.455	-0.030	0.044
1.025	-0.048	0.035	1.155	-0.144	0.046	1.255	-0.228	0.051	1.345	-0.216	0.054	1.405	-0.100	0.046	1.455	-0.028	0.045
1.025	-0.046	0.034	1.155	-0.142	0.047	1.255	-0.226	0.052	1.345	-0.214	0.053	1.405	-0.098	0.045	1.455	-0.026	0.044
1.025	-0.044	0.034	1.155	-0.140	0.047	1.255	-0.224	0.053	1.345	-0.212	0.053	1.405	-0.096	0.045	1.455	-0.024	0.044
1.025	-0.042	0.034	1.155	-0.138	0.046	1.255	-0.222	0.051	1.345	-0.210	0.053	1.405	-0.094	0.045	1.455	-0.022	0.043
1.025	-0.040	0.034	1.155	-0.136	0.044	1.255	-0.220	0.050	1.345	-0.208	0.053	1.405	-0.092	0.045	1.455	-0.020	0.043
1.025	-0.038	0.034	1.155	-0.134	0.041	1.255	-0.218	0.051	1.345	-0.206	0.053	1.405	-0.090	0.044	1.455	-0.018	0.043
1.025	-0.036	0.036	1.155	-0.132	0.041	1.255	-0.216	0.053	1.345	-0.204	0.051	1.405	-0.088	0.044	1.455	-0.016	0.043
1.025	-0.034	0.037	1.155	-0.130	0.041	1.255	-0.214	0.054	1.345	-0.202	0.050	1.405	-0.086	0.044	1.455	-0.014	0.042
1.025	-0.032	0.039	1.155	-0.128	0.042	1.255	-0.212	0.053	1.345	-0.200	0.052	1.405	-0.084	0.044	1.455	-0.012	0.041
1.025	-0.030	0.040	1.155	-0.126	0.043	1.255	-0.210	0.052	1.345	-0.198	0.052	1.405	-0.082	0.044	1.455	-0.010	0.041
1.025	-0.028	0.041	1.155	-0.124	0.043	1.255	-0.208	0.051	1.345	-0.196	0.050	1.405	-0.080	0.044	1.455	-0.008	0.041
1.025	-0.026	0.040	1.155	-0.122	0.043	1.255	-0.206	0.051	1.345	-0.194	0.050	1.405	-0.078	0.043	1.455	-0.006	0.042
1.025	-0.024	0.038	1.155	-0.120	0.043	1.255	-0.204	0.052	1.345	-0.192	0.049	1.405	-0.076	0.041	1.455	-0.004	0.043
1.025	-0.022	0.035	1.155	-0.118	0.045	1.255	-0.202	0.052	1.345	-0.190	0.051	1.405	-0.074	0.041	1.455	-0.002	0.042
1.025	-0.020	0.033	1.155	-0.116	0.046	1.255	-0.200	0.052	1.345	-0.188	0.053	1.405	-0.072	0.041	1.455	0.000	0.040
1.025	-0.018	0.031	1.155	-0.114	0.046	1.255	-0.198	0.050	1.345	-0.186	0.052	1.405	-0.070	0.040	1.465	-0.188	0.059

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.025	-0.016	0.030	1.155	-0.112	0.045	1.255	-0.196	0.050	1.345	-0.184	0.050	1.405	-0.068	0.039	1.465	-0.186	0.059
1.025	-0.014	0.029	1.155	-0.110	0.044	1.255	-0.194	0.050	1.345	-0.182	0.048	1.405	-0.066	0.039	1.465	-0.184	0.059
1.025	-0.012	0.028	1.155	-0.108	0.045	1.255	-0.192	0.051	1.345	-0.180	0.049	1.405	-0.064	0.039	1.465	-0.182	0.059
1.025	-0.010	0.027	1.155	-0.106	0.044	1.255	-0.190	0.050	1.345	-0.178	0.051	1.405	-0.062	0.040	1.465	-0.180	0.058
1.025	-0.008	0.026	1.155	-0.104	0.043	1.255	-0.188	0.050	1.345	-0.176	0.053	1.405	-0.060	0.041	1.465	-0.178	0.058
1.025	-0.006	0.025	1.155	-0.102	0.042	1.255	-0.186	0.050	1.345	-0.174	0.052	1.405	-0.058	0.042	1.465	-0.176	0.059
1.025	-0.004	0.024	1.155	-0.100	0.041	1.255	-0.184	0.050	1.345	-0.172	0.052	1.405	-0.056	0.042	1.465	-0.174	0.059
1.025	-0.002	0.023	1.155	-0.098	0.040	1.255	-0.182	0.048	1.345	-0.170	0.050	1.405	-0.054	0.041	1.465	-0.172	0.059
1.025	0.000	0.023	1.155	-0.096	0.040	1.255	-0.180	0.047	1.345	-0.168	0.049	1.405	-0.052	0.040	1.465	-0.170	0.057
1.035	-0.094	0.039	1.155	-0.094	0.042	1.255	-0.178	0.045	1.345	-0.166	0.048	1.405	-0.050	0.037	1.465	-0.168	0.056
1.035	-0.092	0.039	1.155	-0.092	0.042	1.255	-0.176	0.045	1.345	-0.164	0.048	1.405	-0.048	0.037	1.465	-0.166	0.057
1.035	-0.090	0.039	1.155	-0.090	0.042	1.255	-0.174	0.046	1.345	-0.162	0.048	1.405	-0.046	0.037	1.465	-0.164	0.058
1.035	-0.088	0.040	1.155	-0.088	0.041	1.255	-0.172	0.047	1.345	-0.160	0.048	1.405	-0.044	0.039	1.465	-0.162	0.058
1.035	-0.086	0.040	1.155	-0.086	0.039	1.255	-0.170	0.047	1.345	-0.158	0.049	1.405	-0.042	0.039	1.465	-0.160	0.057
1.035	-0.084	0.041	1.155	-0.084	0.039	1.255	-0.168	0.046	1.345	-0.156	0.050	1.405	-0.040	0.039	1.465	-0.158	0.057
1.035	-0.082	0.041	1.155	-0.082	0.040	1.255	-0.166	0.046	1.345	-0.154	0.051	1.405	-0.038	0.039	1.465	-0.156	0.057
1.035	-0.080	0.041	1.155	-0.080	0.040	1.255	-0.164	0.046	1.345	-0.152	0.050	1.405	-0.036	0.038	1.465	-0.154	0.058
1.035	-0.078	0.041	1.155	-0.078	0.039	1.255	-0.162	0.046	1.345	-0.150	0.049	1.405	-0.034	0.039	1.465	-0.152	0.056
1.035	-0.076	0.040	1.155	-0.076	0.037	1.255	-0.160	0.047	1.345	-0.148	0.049	1.405	-0.032	0.041	1.465	-0.150	0.055
1.035	-0.074	0.040	1.155	-0.074	0.035	1.255	-0.158	0.048	1.345	-0.146	0.047	1.405	-0.030	0.041	1.465	-0.148	0.055
1.035	-0.072	0.039	1.155	-0.072	0.036	1.255	-0.156	0.049	1.345	-0.144	0.047	1.405	-0.028	0.042	1.465	-0.146	0.057
1.035	-0.070	0.038	1.155	-0.070	0.040	1.255	-0.154	0.049	1.345	-0.142	0.049	1.405	-0.026	0.042	1.465	-0.144	0.060
1.035	-0.068	0.037	1.155	-0.068	0.041	1.255	-0.152	0.049	1.345	-0.140	0.049	1.405	-0.024	0.041	1.465	-0.142	0.061
1.035	-0.066	0.037	1.155	-0.066	0.039	1.255	-0.150	0.050	1.345	-0.138	0.048	1.405	-0.022	0.040	1.465	-0.140	0.061
1.035	-0.064	0.037	1.155	-0.064	0.037	1.255	-0.148	0.050	1.345	-0.136	0.047	1.405	-0.020	0.041	1.465	-0.138	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.035	-0.062	0.037	1.155	-0.062	0.035	1.255	-0.146	0.049	1.345	-0.134	0.049	1.405	-0.018	0.042	1.465	-0.136	0.061
1.035	-0.060	0.036	1.155	-0.060	0.035	1.255	-0.144	0.048	1.345	-0.132	0.050	1.405	-0.016	0.041	1.465	-0.134	0.060
1.035	-0.058	0.036	1.155	-0.058	0.036	1.255	-0.142	0.048	1.345	-0.130	0.050	1.405	-0.014	0.039	1.465	-0.132	0.059
1.035	-0.056	0.036	1.155	-0.056	0.036	1.255	-0.140	0.050	1.345	-0.128	0.049	1.405	-0.012	0.039	1.465	-0.130	0.060
1.035	-0.054	0.036	1.155	-0.054	0.036	1.255	-0.138	0.050	1.345	-0.126	0.045	1.405	-0.010	0.039	1.465	-0.128	0.060
1.035	-0.052	0.036	1.155	-0.052	0.035	1.255	-0.136	0.049	1.345	-0.124	0.043	1.405	-0.008	0.039	1.465	-0.126	0.060
1.035	-0.050	0.036	1.155	-0.050	0.035	1.255	-0.134	0.048	1.345	-0.122	0.045	1.405	-0.006	0.039	1.465	-0.124	0.059
1.035	-0.048	0.036	1.155	-0.048	0.035	1.255	-0.132	0.047	1.345	-0.120	0.047	1.405	-0.004	0.039	1.465	-0.122	0.057
1.035	-0.046	0.036	1.155	-0.046	0.035	1.255	-0.130	0.046	1.345	-0.118	0.050	1.405	-0.002	0.040	1.465	-0.120	0.058
1.035	-0.044	0.037	1.155	-0.044	0.036	1.255	-0.128	0.046	1.345	-0.116	0.050	1.405	0.000	0.039	1.465	-0.118	0.058
1.035	-0.042	0.036	1.155	-0.042	0.036	1.255	-0.126	0.047	1.345	-0.114	0.048	1.41	-0.212	0.057	1.465	-0.116	0.057
1.035	-0.040	0.035	1.155	-0.040	0.034	1.255	-0.124	0.048	1.345	-0.112	0.047	1.41	-0.210	0.058	1.465	-0.114	0.056
1.035	-0.038	0.035	1.155	-0.038	0.033	1.255	-0.122	0.048	1.345	-0.110	0.046	1.41	-0.208	0.058	1.465	-0.112	0.057
1.035	-0.036	0.036	1.155	-0.036	0.033	1.255	-0.120	0.047	1.345	-0.108	0.046	1.41	-0.206	0.057	1.465	-0.110	0.058
1.035	-0.034	0.038	1.155	-0.034	0.034	1.255	-0.118	0.045	1.345	-0.106	0.046	1.41	-0.204	0.057	1.465	-0.108	0.057
1.035	-0.032	0.039	1.155	-0.032	0.035	1.255	-0.116	0.044	1.345	-0.104	0.047	1.41	-0.202	0.055	1.465	-0.106	0.053
1.035	-0.030	0.040	1.155	-0.030	0.035	1.255	-0.114	0.044	1.345	-0.102	0.047	1.41	-0.200	0.056	1.465	-0.104	0.051
1.035	-0.028	0.041	1.155	-0.028	0.034	1.255	-0.112	0.044	1.345	-0.100	0.046	1.41	-0.198	0.055	1.465	-0.102	0.054
1.035	-0.026	0.039	1.155	-0.026	0.034	1.255	-0.110	0.043	1.345	-0.098	0.044	1.41	-0.196	0.053	1.465	-0.100	0.054
1.035	-0.024	0.037	1.155	-0.024	0.036	1.255	-0.108	0.042	1.345	-0.096	0.044	1.41	-0.194	0.053	1.465	-0.098	0.053
1.035	-0.022	0.035	1.155	-0.022	0.036	1.255	-0.106	0.041	1.345	-0.094	0.045	1.41	-0.192	0.054	1.465	-0.096	0.051
1.035	-0.020	0.034	1.155	-0.020	0.035	1.255	-0.104	0.042	1.345	-0.092	0.044	1.41	-0.190	0.055	1.465	-0.094	0.052
1.035	-0.018	0.033	1.155	-0.018	0.033	1.255	-0.102	0.043	1.345	-0.090	0.044	1.41	-0.188	0.055	1.465	-0.092	0.054
1.035	-0.016	0.032	1.155	-0.016	0.033	1.255	-0.100	0.042	1.345	-0.088	0.045	1.41	-0.186	0.055	1.465	-0.090	0.055
1.035	-0.014	0.031	1.155	-0.014	0.033	1.255	-0.098	0.042	1.345	-0.086	0.045	1.41	-0.184	0.055	1.465	-0.088	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.035	-0.012	0.030	1.155	-0.012	0.033	1.255	-0.096	0.042	1.345	-0.084	0.043	1.41	-0.182	0.055	1.465	-0.086	0.054
1.035	-0.010	0.029	1.155	-0.010	0.033	1.255	-0.094	0.042	1.345	-0.082	0.042	1.41	-0.180	0.056	1.465	-0.084	0.051
1.035	-0.008	0.028	1.155	-0.008	0.033	1.255	-0.092	0.042	1.345	-0.080	0.041	1.41	-0.178	0.056	1.465	-0.082	0.051
1.035	-0.006	0.027	1.155	-0.006	0.033	1.255	-0.090	0.042	1.345	-0.078	0.041	1.41	-0.176	0.055	1.465	-0.080	0.050
1.035	-0.004	0.026	1.155	-0.004	0.033	1.255	-0.088	0.041	1.345	-0.076	0.041	1.41	-0.174	0.054	1.465	-0.078	0.049
1.035	-0.002	0.025	1.155	-0.002	0.033	1.255	-0.086	0.041	1.345	-0.074	0.041	1.41	-0.172	0.054	1.465	-0.076	0.051
1.035	0.000	0.025	1.155	0.000	0.033	1.255	-0.084	0.040	1.345	-0.072	0.041	1.41	-0.170	0.055	1.465	-0.074	0.052
1.045	-0.106	0.041	1.165	-0.204	0.050	1.255	-0.082	0.039	1.345	-0.070	0.041	1.41	-0.168	0.055	1.465	-0.072	0.052
1.045	-0.104	0.040	1.165	-0.202	0.050	1.255	-0.080	0.037	1.345	-0.068	0.041	1.41	-0.166	0.054	1.465	-0.070	0.052
1.045	-0.102	0.040	1.165	-0.200	0.050	1.255	-0.078	0.037	1.345	-0.066	0.040	1.41	-0.164	0.053	1.465	-0.068	0.050
1.045	-0.100	0.040	1.165	-0.198	0.050	1.255	-0.076	0.038	1.345	-0.064	0.040	1.41	-0.162	0.052	1.465	-0.066	0.049
1.045	-0.098	0.040	1.165	-0.196	0.051	1.255	-0.074	0.039	1.345	-0.062	0.041	1.41	-0.160	0.052	1.465	-0.064	0.049
1.045	-0.096	0.040	1.165	-0.194	0.052	1.255	-0.072	0.039	1.345	-0.060	0.042	1.41	-0.158	0.052	1.465	-0.062	0.048
1.045	-0.094	0.039	1.165	-0.192	0.052	1.255	-0.070	0.040	1.345	-0.058	0.042	1.41	-0.156	0.051	1.465	-0.060	0.046
1.045	-0.092	0.039	1.165	-0.190	0.052	1.255	-0.068	0.040	1.345	-0.056	0.042	1.41	-0.154	0.050	1.465	-0.058	0.046
1.045	-0.090	0.039	1.165	-0.188	0.051	1.255	-0.066	0.039	1.345	-0.054	0.042	1.41	-0.152	0.051	1.465	-0.056	0.047
1.045	-0.088	0.039	1.165	-0.186	0.049	1.255	-0.064	0.040	1.345	-0.052	0.042	1.41	-0.150	0.052	1.465	-0.054	0.046
1.045	-0.086	0.039	1.165	-0.184	0.047	1.255	-0.062	0.039	1.345	-0.050	0.043	1.41	-0.148	0.051	1.465	-0.052	0.045
1.045	-0.084	0.040	1.165	-0.182	0.047	1.255	-0.060	0.038	1.345	-0.048	0.041	1.41	-0.146	0.050	1.465	-0.050	0.045
1.045	-0.082	0.040	1.165	-0.180	0.046	1.255	-0.058	0.036	1.345	-0.046	0.041	1.41	-0.144	0.049	1.465	-0.048	0.045
1.045	-0.080	0.041	1.165	-0.178	0.045	1.255	-0.056	0.035	1.345	-0.044	0.040	1.41	-0.142	0.051	1.465	-0.046	0.045
1.045	-0.078	0.041	1.165	-0.176	0.047	1.255	-0.054	0.034	1.345	-0.042	0.040	1.41	-0.140	0.052	1.465	-0.044	0.045
1.045	-0.076	0.040	1.165	-0.174	0.048	1.255	-0.052	0.034	1.345	-0.040	0.042	1.41	-0.138	0.052	1.465	-0.042	0.042
1.045	-0.074	0.039	1.165	-0.172	0.048	1.255	-0.050	0.034	1.345	-0.038	0.042	1.41	-0.136	0.051	1.465	-0.040	0.042
1.045	-0.072	0.039	1.165	-0.170	0.048	1.255	-0.048	0.035	1.345	-0.036	0.041	1.41	-0.134	0.050	1.465	-0.038	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.045	-0.070	0.037	1.165	-0.168	0.048	1.255	-0.046	0.036	1.345	-0.034	0.040	1.41	-0.132	0.049	1.465	-0.036	0.042
1.045	-0.068	0.037	1.165	-0.166	0.047	1.255	-0.044	0.035	1.345	-0.032	0.040	1.41	-0.130	0.048	1.465	-0.034	0.042
1.045	-0.066	0.037	1.165	-0.164	0.047	1.255	-0.042	0.035	1.345	-0.030	0.041	1.41	-0.128	0.048	1.465	-0.032	0.042
1.045	-0.064	0.038	1.165	-0.162	0.046	1.255	-0.040	0.036	1.345	-0.028	0.040	1.41	-0.126	0.048	1.465	-0.030	0.042
1.045	-0.062	0.037	1.165	-0.160	0.046	1.255	-0.038	0.035	1.345	-0.026	0.038	1.41	-0.124	0.048	1.465	-0.028	0.043
1.045	-0.060	0.037	1.165	-0.158	0.047	1.255	-0.036	0.034	1.345	-0.024	0.038	1.41	-0.122	0.048	1.465	-0.026	0.043
1.045	-0.058	0.037	1.165	-0.156	0.047	1.255	-0.034	0.034	1.345	-0.022	0.038	1.41	-0.120	0.049	1.465	-0.024	0.042
1.045	-0.056	0.037	1.165	-0.154	0.047	1.255	-0.032	0.034	1.345	-0.020	0.038	1.41	-0.118	0.051	1.465	-0.022	0.042
1.045	-0.054	0.038	1.165	-0.152	0.048	1.255	-0.030	0.034	1.345	-0.018	0.039	1.41	-0.116	0.051	1.465	-0.020	0.042
1.045	-0.052	0.039	1.165	-0.150	0.049	1.255	-0.028	0.034	1.345	-0.016	0.039	1.41	-0.114	0.050	1.465	-0.018	0.041
1.045	-0.050	0.036	1.165	-0.148	0.048	1.255	-0.026	0.034	1.345	-0.014	0.039	1.41	-0.112	0.048	1.465	-0.016	0.040
1.045	-0.048	0.035	1.165	-0.146	0.046	1.255	-0.024	0.034	1.345	-0.012	0.039	1.41	-0.110	0.046	1.465	-0.014	0.040
1.045	-0.046	0.037	1.165	-0.144	0.044	1.255	-0.022	0.034	1.345	-0.010	0.040	1.41	-0.108	0.045	1.465	-0.012	0.042
1.045	-0.044	0.040	1.165	-0.142	0.043	1.255	-0.020	0.034	1.345	-0.008	0.041	1.41	-0.106	0.046	1.465	-0.010	0.043
1.045	-0.042	0.040	1.165	-0.140	0.044	1.255	-0.018	0.034	1.345	-0.006	0.039	1.41	-0.104	0.046	1.465	-0.008	0.043
1.045	-0.040	0.038	1.165	-0.138	0.045	1.255	-0.016	0.034	1.345	-0.004	0.038	1.41	-0.102	0.047	1.465	-0.006	0.042
1.045	-0.038	0.038	1.165	-0.136	0.045	1.255	-0.014	0.033	1.345	-0.002	0.037	1.41	-0.100	0.046	1.465	-0.004	0.042
1.045	-0.036	0.038	1.165	-0.134	0.045	1.255	-0.012	0.032	1.345	0.000	0.038	1.41	-0.098	0.045	1.465	-0.002	0.041
1.045	-0.034	0.037	1.165	-0.132	0.043	1.255	-0.010	0.031	1.355	-0.228	0.054	1.41	-0.096	0.044	1.465	0.000	0.041
1.045	-0.032	0.037	1.165	-0.130	0.043	1.255	-0.008	0.031	1.355	-0.226	0.056	1.41	-0.094	0.044	1.47	-0.182	0.059
1.045	-0.030	0.036	1.165	-0.128	0.043	1.255	-0.006	0.032	1.355	-0.224	0.056	1.41	-0.092	0.043	1.47	-0.180	0.059
1.045	-0.028	0.033	1.165	-0.126	0.044	1.255	-0.004	0.033	1.355	-0.222	0.054	1.41	-0.090	0.042	1.47	-0.178	0.059
1.045	-0.026	0.032	1.165	-0.124	0.045	1.255	-0.002	0.032	1.355	-0.220	0.055	1.41	-0.088	0.042	1.47	-0.176	0.060
1.045	-0.024	0.032	1.165	-0.122	0.044	1.255	0.000	0.032	1.355	-0.218	0.054	1.41	-0.086	0.042	1.47	-0.174	0.060
1.045	-0.022	0.032	1.165	-0.120	0.044	1.265	-0.232	0.055	1.355	-0.216	0.054	1.41	-0.084	0.043	1.47	-0.172	0.059

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.045	-0.020	0.032	1.165	-0.118	0.046	1.265	-0.230	0.054	1.355	-0.214	0.053	1.41	-0.082	0.043	1.47	-0.170	0.058
1.045	-0.018	0.032	1.165	-0.116	0.048	1.265	-0.228	0.053	1.355	-0.212	0.054	1.41	-0.080	0.044	1.47	-0.168	0.057
1.045	-0.016	0.032	1.165	-0.114	0.049	1.265	-0.226	0.050	1.355	-0.210	0.055	1.41	-0.078	0.043	1.47	-0.166	0.057
1.045	-0.014	0.031	1.165	-0.112	0.048	1.265	-0.224	0.051	1.355	-0.208	0.055	1.41	-0.076	0.041	1.47	-0.164	0.057
1.045	-0.012	0.031	1.165	-0.110	0.044	1.265	-0.222	0.051	1.355	-0.206	0.053	1.41	-0.074	0.041	1.47	-0.162	0.059
1.045	-0.010	0.030	1.165	-0.108	0.040	1.265	-0.220	0.051	1.355	-0.204	0.053	1.41	-0.072	0.041	1.47	-0.160	0.059
1.045	-0.008	0.029	1.165	-0.106	0.038	1.265	-0.218	0.052	1.355	-0.202	0.054	1.41	-0.070	0.041	1.47	-0.158	0.059
1.045	-0.006	0.029	1.165	-0.104	0.039	1.265	-0.216	0.055	1.355	-0.200	0.056	1.41	-0.068	0.040	1.47	-0.156	0.059
1.045	-0.004	0.028	1.165	-0.102	0.040	1.265	-0.214	0.057	1.355	-0.198	0.058	1.41	-0.066	0.039	1.47	-0.154	0.058
1.045	-0.002	0.027	1.165	-0.100	0.040	1.265	-0.212	0.057	1.355	-0.196	0.059	1.41	-0.064	0.038	1.47	-0.152	0.056
1.045	0.000	0.026	1.165	-0.098	0.040	1.265	-0.210	0.057	1.355	-0.194	0.058	1.41	-0.062	0.039	1.47	-0.150	0.056
1.055	-0.118	0.044	1.165	-0.096	0.040	1.265	-0.208	0.056	1.355	-0.192	0.055	1.41	-0.060	0.039	1.47	-0.148	0.056
1.055	-0.116	0.043	1.165	-0.094	0.040	1.265	-0.206	0.052	1.355	-0.190	0.054	1.41	-0.058	0.040	1.47	-0.146	0.056
1.055	-0.114	0.042	1.165	-0.092	0.040	1.265	-0.204	0.050	1.355	-0.188	0.054	1.41	-0.056	0.042	1.47	-0.144	0.059
1.055	-0.112	0.041	1.165	-0.090	0.039	1.265	-0.202	0.051	1.355	-0.186	0.054	1.41	-0.054	0.042	1.47	-0.142	0.061
1.055	-0.110	0.040	1.165	-0.088	0.038	1.265	-0.200	0.050	1.355	-0.184	0.052	1.41	-0.052	0.040	1.47	-0.140	0.061
1.055	-0.108	0.040	1.165	-0.086	0.037	1.265	-0.198	0.049	1.355	-0.182	0.052	1.41	-0.050	0.038	1.47	-0.138	0.059
1.055	-0.106	0.039	1.165	-0.084	0.038	1.265	-0.196	0.049	1.355	-0.180	0.053	1.41	-0.048	0.038	1.47	-0.136	0.058
1.055	-0.104	0.039	1.165	-0.082	0.038	1.265	-0.194	0.051	1.355	-0.178	0.054	1.41	-0.046	0.039	1.47	-0.134	0.058
1.055	-0.102	0.040	1.165	-0.080	0.037	1.265	-0.192	0.052	1.355	-0.176	0.054	1.41	-0.044	0.038	1.47	-0.132	0.058
1.055	-0.100	0.040	1.165	-0.078	0.036	1.265	-0.190	0.052	1.355	-0.174	0.054	1.41	-0.042	0.037	1.47	-0.130	0.058
1.055	-0.098	0.040	1.165	-0.076	0.035	1.265	-0.188	0.049	1.355	-0.172	0.054	1.41	-0.040	0.039	1.47	-0.128	0.059
1.055	-0.096	0.041	1.165	-0.074	0.036	1.265	-0.186	0.047	1.355	-0.170	0.053	1.41	-0.038	0.040	1.47	-0.126	0.059
1.055	-0.094	0.041	1.165	-0.072	0.038	1.265	-0.184	0.047	1.355	-0.168	0.052	1.41	-0.036	0.040	1.47	-0.124	0.058
1.055	-0.092	0.040	1.165	-0.070	0.039	1.265	-0.182	0.048	1.355	-0.166	0.051	1.41	-0.034	0.039	1.47	-0.122	0.057

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.055	-0.090	0.040	1.165	-0.068	0.040	1.265	-0.180	0.048	1.355	-0.164	0.051	1.41	-0.032	0.041	1.47	-0.120	0.057
1.055	-0.088	0.039	1.165	-0.066	0.039	1.265	-0.178	0.047	1.355	-0.162	0.051	1.41	-0.030	0.042	1.47	-0.118	0.058
1.055	-0.086	0.038	1.165	-0.064	0.040	1.265	-0.176	0.048	1.355	-0.160	0.051	1.41	-0.028	0.042	1.47	-0.116	0.058
1.055	-0.084	0.037	1.165	-0.062	0.041	1.265	-0.174	0.048	1.355	-0.158	0.051	1.41	-0.026	0.041	1.47	-0.114	0.057
1.055	-0.082	0.037	1.165	-0.060	0.043	1.265	-0.172	0.048	1.355	-0.156	0.051	1.41	-0.024	0.040	1.47	-0.112	0.056
1.055	-0.080	0.038	1.165	-0.058	0.044	1.265	-0.170	0.047	1.355	-0.154	0.051	1.41	-0.022	0.040	1.47	-0.110	0.055
1.055	-0.078	0.039	1.165	-0.056	0.044	1.265	-0.168	0.047	1.355	-0.152	0.050	1.41	-0.020	0.041	1.47	-0.108	0.055
1.055	-0.076	0.039	1.165	-0.054	0.044	1.265	-0.166	0.047	1.355	-0.150	0.050	1.41	-0.018	0.041	1.47	-0.106	0.053
1.055	-0.074	0.037	1.165	-0.052	0.042	1.265	-0.164	0.047	1.355	-0.148	0.049	1.41	-0.016	0.041	1.47	-0.104	0.052
1.055	-0.072	0.039	1.165	-0.050	0.037	1.265	-0.162	0.047	1.355	-0.146	0.047	1.41	-0.014	0.040	1.47	-0.102	0.053
1.055	-0.070	0.041	1.165	-0.048	0.035	1.265	-0.160	0.046	1.355	-0.144	0.048	1.41	-0.012	0.040	1.47	-0.100	0.054
1.055	-0.068	0.039	1.165	-0.046	0.034	1.265	-0.158	0.045	1.355	-0.142	0.050	1.41	-0.010	0.041	1.47	-0.098	0.052
1.055	-0.066	0.038	1.165	-0.044	0.033	1.265	-0.156	0.045	1.355	-0.140	0.050	1.41	-0.008	0.042	1.47	-0.096	0.050
1.055	-0.064	0.038	1.165	-0.042	0.034	1.265	-0.154	0.045	1.355	-0.138	0.050	1.41	-0.006	0.041	1.47	-0.094	0.051
1.055	-0.062	0.038	1.165	-0.040	0.035	1.265	-0.152	0.046	1.355	-0.136	0.048	1.41	-0.004	0.040	1.47	-0.092	0.053
1.055	-0.060	0.039	1.165	-0.038	0.036	1.265	-0.150	0.048	1.355	-0.134	0.047	1.41	-0.002	0.040	1.47	-0.090	0.055
1.055	-0.058	0.039	1.165	-0.036	0.036	1.265	-0.148	0.048	1.355	-0.132	0.048	1.41	0.000	0.040	1.47	-0.088	0.055
1.055	-0.056	0.038	1.165	-0.034	0.038	1.265	-0.146	0.048	1.355	-0.130	0.047	1.415	-0.212	0.057	1.47	-0.086	0.054
1.055	-0.054	0.038	1.165	-0.032	0.040	1.265	-0.144	0.048	1.355	-0.128	0.045	1.415	-0.210	0.058	1.47	-0.084	0.051
1.055	-0.052	0.037	1.165	-0.030	0.039	1.265	-0.142	0.048	1.355	-0.126	0.045	1.415	-0.208	0.058	1.47	-0.082	0.052
1.055	-0.050	0.037	1.165	-0.028	0.036	1.265	-0.140	0.048	1.355	-0.124	0.047	1.415	-0.206	0.058	1.47	-0.080	0.053
1.055	-0.048	0.039	1.165	-0.026	0.034	1.265	-0.138	0.047	1.355	-0.122	0.047	1.415	-0.204	0.058	1.47	-0.078	0.053
1.055	-0.046	0.041	1.165	-0.024	0.034	1.265	-0.136	0.047	1.355	-0.120	0.047	1.415	-0.202	0.057	1.47	-0.076	0.055
1.055	-0.044	0.041	1.165	-0.022	0.035	1.265	-0.134	0.047	1.355	-0.118	0.047	1.415	-0.200	0.057	1.47	-0.074	0.057
1.055	-0.042	0.041	1.165	-0.020	0.035	1.265	-0.132	0.047	1.355	-0.116	0.049	1.415	-0.198	0.054	1.47	-0.072	0.057

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.055	-0.040	0.040	1.165	-0.018	0.034	1.265	-0.130	0.046	1.355	-0.114	0.049	1.415	-0.196	0.052	1.47	-0.070	0.056
1.055	-0.038	0.039	1.165	-0.016	0.033	1.265	-0.128	0.046	1.355	-0.112	0.048	1.415	-0.194	0.051	1.47	-0.068	0.055
1.055	-0.036	0.036	1.165	-0.014	0.033	1.265	-0.126	0.046	1.355	-0.110	0.048	1.415	-0.192	0.058	1.47	-0.066	0.053
1.055	-0.034	0.036	1.165	-0.012	0.035	1.265	-0.124	0.046	1.355	-0.108	0.048	1.415	-0.190	0.059	1.47	-0.064	0.053
1.055	-0.032	0.036	1.165	-0.010	0.036	1.265	-0.122	0.045	1.355	-0.106	0.047	1.415	-0.188	0.059	1.47	-0.062	0.053
1.055	-0.030	0.034	1.165	-0.008	0.035	1.265	-0.120	0.046	1.355	-0.104	0.047	1.415	-0.186	0.058	1.47	-0.060	0.051
1.055	-0.028	0.033	1.165	-0.006	0.034	1.265	-0.118	0.046	1.355	-0.102	0.045	1.415	-0.184	0.058	1.47	-0.058	0.050
1.055	-0.026	0.032	1.165	-0.004	0.034	1.265	-0.116	0.045	1.355	-0.100	0.044	1.415	-0.182	0.058	1.47	-0.056	0.049
1.055	-0.024	0.033	1.165	-0.002	0.034	1.265	-0.114	0.044	1.355	-0.098	0.044	1.415	-0.180	0.057	1.47	-0.054	0.046
1.055	-0.022	0.033	1.165	0.000	0.034	1.265	-0.112	0.043	1.355	-0.096	0.044	1.415	-0.178	0.056	1.47	-0.052	0.044
1.055	-0.020	0.032	1.175	-0.208	0.049	1.265	-0.110	0.044	1.355	-0.094	0.044	1.415	-0.176	0.055	1.47	-0.050	0.044
1.055	-0.018	0.031	1.175	-0.206	0.049	1.265	-0.108	0.045	1.355	-0.092	0.043	1.415	-0.174	0.055	1.47	-0.048	0.044
1.055	-0.016	0.031	1.175	-0.204	0.048	1.265	-0.106	0.045	1.355	-0.090	0.044	1.415	-0.172	0.056	1.47	-0.046	0.045
1.055	-0.014	0.032	1.175	-0.202	0.048	1.265	-0.104	0.043	1.355	-0.088	0.044	1.415	-0.170	0.056	1.47	-0.044	0.045
1.055	-0.012	0.032	1.175	-0.200	0.048	1.265	-0.102	0.042	1.355	-0.086	0.045	1.415	-0.168	0.055	1.47	-0.042	0.044
1.055	-0.010	0.032	1.175	-0.198	0.048	1.265	-0.100	0.043	1.355	-0.084	0.045	1.415	-0.166	0.052	1.47	-0.040	0.043
1.055	-0.008	0.031	1.175	-0.196	0.048	1.265	-0.098	0.043	1.355	-0.082	0.044	1.415	-0.164	0.052	1.47	-0.038	0.043
1.055	-0.006	0.030	1.175	-0.194	0.047	1.265	-0.096	0.042	1.355	-0.080	0.044	1.415	-0.162	0.052	1.47	-0.036	0.044
1.055	-0.004	0.029	1.175	-0.192	0.047	1.265	-0.094	0.041	1.355	-0.078	0.044	1.415	-0.160	0.052	1.47	-0.034	0.045
1.055	-0.002	0.029	1.175	-0.190	0.049	1.265	-0.092	0.043	1.355	-0.076	0.043	1.415	-0.158	0.052	1.47	-0.032	0.044
1.055	0.000	0.028	1.175	-0.188	0.050	1.265	-0.090	0.042	1.355	-0.074	0.042	1.415	-0.156	0.051	1.47	-0.030	0.043
1.065	-0.130	0.046	1.175	-0.186	0.050	1.265	-0.088	0.041	1.355	-0.072	0.041	1.415	-0.154	0.052	1.47	-0.028	0.043
1.065	-0.128	0.046	1.175	-0.184	0.049	1.265	-0.086	0.041	1.355	-0.070	0.042	1.415	-0.152	0.052	1.47	-0.026	0.041
1.065	-0.126	0.046	1.175	-0.182	0.048	1.265	-0.084	0.041	1.355	-0.068	0.042	1.415	-0.150	0.053	1.47	-0.024	0.039
1.065	-0.124	0.046	1.175	-0.180	0.049	1.265	-0.082	0.040	1.355	-0.066	0.041	1.415	-0.148	0.053	1.47	-0.022	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.122	0.046	1.175	-0.178	0.050	1.265	-0.080	0.041	1.355	-0.064	0.041	1.415	-0.146	0.051	1.47	-0.020	0.040
1.065	-0.120	0.045	1.175	-0.176	0.050	1.265	-0.078	0.042	1.355	-0.062	0.042	1.415	-0.144	0.049	1.47	-0.018	0.040
1.065	-0.118	0.044	1.175	-0.174	0.049	1.265	-0.076	0.042	1.355	-0.060	0.042	1.415	-0.142	0.050	1.47	-0.016	0.041
1.065	-0.116	0.043	1.175	-0.172	0.048	1.265	-0.074	0.040	1.355	-0.058	0.041	1.415	-0.140	0.051	1.47	-0.014	0.042
1.065	-0.114	0.042	1.175	-0.170	0.048	1.265	-0.072	0.039	1.355	-0.056	0.041	1.415	-0.138	0.051	1.47	-0.012	0.045
1.065	-0.112	0.041	1.175	-0.168	0.049	1.265	-0.070	0.039	1.355	-0.054	0.040	1.415	-0.136	0.050	1.47	-0.010	0.046
1.065	-0.110	0.040	1.175	-0.166	0.048	1.265	-0.068	0.039	1.355	-0.052	0.043	1.415	-0.134	0.051	1.47	-0.008	0.045
1.065	-0.108	0.039	1.175	-0.164	0.048	1.265	-0.066	0.040	1.355	-0.050	0.047	1.415	-0.132	0.050	1.47	-0.006	0.042
1.065	-0.106	0.038	1.175	-0.162	0.048	1.265	-0.064	0.041	1.355	-0.048	0.048	1.415	-0.130	0.048	1.47	-0.004	0.041
1.065	-0.104	0.038	1.175	-0.160	0.047	1.265	-0.062	0.041	1.355	-0.046	0.046	1.415	-0.128	0.046	1.47	-0.002	0.040
1.065	-0.102	0.039	1.175	-0.158	0.046	1.265	-0.060	0.038	1.355	-0.044	0.041	1.415	-0.126	0.047	1.47	0.000	0.040
1.065	-0.100	0.040	1.175	-0.156	0.046	1.265	-0.058	0.037	1.355	-0.042	0.040	1.415	-0.124	0.048	1.475	-0.182	0.059
1.065	-0.098	0.040	1.175	-0.154	0.047	1.265	-0.056	0.037	1.355	-0.040	0.041	1.415	-0.122	0.048	1.475	-0.180	0.059
1.065	-0.096	0.041	1.175	-0.152	0.047	1.265	-0.054	0.037	1.355	-0.038	0.042	1.415	-0.120	0.049	1.475	-0.178	0.060
1.065	-0.094	0.043	1.175	-0.150	0.047	1.265	-0.052	0.036	1.355	-0.036	0.041	1.415	-0.118	0.050	1.475	-0.176	0.060
1.065	-0.092	0.043	1.175	-0.148	0.046	1.265	-0.050	0.038	1.355	-0.034	0.041	1.415	-0.116	0.049	1.475	-0.174	0.060
1.065	-0.090	0.043	1.175	-0.146	0.045	1.265	-0.048	0.040	1.355	-0.032	0.040	1.415	-0.114	0.047	1.475	-0.172	0.059
1.065	-0.088	0.042	1.175	-0.144	0.043	1.265	-0.046	0.040	1.355	-0.030	0.040	1.415	-0.112	0.046	1.475	-0.170	0.058
1.065	-0.086	0.040	1.175	-0.142	0.044	1.265	-0.044	0.039	1.355	-0.028	0.038	1.415	-0.110	0.045	1.475	-0.168	0.057
1.065	-0.084	0.038	1.175	-0.140	0.046	1.265	-0.042	0.037	1.355	-0.026	0.038	1.415	-0.108	0.044	1.475	-0.166	0.056
1.065	-0.082	0.036	1.175	-0.138	0.047	1.265	-0.040	0.036	1.355	-0.024	0.038	1.415	-0.106	0.046	1.475	-0.164	0.057
1.065	-0.080	0.035	1.175	-0.136	0.045	1.265	-0.038	0.035	1.355	-0.022	0.040	1.415	-0.104	0.046	1.475	-0.162	0.059
1.065	-0.078	0.037	1.175	-0.134	0.045	1.265	-0.036	0.033	1.355	-0.020	0.041	1.415	-0.102	0.046	1.475	-0.160	0.060
1.065	-0.076	0.038	1.175	-0.132	0.044	1.265	-0.034	0.033	1.355	-0.018	0.040	1.415	-0.100	0.045	1.475	-0.158	0.060
1.065	-0.074	0.037	1.175	-0.130	0.042	1.265	-0.032	0.035	1.355	-0.016	0.040	1.415	-0.098	0.045	1.475	-0.156	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.072	0.037	1.175	-0.128	0.041	1.265	-0.030	0.037	1.355	-0.014	0.040	1.415	-0.096	0.044	1.475	-0.154	0.058
1.065	-0.070	0.038	1.175	-0.126	0.042	1.265	-0.028	0.040	1.355	-0.012	0.040	1.415	-0.094	0.043	1.475	-0.152	0.058
1.065	-0.068	0.039	1.175	-0.124	0.043	1.265	-0.026	0.042	1.355	-0.010	0.041	1.415	-0.092	0.042	1.475	-0.150	0.059
1.065	-0.066	0.041	1.175	-0.122	0.044	1.265	-0.024	0.041	1.355	-0.008	0.041	1.415	-0.090	0.042	1.475	-0.148	0.059
1.065	-0.064	0.041	1.175	-0.120	0.045	1.265	-0.022	0.039	1.355	-0.006	0.040	1.415	-0.088	0.042	1.475	-0.146	0.058
1.065	-0.062	0.039	1.175	-0.118	0.045	1.265	-0.020	0.037	1.355	-0.004	0.040	1.415	-0.086	0.044	1.475	-0.144	0.059
1.065	-0.060	0.038	1.175	-0.116	0.044	1.265	-0.018	0.036	1.355	-0.002	0.040	1.415	-0.084	0.045	1.475	-0.142	0.061
1.065	-0.058	0.039	1.175	-0.114	0.044	1.265	-0.016	0.038	1.355	0.000	0.040	1.415	-0.082	0.045	1.475	-0.140	0.061
1.065	-0.056	0.041	1.175	-0.112	0.045	1.265	-0.014	0.039	1.365	-0.226	0.054	1.415	-0.080	0.046	1.475	-0.138	0.060
1.065	-0.054	0.040	1.175	-0.110	0.045	1.265	-0.012	0.039	1.365	-0.224	0.054	1.415	-0.078	0.045	1.475	-0.136	0.059
1.065	-0.052	0.038	1.175	-0.108	0.043	1.265	-0.010	0.038	1.365	-0.222	0.055	1.415	-0.076	0.044	1.475	-0.134	0.058
1.065	-0.050	0.038	1.175	-0.106	0.041	1.265	-0.008	0.035	1.365	-0.220	0.056	1.415	-0.074	0.043	1.475	-0.132	0.056
1.065	-0.048	0.039	1.175	-0.104	0.041	1.265	-0.006	0.033	1.365	-0.218	0.055	1.415	-0.072	0.043	1.475	-0.130	0.057
1.065	-0.046	0.042	1.175	-0.102	0.041	1.265	-0.004	0.032	1.365	-0.216	0.053	1.415	-0.070	0.042	1.475	-0.128	0.058
1.065	-0.044	0.042	1.175	-0.100	0.041	1.265	-0.002	0.032	1.365	-0.214	0.052	1.415	-0.068	0.042	1.475	-0.126	0.058
1.065	-0.042	0.039	1.175	-0.098	0.040	1.265	0.000	0.031	1.365	-0.212	0.052	1.415	-0.066	0.040	1.475	-0.124	0.057
1.065	-0.040	0.037	1.175	-0.096	0.039	1.275	-0.232	0.053	1.365	-0.210	0.054	1.415	-0.064	0.040	1.475	-0.122	0.056
1.065	-0.038	0.038	1.175	-0.094	0.040	1.275	-0.230	0.051	1.365	-0.208	0.053	1.415	-0.062	0.039	1.475	-0.120	0.056
1.065	-0.036	0.040	1.175	-0.092	0.039	1.275	-0.228	0.051	1.365	-0.206	0.052	1.415	-0.060	0.039	1.475	-0.118	0.057
1.065	-0.034	0.039	1.175	-0.090	0.039	1.275	-0.226	0.053	1.365	-0.204	0.054	1.415	-0.058	0.041	1.475	-0.116	0.057
1.065	-0.032	0.036	1.175	-0.088	0.039	1.275	-0.224	0.055	1.365	-0.202	0.058	1.415	-0.056	0.042	1.475	-0.114	0.056
1.065	-0.030	0.035	1.175	-0.086	0.042	1.275	-0.222	0.054	1.365	-0.200	0.058	1.415	-0.054	0.041	1.475	-0.112	0.056
1.065	-0.028	0.033	1.175	-0.084	0.042	1.275	-0.220	0.052	1.365	-0.198	0.055	1.415	-0.052	0.040	1.475	-0.110	0.055
1.065	-0.026	0.032	1.175	-0.082	0.040	1.275	-0.218	0.051	1.365	-0.196	0.052	1.415	-0.050	0.039	1.475	-0.108	0.055
1.065	-0.024	0.032	1.175	-0.080	0.038	1.275	-0.216	0.052	1.365	-0.194	0.052	1.415	-0.048	0.037	1.475	-0.106	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.022	0.033	1.175	-0.078	0.037	1.275	-0.214	0.053	1.365	-0.192	0.053	1.415	-0.046	0.038	1.475	-0.104	0.053
1.065	-0.020	0.033	1.175	-0.076	0.038	1.275	-0.212	0.054	1.365	-0.190	0.053	1.415	-0.044	0.039	1.475	-0.102	0.054
1.065	-0.018	0.032	1.175	-0.074	0.039	1.275	-0.210	0.054	1.365	-0.188	0.053	1.415	-0.042	0.039	1.475	-0.100	0.054
1.065	-0.016	0.032	1.175	-0.072	0.040	1.275	-0.208	0.053	1.365	-0.186	0.053	1.415	-0.040	0.039	1.475	-0.098	0.052
1.065	-0.014	0.032	1.175	-0.070	0.040	1.275	-0.206	0.052	1.365	-0.184	0.052	1.415	-0.038	0.041	1.475	-0.096	0.051
1.065	-0.012	0.032	1.175	-0.068	0.040	1.275	-0.204	0.052	1.365	-0.182	0.049	1.415	-0.036	0.041	1.475	-0.094	0.051
1.065	-0.010	0.032	1.175	-0.066	0.039	1.275	-0.202	0.052	1.365	-0.180	0.050	1.415	-0.034	0.041	1.475	-0.092	0.052
1.065	-0.008	0.032	1.175	-0.064	0.038	1.275	-0.200	0.054	1.365	-0.178	0.051	1.415	-0.032	0.041	1.475	-0.090	0.053
1.065	-0.006	0.031	1.175	-0.062	0.038	1.275	-0.198	0.056	1.365	-0.176	0.050	1.415	-0.030	0.041	1.475	-0.088	0.053
1.065	-0.004	0.030	1.175	-0.060	0.038	1.275	-0.196	0.056	1.365	-0.174	0.050	1.415	-0.028	0.041	1.475	-0.086	0.053
1.065	-0.002	0.030	1.175	-0.058	0.038	1.275	-0.194	0.054	1.365	-0.172	0.050	1.415	-0.026	0.040	1.475	-0.084	0.053
1.065	0.000	0.029	1.175	-0.056	0.039	1.275	-0.192	0.050	1.365	-0.170	0.051	1.415	-0.024	0.040	1.475	-0.082	0.054
1.075	-0.140	0.044	1.175	-0.054	0.039	1.275	-0.190	0.050	1.365	-0.168	0.050	1.415	-0.022	0.041	1.475	-0.080	0.054
1.075	-0.138	0.044	1.175	-0.052	0.039	1.275	-0.188	0.050	1.365	-0.166	0.049	1.415	-0.020	0.042	1.475	-0.078	0.055
1.075	-0.136	0.044	1.175	-0.050	0.037	1.275	-0.186	0.047	1.365	-0.164	0.049	1.415	-0.018	0.041	1.475	-0.076	0.057
1.075	-0.134	0.044	1.175	-0.048	0.035	1.275	-0.184	0.047	1.365	-0.162	0.049	1.415	-0.016	0.040	1.475	-0.074	0.058
1.075	-0.132	0.045	1.175	-0.046	0.036	1.275	-0.182	0.049	1.365	-0.160	0.049	1.415	-0.014	0.040	1.475	-0.072	0.058
1.075	-0.130	0.046	1.175	-0.044	0.038	1.275	-0.180	0.049	1.365	-0.158	0.049	1.415	-0.012	0.039	1.475	-0.070	0.058
1.075	-0.128	0.046	1.175	-0.042	0.039	1.275	-0.178	0.049	1.365	-0.156	0.049	1.415	-0.010	0.042	1.475	-0.068	0.057
1.075	-0.126	0.047	1.175	-0.040	0.040	1.275	-0.176	0.047	1.365	-0.154	0.050	1.415	-0.008	0.043	1.475	-0.066	0.055
1.075	-0.124	0.047	1.175	-0.038	0.040	1.275	-0.174	0.045	1.365	-0.152	0.051	1.415	-0.006	0.041	1.475	-0.064	0.054
1.075	-0.122	0.046	1.175	-0.036	0.038	1.275	-0.172	0.044	1.365	-0.150	0.051	1.415	-0.004	0.040	1.475	-0.062	0.054
1.075	-0.120	0.046	1.175	-0.034	0.037	1.275	-0.170	0.045	1.365	-0.148	0.052	1.415	-0.002	0.040	1.475	-0.060	0.052
1.075	-0.118	0.044	1.175	-0.032	0.036	1.275	-0.168	0.045	1.365	-0.146	0.052	1.415	0.000	0.041	1.475	-0.058	0.051
1.075	-0.116	0.043	1.175	-0.030	0.035	1.275	-0.166	0.045	1.365	-0.144	0.052	1.42	-0.208	0.058	1.475	-0.056	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.114	0.042	1.175	-0.028	0.032	1.275	-0.164	0.046	1.365	-0.142	0.050	1.42	-0.206	0.059	1.475	-0.054	0.046
1.075	-0.112	0.041	1.175	-0.026	0.033	1.275	-0.162	0.045	1.365	-0.140	0.050	1.42	-0.204	0.059	1.475	-0.052	0.044
1.075	-0.110	0.041	1.175	-0.024	0.034	1.275	-0.160	0.044	1.365	-0.138	0.050	1.42	-0.202	0.058	1.475	-0.050	0.044
1.075	-0.108	0.039	1.175	-0.022	0.033	1.275	-0.158	0.044	1.365	-0.136	0.049	1.42	-0.200	0.057	1.475	-0.048	0.044
1.075	-0.106	0.038	1.175	-0.020	0.033	1.275	-0.156	0.046	1.365	-0.134	0.047	1.42	-0.198	0.056	1.475	-0.046	0.045
1.075	-0.104	0.038	1.175	-0.018	0.032	1.275	-0.154	0.047	1.365	-0.132	0.047	1.42	-0.196	0.055	1.475	-0.044	0.046
1.075	-0.102	0.038	1.175	-0.016	0.033	1.275	-0.152	0.046	1.365	-0.130	0.047	1.42	-0.194	0.056	1.475	-0.042	0.046
1.075	-0.100	0.039	1.175	-0.014	0.035	1.275	-0.150	0.047	1.365	-0.128	0.048	1.42	-0.192	0.060	1.475	-0.040	0.044
1.075	-0.098	0.039	1.175	-0.012	0.036	1.275	-0.148	0.048	1.365	-0.126	0.048	1.42	-0.190	0.061	1.475	-0.038	0.043
1.075	-0.096	0.040	1.175	-0.010	0.035	1.275	-0.146	0.047	1.365	-0.124	0.048	1.42	-0.188	0.061	1.475	-0.036	0.046
1.075	-0.094	0.041	1.175	-0.008	0.035	1.275	-0.144	0.047	1.365	-0.122	0.048	1.42	-0.186	0.060	1.475	-0.034	0.047
1.075	-0.092	0.041	1.175	-0.006	0.035	1.275	-0.142	0.048	1.365	-0.120	0.047	1.42	-0.184	0.058	1.475	-0.032	0.045
1.075	-0.090	0.040	1.175	-0.004	0.034	1.275	-0.140	0.049	1.365	-0.118	0.046	1.42	-0.182	0.058	1.475	-0.030	0.043
1.075	-0.088	0.042	1.175	-0.002	0.032	1.275	-0.138	0.050	1.365	-0.116	0.047	1.42	-0.180	0.057	1.475	-0.028	0.042
1.075	-0.086	0.042	1.175	0.000	0.033	1.275	-0.136	0.048	1.365	-0.114	0.048	1.42	-0.178	0.055	1.475	-0.026	0.042
1.075	-0.084	0.041	1.185	-0.212	0.049	1.275	-0.134	0.045	1.365	-0.112	0.048	1.42	-0.176	0.054	1.475	-0.024	0.041
1.075	-0.082	0.041	1.185	-0.210	0.049	1.275	-0.132	0.045	1.365	-0.110	0.048	1.42	-0.174	0.056	1.475	-0.022	0.041
1.075	-0.080	0.042	1.185	-0.208	0.048	1.275	-0.130	0.045	1.365	-0.108	0.049	1.42	-0.172	0.056	1.475	-0.020	0.039
1.075	-0.078	0.041	1.185	-0.206	0.048	1.275	-0.128	0.044	1.365	-0.106	0.048	1.42	-0.170	0.057	1.475	-0.018	0.041
1.075	-0.076	0.039	1.185	-0.204	0.047	1.275	-0.126	0.045	1.365	-0.104	0.047	1.42	-0.168	0.057	1.475	-0.016	0.042
1.075	-0.074	0.038	1.185	-0.202	0.047	1.275	-0.124	0.046	1.365	-0.102	0.047	1.42	-0.166	0.055	1.475	-0.014	0.044
1.075	-0.072	0.038	1.185	-0.200	0.046	1.275	-0.122	0.047	1.365	-0.100	0.045	1.42	-0.164	0.053	1.475	-0.012	0.044
1.075	-0.070	0.038	1.185	-0.198	0.046	1.275	-0.120	0.047	1.365	-0.098	0.044	1.42	-0.162	0.051	1.475	-0.010	0.045
1.075	-0.068	0.038	1.185	-0.196	0.048	1.275	-0.118	0.047	1.365	-0.096	0.044	1.42	-0.160	0.053	1.475	-0.008	0.044
1.075	-0.066	0.040	1.185	-0.194	0.048	1.275	-0.116	0.045	1.365	-0.094	0.044	1.42	-0.158	0.052	1.475	-0.006	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.064	0.041	1.185	-0.192	0.048	1.275	-0.114	0.046	1.365	-0.092	0.044	1.42	-0.156	0.050	1.475	-0.004	0.040
1.075	-0.062	0.041	1.185	-0.190	0.047	1.275	-0.112	0.047	1.365	-0.090	0.045	1.42	-0.154	0.050	1.475	-0.002	0.039
1.075	-0.060	0.040	1.185	-0.188	0.047	1.275	-0.110	0.046	1.365	-0.088	0.046	1.42	-0.152	0.049	1.475	0.000	0.039
1.075	-0.058	0.041	1.185	-0.186	0.049	1.275	-0.108	0.045	1.365	-0.086	0.045	1.42	-0.150	0.052	1.485	-0.174	0.059
1.075	-0.056	0.041	1.185	-0.184	0.051	1.275	-0.106	0.044	1.365	-0.084	0.044	1.42	-0.148	0.052	1.485	-0.172	0.058
1.075	-0.054	0.040	1.185	-0.182	0.052	1.275	-0.104	0.044	1.365	-0.082	0.043	1.42	-0.146	0.051	1.485	-0.170	0.057
1.075	-0.052	0.039	1.185	-0.180	0.052	1.275	-0.102	0.044	1.365	-0.080	0.044	1.42	-0.144	0.050	1.485	-0.168	0.057
1.075	-0.050	0.041	1.185	-0.178	0.049	1.275	-0.100	0.044	1.365	-0.078	0.044	1.42	-0.142	0.050	1.485	-0.166	0.057
1.075	-0.048	0.041	1.185	-0.176	0.047	1.275	-0.098	0.044	1.365	-0.076	0.043	1.42	-0.140	0.050	1.485	-0.164	0.057
1.075	-0.046	0.042	1.185	-0.174	0.048	1.275	-0.096	0.044	1.365	-0.074	0.043	1.42	-0.138	0.050	1.485	-0.162	0.058
1.075	-0.044	0.040	1.185	-0.172	0.048	1.275	-0.094	0.045	1.365	-0.072	0.042	1.42	-0.136	0.049	1.485	-0.160	0.059
1.075	-0.042	0.035	1.185	-0.170	0.049	1.275	-0.092	0.046	1.365	-0.070	0.042	1.42	-0.134	0.049	1.485	-0.158	0.059
1.075	-0.040	0.035	1.185	-0.168	0.049	1.275	-0.090	0.046	1.365	-0.068	0.042	1.42	-0.132	0.050	1.485	-0.156	0.058
1.075	-0.038	0.036	1.185	-0.166	0.049	1.275	-0.088	0.045	1.365	-0.066	0.042	1.42	-0.130	0.048	1.485	-0.154	0.057
1.075	-0.036	0.036	1.185	-0.164	0.048	1.275	-0.086	0.044	1.365	-0.064	0.041	1.42	-0.128	0.046	1.485	-0.152	0.057
1.075	-0.034	0.035	1.185	-0.162	0.048	1.275	-0.084	0.044	1.365	-0.062	0.041	1.42	-0.126	0.047	1.485	-0.150	0.060
1.075	-0.032	0.034	1.185	-0.160	0.049	1.275	-0.082	0.041	1.365	-0.060	0.042	1.42	-0.124	0.048	1.485	-0.148	0.060
1.075	-0.030	0.034	1.185	-0.158	0.048	1.275	-0.080	0.039	1.365	-0.058	0.042	1.42	-0.122	0.048	1.485	-0.146	0.059
1.075	-0.028	0.033	1.185	-0.156	0.046	1.275	-0.078	0.039	1.365	-0.056	0.041	1.42	-0.120	0.048	1.485	-0.144	0.058
1.075	-0.026	0.032	1.185	-0.154	0.048	1.275	-0.076	0.040	1.365	-0.054	0.041	1.42	-0.118	0.048	1.485	-0.142	0.057
1.075	-0.024	0.031	1.185	-0.152	0.049	1.275	-0.074	0.041	1.365	-0.052	0.040	1.42	-0.116	0.047	1.485	-0.140	0.056
1.075	-0.022	0.031	1.185	-0.150	0.048	1.275	-0.072	0.041	1.365	-0.050	0.041	1.42	-0.114	0.046	1.485	-0.138	0.056
1.075	-0.020	0.031	1.185	-0.148	0.047	1.275	-0.070	0.042	1.365	-0.048	0.042	1.42	-0.112	0.046	1.485	-0.136	0.057
1.075	-0.018	0.031	1.185	-0.146	0.046	1.275	-0.068	0.043	1.365	-0.046	0.043	1.42	-0.110	0.046	1.485	-0.134	0.059
1.075	-0.016	0.031	1.185	-0.144	0.046	1.275	-0.066	0.044	1.365	-0.044	0.042	1.42	-0.108	0.047	1.485	-0.132	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.014	0.031	1.185	-0.142	0.045	1.275	-0.064	0.044	1.365	-0.042	0.042	1.42	-0.106	0.047	1.485	-0.130	0.056
1.075	-0.012	0.031	1.185	-0.140	0.046	1.275	-0.062	0.043	1.365	-0.040	0.041	1.42	-0.104	0.046	1.485	-0.128	0.055
1.075	-0.010	0.031	1.185	-0.138	0.046	1.275	-0.060	0.041	1.365	-0.038	0.038	1.42	-0.102	0.045	1.485	-0.126	0.055
1.075	-0.008	0.031	1.185	-0.136	0.045	1.275	-0.058	0.038	1.365	-0.036	0.037	1.42	-0.100	0.045	1.485	-0.124	0.056
1.075	-0.006	0.031	1.185	-0.134	0.045	1.275	-0.056	0.038	1.365	-0.034	0.038	1.42	-0.098	0.045	1.485	-0.122	0.056
1.075	-0.004	0.031	1.185	-0.132	0.044	1.275	-0.054	0.039	1.365	-0.032	0.038	1.42	-0.096	0.044	1.485	-0.120	0.055
1.075	-0.002	0.030	1.185	-0.130	0.043	1.275	-0.052	0.040	1.365	-0.030	0.037	1.42	-0.094	0.043	1.485	-0.118	0.055
1.075	0.000	0.030	1.185	-0.128	0.044	1.275	-0.050	0.040	1.365	-0.028	0.037	1.42	-0.092	0.042	1.485	-0.116	0.054
1.085	-0.150	0.048	1.185	-0.126	0.044	1.275	-0.048	0.039	1.365	-0.026	0.036	1.42	-0.090	0.044	1.485	-0.114	0.054
1.085	-0.148	0.047	1.185	-0.124	0.044	1.275	-0.046	0.038	1.365	-0.024	0.036	1.42	-0.088	0.046	1.485	-0.112	0.054
1.085	-0.146	0.046	1.185	-0.122	0.043	1.275	-0.044	0.038	1.365	-0.022	0.037	1.42	-0.086	0.047	1.485	-0.110	0.054
1.085	-0.144	0.045	1.185	-0.120	0.042	1.275	-0.042	0.038	1.365	-0.020	0.038	1.42	-0.084	0.047	1.485	-0.108	0.054
1.085	-0.142	0.044	1.185	-0.118	0.043	1.275	-0.040	0.040	1.365	-0.018	0.038	1.42	-0.082	0.047	1.485	-0.106	0.055
1.085	-0.140	0.044	1.185	-0.116	0.043	1.275	-0.038	0.040	1.365	-0.016	0.038	1.42	-0.080	0.046	1.485	-0.104	0.056
1.085	-0.138	0.044	1.185	-0.114	0.043	1.275	-0.036	0.038	1.365	-0.014	0.039	1.42	-0.078	0.046	1.485	-0.102	0.056
1.085	-0.136	0.043	1.185	-0.112	0.045	1.275	-0.034	0.035	1.365	-0.012	0.039	1.42	-0.076	0.045	1.485	-0.100	0.054
1.085	-0.134	0.043	1.185	-0.110	0.044	1.275	-0.032	0.034	1.365	-0.010	0.040	1.42	-0.074	0.044	1.485	-0.098	0.053
1.085	-0.132	0.044	1.185	-0.108	0.041	1.275	-0.030	0.035	1.365	-0.008	0.040	1.42	-0.072	0.045	1.485	-0.096	0.053
1.085	-0.130	0.044	1.185	-0.106	0.040	1.275	-0.028	0.037	1.365	-0.006	0.040	1.42	-0.070	0.044	1.485	-0.094	0.052
1.085	-0.128	0.046	1.185	-0.104	0.040	1.275	-0.026	0.038	1.365	-0.004	0.040	1.42	-0.068	0.043	1.485	-0.092	0.052
1.085	-0.126	0.047	1.185	-0.102	0.039	1.275	-0.024	0.037	1.365	-0.002	0.040	1.42	-0.066	0.042	1.485	-0.090	0.052
1.085	-0.124	0.047	1.185	-0.100	0.037	1.275	-0.022	0.036	1.365	0.000	0.040	1.42	-0.064	0.040	1.485	-0.088	0.053
1.085	-0.122	0.047	1.185	-0.098	0.037	1.275	-0.020	0.035	1.375	-0.224	0.054	1.42	-0.062	0.039	1.485	-0.086	0.052
1.085	-0.120	0.045	1.185	-0.096	0.040	1.275	-0.018	0.035	1.375	-0.222	0.055	1.42	-0.060	0.039	1.485	-0.084	0.052
1.085	-0.118	0.043	1.185	-0.094	0.041	1.275	-0.016	0.037	1.375	-0.220	0.057	1.42	-0.058	0.040	1.485	-0.082	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.116	0.042	1.185	-0.092	0.040	1.275	-0.014	0.038	1.375	-0.218	0.057	1.42	-0.056	0.040	1.485	-0.080	0.052
1.085	-0.114	0.042	1.185	-0.090	0.038	1.275	-0.012	0.038	1.375	-0.216	0.056	1.42	-0.054	0.039	1.485	-0.078	0.051
1.085	-0.112	0.042	1.185	-0.088	0.037	1.275	-0.010	0.037	1.375	-0.214	0.055	1.42	-0.052	0.039	1.485	-0.076	0.052
1.085	-0.110	0.041	1.185	-0.086	0.037	1.275	-0.008	0.035	1.375	-0.212	0.054	1.42	-0.050	0.039	1.485	-0.074	0.054
1.085	-0.108	0.038	1.185	-0.084	0.036	1.275	-0.006	0.033	1.375	-0.210	0.055	1.42	-0.048	0.039	1.485	-0.072	0.054
1.085	-0.106	0.038	1.185	-0.082	0.033	1.275	-0.004	0.034	1.375	-0.208	0.058	1.42	-0.046	0.037	1.485	-0.070	0.053
1.085	-0.104	0.040	1.185	-0.080	0.033	1.275	-0.002	0.034	1.375	-0.206	0.059	1.42	-0.044	0.038	1.485	-0.068	0.051
1.085	-0.102	0.040	1.185	-0.078	0.033	1.275	0.000	0.033	1.375	-0.204	0.058	1.42	-0.042	0.040	1.485	-0.066	0.049
1.085	-0.100	0.041	1.185	-0.076	0.034	1.285	-0.234	0.052	1.375	-0.202	0.057	1.42	-0.040	0.041	1.485	-0.064	0.048
1.085	-0.098	0.041	1.185	-0.074	0.035	1.285	-0.232	0.052	1.375	-0.200	0.056	1.42	-0.038	0.042	1.485	-0.062	0.048
1.085	-0.096	0.040	1.185	-0.072	0.035	1.285	-0.230	0.052	1.375	-0.198	0.052	1.42	-0.036	0.041	1.485	-0.060	0.049
1.085	-0.094	0.037	1.185	-0.070	0.037	1.285	-0.228	0.051	1.375	-0.196	0.051	1.42	-0.034	0.040	1.485	-0.058	0.048
1.085	-0.092	0.037	1.185	-0.068	0.039	1.285	-0.226	0.051	1.375	-0.194	0.052	1.42	-0.032	0.040	1.485	-0.056	0.048
1.085	-0.090	0.038	1.185	-0.066	0.037	1.285	-0.224	0.052	1.375	-0.192	0.052	1.42	-0.030	0.040	1.485	-0.054	0.049
1.085	-0.088	0.039	1.185	-0.064	0.035	1.285	-0.222	0.053	1.375	-0.190	0.052	1.42	-0.028	0.040	1.485	-0.052	0.049
1.085	-0.086	0.040	1.185	-0.062	0.034	1.285	-0.220	0.052	1.375	-0.188	0.054	1.42	-0.026	0.039	1.485	-0.050	0.049
1.085	-0.084	0.040	1.185	-0.060	0.035	1.285	-0.218	0.052	1.375	-0.186	0.056	1.42	-0.024	0.040	1.485	-0.048	0.048
1.085	-0.082	0.042	1.185	-0.058	0.034	1.285	-0.216	0.052	1.375	-0.184	0.057	1.42	-0.022	0.039	1.485	-0.046	0.047
1.085	-0.080	0.042	1.185	-0.056	0.033	1.285	-0.214	0.052	1.375	-0.182	0.055	1.42	-0.020	0.040	1.485	-0.044	0.046
1.085	-0.078	0.042	1.185	-0.054	0.035	1.285	-0.212	0.052	1.375	-0.180	0.052	1.42	-0.018	0.039	1.485	-0.042	0.045
1.085	-0.076	0.041	1.185	-0.052	0.035	1.285	-0.210	0.052	1.375	-0.178	0.050	1.42	-0.016	0.039	1.485	-0.040	0.043
1.085	-0.074	0.041	1.185	-0.050	0.036	1.285	-0.208	0.052	1.375	-0.176	0.049	1.42	-0.014	0.039	1.485	-0.038	0.043
1.085	-0.072	0.040	1.185	-0.048	0.036	1.285	-0.206	0.053	1.375	-0.174	0.049	1.42	-0.012	0.040	1.485	-0.036	0.043
1.085	-0.070	0.041	1.185	-0.046	0.036	1.285	-0.204	0.055	1.375	-0.172	0.049	1.42	-0.010	0.040	1.485	-0.034	0.043
1.085	-0.068	0.041	1.185	-0.044	0.037	1.285	-0.202	0.057	1.375	-0.170	0.050	1.42	-0.008	0.041	1.485	-0.032	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.066	0.041	1.185	-0.042	0.037	1.285	-0.200	0.056	1.375	-0.168	0.049	1.42	-0.006	0.041	1.485	-0.030	0.040
1.085	-0.064	0.041	1.185	-0.040	0.036	1.285	-0.198	0.053	1.375	-0.166	0.050	1.42	-0.004	0.040	1.485	-0.028	0.042
1.085	-0.062	0.040	1.185	-0.038	0.035	1.285	-0.196	0.051	1.375	-0.164	0.051	1.42	-0.002	0.041	1.485	-0.026	0.042
1.085	-0.060	0.039	1.185	-0.036	0.035	1.285	-0.194	0.051	1.375	-0.162	0.051	1.42	0.000	0.042	1.485	-0.024	0.042
1.085	-0.058	0.039	1.185	-0.034	0.034	1.285	-0.192	0.051	1.375	-0.160	0.051	1.425	-0.208	0.059	1.485	-0.022	0.045
1.085	-0.056	0.040	1.185	-0.032	0.035	1.285	-0.190	0.051	1.375	-0.158	0.051	1.425	-0.206	0.059	1.485	-0.020	0.047
1.085	-0.054	0.039	1.185	-0.030	0.035	1.285	-0.188	0.050	1.375	-0.156	0.050	1.425	-0.204	0.059	1.485	-0.018	0.045
1.085	-0.052	0.038	1.185	-0.028	0.035	1.285	-0.186	0.048	1.375	-0.154	0.049	1.425	-0.202	0.058	1.485	-0.016	0.043
1.085	-0.050	0.037	1.185	-0.026	0.034	1.285	-0.184	0.047	1.375	-0.152	0.049	1.425	-0.200	0.057	1.485	-0.014	0.042
1.085	-0.048	0.036	1.185	-0.024	0.032	1.285	-0.182	0.047	1.375	-0.150	0.049	1.425	-0.198	0.057	1.485	-0.012	0.042
1.085	-0.046	0.036	1.185	-0.022	0.031	1.285	-0.180	0.045	1.375	-0.148	0.050	1.425	-0.196	0.057	1.485	-0.010	0.043
1.085	-0.044	0.036	1.185	-0.020	0.032	1.285	-0.178	0.045	1.375	-0.146	0.050	1.425	-0.194	0.058	1.485	-0.008	0.043
1.085	-0.042	0.035	1.185	-0.018	0.033	1.285	-0.176	0.046	1.375	-0.144	0.048	1.425	-0.192	0.060	1.485	-0.006	0.042
1.085	-0.040	0.034	1.185	-0.016	0.034	1.285	-0.174	0.046	1.375	-0.142	0.046	1.425	-0.190	0.060	1.485	-0.004	0.040
1.085	-0.038	0.034	1.185	-0.014	0.034	1.285	-0.172	0.045	1.375	-0.140	0.046	1.425	-0.188	0.060	1.485	-0.002	0.040
1.085	-0.036	0.035	1.185	-0.012	0.033	1.285	-0.170	0.045	1.375	-0.138	0.048	1.425	-0.186	0.060	1.485	0.000	0.041
1.085	-0.034	0.035	1.185	-0.010	0.032	1.285	-0.168	0.046	1.375	-0.136	0.048	1.425	-0.184	0.060	1.495	-0.166	0.057
1.085	-0.032	0.034	1.185	-0.008	0.031	1.285	-0.166	0.047	1.375	-0.134	0.046	1.425	-0.182	0.060	1.495	-0.164	0.057
1.085	-0.030	0.033	1.185	-0.006	0.031	1.285	-0.164	0.047	1.375	-0.132	0.044	1.425	-0.180	0.058	1.495	-0.162	0.057
1.085	-0.028	0.033	1.185	-0.004	0.032	1.285	-0.162	0.046	1.375	-0.130	0.046	1.425	-0.178	0.058	1.495	-0.160	0.056
1.085	-0.026	0.033	1.185	-0.002	0.033	1.285	-0.160	0.046	1.375	-0.128	0.049	1.425	-0.176	0.058	1.495	-0.158	0.056
1.085	-0.024	0.034	1.185	0.000	0.034	1.285	-0.158	0.046	1.375	-0.126	0.050	1.425	-0.174	0.059	1.495	-0.156	0.055
1.085	-0.022	0.033	1.195	-0.216	0.049	1.285	-0.156	0.048	1.375	-0.124	0.049	1.425	-0.172	0.056	1.495	-0.154	0.055
1.085	-0.020	0.031	1.195	-0.214	0.048	1.285	-0.154	0.049	1.375	-0.122	0.048	1.425	-0.170	0.056	1.495	-0.152	0.055
1.085	-0.018	0.031	1.195	-0.212	0.047	1.285	-0.152	0.048	1.375	-0.120	0.046	1.425	-0.168	0.057	1.495	-0.150	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.016	0.030	1.195	-0.210	0.047	1.285	-0.150	0.046	1.375	-0.118	0.045	1.425	-0.166	0.057	1.495	-0.148	0.056
1.085	-0.014	0.030	1.195	-0.208	0.048	1.285	-0.148	0.045	1.375	-0.116	0.045	1.425	-0.164	0.055	1.495	-0.146	0.056
1.085	-0.012	0.030	1.195	-0.206	0.048	1.285	-0.146	0.044	1.375	-0.114	0.044	1.425	-0.162	0.053	1.495	-0.144	0.056
1.085	-0.010	0.030	1.195	-0.204	0.047	1.285	-0.144	0.047	1.375	-0.112	0.045	1.425	-0.160	0.053	1.495	-0.142	0.057
1.085	-0.008	0.030	1.195	-0.202	0.046	1.285	-0.142	0.049	1.375	-0.110	0.047	1.425	-0.158	0.052	1.495	-0.140	0.057
1.085	-0.006	0.030	1.195	-0.200	0.045	1.285	-0.140	0.049	1.375	-0.108	0.048	1.425	-0.156	0.051	1.495	-0.138	0.056
1.085	-0.004	0.031	1.195	-0.198	0.046	1.285	-0.138	0.047	1.375	-0.106	0.047	1.425	-0.154	0.050	1.495	-0.136	0.057
1.085	-0.002	0.031	1.195	-0.196	0.046	1.285	-0.136	0.045	1.375	-0.104	0.048	1.425	-0.152	0.050	1.495	-0.134	0.058
1.085	0.000	0.032	1.195	-0.194	0.046	1.285	-0.134	0.042	1.375	-0.102	0.047	1.425	-0.150	0.051	1.495	-0.132	0.056
1.095	-0.158	0.051	1.195	-0.192	0.047	1.285	-0.132	0.042	1.375	-0.100	0.047	1.425	-0.148	0.051	1.495	-0.130	0.055
1.095	-0.156	0.051	1.195	-0.190	0.046	1.285	-0.130	0.042	1.375	-0.098	0.047	1.425	-0.146	0.051	1.495	-0.128	0.054
1.095	-0.154	0.051	1.195	-0.188	0.045	1.285	-0.128	0.044	1.375	-0.096	0.046	1.425	-0.144	0.050	1.495	-0.126	0.053
1.095	-0.152	0.050	1.195	-0.186	0.045	1.285	-0.126	0.045	1.375	-0.094	0.046	1.425	-0.142	0.050	1.495	-0.124	0.053
1.095	-0.150	0.049	1.195	-0.184	0.046	1.285	-0.124	0.045	1.375	-0.092	0.046	1.425	-0.140	0.050	1.495	-0.122	0.054
1.095	-0.148	0.048	1.195	-0.182	0.047	1.285	-0.122	0.046	1.375	-0.090	0.046	1.425	-0.138	0.050	1.495	-0.120	0.054
1.095	-0.146	0.046	1.195	-0.180	0.048	1.285	-0.120	0.044	1.375	-0.088	0.046	1.425	-0.136	0.051	1.495	-0.118	0.055
1.095	-0.144	0.044	1.195	-0.178	0.047	1.285	-0.118	0.043	1.375	-0.086	0.045	1.425	-0.134	0.050	1.495	-0.116	0.056
1.095	-0.142	0.043	1.195	-0.176	0.046	1.285	-0.116	0.044	1.375	-0.084	0.044	1.425	-0.132	0.049	1.495	-0.114	0.056
1.095	-0.140	0.043	1.195	-0.174	0.046	1.285	-0.114	0.045	1.375	-0.082	0.044	1.425	-0.130	0.048	1.495	-0.112	0.055
1.095	-0.138	0.045	1.195	-0.172	0.048	1.285	-0.112	0.045	1.375	-0.080	0.044	1.425	-0.128	0.047	1.495	-0.110	0.054
1.095	-0.136	0.045	1.195	-0.170	0.048	1.285	-0.110	0.045	1.375	-0.078	0.044	1.425	-0.126	0.048	1.495	-0.108	0.054
1.095	-0.134	0.044	1.195	-0.168	0.048	1.285	-0.108	0.044	1.375	-0.076	0.043	1.425	-0.124	0.048	1.495	-0.106	0.054
1.095	-0.132	0.043	1.195	-0.166	0.047	1.285	-0.106	0.045	1.375	-0.074	0.043	1.425	-0.122	0.049	1.495	-0.104	0.053
1.095	-0.130	0.043	1.195	-0.164	0.048	1.285	-0.104	0.044	1.375	-0.072	0.042	1.425	-0.120	0.050	1.495	-0.102	0.054
1.095	-0.128	0.043	1.195	-0.162	0.048	1.285	-0.102	0.045	1.375	-0.070	0.042	1.425	-0.118	0.049	1.495	-0.100	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.126	0.044	1.195	-0.160	0.048	1.285	-0.100	0.044	1.375	-0.068	0.043	1.425	-0.116	0.048	1.495	-0.098	0.052
1.095	-0.124	0.045	1.195	-0.158	0.049	1.285	-0.098	0.043	1.375	-0.066	0.043	1.425	-0.114	0.048	1.495	-0.096	0.051
1.095	-0.122	0.044	1.195	-0.156	0.050	1.285	-0.096	0.043	1.375	-0.064	0.042	1.425	-0.112	0.047	1.495	-0.094	0.051
1.095	-0.120	0.041	1.195	-0.154	0.050	1.285	-0.094	0.042	1.375	-0.062	0.041	1.425	-0.110	0.047	1.495	-0.092	0.052
1.095	-0.118	0.039	1.195	-0.152	0.050	1.285	-0.092	0.040	1.375	-0.060	0.043	1.425	-0.108	0.047	1.495	-0.090	0.052
1.095	-0.116	0.040	1.195	-0.150	0.049	1.285	-0.090	0.039	1.375	-0.058	0.044	1.425	-0.106	0.047	1.495	-0.088	0.051
1.095	-0.114	0.040	1.195	-0.148	0.047	1.285	-0.088	0.039	1.375	-0.056	0.044	1.425	-0.104	0.046	1.495	-0.086	0.049
1.095	-0.112	0.040	1.195	-0.146	0.048	1.285	-0.086	0.042	1.375	-0.054	0.043	1.425	-0.102	0.046	1.495	-0.084	0.048
1.095	-0.110	0.041	1.195	-0.144	0.047	1.285	-0.084	0.044	1.375	-0.052	0.042	1.425	-0.100	0.047	1.495	-0.082	0.048
1.095	-0.108	0.040	1.195	-0.142	0.047	1.285	-0.082	0.044	1.375	-0.050	0.041	1.425	-0.098	0.047	1.495	-0.080	0.049
1.095	-0.106	0.040	1.195	-0.140	0.047	1.285	-0.080	0.044	1.375	-0.048	0.040	1.425	-0.096	0.046	1.495	-0.078	0.048
1.095	-0.104	0.041	1.195	-0.138	0.048	1.285	-0.078	0.043	1.375	-0.046	0.039	1.425	-0.094	0.044	1.495	-0.076	0.048
1.095	-0.102	0.043	1.195	-0.136	0.049	1.285	-0.076	0.041	1.375	-0.044	0.039	1.425	-0.092	0.044	1.495	-0.074	0.048
1.095	-0.100	0.043	1.195	-0.134	0.050	1.285	-0.074	0.040	1.375	-0.042	0.038	1.425	-0.090	0.046	1.495	-0.072	0.048
1.095	-0.098	0.040	1.195	-0.132	0.049	1.285	-0.072	0.041	1.375	-0.040	0.039	1.425	-0.088	0.048	1.495	-0.070	0.048
1.095	-0.096	0.037	1.195	-0.130	0.047	1.285	-0.070	0.042	1.375	-0.038	0.038	1.425	-0.086	0.049	1.495	-0.068	0.048
1.095	-0.094	0.037	1.195	-0.128	0.046	1.285	-0.068	0.041	1.375	-0.036	0.037	1.425	-0.084	0.049	1.495	-0.066	0.047
1.095	-0.092	0.040	1.195	-0.126	0.045	1.285	-0.066	0.040	1.375	-0.034	0.037	1.425	-0.082	0.046	1.495	-0.064	0.046
1.095	-0.090	0.043	1.195	-0.124	0.044	1.285	-0.064	0.041	1.375	-0.032	0.037	1.425	-0.080	0.045	1.495	-0.062	0.047
1.095	-0.088	0.042	1.195	-0.122	0.044	1.285	-0.062	0.041	1.375	-0.030	0.037	1.425	-0.078	0.045	1.495	-0.060	0.048
1.095	-0.086	0.040	1.195	-0.120	0.044	1.285	-0.060	0.041	1.375	-0.028	0.037	1.425	-0.076	0.045	1.495	-0.058	0.049
1.095	-0.084	0.040	1.195	-0.118	0.045	1.285	-0.058	0.040	1.375	-0.026	0.037	1.425	-0.074	0.044	1.495	-0.056	0.049
1.095	-0.082	0.041	1.195	-0.116	0.046	1.285	-0.056	0.040	1.375	-0.024	0.037	1.425	-0.072	0.044	1.495	-0.054	0.050
1.095	-0.080	0.041	1.195	-0.114	0.046	1.285	-0.054	0.039	1.375	-0.022	0.038	1.425	-0.070	0.044	1.495	-0.052	0.049
1.095	-0.078	0.040	1.195	-0.112	0.045	1.285	-0.052	0.038	1.375	-0.020	0.037	1.425	-0.068	0.043	1.495	-0.050	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.076	0.039	1.195	-0.110	0.044	1.285	-0.050	0.041	1.375	-0.018	0.038	1.425	-0.066	0.042	1.495	-0.048	0.046
1.095	-0.074	0.041	1.195	-0.108	0.044	1.285	-0.048	0.042	1.375	-0.016	0.039	1.425	-0.064	0.041	1.495	-0.046	0.046
1.095	-0.072	0.043	1.195	-0.106	0.043	1.285	-0.046	0.042	1.375	-0.014	0.040	1.425	-0.062	0.040	1.495	-0.044	0.046
1.095	-0.070	0.043	1.195	-0.104	0.041	1.285	-0.044	0.041	1.375	-0.012	0.042	1.425	-0.060	0.039	1.495	-0.042	0.045
1.095	-0.068	0.042	1.195	-0.102	0.040	1.285	-0.042	0.040	1.375	-0.010	0.043	1.425	-0.058	0.039	1.495	-0.040	0.044
1.095	-0.066	0.039	1.195	-0.100	0.042	1.285	-0.040	0.041	1.375	-0.008	0.042	1.425	-0.056	0.040	1.495	-0.038	0.042
1.095	-0.064	0.039	1.195	-0.098	0.043	1.285	-0.038	0.042	1.375	-0.006	0.041	1.425	-0.054	0.040	1.495	-0.036	0.042
1.095	-0.062	0.039	1.195	-0.096	0.043	1.285	-0.036	0.043	1.375	-0.004	0.040	1.425	-0.052	0.039	1.495	-0.034	0.044
1.095	-0.060	0.038	1.195	-0.094	0.043	1.285	-0.034	0.040	1.375	-0.002	0.039	1.425	-0.050	0.039	1.495	-0.032	0.045
1.095	-0.058	0.037	1.195	-0.092	0.041	1.285	-0.032	0.035	1.375	0.000	0.039	1.425	-0.048	0.040	1.495	-0.030	0.045
1.095	-0.056	0.037	1.195	-0.090	0.038	1.285	-0.030	0.035	1.38	-0.222	0.054	1.425	-0.046	0.039	1.495	-0.028	0.043
1.095	-0.054	0.036	1.195	-0.088	0.037	1.285	-0.028	0.035	1.38	-0.220	0.054	1.425	-0.044	0.039	1.495	-0.026	0.042
1.095	-0.052	0.036	1.195	-0.086	0.035	1.285	-0.026	0.036	1.38	-0.218	0.054	1.425	-0.042	0.041	1.495	-0.024	0.044
1.095	-0.050	0.035	1.195	-0.084	0.035	1.285	-0.024	0.036	1.38	-0.216	0.055	1.425	-0.040	0.043	1.495	-0.022	0.048
1.095	-0.048	0.035	1.195	-0.082	0.036	1.285	-0.022	0.036	1.38	-0.214	0.054	1.425	-0.038	0.043	1.495	-0.020	0.048
1.095	-0.046	0.034	1.195	-0.080	0.036	1.285	-0.020	0.036	1.38	-0.212	0.053	1.425	-0.036	0.041	1.495	-0.018	0.045
1.095	-0.044	0.034	1.195	-0.078	0.036	1.285	-0.018	0.036	1.38	-0.210	0.054	1.425	-0.034	0.040	1.495	-0.016	0.045
1.095	-0.042	0.034	1.195	-0.076	0.036	1.285	-0.016	0.036	1.38	-0.208	0.059	1.425	-0.032	0.040	1.495	-0.014	0.046
1.095	-0.040	0.034	1.195	-0.074	0.034	1.285	-0.014	0.036	1.38	-0.206	0.060	1.425	-0.030	0.041	1.495	-0.012	0.045
1.095	-0.038	0.034	1.195	-0.072	0.034	1.285	-0.012	0.035	1.38	-0.204	0.058	1.425	-0.028	0.041	1.495	-0.010	0.044
1.095	-0.036	0.034	1.195	-0.070	0.034	1.285	-0.010	0.034	1.38	-0.202	0.057	1.425	-0.026	0.039	1.495	-0.008	0.043
1.095	-0.034	0.034	1.195	-0.068	0.033	1.285	-0.008	0.034	1.38	-0.200	0.058	1.425	-0.024	0.038	1.495	-0.006	0.044
1.095	-0.032	0.033	1.195	-0.066	0.032	1.285	-0.006	0.033	1.38	-0.198	0.057	1.425	-0.022	0.038	1.495	-0.004	0.043
1.095	-0.030	0.032	1.195	-0.064	0.034	1.285	-0.004	0.033	1.38	-0.196	0.054	1.425	-0.020	0.039	1.495	-0.002	0.043
1.095	-0.028	0.032	1.195	-0.062	0.033	1.285	-0.002	0.034	1.38	-0.194	0.053	1.425	-0.018	0.040	1.495	0.000	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.026	0.034	1.195	-0.060	0.034	1.285	0.000	0.034	1.38	-0.192	0.053	1.425	-0.016	0.040	1.505	-0.158	0.055
1.095	-0.024	0.034	1.195	-0.058	0.035	1.295	-0.234	0.053	1.38	-0.190	0.051	1.425	-0.014	0.039	1.505	-0.156	0.054
1.095	-0.022	0.033	1.195	-0.056	0.034	1.295	-0.232	0.054	1.38	-0.188	0.053	1.425	-0.012	0.039	1.505	-0.154	0.054
1.095	-0.020	0.031	1.195	-0.054	0.034	1.295	-0.230	0.055	1.38	-0.186	0.056	1.425	-0.010	0.039	1.505	-0.152	0.055
1.095	-0.018	0.030	1.195	-0.052	0.033	1.295	-0.228	0.055	1.38	-0.184	0.057	1.425	-0.008	0.038	1.505	-0.150	0.055
1.095	-0.016	0.030	1.195	-0.050	0.033	1.295	-0.226	0.054	1.38	-0.182	0.055	1.425	-0.006	0.038	1.505	-0.148	0.055
1.095	-0.014	0.029	1.195	-0.048	0.034	1.295	-0.224	0.054	1.38	-0.180	0.054	1.425	-0.004	0.039	1.505	-0.146	0.056
1.095	-0.012	0.029	1.195	-0.046	0.034	1.295	-0.222	0.055	1.38	-0.178	0.052	1.425	-0.002	0.041	1.505	-0.144	0.057
1.095	-0.010	0.029	1.195	-0.044	0.034	1.295	-0.220	0.054	1.38	-0.176	0.051	1.425	0.000	0.043	1.505	-0.142	0.058
1.095	-0.008	0.030	1.195	-0.042	0.034	1.295	-0.218	0.053	1.38	-0.174	0.051	1.43	-0.204	0.058	1.505	-0.140	0.059
1.095	-0.006	0.030	1.195	-0.040	0.034	1.295	-0.216	0.052	1.38	-0.172	0.050	1.43	-0.202	0.058	1.505	-0.138	0.059
1.095	-0.004	0.031	1.195	-0.038	0.036	1.295	-0.214	0.052	1.38	-0.170	0.051	1.43	-0.200	0.057	1.505	-0.136	0.058
1.095	-0.002	0.032	1.195	-0.036	0.037	1.295	-0.212	0.051	1.38	-0.168	0.052	1.43	-0.198	0.057	1.505	-0.134	0.057
1.095	0.000	0.033	1.195	-0.034	0.037	1.295	-0.210	0.051	1.38	-0.166	0.052	1.43	-0.196	0.057	1.505	-0.132	0.057
1.105	-0.166	0.051	1.195	-0.032	0.035	1.295	-0.208	0.053	1.38	-0.164	0.053	1.43	-0.194	0.057	1.505	-0.130	0.056
1.105	-0.164	0.051	1.195	-0.030	0.035	1.295	-0.206	0.053	1.38	-0.162	0.053	1.43	-0.192	0.057	1.505	-0.128	0.056
1.105	-0.162	0.050	1.195	-0.028	0.035	1.295	-0.204	0.053	1.38	-0.160	0.052	1.43	-0.190	0.057	1.505	-0.126	0.056
1.105	-0.160	0.050	1.195	-0.026	0.033	1.295	-0.202	0.052	1.38	-0.158	0.052	1.43	-0.188	0.057	1.505	-0.124	0.055
1.105	-0.158	0.050	1.195	-0.024	0.031	1.295	-0.200	0.051	1.38	-0.156	0.052	1.43	-0.186	0.057	1.505	-0.122	0.052
1.105	-0.156	0.050	1.195	-0.022	0.032	1.295	-0.198	0.052	1.38	-0.154	0.050	1.43	-0.184	0.059	1.505	-0.120	0.052
1.105	-0.154	0.050	1.195	-0.020	0.033	1.295	-0.196	0.052	1.38	-0.152	0.049	1.43	-0.182	0.060	1.505	-0.118	0.053
1.105	-0.152	0.051	1.195	-0.018	0.034	1.295	-0.194	0.052	1.38	-0.150	0.049	1.43	-0.180	0.060	1.505	-0.116	0.053
1.105	-0.150	0.051	1.195	-0.016	0.034	1.295	-0.192	0.049	1.38	-0.148	0.049	1.43	-0.178	0.059	1.505	-0.114	0.053
1.105	-0.148	0.050	1.195	-0.014	0.033	1.295	-0.190	0.049	1.38	-0.146	0.049	1.43	-0.176	0.059	1.505	-0.112	0.054
1.105	-0.146	0.049	1.195	-0.012	0.031	1.295	-0.188	0.048	1.38	-0.144	0.048	1.43	-0.174	0.058	1.505	-0.110	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.105	-0.144	0.047	1.195	-0.010	0.031	1.295	-0.186	0.047	1.38	-0.142	0.046	1.43	-0.172	0.057	1.505	-0.108	0.054
1.105	-0.142	0.046	1.195	-0.008	0.031	1.295	-0.184	0.046	1.38	-0.140	0.045	1.43	-0.170	0.057	1.505	-0.106	0.053
1.105	-0.140	0.045	1.195	-0.006	0.032	1.295	-0.182	0.046	1.38	-0.138	0.045	1.43	-0.168	0.058	1.505	-0.104	0.052
1.105	-0.138	0.045	1.195	-0.004	0.033	1.295	-0.180	0.047	1.38	-0.136	0.046	1.43	-0.166	0.059	1.505	-0.102	0.053
1.105	-0.136	0.046	1.195	-0.002	0.034	1.295	-0.178	0.049	1.38	-0.134	0.046	1.43	-0.164	0.057	1.505	-0.100	0.053
1.105	-0.134	0.047	1.195	0.000	0.036	1.295	-0.176	0.050	1.38	-0.132	0.047	1.43	-0.162	0.056	1.505	-0.098	0.053
1.105	-0.132	0.047	1.205	-0.218	0.051	1.295	-0.174	0.050	1.38	-0.130	0.049	1.43	-0.160	0.055	1.505	-0.096	0.054
1.105	-0.130	0.044	1.205	-0.216	0.050	1.295	-0.172	0.050	1.38	-0.128	0.050	1.43	-0.158	0.054	1.505	-0.094	0.054
1.105	-0.128	0.042	1.205	-0.214	0.048	1.295	-0.170	0.050	1.38	-0.126	0.049	1.43	-0.156	0.052	1.505	-0.092	0.052
1.105	-0.126	0.041	1.205	-0.212	0.047	1.295	-0.168	0.050	1.38	-0.124	0.046	1.43	-0.154	0.050	1.505	-0.090	0.050
1.105	-0.124	0.042	1.205	-0.210	0.046	1.295	-0.166	0.049	1.38	-0.122	0.046	1.43	-0.152	0.049	1.505	-0.088	0.047
1.105	-0.122	0.042	1.205	-0.208	0.046	1.295	-0.164	0.050	1.38	-0.120	0.046	1.43	-0.150	0.049	1.505	-0.086	0.049
1.105	-0.120	0.041	1.205	-0.206	0.048	1.295	-0.162	0.050	1.38	-0.118	0.045	1.43	-0.148	0.050	1.505	-0.084	0.049
1.105	-0.118	0.038	1.205	-0.204	0.047	1.295	-0.160	0.049	1.38	-0.116	0.044	1.43	-0.146	0.050	1.505	-0.082	0.049
1.105	-0.116	0.037	1.205	-0.202	0.047	1.295	-0.158	0.049	1.38	-0.114	0.044	1.43	-0.144	0.050	1.505	-0.080	0.048
1.105	-0.114	0.038	1.205	-0.200	0.048	1.295	-0.156	0.050	1.38	-0.112	0.046	1.43	-0.142	0.050	1.505	-0.078	0.049
1.105	-0.112	0.038	1.205	-0.198	0.049	1.295	-0.154	0.050	1.38	-0.110	0.047	1.43	-0.140	0.050	1.505	-0.076	0.050
1.105	-0.110	0.037	1.205	-0.196	0.048	1.295	-0.152	0.048	1.38	-0.108	0.047	1.43	-0.138	0.051	1.505	-0.074	0.051
1.105	-0.108	0.040	1.205	-0.194	0.045	1.295	-0.150	0.047	1.38	-0.106	0.047	1.43	-0.136	0.051	1.505	-0.072	0.052
1.105	-0.106	0.044	1.205	-0.192	0.043	1.295	-0.148	0.048	1.38	-0.104	0.048	1.43	-0.134	0.050	1.505	-0.070	0.051
1.105	-0.104	0.044	1.205	-0.190	0.045	1.295	-0.146	0.049	1.38	-0.102	0.048	1.43	-0.132	0.048	1.505	-0.068	0.049
1.105	-0.102	0.042	1.205	-0.188	0.047	1.295	-0.144	0.048	1.38	-0.100	0.047	1.43	-0.130	0.048	1.505	-0.066	0.048
1.105	-0.100	0.041	1.205	-0.186	0.048	1.295	-0.142	0.046	1.38	-0.098	0.047	1.43	-0.128	0.048	1.505	-0.064	0.048
1.105	-0.098	0.041	1.205	-0.184	0.047	1.295	-0.140	0.045	1.38	-0.096	0.046	1.43	-0.126	0.049	1.505	-0.062	0.046
1.105	-0.096	0.040	1.205	-0.182	0.048	1.295	-0.138	0.046	1.38	-0.094	0.045	1.43	-0.124	0.049	1.505	-0.060	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.105	-0.094	0.041	1.205	-0.180	0.049	1.295	-0.136	0.046	1.38	-0.092	0.045	1.43	-0.122	0.050	1.505	-0.058	0.044
1.105	-0.092	0.043	1.205	-0.178	0.049	1.295	-0.134	0.045	1.38	-0.090	0.045	1.43	-0.120	0.050	1.505	-0.056	0.047
1.105	-0.090	0.045	1.205	-0.176	0.049	1.295	-0.132	0.043	1.38	-0.088	0.045	1.43	-0.118	0.051	1.505	-0.054	0.048
1.105	-0.088	0.044	1.205	-0.174	0.049	1.295	-0.130	0.044	1.38	-0.086	0.045	1.43	-0.116	0.051	1.505	-0.052	0.046
1.105	-0.086	0.043	1.205	-0.172	0.051	1.295	-0.128	0.045	1.38	-0.084	0.044	1.43	-0.114	0.050	1.505	-0.050	0.045
1.105	-0.084	0.041	1.205	-0.170	0.053	1.295	-0.126	0.045	1.38	-0.082	0.044	1.43	-0.112	0.049	1.505	-0.048	0.044
1.105	-0.082	0.040	1.205	-0.168	0.055	1.295	-0.124	0.045	1.38	-0.080	0.044	1.43	-0.110	0.049	1.505	-0.046	0.044
1.105	-0.080	0.041	1.205	-0.166	0.054	1.295	-0.122	0.044	1.38	-0.078	0.044	1.43	-0.108	0.049	1.505	-0.044	0.044
1.105	-0.078	0.041	1.205	-0.164	0.053	1.295	-0.120	0.044	1.38	-0.076	0.044	1.43	-0.106	0.048	1.505	-0.042	0.047
1.105	-0.076	0.040	1.205	-0.162	0.051	1.295	-0.118	0.044	1.38	-0.074	0.043	1.43	-0.104	0.047	1.505	-0.040	0.048
1.105	-0.074	0.039	1.205	-0.160	0.049	1.295	-0.116	0.045	1.38	-0.072	0.043	1.43	-0.102	0.049	1.505	-0.038	0.047
1.105	-0.072	0.040	1.205	-0.158	0.048	1.295	-0.114	0.045	1.38	-0.070	0.043	1.43	-0.100	0.050	1.505	-0.036	0.046
1.105	-0.070	0.040	1.205	-0.156	0.049	1.295	-0.112	0.043	1.38	-0.068	0.043	1.43	-0.098	0.050	1.505	-0.034	0.046
1.105	-0.068	0.038	1.205	-0.154	0.049	1.295	-0.110	0.042	1.38	-0.066	0.043	1.43	-0.096	0.048	1.505	-0.032	0.044
1.105	-0.066	0.036	1.205	-0.152	0.048	1.295	-0.108	0.042	1.38	-0.064	0.043	1.43	-0.094	0.046	1.505	-0.030	0.044
1.105	-0.064	0.035	1.205	-0.150	0.048	1.295	-0.106	0.042	1.38	-0.062	0.042	1.43	-0.092	0.045	1.505	-0.028	0.045
1.105	-0.062	0.035	1.205	-0.148	0.046	1.295	-0.104	0.044	1.38	-0.060	0.043	1.43	-0.090	0.046	1.505	-0.026	0.045
1.105	-0.060	0.035	1.205	-0.146	0.046	1.295	-0.102	0.043	1.38	-0.058	0.043	1.43	-0.088	0.048	1.505	-0.024	0.044
1.105	-0.058	0.036	1.205	-0.144	0.048	1.295	-0.100	0.041	1.38	-0.056	0.042	1.43	-0.086	0.048	1.505	-0.022	0.044
1.105	-0.056	0.037	1.205	-0.142	0.048	1.295	-0.098	0.039	1.38	-0.054	0.041	1.43	-0.084	0.047	1.505	-0.020	0.045
1.105	-0.054	0.037	1.205	-0.140	0.048	1.295	-0.096	0.040	1.38	-0.052	0.040	1.43	-0.082	0.045	1.505	-0.018	0.044
1.105	-0.052	0.036	1.205	-0.138	0.048	1.295	-0.094	0.039	1.38	-0.050	0.040	1.43	-0.080	0.044	1.505	-0.016	0.044
1.105	-0.050	0.038	1.205	-0.136	0.050	1.295	-0.092	0.040	1.38	-0.048	0.039	1.43	-0.078	0.044	1.505	-0.014	0.045
1.105	-0.048	0.038	1.205	-0.134	0.049	1.295	-0.090	0.039	1.38	-0.046	0.037	1.43	-0.076	0.044	1.505	-0.012	0.047
1.105	-0.046	0.037	1.205	-0.132	0.048	1.295	-0.088	0.040	1.38	-0.044	0.037	1.43	-0.074	0.043	1.505	-0.010	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.105	-0.044	0.033	1.205	-0.130	0.047	1.295	-0.086	0.040	1.38	-0.042	0.038	1.43	-0.072	0.043	1.505	-0.008	0.050
1.105	-0.042	0.032	1.205	-0.128	0.047	1.295	-0.084	0.041	1.38	-0.040	0.039	1.43	-0.070	0.043	1.505	-0.006	0.050
1.105	-0.040	0.033	1.205	-0.126	0.046	1.295	-0.082	0.041	1.38	-0.038	0.039	1.43	-0.068	0.044	1.505	-0.004	0.048
1.105	-0.038	0.033	1.205	-0.124	0.045	1.295	-0.080	0.041	1.38	-0.036	0.038	1.43	-0.066	0.043	1.505	-0.002	0.046
1.105	-0.036	0.033	1.205	-0.122	0.045	1.295	-0.078	0.040	1.38	-0.034	0.037	1.43	-0.064	0.042	1.505	0.000	0.044
1.105	-0.034	0.032	1.205	-0.120	0.045	1.295	-0.076	0.039	1.38	-0.032	0.037	1.43	-0.062	0.040	1.515	-0.150	0.055
1.105	-0.032	0.031	1.205	-0.118	0.044	1.295	-0.074	0.039	1.38	-0.030	0.038	1.43	-0.060	0.039	1.515	-0.148	0.056
1.105	-0.030	0.031	1.205	-0.116	0.044	1.295	-0.072	0.038	1.38	-0.028	0.039	1.43	-0.058	0.039	1.515	-0.146	0.057
1.105	-0.028	0.031	1.205	-0.114	0.045	1.295	-0.070	0.038	1.38	-0.026	0.039	1.43	-0.056	0.040	1.515	-0.144	0.057
1.105	-0.026	0.032	1.205	-0.112	0.044	1.295	-0.068	0.039	1.38	-0.024	0.038	1.43	-0.054	0.040	1.515	-0.142	0.058
1.105	-0.024	0.032	1.205	-0.110	0.044	1.295	-0.066	0.039	1.38	-0.022	0.039	1.43	-0.052	0.040	1.515	-0.140	0.058
1.105	-0.022	0.032	1.205	-0.108	0.045	1.295	-0.064	0.039	1.38	-0.020	0.039	1.43	-0.050	0.041	1.515	-0.138	0.058
1.105	-0.020	0.032	1.205	-0.106	0.045	1.295	-0.062	0.039	1.38	-0.018	0.040	1.43	-0.048	0.041	1.515	-0.136	0.058
1.105	-0.018	0.031	1.205	-0.104	0.044	1.295	-0.060	0.040	1.38	-0.016	0.040	1.43	-0.046	0.041	1.515	-0.134	0.058
1.105	-0.016	0.031	1.205	-0.102	0.044	1.295	-0.058	0.039	1.38	-0.014	0.040	1.43	-0.044	0.041	1.515	-0.132	0.058
1.105	-0.014	0.030	1.205	-0.100	0.045	1.295	-0.056	0.037	1.38	-0.012	0.041	1.43	-0.042	0.041	1.515	-0.130	0.058
1.105	-0.012	0.030	1.205	-0.098	0.044	1.295	-0.054	0.037	1.38	-0.010	0.042	1.43	-0.040	0.042	1.515	-0.128	0.057
1.105	-0.010	0.030	1.205	-0.096	0.044	1.295	-0.052	0.038	1.38	-0.008	0.041	1.43	-0.038	0.042	1.515	-0.126	0.056
1.105	-0.008	0.031	1.205	-0.094	0.043	1.295	-0.050	0.039	1.38	-0.006	0.041	1.43	-0.036	0.042	1.515	-0.124	0.055
1.105	-0.006	0.031	1.205	-0.092	0.042	1.295	-0.048	0.039	1.38	-0.004	0.039	1.43	-0.034	0.041	1.515	-0.122	0.054
1.105	-0.004	0.032	1.205	-0.090	0.038	1.295	-0.046	0.040	1.38	-0.002	0.039	1.43	-0.032	0.040	1.515	-0.120	0.054
1.105	-0.002	0.034	1.205	-0.088	0.037	1.295	-0.044	0.041	1.38	0.000	0.039	1.43	-0.030	0.040	1.515	-0.118	0.054
1.105	0.000	0.034	1.205	-0.086	0.038	1.295	-0.042	0.040	1.385	-0.222	0.053	1.43	-0.028	0.040	1.515	-0.116	0.053
1.115	-0.174	0.051	1.205	-0.084	0.037	1.295	-0.040	0.041	1.385	-0.220	0.053	1.43	-0.026	0.038	1.515	-0.114	0.053
1.115	-0.172	0.051	1.205	-0.082	0.037	1.295	-0.038	0.041	1.385	-0.218	0.054	1.43	-0.024	0.038	1.515	-0.112	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.115	-0.170	0.051	1.205	-0.080	0.036	1.295	-0.036	0.041	1.385	-0.216	0.056	1.43	-0.022	0.039	1.515	-0.110	0.053
1.115	-0.168	0.051	1.205	-0.078	0.036	1.295	-0.034	0.039	1.385	-0.214	0.056	1.43	-0.020	0.040	1.515	-0.108	0.053
1.115	-0.166	0.050	1.205	-0.076	0.036	1.295	-0.032	0.038	1.385	-0.212	0.053	1.43	-0.018	0.041	1.515	-0.106	0.054
1.115	-0.164	0.050	1.205	-0.074	0.034	1.295	-0.030	0.038	1.385	-0.210	0.055	1.43	-0.016	0.040	1.515	-0.104	0.054
1.115	-0.162	0.049	1.205	-0.072	0.034	1.295	-0.028	0.038	1.385	-0.208	0.060	1.43	-0.014	0.038	1.515	-0.102	0.055
1.115	-0.160	0.049	1.205	-0.070	0.037	1.295	-0.026	0.038	1.385	-0.206	0.061	1.43	-0.012	0.038	1.515	-0.100	0.055
1.115	-0.158	0.048	1.205	-0.068	0.038	1.295	-0.024	0.039	1.385	-0.204	0.059	1.43	-0.010	0.038	1.515	-0.098	0.055
1.115	-0.156	0.048	1.205	-0.066	0.037	1.295	-0.022	0.039	1.385	-0.202	0.058	1.43	-0.008	0.037	1.515	-0.096	0.054
1.115	-0.154	0.048	1.205	-0.064	0.037	1.295	-0.020	0.038	1.385	-0.200	0.058	1.43	-0.006	0.037	1.515	-0.094	0.054
1.115	-0.152	0.048	1.205	-0.062	0.036	1.295	-0.018	0.038	1.385	-0.198	0.057	1.43	-0.004	0.039	1.515	-0.092	0.053
1.115	-0.150	0.049	1.205	-0.060	0.035	1.295	-0.016	0.038	1.385	-0.196	0.057	1.43	-0.002	0.041	1.515	-0.090	0.051
1.115	-0.148	0.050	1.205	-0.058	0.035	1.295	-0.014	0.037	1.385	-0.194	0.056	1.43	0.000	0.043	1.515	-0.088	0.046
1.115	-0.146	0.050	1.205	-0.056	0.034	1.295	-0.012	0.036	1.385	-0.192	0.056	1.435	-0.204	0.058	1.515	-0.086	0.046
1.115	-0.144	0.049	1.205	-0.054	0.034	1.295	-0.010	0.036	1.385	-0.190	0.055	1.435	-0.202	0.058	1.515	-0.084	0.048
1.115	-0.142	0.047	1.205	-0.052	0.034	1.295	-0.008	0.038	1.385	-0.188	0.054	1.435	-0.200	0.057	1.515	-0.082	0.050
1.115	-0.140	0.046	1.205	-0.050	0.036	1.295	-0.006	0.038	1.385	-0.186	0.057	1.435	-0.198	0.057	1.515	-0.080	0.050
1.115	-0.138	0.046	1.205	-0.048	0.037	1.295	-0.004	0.037	1.385	-0.184	0.058	1.435	-0.196	0.056	1.515	-0.078	0.050
1.115	-0.136	0.047	1.205	-0.046	0.036	1.295	-0.002	0.033	1.385	-0.182	0.056	1.435	-0.194	0.056	1.515	-0.076	0.050
1.115	-0.134	0.046	1.205	-0.044	0.034	1.295	0.000	0.031	1.385	-0.180	0.053	1.435	-0.192	0.056	1.515	-0.074	0.050
1.115	-0.132	0.046	1.205	-0.042	0.033	1.305	-0.234	0.050	1.385	-0.178	0.051	1.435	-0.190	0.055	1.515	-0.072	0.049
1.115	-0.130	0.046	1.205	-0.040	0.036	1.305	-0.232	0.051	1.385	-0.176	0.052	1.435	-0.188	0.054	1.515	-0.070	0.048
1.115	-0.128	0.044	1.205	-0.038	0.038	1.305	-0.230	0.052	1.385	-0.174	0.054	1.435	-0.186	0.055	1.515	-0.068	0.047
1.115	-0.126	0.044	1.205	-0.036	0.038	1.305	-0.228	0.052	1.385	-0.172	0.055	1.435	-0.184	0.057	1.515	-0.066	0.047
1.115	-0.124	0.044	1.205	-0.034	0.037	1.305	-0.226	0.051	1.385	-0.170	0.053	1.435	-0.182	0.060	1.515	-0.064	0.047
1.115	-0.122	0.044	1.205	-0.032	0.036	1.305	-0.224	0.053	1.385	-0.168	0.052	1.435	-0.180	0.060	1.515	-0.062	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.115	-0.120	0.042	1.205	-0.030	0.036	1.305	-0.222	0.055	1.385	-0.166	0.052	1.435	-0.178	0.059	1.515	-0.060	0.044
1.115	-0.118	0.038	1.205	-0.028	0.036	1.305	-0.220	0.056	1.385	-0.164	0.053	1.435	-0.176	0.058	1.515	-0.058	0.043
1.115	-0.116	0.035	1.205	-0.026	0.034	1.305	-0.218	0.055	1.385	-0.162	0.053	1.435	-0.174	0.058	1.515	-0.056	0.044
1.115	-0.114	0.039	1.205	-0.024	0.032	1.305	-0.216	0.054	1.385	-0.160	0.054	1.435	-0.172	0.059	1.515	-0.054	0.046
1.115	-0.112	0.043	1.205	-0.022	0.033	1.305	-0.214	0.053	1.385	-0.158	0.054	1.435	-0.170	0.059	1.515	-0.052	0.046
1.115	-0.110	0.045	1.205	-0.020	0.035	1.305	-0.212	0.053	1.385	-0.156	0.053	1.435	-0.168	0.059	1.515	-0.050	0.046
1.115	-0.108	0.047	1.205	-0.018	0.037	1.305	-0.210	0.055	1.385	-0.154	0.052	1.435	-0.166	0.059	1.515	-0.048	0.046
1.115	-0.106	0.048	1.205	-0.016	0.036	1.305	-0.208	0.056	1.385	-0.152	0.050	1.435	-0.164	0.058	1.515	-0.046	0.044
1.115	-0.104	0.047	1.205	-0.014	0.035	1.305	-0.206	0.055	1.385	-0.150	0.050	1.435	-0.162	0.059	1.515	-0.044	0.042
1.115	-0.102	0.047	1.205	-0.012	0.036	1.305	-0.204	0.052	1.385	-0.148	0.050	1.435	-0.160	0.058	1.515	-0.042	0.042
1.115	-0.100	0.046	1.205	-0.010	0.036	1.305	-0.202	0.050	1.385	-0.146	0.049	1.435	-0.158	0.057	1.515	-0.040	0.043
1.115	-0.098	0.045	1.205	-0.008	0.035	1.305	-0.200	0.053	1.385	-0.144	0.048	1.435	-0.156	0.055	1.515	-0.038	0.043
1.115	-0.096	0.044	1.205	-0.006	0.034	1.305	-0.198	0.055	1.385	-0.142	0.046	1.435	-0.154	0.052	1.515	-0.036	0.043
1.115	-0.094	0.042	1.205	-0.004	0.034	1.305	-0.196	0.056	1.385	-0.140	0.046	1.435	-0.152	0.051	1.515	-0.034	0.045
1.115	-0.092	0.043	1.205	-0.002	0.035	1.305	-0.194	0.055	1.385	-0.138	0.046	1.435	-0.150	0.050	1.515	-0.032	0.047
1.115	-0.090	0.044	1.205	0.000	0.035	1.305	-0.192	0.053	1.385	-0.136	0.046	1.435	-0.148	0.050	1.515	-0.030	0.047
1.115	-0.088	0.043	1.215	-0.222	0.054	1.305	-0.190	0.051	1.385	-0.134	0.047	1.435	-0.146	0.051	1.515	-0.028	0.044
1.115	-0.086	0.040	1.215	-0.220	0.053	1.305	-0.188	0.049	1.385	-0.132	0.049	1.435	-0.144	0.052	1.515	-0.026	0.044
1.115	-0.084	0.040	1.215	-0.218	0.051	1.305	-0.186	0.047	1.385	-0.130	0.051	1.435	-0.142	0.052	1.515	-0.024	0.045
1.115	-0.082	0.040	1.215	-0.216	0.051	1.305	-0.184	0.047	1.385	-0.128	0.050	1.435	-0.140	0.051	1.515	-0.022	0.047
1.115	-0.080	0.040	1.215	-0.214	0.050	1.305	-0.182	0.049	1.385	-0.126	0.047	1.435	-0.138	0.051	1.515	-0.020	0.047
1.115	-0.078	0.041	1.215	-0.212	0.049	1.305	-0.180	0.050	1.385	-0.124	0.047	1.435	-0.136	0.051	1.515	-0.018	0.047
1.115	-0.076	0.042	1.215	-0.210	0.048	1.305	-0.178	0.049	1.385	-0.122	0.047	1.435	-0.134	0.049	1.515	-0.016	0.047
1.115	-0.074	0.041	1.215	-0.208	0.049	1.305	-0.176	0.049	1.385	-0.120	0.047	1.435	-0.132	0.048	1.515	-0.014	0.046
1.115	-0.072	0.039	1.215	-0.206	0.049	1.305	-0.174	0.048	1.385	-0.118	0.046	1.435	-0.130	0.049	1.515	-0.012	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.115	-0.070	0.038	1.215	-0.204	0.048	1.305	-0.172	0.049	1.385	-0.116	0.044	1.435	-0.128	0.050	1.515	-0.010	0.047
1.115	-0.068	0.037	1.215	-0.202	0.047	1.305	-0.170	0.049	1.385	-0.114	0.045	1.435	-0.126	0.050	1.515	-0.008	0.048
1.115	-0.066	0.036	1.215	-0.200	0.047	1.305	-0.168	0.048	1.385	-0.112	0.046	1.435	-0.124	0.051	1.515	-0.006	0.046
1.115	-0.064	0.035	1.215	-0.198	0.046	1.305	-0.166	0.048	1.385	-0.110	0.046	1.435	-0.122	0.050	1.515	-0.004	0.046
1.115	-0.062	0.034	1.215	-0.196	0.047	1.305	-0.164	0.049	1.385	-0.108	0.047	1.435	-0.120	0.050	1.515	-0.002	0.045
1.115	-0.060	0.034	1.215	-0.194	0.048	1.305	-0.162	0.049	1.385	-0.106	0.046	1.435	-0.118	0.051	1.515	0.000	0.043
1.115	-0.058	0.035	1.215	-0.192	0.046	1.305	-0.160	0.050	1.385	-0.104	0.046	1.435	-0.116	0.051	1.525	-0.140	0.058
1.115	-0.056	0.037	1.215	-0.190	0.044	1.305	-0.158	0.048	1.385	-0.102	0.047	1.435	-0.114	0.051	1.525	-0.138	0.058
1.115	-0.054	0.037	1.215	-0.188	0.046	1.305	-0.156	0.047	1.385	-0.100	0.046	1.435	-0.112	0.050	1.525	-0.136	0.058
1.115	-0.052	0.035	1.215	-0.186	0.048	1.305	-0.154	0.047	1.385	-0.098	0.046	1.435	-0.110	0.050	1.525	-0.134	0.058
1.115	-0.050	0.034	1.215	-0.184	0.049	1.305	-0.152	0.048	1.385	-0.096	0.046	1.435	-0.108	0.050	1.525	-0.132	0.058
1.115	-0.048	0.034	1.215	-0.182	0.049	1.305	-0.150	0.049	1.385	-0.094	0.045	1.435	-0.106	0.050	1.525	-0.130	0.058
1.115	-0.046	0.034	1.215	-0.180	0.049	1.305	-0.148	0.049	1.385	-0.092	0.044	1.435	-0.104	0.051	1.525	-0.128	0.057
1.115	-0.044	0.033	1.215	-0.178	0.050	1.305	-0.146	0.048	1.385	-0.090	0.043	1.435	-0.102	0.052	1.525	-0.126	0.056
1.115	-0.042	0.034	1.215	-0.176	0.050	1.305	-0.144	0.046	1.385	-0.088	0.043	1.435	-0.100	0.052	1.525	-0.124	0.056
1.115	-0.040	0.034	1.215	-0.174	0.051	1.305	-0.142	0.046	1.385	-0.086	0.044	1.435	-0.098	0.051	1.525	-0.122	0.056
1.115	-0.038	0.033	1.215	-0.172	0.051	1.305	-0.140	0.045	1.385	-0.084	0.044	1.435	-0.096	0.049	1.525	-0.120	0.057
1.115	-0.036	0.033	1.215	-0.170	0.051	1.305	-0.138	0.043	1.385	-0.082	0.044	1.435	-0.094	0.047	1.525	-0.118	0.057
1.115	-0.034	0.033	1.215	-0.168	0.051	1.305	-0.136	0.044	1.385	-0.080	0.044	1.435	-0.092	0.046	1.525	-0.116	0.055
1.115	-0.032	0.032	1.215	-0.166	0.050	1.305	-0.134	0.047	1.385	-0.078	0.044	1.435	-0.090	0.046	1.525	-0.114	0.053
1.115	-0.030	0.031	1.215	-0.164	0.050	1.305	-0.132	0.047	1.385	-0.076	0.044	1.435	-0.088	0.047	1.525	-0.112	0.052
1.115	-0.028	0.031	1.215	-0.162	0.051	1.305	-0.130	0.045	1.385	-0.074	0.044	1.435	-0.086	0.047	1.525	-0.110	0.052
1.115	-0.026	0.031	1.215	-0.160	0.051	1.305	-0.128	0.044	1.385	-0.072	0.044	1.435	-0.084	0.046	1.525	-0.108	0.051
1.115	-0.024	0.032	1.215	-0.158	0.051	1.305	-0.126	0.044	1.385	-0.070	0.044	1.435	-0.082	0.046	1.525	-0.106	0.050
1.115	-0.022	0.032	1.215	-0.156	0.051	1.305	-0.124	0.046	1.385	-0.068	0.044	1.435	-0.080	0.046	1.525	-0.104	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.115	-0.020	0.033	1.215	-0.154	0.051	1.305	-0.122	0.047	1.385	-0.066	0.042	1.435	-0.078	0.043	1.525	-0.102	0.054
1.115	-0.018	0.034	1.215	-0.152	0.050	1.305	-0.120	0.047	1.385	-0.064	0.041	1.435	-0.076	0.042	1.525	-0.100	0.056
1.115	-0.016	0.034	1.215	-0.150	0.048	1.305	-0.118	0.046	1.385	-0.062	0.041	1.435	-0.074	0.042	1.525	-0.098	0.057
1.115	-0.014	0.035	1.215	-0.148	0.048	1.305	-0.116	0.044	1.385	-0.060	0.041	1.435	-0.072	0.043	1.525	-0.096	0.057
1.115	-0.012	0.035	1.215	-0.146	0.048	1.305	-0.114	0.043	1.385	-0.058	0.041	1.435	-0.070	0.044	1.525	-0.094	0.052
1.115	-0.010	0.035	1.215	-0.144	0.048	1.305	-0.112	0.043	1.385	-0.056	0.041	1.435	-0.068	0.045	1.525	-0.092	0.048
1.115	-0.008	0.035	1.215	-0.142	0.048	1.305	-0.110	0.042	1.385	-0.054	0.040	1.435	-0.066	0.045	1.525	-0.090	0.051
1.115	-0.006	0.035	1.215	-0.140	0.047	1.305	-0.108	0.040	1.385	-0.052	0.039	1.435	-0.064	0.044	1.525	-0.088	0.054
1.115	-0.004	0.034	1.215	-0.138	0.047	1.305	-0.106	0.040	1.385	-0.050	0.039	1.435	-0.062	0.042	1.525	-0.086	0.053
1.115	-0.002	0.034	1.215	-0.136	0.047	1.305	-0.104	0.040	1.385	-0.048	0.040	1.435	-0.060	0.041	1.525	-0.084	0.052
1.115	0.000	0.033	1.215	-0.134	0.047	1.305	-0.102	0.040	1.385	-0.046	0.038	1.435	-0.058	0.042	1.525	-0.082	0.051
1.125	-0.182	0.051	1.215	-0.132	0.047	1.305	-0.100	0.041	1.385	-0.044	0.037	1.435	-0.056	0.041	1.525	-0.080	0.051
1.125	-0.180	0.051	1.215	-0.130	0.047	1.305	-0.098	0.042	1.385	-0.042	0.038	1.435	-0.054	0.038	1.525	-0.078	0.050
1.125	-0.178	0.051	1.215	-0.128	0.046	1.305	-0.096	0.042	1.385	-0.040	0.038	1.435	-0.052	0.038	1.525	-0.076	0.049
1.125	-0.176	0.051	1.215	-0.126	0.045	1.305	-0.094	0.040	1.385	-0.038	0.038	1.435	-0.050	0.040	1.525	-0.074	0.049
1.125	-0.174	0.050	1.215	-0.124	0.045	1.305	-0.092	0.039	1.385	-0.036	0.037	1.435	-0.048	0.042	1.525	-0.072	0.048
1.125	-0.172	0.050	1.215	-0.122	0.046	1.305	-0.090	0.038	1.385	-0.034	0.037	1.435	-0.046	0.042	1.525	-0.070	0.047
1.125	-0.170	0.050	1.215	-0.120	0.046	1.305	-0.088	0.039	1.385	-0.032	0.038	1.435	-0.044	0.042	1.525	-0.068	0.050
1.125	-0.168	0.049	1.215	-0.118	0.044	1.305	-0.086	0.040	1.385	-0.030	0.039	1.435	-0.042	0.040	1.525	-0.066	0.049
1.125	-0.166	0.049	1.215	-0.116	0.042	1.305	-0.084	0.040	1.385	-0.028	0.040	1.435	-0.040	0.039	1.525	-0.064	0.046
1.125	-0.164	0.048	1.215	-0.114	0.042	1.305	-0.082	0.039	1.385	-0.026	0.040	1.435	-0.038	0.041	1.525	-0.062	0.046
1.125	-0.162	0.048	1.215	-0.112	0.042	1.305	-0.080	0.039	1.385	-0.024	0.040	1.435	-0.036	0.042	1.525	-0.060	0.046
1.125	-0.160	0.048	1.215	-0.110	0.042	1.305	-0.078	0.039	1.385	-0.022	0.040	1.435	-0.034	0.043	1.525	-0.058	0.046
1.125	-0.158	0.048	1.215	-0.108	0.043	1.305	-0.076	0.039	1.385	-0.020	0.040	1.435	-0.032	0.042	1.525	-0.056	0.046
1.125	-0.156	0.046	1.215	-0.106	0.043	1.305	-0.074	0.039	1.385	-0.018	0.039	1.435	-0.030	0.041	1.525	-0.054	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.125	-0.154	0.044	1.215	-0.104	0.042	1.305	-0.072	0.039	1.385	-0.016	0.040	1.435	-0.028	0.039	1.525	-0.052	0.047
1.125	-0.152	0.045	1.215	-0.102	0.040	1.305	-0.070	0.039	1.385	-0.014	0.040	1.435	-0.026	0.040	1.525	-0.050	0.046
1.125	-0.150	0.046	1.215	-0.100	0.039	1.305	-0.068	0.040	1.385	-0.012	0.040	1.435	-0.024	0.040	1.525	-0.048	0.044
1.125	-0.148	0.046	1.215	-0.098	0.040	1.305	-0.066	0.040	1.385	-0.010	0.041	1.435	-0.022	0.041	1.525	-0.046	0.044
1.125	-0.146	0.047	1.215	-0.096	0.042	1.305	-0.064	0.040	1.385	-0.008	0.041	1.435	-0.020	0.042	1.525	-0.044	0.046
1.125	-0.144	0.047	1.215	-0.094	0.042	1.305	-0.062	0.040	1.385	-0.006	0.041	1.435	-0.018	0.042	1.525	-0.042	0.047
1.125	-0.142	0.047	1.215	-0.092	0.040	1.305	-0.060	0.039	1.385	-0.004	0.041	1.435	-0.016	0.040	1.525	-0.040	0.047
1.125	-0.140	0.045	1.215	-0.090	0.038	1.305	-0.058	0.038	1.385	-0.002	0.040	1.435	-0.014	0.038	1.525	-0.038	0.046
1.125	-0.138	0.042	1.215	-0.088	0.037	1.305	-0.056	0.038	1.385	0.000	0.038	1.435	-0.012	0.038	1.525	-0.036	0.046
1.125	-0.136	0.044	1.215	-0.086	0.039	1.305	-0.054	0.038	1.39	-0.218	0.054	1.435	-0.010	0.038	1.525	-0.034	0.046
1.125	-0.134	0.046	1.215	-0.084	0.039	1.305	-0.052	0.038	1.39	-0.216	0.055	1.435	-0.008	0.039	1.525	-0.032	0.046
1.125	-0.132	0.047	1.215	-0.082	0.038	1.305	-0.050	0.039	1.39	-0.214	0.056	1.435	-0.006	0.040	1.525	-0.030	0.045
1.125	-0.130	0.047	1.215	-0.080	0.037	1.305	-0.048	0.040	1.39	-0.212	0.056	1.435	-0.004	0.040	1.525	-0.028	0.044
1.125	-0.128	0.045	1.215	-0.078	0.037	1.305	-0.046	0.041	1.39	-0.210	0.056	1.435	-0.002	0.041	1.525	-0.026	0.043
1.125	-0.126	0.043	1.215	-0.076	0.036	1.305	-0.044	0.040	1.39	-0.208	0.058	1.435	0.000	0.043	1.525	-0.024	0.045
1.125	-0.124	0.044	1.215	-0.074	0.036	1.305	-0.042	0.040	1.39	-0.206	0.060	1.44	-0.198	0.056	1.525	-0.022	0.047
1.125	-0.122	0.043	1.215	-0.072	0.035	1.305	-0.040	0.039	1.39	-0.204	0.059	1.44	-0.196	0.056	1.525	-0.020	0.046
1.125	-0.120	0.043	1.215	-0.070	0.036	1.305	-0.038	0.039	1.39	-0.202	0.058	1.44	-0.194	0.055	1.525	-0.018	0.045
1.125	-0.118	0.044	1.215	-0.068	0.035	1.305	-0.036	0.038	1.39	-0.200	0.057	1.44	-0.192	0.055	1.525	-0.016	0.045
1.125	-0.116	0.045	1.215	-0.066	0.035	1.305	-0.034	0.039	1.39	-0.198	0.057	1.44	-0.190	0.054	1.525	-0.014	0.045
1.125	-0.114	0.045	1.215	-0.064	0.035	1.305	-0.032	0.040	1.39	-0.196	0.058	1.44	-0.188	0.054	1.525	-0.012	0.045
1.125	-0.112	0.046	1.215	-0.062	0.035	1.305	-0.030	0.042	1.39	-0.194	0.057	1.44	-0.186	0.055	1.525	-0.010	0.048
1.125	-0.110	0.048	1.215	-0.060	0.034	1.305	-0.028	0.043	1.39	-0.192	0.056	1.44	-0.184	0.055	1.525	-0.008	0.049
1.125	-0.108	0.048	1.215	-0.058	0.034	1.305	-0.026	0.042	1.39	-0.190	0.056	1.44	-0.182	0.058	1.525	-0.006	0.048
1.125	-0.106	0.049	1.215	-0.056	0.034	1.305	-0.024	0.042	1.39	-0.188	0.056	1.44	-0.180	0.059	1.525	-0.004	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.125	-0.104	0.049	1.215	-0.054	0.034	1.305	-0.022	0.042	1.39	-0.186	0.057	1.44	-0.178	0.059	1.525	-0.002	0.044
1.125	-0.102	0.048	1.215	-0.052	0.034	1.305	-0.020	0.039	1.39	-0.184	0.057	1.44	-0.176	0.058	1.525	0.000	0.038
1.125	-0.100	0.047	1.215	-0.050	0.033	1.305	-0.018	0.035	1.39	-0.182	0.055	1.44	-0.174	0.058	1.535	-0.130	0.058
1.125	-0.098	0.045	1.215	-0.048	0.032	1.305	-0.016	0.035	1.39	-0.180	0.053	1.44	-0.172	0.060	1.535	-0.128	0.058
1.125	-0.096	0.045	1.215	-0.046	0.033	1.305	-0.014	0.035	1.39	-0.178	0.052	1.44	-0.170	0.061	1.535	-0.126	0.058
1.125	-0.094	0.049	1.215	-0.044	0.034	1.305	-0.012	0.036	1.39	-0.176	0.054	1.44	-0.168	0.060	1.535	-0.124	0.058
1.125	-0.092	0.051	1.215	-0.042	0.035	1.305	-0.010	0.036	1.39	-0.174	0.056	1.44	-0.166	0.060	1.535	-0.122	0.058
1.125	-0.090	0.052	1.215	-0.040	0.036	1.305	-0.008	0.035	1.39	-0.172	0.056	1.44	-0.164	0.060	1.535	-0.120	0.058
1.125	-0.088	0.050	1.215	-0.038	0.034	1.305	-0.006	0.035	1.39	-0.170	0.052	1.44	-0.162	0.061	1.535	-0.118	0.058
1.125	-0.086	0.049	1.215	-0.036	0.034	1.305	-0.004	0.034	1.39	-0.168	0.051	1.44	-0.160	0.060	1.535	-0.116	0.057
1.125	-0.084	0.049	1.215	-0.034	0.034	1.305	-0.002	0.034	1.39	-0.166	0.050	1.44	-0.158	0.060	1.535	-0.114	0.057
1.125	-0.082	0.047	1.215	-0.032	0.034	1.305	0.000	0.034	1.39	-0.164	0.052	1.44	-0.156	0.058	1.535	-0.112	0.057
1.125	-0.080	0.043	1.215	-0.030	0.033	1.315	-0.234	0.053	1.39	-0.162	0.057	1.44	-0.154	0.056	1.535	-0.110	0.056
1.125	-0.078	0.040	1.215	-0.028	0.033	1.315	-0.232	0.053	1.39	-0.160	0.059	1.44	-0.152	0.055	1.535	-0.108	0.056
1.125	-0.076	0.040	1.215	-0.026	0.032	1.315	-0.230	0.052	1.39	-0.158	0.060	1.44	-0.150	0.053	1.535	-0.106	0.056
1.125	-0.074	0.040	1.215	-0.024	0.033	1.315	-0.228	0.051	1.39	-0.156	0.060	1.44	-0.148	0.050	1.535	-0.104	0.056
1.125	-0.072	0.038	1.215	-0.022	0.034	1.315	-0.226	0.051	1.39	-0.154	0.059	1.44	-0.146	0.050	1.535	-0.102	0.056
1.125	-0.070	0.036	1.215	-0.020	0.036	1.315	-0.224	0.052	1.39	-0.152	0.057	1.44	-0.144	0.052	1.535	-0.100	0.057
1.125	-0.068	0.036	1.215	-0.018	0.037	1.315	-0.222	0.053	1.39	-0.150	0.057	1.44	-0.142	0.051	1.535	-0.098	0.056
1.125	-0.066	0.036	1.215	-0.016	0.037	1.315	-0.220	0.054	1.39	-0.148	0.056	1.44	-0.140	0.050	1.535	-0.096	0.056
1.125	-0.064	0.035	1.215	-0.014	0.037	1.315	-0.218	0.054	1.39	-0.146	0.055	1.44	-0.138	0.050	1.535	-0.094	0.055
1.125	-0.062	0.034	1.215	-0.012	0.037	1.315	-0.216	0.054	1.39	-0.144	0.050	1.44	-0.136	0.051	1.535	-0.092	0.053
1.125	-0.060	0.033	1.215	-0.010	0.035	1.315	-0.214	0.053	1.39	-0.142	0.047	1.44	-0.134	0.050	1.535	-0.090	0.051
1.125	-0.058	0.033	1.215	-0.008	0.035	1.315	-0.212	0.053	1.39	-0.140	0.047	1.44	-0.132	0.049	1.535	-0.088	0.051
1.125	-0.056	0.033	1.215	-0.006	0.035	1.315	-0.210	0.054	1.39	-0.138	0.047	1.44	-0.130	0.049	1.535	-0.086	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.125	-0.054	0.033	1.215	-0.004	0.035	1.315	-0.208	0.054	1.39	-0.136	0.048	1.44	-0.128	0.051	1.535	-0.084	0.052
1.125	-0.052	0.032	1.215	-0.002	0.034	1.315	-0.206	0.052	1.39	-0.134	0.048	1.44	-0.126	0.051	1.535	-0.082	0.052
1.125	-0.050	0.032	1.215	0.000	0.033	1.315	-0.204	0.051	1.39	-0.132	0.050	1.44	-0.124	0.051	1.535	-0.080	0.052
1.125	-0.048	0.033	1.225	-0.224	0.055	1.315	-0.202	0.051	1.39	-0.130	0.051	1.44	-0.122	0.050	1.535	-0.078	0.052
1.125	-0.046	0.035	1.225	-0.222	0.053	1.315	-0.200	0.051	1.39	-0.128	0.050	1.44	-0.120	0.051	1.535	-0.076	0.051
1.125	-0.044	0.036	1.225	-0.220	0.051	1.315	-0.198	0.051	1.39	-0.126	0.048	1.44	-0.118	0.051	1.535	-0.074	0.050
1.125	-0.042	0.037	1.225	-0.218	0.051	1.315	-0.196	0.051	1.39	-0.124	0.048	1.44	-0.116	0.051	1.535	-0.072	0.049
1.125	-0.040	0.037	1.225	-0.216	0.051	1.315	-0.194	0.052	1.39	-0.122	0.047	1.44	-0.114	0.051	1.535	-0.070	0.049
1.125	-0.038	0.037	1.225	-0.214	0.049	1.315	-0.192	0.051	1.39	-0.120	0.046	1.44	-0.112	0.051	1.535	-0.068	0.048
1.125	-0.036	0.037	1.225	-0.212	0.049	1.315	-0.190	0.051	1.39	-0.118	0.046	1.44	-0.110	0.051	1.535	-0.066	0.048
1.125	-0.034	0.037	1.225	-0.210	0.049	1.315	-0.188	0.052	1.39	-0.116	0.045	1.44	-0.108	0.052	1.535	-0.064	0.047
1.125	-0.032	0.036	1.225	-0.208	0.049	1.315	-0.186	0.052	1.39	-0.114	0.046	1.44	-0.106	0.053	1.535	-0.062	0.047
1.125	-0.030	0.035	1.225	-0.206	0.048	1.315	-0.184	0.052	1.39	-0.112	0.046	1.44	-0.104	0.053	1.535	-0.060	0.048
1.125	-0.028	0.035	1.225	-0.204	0.047	1.315	-0.182	0.052	1.39	-0.110	0.046	1.44	-0.102	0.054	1.535	-0.058	0.049
1.125	-0.026	0.034	1.225	-0.202	0.047	1.315	-0.180	0.052	1.39	-0.108	0.046	1.44	-0.100	0.052	1.535	-0.056	0.049
1.125	-0.024	0.033	1.225	-0.200	0.045	1.315	-0.178	0.051	1.39	-0.106	0.046	1.44	-0.098	0.051	1.535	-0.054	0.049
1.125	-0.022	0.033	1.225	-0.198	0.045	1.315	-0.176	0.051	1.39	-0.104	0.045	1.44	-0.096	0.050	1.535	-0.052	0.048
1.125	-0.020	0.033	1.225	-0.196	0.047	1.315	-0.174	0.052	1.39	-0.102	0.045	1.44	-0.094	0.048	1.535	-0.050	0.048
1.125	-0.018	0.033	1.225	-0.194	0.048	1.315	-0.172	0.051	1.39	-0.100	0.046	1.44	-0.092	0.047	1.535	-0.048	0.047
1.125	-0.016	0.034	1.225	-0.192	0.047	1.315	-0.170	0.050	1.39	-0.098	0.046	1.44	-0.090	0.047	1.535	-0.046	0.047
1.125	-0.014	0.035	1.225	-0.190	0.046	1.315	-0.168	0.050	1.39	-0.096	0.045	1.44	-0.088	0.047	1.535	-0.044	0.048
1.125	-0.012	0.035	1.225	-0.188	0.047	1.315	-0.166	0.049	1.39	-0.094	0.044	1.44	-0.086	0.046	1.535	-0.042	0.049
1.125	-0.010	0.036	1.225	-0.186	0.048	1.315	-0.164	0.047	1.39	-0.092	0.044	1.44	-0.084	0.046	1.535	-0.040	0.050
1.125	-0.008	0.037	1.225	-0.184	0.048	1.315	-0.162	0.046	1.39	-0.090	0.045	1.44	-0.082	0.047	1.535	-0.038	0.048
1.125	-0.006	0.036	1.225	-0.182	0.048	1.315	-0.160	0.046	1.39	-0.088	0.044	1.44	-0.080	0.046	1.535	-0.036	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.125	-0.004	0.033	1.225	-0.180	0.046	1.315	-0.158	0.045	1.39	-0.086	0.044	1.44	-0.078	0.044	1.535	-0.034	0.046
1.125	-0.002	0.032	1.225	-0.178	0.047	1.315	-0.156	0.046	1.39	-0.084	0.044	1.44	-0.076	0.042	1.535	-0.032	0.047
1.125	0.000	0.031	1.225	-0.176	0.048	1.315	-0.154	0.048	1.39	-0.082	0.044	1.44	-0.074	0.042	1.535	-0.030	0.048
1.135	-0.188	0.051	1.225	-0.174	0.049	1.315	-0.152	0.048	1.39	-0.080	0.045	1.44	-0.072	0.044	1.535	-0.028	0.047
1.135	-0.186	0.051	1.225	-0.172	0.048	1.315	-0.150	0.048	1.39	-0.078	0.044	1.44	-0.070	0.046	1.535	-0.026	0.046
1.135	-0.184	0.051	1.225	-0.170	0.047	1.315	-0.148	0.047	1.39	-0.076	0.044	1.44	-0.068	0.046	1.535	-0.024	0.045
1.135	-0.182	0.050	1.225	-0.168	0.046	1.315	-0.146	0.044	1.39	-0.074	0.044	1.44	-0.066	0.046	1.535	-0.022	0.045
1.135	-0.180	0.050	1.225	-0.166	0.046	1.315	-0.144	0.043	1.39	-0.072	0.044	1.44	-0.064	0.045	1.535	-0.020	0.044
1.135	-0.178	0.050	1.225	-0.164	0.048	1.315	-0.142	0.046	1.39	-0.070	0.044	1.44	-0.062	0.044	1.535	-0.018	0.043
1.135	-0.176	0.050	1.225	-0.162	0.049	1.315	-0.140	0.045	1.39	-0.068	0.043	1.44	-0.060	0.043	1.535	-0.016	0.045
1.135	-0.174	0.049	1.225	-0.160	0.051	1.315	-0.138	0.044	1.39	-0.066	0.041	1.44	-0.058	0.043	1.535	-0.014	0.047
1.135	-0.172	0.049	1.225	-0.158	0.050	1.315	-0.136	0.044	1.39	-0.064	0.039	1.44	-0.056	0.042	1.535	-0.012	0.048
1.135	-0.170	0.048	1.225	-0.156	0.050	1.315	-0.134	0.046	1.39	-0.062	0.039	1.44	-0.054	0.039	1.535	-0.010	0.047
1.135	-0.168	0.046	1.225	-0.154	0.049	1.315	-0.132	0.046	1.39	-0.060	0.039	1.44	-0.052	0.039	1.535	-0.008	0.045
1.135	-0.166	0.045	1.225	-0.152	0.048	1.315	-0.130	0.045	1.39	-0.058	0.038	1.44	-0.050	0.041	1.535	-0.006	0.044
1.135	-0.164	0.046	1.225	-0.150	0.047	1.315	-0.128	0.044	1.39	-0.056	0.039	1.44	-0.048	0.042	1.535	-0.004	0.043
1.135	-0.162	0.048	1.225	-0.148	0.048	1.315	-0.126	0.043	1.39	-0.054	0.038	1.44	-0.046	0.042	1.535	-0.002	0.043
1.135	-0.160	0.049	1.225	-0.146	0.048	1.315	-0.124	0.042	1.39	-0.052	0.038	1.44	-0.044	0.041	1.535	0.000	0.042
1.135	-0.158	0.049	1.225	-0.144	0.048	1.315	-0.122	0.045	1.39	-0.050	0.038	1.44	-0.042	0.040	1.545	-0.118	0.060
1.135	-0.156	0.048	1.225	-0.142	0.048	1.315	-0.120	0.046	1.39	-0.048	0.040	1.44	-0.040	0.040	1.545	-0.116	0.060
1.135	-0.154	0.047	1.225	-0.140	0.048	1.315	-0.118	0.046	1.39	-0.046	0.040	1.44	-0.038	0.041	1.545	-0.114	0.060
1.135	-0.152	0.046	1.225	-0.138	0.048	1.315	-0.116	0.044	1.39	-0.044	0.040	1.44	-0.036	0.042	1.545	-0.112	0.060
1.135	-0.150	0.045	1.225	-0.136	0.047	1.315	-0.114	0.043	1.39	-0.042	0.040	1.44	-0.034	0.043	1.545	-0.110	0.060
1.135	-0.148	0.046	1.225	-0.134	0.046	1.315	-0.112	0.042	1.39	-0.040	0.039	1.44	-0.032	0.043	1.545	-0.108	0.060
1.135	-0.146	0.047	1.225	-0.132	0.046	1.315	-0.110	0.041	1.39	-0.038	0.038	1.44	-0.030	0.040	1.545	-0.106	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.135	-0.144	0.046	1.225	-0.130	0.046	1.315	-0.108	0.040	1.39	-0.036	0.037	1.44	-0.028	0.039	1.545	-0.104	0.060
1.135	-0.142	0.045	1.225	-0.128	0.045	1.315	-0.106	0.040	1.39	-0.034	0.038	1.44	-0.026	0.041	1.545	-0.102	0.059
1.135	-0.140	0.044	1.225	-0.126	0.045	1.315	-0.104	0.041	1.39	-0.032	0.038	1.44	-0.024	0.042	1.545	-0.100	0.059
1.135	-0.138	0.046	1.225	-0.124	0.046	1.315	-0.102	0.042	1.39	-0.030	0.039	1.44	-0.022	0.043	1.545	-0.098	0.058
1.135	-0.136	0.046	1.225	-0.122	0.046	1.315	-0.100	0.042	1.39	-0.028	0.041	1.44	-0.020	0.043	1.545	-0.096	0.058
1.135	-0.134	0.046	1.225	-0.120	0.046	1.315	-0.098	0.042	1.39	-0.026	0.041	1.44	-0.018	0.042	1.545	-0.094	0.057
1.135	-0.132	0.044	1.225	-0.118	0.045	1.315	-0.096	0.042	1.39	-0.024	0.041	1.44	-0.016	0.040	1.545	-0.092	0.055
1.135	-0.130	0.042	1.225	-0.116	0.043	1.315	-0.094	0.042	1.39	-0.022	0.041	1.44	-0.014	0.039	1.545	-0.090	0.052
1.135	-0.128	0.042	1.225	-0.114	0.044	1.315	-0.092	0.042	1.39	-0.020	0.041	1.44	-0.012	0.038	1.545	-0.088	0.050
1.135	-0.126	0.043	1.225	-0.112	0.045	1.315	-0.090	0.042	1.39	-0.018	0.040	1.44	-0.010	0.039	1.545	-0.086	0.050
1.135	-0.124	0.042	1.225	-0.110	0.045	1.315	-0.088	0.043	1.39	-0.016	0.041	1.44	-0.008	0.041	1.545	-0.084	0.052
1.135	-0.122	0.041	1.225	-0.108	0.043	1.315	-0.086	0.042	1.39	-0.014	0.041	1.44	-0.006	0.043	1.545	-0.082	0.052
1.135	-0.120	0.042	1.225	-0.106	0.042	1.315	-0.084	0.041	1.39	-0.012	0.039	1.44	-0.004	0.042	1.545	-0.080	0.049
1.135	-0.118	0.044	1.225	-0.104	0.042	1.315	-0.082	0.042	1.39	-0.010	0.039	1.44	-0.002	0.041	1.545	-0.078	0.049
1.135	-0.116	0.047	1.225	-0.102	0.042	1.315	-0.080	0.042	1.39	-0.008	0.040	1.44	0.000	0.041	1.545	-0.076	0.050
1.135	-0.114	0.050	1.225	-0.100	0.040	1.315	-0.078	0.041	1.39	-0.006	0.041	1.445	-0.198	0.056	1.545	-0.074	0.051
1.135	-0.112	0.051	1.225	-0.098	0.042	1.315	-0.076	0.039	1.39	-0.004	0.041	1.445	-0.196	0.056	1.545	-0.072	0.051
1.135	-0.110	0.049	1.225	-0.096	0.043	1.315	-0.074	0.038	1.39	-0.002	0.039	1.445	-0.194	0.055	1.545	-0.070	0.049
1.135	-0.108	0.047	1.225	-0.094	0.043	1.315	-0.072	0.038	1.39	0.000	0.037	1.445	-0.192	0.055	1.545	-0.068	0.048
1.135	-0.106	0.047	1.225	-0.092	0.041	1.315	-0.070	0.039	1.395	-0.218	0.054	1.445	-0.190	0.055	1.545	-0.066	0.050
1.135	-0.104	0.046	1.225	-0.090	0.040	1.315	-0.068	0.040	1.395	-0.216	0.055	1.445	-0.188	0.056	1.545	-0.064	0.051
1.135	-0.102	0.047	1.225	-0.088	0.039	1.315	-0.066	0.041	1.395	-0.214	0.055	1.445	-0.186	0.058	1.545	-0.062	0.050
1.135	-0.100	0.047	1.225	-0.086	0.038	1.315	-0.064	0.042	1.395	-0.212	0.056	1.445	-0.184	0.057	1.545	-0.060	0.050
1.135	-0.098	0.045	1.225	-0.084	0.037	1.315	-0.062	0.043	1.395	-0.210	0.058	1.445	-0.182	0.057	1.545	-0.058	0.049
1.135	-0.096	0.045	1.225	-0.082	0.036	1.315	-0.060	0.043	1.395	-0.208	0.058	1.445	-0.180	0.058	1.545	-0.056	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.135	-0.094	0.046	1.225	-0.080	0.035	1.315	-0.058	0.041	1.395	-0.206	0.059	1.445	-0.178	0.058	1.545	-0.054	0.050
1.135	-0.092	0.049	1.225	-0.078	0.035	1.315	-0.056	0.040	1.395	-0.204	0.059	1.445	-0.176	0.057	1.545	-0.052	0.050
1.135	-0.090	0.052	1.225	-0.076	0.036	1.315	-0.054	0.039	1.395	-0.202	0.058	1.445	-0.174	0.058	1.545	-0.050	0.051
1.135	-0.088	0.053	1.225	-0.074	0.037	1.315	-0.052	0.039	1.395	-0.200	0.057	1.445	-0.172	0.059	1.545	-0.048	0.051
1.135	-0.086	0.051	1.225	-0.072	0.037	1.315	-0.050	0.040	1.395	-0.198	0.057	1.445	-0.170	0.059	1.545	-0.046	0.050
1.135	-0.084	0.049	1.225	-0.070	0.037	1.315	-0.048	0.040	1.395	-0.196	0.057	1.445	-0.168	0.061	1.545	-0.044	0.050
1.135	-0.082	0.047	1.225	-0.068	0.035	1.315	-0.046	0.041	1.395	-0.194	0.056	1.445	-0.166	0.061	1.545	-0.042	0.049
1.135	-0.080	0.044	1.225	-0.066	0.032	1.315	-0.044	0.041	1.395	-0.192	0.055	1.445	-0.164	0.062	1.545	-0.040	0.047
1.135	-0.078	0.040	1.225	-0.064	0.032	1.315	-0.042	0.041	1.395	-0.190	0.055	1.445	-0.162	0.062	1.545	-0.038	0.047
1.135	-0.076	0.039	1.225	-0.062	0.034	1.315	-0.040	0.041	1.395	-0.188	0.057	1.445	-0.160	0.060	1.545	-0.036	0.048
1.135	-0.074	0.039	1.225	-0.060	0.035	1.315	-0.038	0.041	1.395	-0.186	0.058	1.445	-0.158	0.059	1.545	-0.034	0.047
1.135	-0.072	0.038	1.225	-0.058	0.035	1.315	-0.036	0.041	1.395	-0.184	0.057	1.445	-0.156	0.057	1.545	-0.032	0.046
1.135	-0.070	0.037	1.225	-0.056	0.033	1.315	-0.034	0.041	1.395	-0.182	0.055	1.445	-0.154	0.055	1.545	-0.030	0.045
1.135	-0.068	0.037	1.225	-0.054	0.032	1.315	-0.032	0.040	1.395	-0.180	0.054	1.445	-0.152	0.055	1.545	-0.028	0.046
1.135	-0.066	0.037	1.225	-0.052	0.032	1.315	-0.030	0.040	1.395	-0.178	0.055	1.445	-0.150	0.054	1.545	-0.026	0.045
1.135	-0.064	0.037	1.225	-0.050	0.033	1.315	-0.028	0.041	1.395	-0.176	0.056	1.445	-0.148	0.053	1.545	-0.024	0.045
1.135	-0.062	0.036	1.225	-0.048	0.034	1.315	-0.026	0.042	1.395	-0.174	0.057	1.445	-0.146	0.051	1.545	-0.022	0.043
1.135	-0.060	0.035	1.225	-0.046	0.034	1.315	-0.024	0.043	1.395	-0.172	0.056	1.445	-0.144	0.052	1.545	-0.020	0.042
1.135	-0.058	0.034	1.225	-0.044	0.034	1.315	-0.022	0.043	1.395	-0.170	0.053	1.445	-0.142	0.052	1.545	-0.018	0.043
1.135	-0.056	0.033	1.225	-0.042	0.034	1.315	-0.020	0.044	1.395	-0.168	0.050	1.445	-0.140	0.052	1.545	-0.016	0.044
1.135	-0.054	0.034	1.225	-0.040	0.035	1.315	-0.018	0.042	1.395	-0.166	0.049	1.445	-0.138	0.052	1.545	-0.014	0.043
1.135	-0.052	0.035	1.225	-0.038	0.034	1.315	-0.016	0.040	1.395	-0.164	0.051	1.445	-0.136	0.052	1.545	-0.012	0.043
1.135	-0.050	0.035	1.225	-0.036	0.034	1.315	-0.014	0.038	1.395	-0.162	0.055	1.445	-0.134	0.051	1.545	-0.010	0.042
1.135	-0.048	0.035	1.225	-0.034	0.036	1.315	-0.012	0.036	1.395	-0.160	0.058	1.445	-0.132	0.051	1.545	-0.008	0.043
1.135	-0.046	0.036	1.225	-0.032	0.038	1.315	-0.010	0.034	1.395	-0.158	0.060	1.445	-0.130	0.051	1.545	-0.006	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.135	-0.044	0.036	1.225	-0.030	0.037	1.315	-0.008	0.034	1.395	-0.156	0.061	1.445	-0.128	0.052	1.545	-0.004	0.044
1.135	-0.042	0.036	1.225	-0.028	0.036	1.315	-0.006	0.034	1.395	-0.154	0.061	1.445	-0.126	0.052	1.545	-0.002	0.042
1.135	-0.040	0.036	1.225	-0.026	0.036	1.315	-0.004	0.034	1.395	-0.152	0.061	1.445	-0.124	0.051	1.545	0.000	0.040
1.135	-0.038	0.035	1.225	-0.024	0.036	1.315	-0.002	0.035	1.395	-0.150	0.062	1.445	-0.122	0.050	1.555	-0.106	0.062
1.135	-0.036	0.034	1.225	-0.022	0.036	1.315	0.000	0.036	1.395	-0.148	0.060	1.445	-0.120	0.051	1.555	-0.104	0.062
1.135	-0.034	0.035	1.225	-0.020	0.036	1.325	-0.232	0.054	1.395	-0.146	0.055	1.445	-0.118	0.052	1.555	-0.102	0.061
1.135	-0.032	0.036	1.225	-0.018	0.037	1.325	-0.230	0.054	1.395	-0.144	0.051	1.445	-0.116	0.052	1.555	-0.100	0.060
1.135	-0.030	0.036	1.225	-0.016	0.037	1.325	-0.228	0.056	1.395	-0.142	0.048	1.445	-0.114	0.051	1.555	-0.098	0.060
1.135	-0.028	0.035	1.225	-0.014	0.037	1.325	-0.226	0.058	1.395	-0.140	0.048	1.445	-0.112	0.051	1.555	-0.096	0.058
1.135	-0.026	0.034	1.225	-0.012	0.036	1.325	-0.224	0.059	1.395	-0.138	0.049	1.445	-0.110	0.052	1.555	-0.094	0.057
1.135	-0.024	0.033	1.225	-0.010	0.035	1.325	-0.222	0.059	1.395	-0.136	0.049	1.445	-0.108	0.052	1.555	-0.092	0.056
1.135	-0.022	0.033	1.225	-0.008	0.035	1.325	-0.220	0.056	1.395	-0.134	0.050	1.445	-0.106	0.052	1.555	-0.090	0.054
1.135	-0.020	0.033	1.225	-0.006	0.035	1.325	-0.218	0.053	1.395	-0.132	0.051	1.445	-0.104	0.053	1.555	-0.088	0.053
1.135	-0.018	0.033	1.225	-0.004	0.034	1.325	-0.216	0.052	1.395	-0.130	0.052	1.445	-0.102	0.053	1.555	-0.086	0.052
1.135	-0.016	0.032	1.225	-0.002	0.034	1.325	-0.214	0.052	1.395	-0.128	0.051	1.445	-0.100	0.053	1.555	-0.084	0.051
1.135	-0.014	0.032	1.225	0.000	0.033	1.325	-0.212	0.052	1.395	-0.126	0.048	1.445	-0.098	0.052	1.555	-0.082	0.049
1.135	-0.012	0.033	1.235	-0.226	0.053	1.325	-0.210	0.053	1.395	-0.124	0.047	1.445	-0.096	0.051	1.555	-0.080	0.048
1.135	-0.010	0.034	1.235	-0.224	0.051	1.325	-0.208	0.052	1.395	-0.122	0.047	1.445	-0.094	0.050	1.555	-0.078	0.047
1.135	-0.008	0.034	1.235	-0.222	0.051	1.325	-0.206	0.052	1.395	-0.120	0.046	1.445	-0.092	0.049	1.555	-0.076	0.047
1.135	-0.006	0.033	1.235	-0.220	0.052	1.325	-0.204	0.053	1.395	-0.118	0.046	1.445	-0.090	0.049	1.555	-0.074	0.048
1.135	-0.004	0.032	1.235	-0.218	0.052	1.325	-0.202	0.052	1.395	-0.116	0.045	1.445	-0.088	0.047	1.555	-0.072	0.048
1.135	-0.002	0.032	1.235	-0.216	0.050	1.325	-0.200	0.050	1.395	-0.114	0.046	1.445	-0.086	0.047	1.555	-0.070	0.048
1.135	0.000	0.031	1.235	-0.214	0.051	1.325	-0.198	0.049	1.395	-0.112	0.047	1.445	-0.084	0.047	1.555	-0.068	0.049
1.14	-0.194	0.053	1.235	-0.212	0.052	1.325	-0.196	0.049	1.395	-0.110	0.047	1.445	-0.082	0.047	1.555	-0.066	0.050
1.14	-0.192	0.052	1.235	-0.210	0.054	1.325	-0.194	0.051	1.395	-0.108	0.046	1.445	-0.080	0.045	1.555	-0.064	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.14	-0.190	0.051	1.235	-0.208	0.053	1.325	-0.192	0.053	1.395	-0.106	0.046	1.445	-0.078	0.044	1.555	-0.062	0.051
1.14	-0.188	0.051	1.235	-0.206	0.051	1.325	-0.190	0.054	1.395	-0.104	0.045	1.445	-0.076	0.044	1.555	-0.060	0.050
1.14	-0.186	0.051	1.235	-0.204	0.050	1.325	-0.188	0.054	1.395	-0.102	0.045	1.445	-0.074	0.046	1.555	-0.058	0.050
1.14	-0.184	0.050	1.235	-0.202	0.049	1.325	-0.186	0.053	1.395	-0.100	0.045	1.445	-0.072	0.047	1.555	-0.056	0.050
1.14	-0.182	0.050	1.235	-0.200	0.047	1.325	-0.184	0.052	1.395	-0.098	0.046	1.445	-0.070	0.046	1.555	-0.054	0.052
1.14	-0.180	0.050	1.235	-0.198	0.045	1.325	-0.182	0.051	1.395	-0.096	0.046	1.445	-0.068	0.045	1.555	-0.052	0.054
1.14	-0.178	0.050	1.235	-0.196	0.044	1.325	-0.180	0.050	1.395	-0.094	0.045	1.445	-0.066	0.045	1.555	-0.050	0.054
1.14	-0.176	0.050	1.235	-0.194	0.042	1.325	-0.178	0.050	1.395	-0.092	0.045	1.445	-0.064	0.045	1.555	-0.048	0.052
1.14	-0.174	0.049	1.235	-0.192	0.042	1.325	-0.176	0.049	1.395	-0.090	0.045	1.445	-0.062	0.044	1.555	-0.046	0.050
1.14	-0.172	0.048	1.235	-0.190	0.043	1.325	-0.174	0.049	1.395	-0.088	0.045	1.445	-0.060	0.043	1.555	-0.044	0.049
1.14	-0.170	0.048	1.235	-0.188	0.043	1.325	-0.172	0.050	1.395	-0.086	0.044	1.445	-0.058	0.042	1.555	-0.042	0.048
1.14	-0.168	0.045	1.235	-0.186	0.044	1.325	-0.170	0.050	1.395	-0.084	0.043	1.445	-0.056	0.043	1.555	-0.040	0.049
1.14	-0.166	0.044	1.235	-0.184	0.045	1.325	-0.168	0.049	1.395	-0.082	0.045	1.445	-0.054	0.042	1.555	-0.038	0.050
1.14	-0.164	0.046	1.235	-0.182	0.047	1.325	-0.166	0.051	1.395	-0.080	0.045	1.445	-0.052	0.042	1.555	-0.036	0.050
1.14	-0.162	0.048	1.235	-0.180	0.047	1.325	-0.164	0.051	1.395	-0.078	0.044	1.445	-0.050	0.043	1.555	-0.034	0.048
1.14	-0.160	0.048	1.235	-0.178	0.046	1.325	-0.162	0.049	1.395	-0.076	0.044	1.445	-0.048	0.042	1.555	-0.032	0.048
1.14	-0.158	0.048	1.235	-0.176	0.046	1.325	-0.160	0.047	1.395	-0.074	0.044	1.445	-0.046	0.043	1.555	-0.030	0.046
1.14	-0.156	0.049	1.235	-0.174	0.048	1.325	-0.158	0.048	1.395	-0.072	0.044	1.445	-0.044	0.042	1.555	-0.028	0.043
1.14	-0.154	0.049	1.235	-0.172	0.050	1.325	-0.156	0.049	1.395	-0.070	0.042	1.445	-0.042	0.041	1.555	-0.026	0.042
1.14	-0.152	0.048	1.235	-0.170	0.050	1.325	-0.154	0.049	1.395	-0.068	0.041	1.445	-0.040	0.041	1.555	-0.024	0.042
1.14	-0.150	0.047	1.235	-0.168	0.051	1.325	-0.152	0.050	1.395	-0.066	0.041	1.445	-0.038	0.040	1.555	-0.022	0.043
1.14	-0.148	0.047	1.235	-0.166	0.050	1.325	-0.150	0.050	1.395	-0.064	0.040	1.445	-0.036	0.042	1.555	-0.020	0.045
1.14	-0.146	0.046	1.235	-0.164	0.050	1.325	-0.148	0.050	1.395	-0.062	0.039	1.445	-0.034	0.043	1.555	-0.018	0.046
1.14	-0.144	0.045	1.235	-0.162	0.049	1.325	-0.146	0.048	1.395	-0.060	0.039	1.445	-0.032	0.043	1.555	-0.016	0.046
1.14	-0.142	0.045	1.235	-0.160	0.050	1.325	-0.144	0.047	1.395	-0.058	0.038	1.445	-0.030	0.042	1.555	-0.014	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.14	-0.140	0.044	1.235	-0.158	0.049	1.325	-0.142	0.047	1.395	-0.056	0.038	1.445	-0.028	0.042	1.555	-0.012	0.045
1.14	-0.138	0.046	1.235	-0.156	0.049	1.325	-0.140	0.047	1.395	-0.054	0.038	1.445	-0.026	0.043	1.555	-0.010	0.045
1.14	-0.136	0.047	1.235	-0.154	0.048	1.325	-0.138	0.045	1.395	-0.052	0.039	1.445	-0.024	0.043	1.555	-0.008	0.045
1.14	-0.134	0.046	1.235	-0.152	0.047	1.325	-0.136	0.045	1.395	-0.050	0.038	1.445	-0.022	0.043	1.555	-0.006	0.045
1.14	-0.132	0.044	1.235	-0.150	0.046	1.325	-0.134	0.046	1.395	-0.048	0.040	1.445	-0.020	0.043	1.555	-0.004	0.044
1.14	-0.130	0.042	1.235	-0.148	0.047	1.325	-0.132	0.046	1.395	-0.046	0.041	1.445	-0.018	0.042	1.555	-0.002	0.042
1.14	-0.128	0.042	1.235	-0.146	0.049	1.325	-0.130	0.044	1.395	-0.044	0.041	1.445	-0.016	0.042	1.555	0.000	0.040
1.14	-0.126	0.044	1.235	-0.144	0.049	1.325	-0.128	0.043	1.395	-0.042	0.040	1.445	-0.014	0.040	1.565	-0.094	0.058
1.14	-0.124	0.044	1.235	-0.142	0.049	1.325	-0.126	0.043	1.395	-0.040	0.039	1.445	-0.012	0.040	1.565	-0.092	0.056
1.14	-0.122	0.042	1.235	-0.140	0.048	1.325	-0.124	0.044	1.395	-0.038	0.038	1.445	-0.010	0.041	1.565	-0.090	0.055
1.14	-0.120	0.041	1.235	-0.138	0.048	1.325	-0.122	0.043	1.395	-0.036	0.037	1.445	-0.008	0.043	1.565	-0.088	0.054
1.14	-0.118	0.042	1.235	-0.136	0.048	1.325	-0.120	0.043	1.395	-0.034	0.038	1.445	-0.006	0.044	1.565	-0.086	0.052
1.14	-0.116	0.045	1.235	-0.134	0.048	1.325	-0.118	0.044	1.395	-0.032	0.040	1.445	-0.004	0.042	1.565	-0.084	0.050
1.14	-0.114	0.047	1.235	-0.132	0.048	1.325	-0.116	0.042	1.395	-0.030	0.041	1.445	-0.002	0.039	1.565	-0.082	0.049
1.14	-0.112	0.047	1.235	-0.130	0.047	1.325	-0.114	0.041	1.395	-0.028	0.042	1.445	0.000	0.040	1.565	-0.080	0.048
1.14	-0.110	0.046	1.235	-0.128	0.047	1.325	-0.112	0.040	1.395	-0.026	0.042	1.45	-0.194	0.056	1.565	-0.078	0.047
1.14	-0.108	0.045	1.235	-0.126	0.047	1.325	-0.110	0.040	1.395	-0.024	0.042	1.45	-0.192	0.056	1.565	-0.076	0.047
1.14	-0.106	0.045	1.235	-0.124	0.046	1.325	-0.108	0.041	1.395	-0.022	0.040	1.45	-0.190	0.057	1.565	-0.074	0.047
1.14	-0.104	0.045	1.235	-0.122	0.046	1.325	-0.106	0.041	1.395	-0.020	0.041	1.45	-0.188	0.058	1.565	-0.072	0.047
1.14	-0.102	0.045	1.235	-0.120	0.046	1.325	-0.104	0.042	1.395	-0.018	0.041	1.45	-0.186	0.059	1.565	-0.070	0.048
1.14	-0.100	0.046	1.235	-0.118	0.046	1.325	-0.102	0.043	1.395	-0.016	0.042	1.45	-0.184	0.059	1.565	-0.068	0.049
1.14	-0.098	0.046	1.235	-0.116	0.045	1.325	-0.100	0.042	1.395	-0.014	0.042	1.45	-0.182	0.059	1.565	-0.066	0.049
1.14	-0.096	0.043	1.235	-0.114	0.044	1.325	-0.098	0.041	1.395	-0.012	0.040	1.45	-0.180	0.058	1.565	-0.064	0.050
1.14	-0.094	0.043	1.235	-0.112	0.043	1.325	-0.096	0.041	1.395	-0.010	0.040	1.45	-0.178	0.057	1.565	-0.062	0.050
1.14	-0.092	0.046	1.235	-0.110	0.042	1.325	-0.094	0.041	1.395	-0.008	0.040	1.45	-0.176	0.057	1.565	-0.060	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.14	-0.090	0.051	1.235	-0.108	0.042	1.325	-0.092	0.042	1.395	-0.006	0.040	1.45	-0.174	0.058	1.565	-0.058	0.050
1.14	-0.088	0.051	1.235	-0.106	0.041	1.325	-0.090	0.042	1.395	-0.004	0.038	1.45	-0.172	0.059	1.565	-0.056	0.051
1.14	-0.086	0.048	1.235	-0.104	0.041	1.325	-0.088	0.041	1.395	-0.002	0.037	1.45	-0.170	0.060	1.565	-0.054	0.051
1.14	-0.084	0.046	1.235	-0.102	0.040	1.325	-0.086	0.040	1.395	0.000	0.037	1.45	-0.168	0.062	1.565	-0.052	0.052
1.14	-0.082	0.044	1.235	-0.100	0.040	1.325	-0.084	0.039	1.4	-0.216	0.055	1.45	-0.166	0.063	1.565	-0.050	0.052
1.14	-0.080	0.040	1.235	-0.098	0.042	1.325	-0.082	0.040	1.4	-0.214	0.056	1.45	-0.164	0.061	1.565	-0.048	0.051
1.14	-0.078	0.039	1.235	-0.096	0.042	1.325	-0.080	0.040	1.4	-0.212	0.057	1.45	-0.162	0.059	1.565	-0.046	0.050
1.14	-0.076	0.040	1.235	-0.094	0.042	1.325	-0.078	0.039	1.4	-0.210	0.058	1.45	-0.160	0.058	1.565	-0.044	0.049
1.14	-0.074	0.040	1.235	-0.092	0.041	1.325	-0.076	0.038	1.4	-0.208	0.058	1.45	-0.158	0.057	1.565	-0.042	0.048
1.14	-0.072	0.038	1.235	-0.090	0.041	1.325	-0.074	0.040	1.4	-0.206	0.058	1.45	-0.156	0.056	1.565	-0.040	0.047
1.14	-0.070	0.037	1.235	-0.088	0.040	1.325	-0.072	0.041	1.4	-0.204	0.058	1.45	-0.154	0.054	1.565	-0.038	0.047
1.14	-0.068	0.037	1.235	-0.086	0.040	1.325	-0.070	0.041	1.4	-0.202	0.057	1.45	-0.152	0.055	1.565	-0.036	0.047
1.14	-0.066	0.037	1.235	-0.084	0.040	1.325	-0.068	0.041	1.4	-0.200	0.057	1.45	-0.150	0.056	1.565	-0.034	0.046
1.14	-0.064	0.038	1.235	-0.082	0.043	1.325	-0.066	0.042	1.4	-0.198	0.057	1.45	-0.148	0.055	1.565	-0.032	0.047
1.14	-0.062	0.038	1.235	-0.080	0.043	1.325	-0.064	0.042	1.4	-0.196	0.057	1.45	-0.146	0.055	1.565	-0.030	0.048
1.14	-0.060	0.036	1.235	-0.078	0.040	1.325	-0.062	0.041	1.4	-0.194	0.055	1.45	-0.144	0.054	1.565	-0.028	0.047
1.14	-0.058	0.034	1.235	-0.076	0.038	1.325	-0.060	0.041	1.4	-0.192	0.053	1.45	-0.142	0.055	1.565	-0.026	0.046
1.14	-0.056	0.034	1.235	-0.074	0.037	1.325	-0.058	0.041	1.4	-0.190	0.055	1.45	-0.140	0.056	1.565	-0.024	0.046
1.14	-0.054	0.035	1.235	-0.072	0.037	1.325	-0.056	0.040	1.4	-0.188	0.057	1.45	-0.138	0.056	1.565	-0.022	0.045
1.14	-0.052	0.035	1.235	-0.070	0.038	1.325	-0.054	0.038	1.4	-0.186	0.058	1.45	-0.136	0.054	1.565	-0.020	0.045
1.14	-0.050	0.035	1.235	-0.068	0.037	1.325	-0.052	0.039	1.4	-0.184	0.058	1.45	-0.134	0.053	1.565	-0.018	0.044
1.14	-0.048	0.033	1.235	-0.066	0.036	1.325	-0.050	0.041	1.4	-0.182	0.056	1.45	-0.132	0.053	1.565	-0.016	0.042
1.14	-0.046	0.033	1.235	-0.064	0.036	1.325	-0.048	0.042	1.4	-0.180	0.056	1.45	-0.130	0.053	1.565	-0.014	0.043
1.14	-0.044	0.034	1.235	-0.062	0.034	1.325	-0.046	0.043	1.4	-0.178	0.055	1.45	-0.128	0.053	1.565	-0.012	0.044
1.14	-0.042	0.035	1.235	-0.060	0.033	1.325	-0.044	0.042	1.4	-0.176	0.054	1.45	-0.126	0.052	1.565	-0.010	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.14	-0.040	0.034	1.235	-0.058	0.033	1.325	-0.042	0.042	1.4	-0.174	0.055	1.45	-0.124	0.051	1.565	-0.008	0.044
1.14	-0.038	0.033	1.235	-0.056	0.034	1.325	-0.040	0.042	1.4	-0.172	0.054	1.45	-0.122	0.051	1.565	-0.006	0.041
1.14	-0.036	0.033	1.235	-0.054	0.034	1.325	-0.038	0.043	1.4	-0.170	0.052	1.45	-0.120	0.052	1.565	-0.004	0.039
1.14	-0.034	0.033	1.235	-0.052	0.033	1.325	-0.036	0.042	1.4	-0.168	0.051	1.45	-0.118	0.052	1.565	-0.002	0.038
1.14	-0.032	0.035	1.235	-0.050	0.033	1.325	-0.034	0.041	1.4	-0.166	0.051	1.45	-0.116	0.052	1.565	0.000	0.037
1.14	-0.030	0.035	1.235	-0.048	0.035	1.325	-0.032	0.041	1.4	-0.164	0.052	1.45	-0.114	0.052	1.575	-0.078	0.048
1.14	-0.028	0.034	1.235	-0.046	0.036	1.325	-0.030	0.041	1.4	-0.162	0.053	1.45	-0.112	0.052	1.575	-0.076	0.047
1.14	-0.026	0.033	1.235	-0.044	0.036	1.325	-0.028	0.041	1.4	-0.160	0.055	1.45	-0.110	0.052	1.575	-0.074	0.047
1.14	-0.024	0.032	1.235	-0.042	0.035	1.325	-0.026	0.041	1.4	-0.158	0.057	1.45	-0.108	0.052	1.575	-0.072	0.047
1.14	-0.022	0.032	1.235	-0.040	0.035	1.325	-0.024	0.041	1.4	-0.156	0.057	1.45	-0.106	0.053	1.575	-0.070	0.048
1.14	-0.020	0.033	1.235	-0.038	0.035	1.325	-0.022	0.042	1.4	-0.154	0.056	1.45	-0.104	0.054	1.575	-0.068	0.048
1.14	-0.018	0.033	1.235	-0.036	0.035	1.325	-0.020	0.043	1.4	-0.152	0.056	1.45	-0.102	0.054	1.575	-0.066	0.048
1.14	-0.016	0.032	1.235	-0.034	0.035	1.325	-0.018	0.042	1.4	-0.150	0.057	1.45	-0.100	0.053	1.575	-0.064	0.049
1.14	-0.014	0.031	1.235	-0.032	0.036	1.325	-0.016	0.041	1.4	-0.148	0.056	1.45	-0.098	0.053	1.575	-0.062	0.049
1.14	-0.012	0.032	1.235	-0.030	0.036	1.325	-0.014	0.038	1.4	-0.146	0.052	1.45	-0.096	0.052	1.575	-0.060	0.050
1.14	-0.010	0.033	1.235	-0.028	0.037	1.325	-0.012	0.036	1.4	-0.144	0.050	1.45	-0.094	0.052	1.575	-0.058	0.050
1.14	-0.008	0.034	1.235	-0.026	0.037	1.325	-0.010	0.035	1.4	-0.142	0.050	1.45	-0.092	0.051	1.575	-0.056	0.050
1.14	-0.006	0.034	1.235	-0.024	0.036	1.325	-0.008	0.034	1.4	-0.140	0.050	1.45	-0.090	0.050	1.575	-0.054	0.050
1.14	-0.004	0.033	1.235	-0.022	0.034	1.325	-0.006	0.037	1.4	-0.138	0.051	1.45	-0.088	0.048	1.575	-0.052	0.050
1.14	-0.002	0.033	1.235	-0.020	0.034	1.325	-0.004	0.038	1.4	-0.136	0.051	1.45	-0.086	0.048	1.575	-0.050	0.050
1.14	0.000	0.033	1.235	-0.018	0.034	1.325	-0.002	0.038	1.4	-0.134	0.050	1.45	-0.084	0.047	1.575	-0.048	0.050
1.145	-0.194	0.053	1.235	-0.016	0.035	1.325	0.000	0.037	1.4	-0.132	0.050	1.45	-0.082	0.047	1.575	-0.046	0.049
1.145	-0.192	0.052	1.235	-0.014	0.036	1.335	-0.232	0.056	1.4	-0.130	0.052	1.45	-0.080	0.046	1.575	-0.044	0.048
1.145	-0.190	0.051	1.235	-0.012	0.037	1.335	-0.230	0.060	1.4	-0.128	0.051	1.45	-0.078	0.045	1.575	-0.042	0.048
1.145	-0.188	0.051	1.235	-0.010	0.037	1.335	-0.228	0.062	1.4	-0.126	0.047	1.45	-0.076	0.047	1.575	-0.040	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.145	-0.186	0.050	1.235	-0.008	0.036	1.335	-0.226	0.060	1.4	-0.124	0.045	1.45	-0.074	0.048	1.575	-0.038	0.046
1.145	-0.184	0.050	1.235	-0.006	0.034	1.335	-0.224	0.055	1.4	-0.122	0.045	1.45	-0.072	0.046	1.575	-0.036	0.046
1.145	-0.182	0.050	1.235	-0.004	0.033	1.335	-0.222	0.053	1.4	-0.120	0.046	1.45	-0.070	0.045	1.575	-0.034	0.046
1.145	-0.180	0.050	1.235	-0.002	0.033	1.335	-0.220	0.052	1.4	-0.118	0.046	1.45	-0.068	0.044	1.575	-0.032	0.046
1.145	-0.178	0.050	1.235	0.000	0.034	1.335	-0.218	0.054	1.4	-0.116	0.047	1.45	-0.066	0.045	1.575	-0.030	0.047
1.145	-0.176	0.050	1.245	-0.228	0.056	1.335	-0.216	0.054	1.4	-0.114	0.047	1.45	-0.064	0.045	1.575	-0.028	0.046
1.145	-0.174	0.048	1.245	-0.226	0.054	1.335	-0.214	0.053	1.4	-0.112	0.049	1.45	-0.062	0.044	1.575	-0.026	0.046
1.145	-0.172	0.046	1.245	-0.224	0.053	1.335	-0.212	0.052	1.4	-0.110	0.049	1.45	-0.060	0.044	1.575	-0.024	0.045
1.145	-0.170	0.047	1.245	-0.222	0.053	1.335	-0.210	0.052	1.4	-0.108	0.047	1.45	-0.058	0.043	1.575	-0.022	0.043
1.145	-0.168	0.048	1.245	-0.220	0.054	1.335	-0.208	0.054	1.4	-0.106	0.045	1.45	-0.056	0.044	1.575	-0.020	0.041
1.145	-0.166	0.048	1.245	-0.218	0.054	1.335	-0.206	0.054	1.4	-0.104	0.045	1.45	-0.054	0.044	1.575	-0.018	0.040
1.145	-0.164	0.048	1.245	-0.216	0.051	1.335	-0.204	0.052	1.4	-0.102	0.045	1.45	-0.052	0.045	1.575	-0.016	0.039
1.145	-0.162	0.048	1.245	-0.214	0.050	1.335	-0.202	0.051	1.4	-0.100	0.045	1.45	-0.050	0.045	1.575	-0.014	0.038
1.145	-0.160	0.047	1.245	-0.212	0.050	1.335	-0.200	0.051	1.4	-0.098	0.045	1.45	-0.048	0.045	1.575	-0.012	0.038
1.145	-0.158	0.046	1.245	-0.210	0.052	1.335	-0.198	0.051	1.4	-0.096	0.046	1.45	-0.046	0.045	1.575	-0.010	0.038
1.145	-0.156	0.047	1.245	-0.208	0.054	1.335	-0.196	0.049	1.4	-0.094	0.046	1.45	-0.044	0.044	1.575	-0.008	0.037
1.145	-0.154	0.047	1.245	-0.206	0.056	1.335	-0.194	0.049	1.4	-0.092	0.046	1.45	-0.042	0.042	1.575	-0.006	0.036
1.145	-0.152	0.047	1.245	-0.204	0.054	1.335	-0.192	0.050	1.4	-0.090	0.045	1.45	-0.040	0.040	1.575	-0.004	0.033
1.145	-0.150	0.047	1.245	-0.202	0.052	1.335	-0.190	0.052	1.4	-0.088	0.045	1.45	-0.038	0.039	1.575	-0.002	0.031
1.145	-0.148	0.046	1.245	-0.200	0.050	1.335	-0.188	0.053	1.4	-0.086	0.045	1.45	-0.036	0.040	1.575	0.000	0.029
1.145	-0.146	0.045	1.245	-0.198	0.048	1.335	-0.186	0.052	1.4	-0.084	0.045	1.45	-0.034	0.042	1.585	-0.060	0.049
1.145	-0.144	0.045	1.245	-0.196	0.047	1.335	-0.184	0.049	1.4	-0.082	0.045	1.45	-0.032	0.044	1.585	-0.058	0.049
1.145	-0.142	0.045	1.245	-0.194	0.047	1.335	-0.182	0.047	1.4	-0.080	0.045	1.45	-0.030	0.044	1.585	-0.056	0.049
1.145	-0.140	0.045	1.245	-0.192	0.046	1.335	-0.180	0.047	1.4	-0.078	0.043	1.45	-0.028	0.045	1.585	-0.054	0.049
1.145	-0.138	0.045	1.245	-0.190	0.045	1.335	-0.178	0.049	1.4	-0.076	0.042	1.45	-0.026	0.045	1.585	-0.052	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.145	-0.136	0.045	1.245	-0.188	0.045	1.335	-0.176	0.050	1.4	-0.074	0.042	1.45	-0.024	0.043	1.585	-0.050	0.049
1.145	-0.134	0.045	1.245	-0.186	0.046	1.335	-0.174	0.048	1.4	-0.072	0.042	1.45	-0.022	0.043	1.585	-0.048	0.048
1.145	-0.132	0.044	1.245	-0.184	0.046	1.335	-0.172	0.049	1.4	-0.070	0.041	1.45	-0.020	0.043	1.585	-0.046	0.048
1.145	-0.130	0.044	1.245	-0.182	0.046	1.335	-0.170	0.050	1.4	-0.068	0.039	1.45	-0.018	0.042	1.585	-0.044	0.048
1.145	-0.128	0.043	1.245	-0.180	0.046	1.335	-0.168	0.050	1.4	-0.066	0.039	1.45	-0.016	0.042	1.585	-0.042	0.047
1.145	-0.126	0.043	1.245	-0.178	0.045	1.335	-0.166	0.049	1.4	-0.064	0.040	1.45	-0.014	0.042	1.585	-0.040	0.047
1.145	-0.124	0.043	1.245	-0.176	0.046	1.335	-0.164	0.048	1.4	-0.062	0.040	1.45	-0.012	0.041	1.585	-0.038	0.046
1.145	-0.122	0.041	1.245	-0.174	0.048	1.335	-0.162	0.047	1.4	-0.060	0.040	1.45	-0.010	0.041	1.585	-0.036	0.046
1.145	-0.120	0.041	1.245	-0.172	0.049	1.335	-0.160	0.049	1.4	-0.058	0.040	1.45	-0.008	0.041	1.585	-0.034	0.046
1.145	-0.118	0.043	1.245	-0.170	0.050	1.335	-0.158	0.051	1.4	-0.056	0.041	1.45	-0.006	0.042	1.585	-0.032	0.046
1.145	-0.116	0.044	1.245	-0.168	0.050	1.335	-0.156	0.052	1.4	-0.054	0.040	1.45	-0.004	0.042	1.585	-0.030	0.045
1.145	-0.114	0.044	1.245	-0.166	0.050	1.335	-0.154	0.052	1.4	-0.052	0.039	1.45	-0.002	0.040	1.585	-0.028	0.044
1.145	-0.112	0.043	1.245	-0.164	0.049	1.335	-0.152	0.051	1.4	-0.050	0.038	1.45	0.000	0.039	1.585	-0.026	0.043
1.145	-0.110	0.043	1.245	-0.162	0.048	1.335	-0.150	0.049	1.4	-0.048	0.037	1.455	-0.194	0.057	1.585	-0.024	0.042
1.145	-0.108	0.044	1.245	-0.160	0.048	1.335	-0.148	0.049	1.4	-0.046	0.037	1.455	-0.192	0.057	1.585	-0.022	0.040
1.145	-0.106	0.044	1.245	-0.158	0.049	1.335	-0.146	0.050	1.4	-0.044	0.039	1.455	-0.190	0.058	1.585	-0.020	0.039
1.145	-0.104	0.044	1.245	-0.156	0.049	1.335	-0.144	0.048	1.4	-0.042	0.039	1.455	-0.188	0.059	1.585	-0.018	0.037
1.145	-0.102	0.043	1.245	-0.154	0.049	1.335	-0.142	0.047	1.4	-0.040	0.039	1.455	-0.186	0.060	1.585	-0.016	0.035
1.145	-0.100	0.044	1.245	-0.152	0.049	1.335	-0.140	0.047	1.4	-0.038	0.037	1.455	-0.184	0.060	1.585	-0.014	0.034
1.145	-0.098	0.043	1.245	-0.150	0.049	1.335	-0.138	0.047	1.4	-0.036	0.037	1.455	-0.182	0.059	1.585	-0.012	0.033
1.145	-0.096	0.041	1.245	-0.148	0.049	1.335	-0.136	0.046	1.4	-0.034	0.040	1.455	-0.180	0.057	1.585	-0.010	0.031
1.145	-0.094	0.038	1.245	-0.146	0.048	1.335	-0.134	0.046	1.4	-0.032	0.042	1.455	-0.178	0.056	1.585	-0.008	0.030
1.145	-0.092	0.041	1.245	-0.144	0.048	1.335	-0.132	0.047	1.4	-0.030	0.043	1.455	-0.176	0.056	1.585	-0.006	0.028
1.145	-0.090	0.046	1.245	-0.142	0.049	1.335	-0.130	0.048	1.4	-0.028	0.043	1.455	-0.174	0.057	1.585	-0.004	0.026
1.145	-0.088	0.046	1.245	-0.140	0.049	1.335	-0.128	0.048	1.4	-0.026	0.043	1.455	-0.172	0.059	1.585	-0.002	0.024

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.145	-0.086	0.044	1.245	-0.138	0.049	1.335	-0.126	0.046	1.4	-0.024	0.043	1.455	-0.170	0.060	1.585	0.000	0.022
1.145	-0.084	0.043	1.245	-0.136	0.049	1.335	-0.124	0.044	1.4	-0.022	0.041	1.455	-0.168	0.061	1.595	-0.022	0.038
1.145	-0.082	0.041	1.245	-0.134	0.049	1.335	-0.122	0.044	1.4	-0.020	0.041	1.455	-0.166	0.061	1.595	-0.020	0.036
1.145	-0.080	0.038	1.245	-0.132	0.049	1.335	-0.120	0.046	1.4	-0.018	0.041	1.455	-0.164	0.060	1.595	-0.018	0.034
1.145	-0.078	0.038	1.245	-0.130	0.048	1.335	-0.118	0.047	1.4	-0.016	0.041	1.455	-0.162	0.057	1.595	-0.016	0.032
1.145	-0.076	0.040	1.245	-0.128	0.046	1.335	-0.116	0.046	1.4	-0.014	0.040	1.455	-0.160	0.057	1.595	-0.014	0.030
1.145	-0.074	0.039	1.245	-0.126	0.046	1.335	-0.114	0.045	1.4	-0.012	0.039	1.455	-0.158	0.057	1.595	-0.012	0.028
1.145	-0.072	0.036	1.245	-0.124	0.047	1.335	-0.112	0.044	1.4	-0.010	0.039	1.455	-0.156	0.057	1.595	-0.010	0.025
1.145	-0.070	0.036	1.245	-0.122	0.049	1.335	-0.110	0.043	1.4	-0.008	0.038	1.455	-0.154	0.056	1.595	-0.008	0.023
1.145	-0.068	0.038	1.245	-0.120	0.048	1.335	-0.108	0.042	1.4	-0.006	0.039	1.455	-0.152	0.055	1.595	-0.006	0.021
1.145	-0.066	0.038	1.245	-0.118	0.046	1.335	-0.106	0.042	1.4	-0.004	0.038	1.455	-0.150	0.055	1.595	-0.004	0.019
1.145	-0.064	0.037	1.245	-0.116	0.045	1.335	-0.104	0.043	1.4	-0.002	0.037	1.455	-0.148	0.056	1.595	-0.002	0.017
1.145	-0.062	0.036	1.245	-0.114	0.042	1.335	-0.102	0.044	1.4	0.000	0.037	1.455	-0.146	0.059	1.595	0.000	0.014
1.005	-0.022	0.034	1.125	-0.182	0.051	1.235	-0.226	0.053	1.355	-0.228	0.054	1.425	-0.208	0.059	1.505	-0.158	0.055
1.015	-0.06	0.035	1.135	-0.188	0.051	1.245	-0.228	0.056	1.365	-0.226	0.054	1.43	-0.204	0.058	1.515	-0.15	0.055
1.025	-0.078	0.041	1.14	-0.194	0.053	1.255	-0.23	0.053	1.375	-0.224	0.054	1.435	-0.204	0.058	1.525	-0.14	0.058
1.035	-0.094	0.039	1.145	-0.194	0.053	1.265	-0.232	0.055	1.38	-0.222	0.054	1.44	-0.198	0.056	1.535	-0.13	0.058
1.045	-0.106	0.041	1.155	-0.198	0.052	1.275	-0.232	0.053	1.385	-0.222	0.053	1.445	-0.198	0.056	1.545	-0.118	0.060
1.055	-0.118	0.044	1.165	-0.204	0.050	1.285	-0.234	0.052	1.39	-0.218	0.054	1.45	-0.194	0.056	1.555	-0.106	0.062
1.065	-0.13	0.046	1.175	-0.208	0.049	1.295	-0.234	0.053	1.395	-0.218	0.054	1.455	-0.194	0.057	1.565	-0.094	0.058
1.075	-0.14	0.044	1.185	-0.212	0.049	1.305	-0.234	0.050	1.4	-0.216	0.055	1.465	-0.188	0.059	1.575	-0.078	0.048
1.085	-0.15	0.048	1.195	-0.216	0.049	1.315	-0.234	0.053	1.405	-0.216	0.055	1.47	-0.182	0.059	1.585	-0.06	0.049
1.095	-0.158	0.051	1.205	-0.218	0.051	1.325	-0.232	0.054	1.41	-0.212	0.057	1.475	-0.182	0.059	1.595	-0.022	0.038
1.105	-0.166	0.051	1.215	-0.222	0.054	1.335	-0.232	0.056	1.415	-0.212	0.057	1.485	-0.174	0.059	1.5	0	0.042
1.115	-0.174	0.051	1.225	-0.224	0.055	1.345	-0.23	0.056	1.42	-0.208	0.058	1.495	-0.166	0.057	1.505	0	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1	0	0.038	1.2	0	0.034	1.4	0	0.037	1.6	0	0.038	1.4	0	0.035	1.51	0	0.041
1.01	0	0.036	1.21	0	0.034	1.41	0	0.037	1.305	0	0.032	1.405	0	0.036	1.515	0	0.041
1.02	0	0.035	1.22	0	0.034	1.42	0	0.037	1.31	0	0.034	1.41	0	0.038	1.52	0	0.041
1.03	0	0.033	1.23	0	0.034	1.43	0	0.038	1.315	0	0.035	1.415	0	0.040	1.525	0	0.041
1.04	0	0.032	1.24	0	0.034	1.44	0	0.039	1.32	0	0.036	1.42	0	0.040	1.53	0	0.040
1.05	0	0.032	1.25	0	0.033	1.45	0	0.040	1.325	0	0.036	1.425	0	0.040	1.535	0	0.041
1.06	0	0.032	1.26	0	0.032	1.46	0	0.041	1.33	0	0.036	1.43	0	0.039	1.54	0	0.040
1.07	0	0.032	1.27	0	0.032	1.47	0	0.042	1.335	0	0.038	1.435	0	0.039	1.545	0	0.039
1.08	0	0.032	1.28	0	0.032	1.48	0	0.042	1.34	0	0.038	1.44	0	0.040	1.55	0	0.039
1.09	0	0.033	1.29	0	0.032	1.49	0	0.042	1.345	0	0.038	1.445	0	0.040	1.555	0	0.040
1.1	0	0.033	1.3	0	0.033	1.5	0	0.042	1.35	0	0.039	1.45	0	0.041	1.56	0	0.039
1.11	0	0.033	1.31	0	0.034	1.51	0	0.042	1.355	0	0.039	1.455	0	0.042	1.565	0	0.036
1.12	0	0.033	1.32	0	0.036	1.52	0	0.042	1.36	0	0.039	1.46	0	0.042	1.57	0	0.034
1.13	0	0.033	1.33	0	0.037	1.53	0	0.041	1.365	0	0.040	1.465	0	0.041	1.575	0	0.032
1.14	0	0.032	1.34	0	0.038	1.54	0	0.040	1.37	0	0.040	1.47	0	0.041	1.58	0	0.032
1.15	0	0.032	1.35	0	0.039	1.55	0	0.038	1.375	0	0.040	1.475	0	0.041	1.585	0	0.032
1.16	0	0.032	1.36	0	0.039	1.56	0	0.037	1.38	0	0.040	1.48	0	0.041	1.59	0	0.033
1.17	0	0.032	1.37	0	0.039	1.57	0	0.035	1.385	0	0.039	1.485	0	0.041	1.595	0	0.036
1.18	0	0.033	1.38	0	0.038	1.58	0	0.035	1.39	0	0.038	1.49	0	0.042	1.6	0	0.040
1.19	0	0.033	1.39	0	0.037	1.59	0	0.036	1.395	0	0.036	1.495	0	0.042			

Table B.2 Backward conic cavity streambed bathymetry.

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.005	-0.048	0.0294	1.105	-0.112	0.0307	1.175	-0.124	0.0310	1.255	-0.068	0.0314	1.355	-0.172	0.0351	1.42	-0.004	0.0263
1.005	-0.046	0.0294	1.105	-0.110	0.0304	1.175	-0.122	0.0310	1.255	-0.066	0.0311	1.355	-0.170	0.0350	1.42	-0.002	0.0261
1.005	-0.044	0.0293	1.105	-0.108	0.0300	1.175	-0.120	0.0309	1.255	-0.064	0.0307	1.355	-0.168	0.0349	1.42	0.000	0.0260
1.005	-0.042	0.0292	1.105	-0.106	0.0298	1.175	-0.118	0.0308	1.255	-0.062	0.0303	1.355	-0.166	0.0345	1.425	-0.136	0.0369
1.005	-0.040	0.0291	1.105	-0.104	0.0298	1.175	-0.116	0.0306	1.255	-0.060	0.0299	1.355	-0.164	0.0340	1.425	-0.134	0.0366
1.005	-0.038	0.0290	1.105	-0.102	0.0302	1.175	-0.114	0.0303	1.255	-0.058	0.0296	1.355	-0.162	0.0334	1.425	-0.132	0.0363
1.005	-0.036	0.0289	1.105	-0.100	0.0309	1.175	-0.112	0.0301	1.255	-0.056	0.0292	1.355	-0.160	0.0326	1.425	-0.130	0.0359
1.005	-0.034	0.0287	1.105	-0.098	0.0318	1.175	-0.110	0.0299	1.255	-0.054	0.0289	1.355	-0.158	0.0319	1.425	-0.128	0.0354
1.005	-0.032	0.0286	1.105	-0.096	0.0326	1.175	-0.108	0.0297	1.255	-0.052	0.0287	1.355	-0.156	0.0314	1.425	-0.126	0.0347
1.005	-0.030	0.0285	1.105	-0.094	0.0328	1.175	-0.106	0.0297	1.255	-0.050	0.0285	1.355	-0.154	0.0312	1.425	-0.124	0.0341
1.005	-0.028	0.0283	1.105	-0.092	0.0324	1.175	-0.104	0.0299	1.255	-0.048	0.0283	1.355	-0.152	0.0318	1.425	-0.122	0.0337
1.005	-0.026	0.0282	1.105	-0.090	0.0318	1.175	-0.102	0.0302	1.255	-0.046	0.0282	1.355	-0.150	0.0323	1.425	-0.120	0.0334
1.005	-0.024	0.0281	1.105	-0.088	0.0312	1.175	-0.100	0.0308	1.255	-0.044	0.0280	1.355	-0.148	0.0362	1.425	-0.118	0.0332
1.005	-0.022	0.0280	1.105	-0.086	0.0308	1.175	-0.098	0.0317	1.255	-0.042	0.0279	1.355	-0.146	0.0373	1.425	-0.116	0.0330
1.005	-0.020	0.0279	1.105	-0.084	0.0307	1.175	-0.096	0.0329	1.255	-0.040	0.0278	1.355	-0.144	0.0369	1.425	-0.114	0.0327
1.005	-0.018	0.0279	1.105	-0.082	0.0309	1.175	-0.094	0.0344	1.255	-0.038	0.0277	1.355	-0.142	0.0366	1.425	-0.112	0.0324
1.005	-0.016	0.0278	1.105	-0.080	0.0313	1.175	-0.092	0.0358	1.255	-0.036	0.0277	1.355	-0.140	0.0360	1.425	-0.110	0.0327
1.005	-0.014	0.0277	1.105	-0.078	0.0316	1.175	-0.090	0.0370	1.255	-0.034	0.0276	1.355	-0.138	0.0343	1.425	-0.108	0.0341
1.005	-0.012	0.0277	1.105	-0.076	0.0318	1.175	-0.088	0.0377	1.255	-0.032	0.0275	1.355	-0.136	0.0324	1.425	-0.106	0.0339
1.005	-0.010	0.0276	1.105	-0.074	0.0319	1.175	-0.086	0.0379	1.255	-0.030	0.0274	1.355	-0.134	0.0314	1.425	-0.104	0.0325
1.005	-0.008	0.0276	1.105	-0.072	0.0317	1.175	-0.084	0.0373	1.255	-0.028	0.0273	1.355	-0.132	0.0309	1.425	-0.102	0.0304
1.005	-0.006	0.0275	1.105	-0.070	0.0314	1.175	-0.082	0.0354	1.255	-0.026	0.0272	1.355	-0.130	0.0305	1.425	-0.100	0.0317
1.005	-0.004	0.0275	1.105	-0.068	0.0310	1.175	-0.080	0.0328	1.255	-0.024	0.0271	1.355	-0.128	0.0306	1.425	-0.098	0.0330
1.005	-0.002	0.0275	1.105	-0.066	0.0304	1.175	-0.078	0.0313	1.255	-0.022	0.0270	1.355	-0.126	0.0307	1.425	-0.096	0.0323

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.005	0.000	0.0274	1.105	-0.064	0.0300	1.175	-0.076	0.0309	1.255	-0.020	0.0269	1.355	-0.124	0.0313	1.425	-0.094	0.0326
1.015	-0.118	0.0308	1.105	-0.062	0.0297	1.175	-0.074	0.0306	1.255	-0.018	0.0268	1.355	-0.122	0.0339	1.425	-0.092	0.0328
1.015	-0.116	0.0306	1.105	-0.060	0.0296	1.175	-0.072	0.0297	1.255	-0.016	0.0267	1.355	-0.120	0.0360	1.425	-0.090	0.0339
1.015	-0.114	0.0304	1.105	-0.058	0.0296	1.175	-0.070	0.0288	1.255	-0.014	0.0265	1.355	-0.118	0.0362	1.425	-0.088	0.0334
1.015	-0.112	0.0303	1.105	-0.056	0.0299	1.175	-0.068	0.0292	1.255	-0.012	0.0264	1.355	-0.116	0.0341	1.425	-0.086	0.0329
1.015	-0.110	0.0303	1.105	-0.054	0.0303	1.175	-0.066	0.0307	1.255	-0.010	0.0263	1.355	-0.114	0.0311	1.425	-0.084	0.0326
1.015	-0.108	0.0304	1.105	-0.052	0.0307	1.175	-0.064	0.0313	1.255	-0.008	0.0262	1.355	-0.112	0.0307	1.425	-0.082	0.0328
1.015	-0.106	0.0305	1.105	-0.050	0.0312	1.175	-0.062	0.0312	1.255	-0.006	0.0261	1.355	-0.110	0.0310	1.425	-0.080	0.0326
1.015	-0.104	0.0307	1.105	-0.048	0.0316	1.175	-0.060	0.0308	1.255	-0.004	0.0260	1.355	-0.108	0.0315	1.425	-0.078	0.0328
1.015	-0.102	0.0308	1.105	-0.046	0.0318	1.175	-0.058	0.0304	1.255	-0.002	0.0259	1.355	-0.106	0.0314	1.425	-0.076	0.0336
1.015	-0.100	0.0309	1.105	-0.044	0.0320	1.175	-0.056	0.0302	1.255	0.000	0.0258	1.355	-0.104	0.0310	1.425	-0.074	0.0330
1.015	-0.098	0.0309	1.105	-0.042	0.0320	1.175	-0.054	0.0300	1.265	-0.212	0.0301	1.355	-0.102	0.0312	1.425	-0.072	0.0318
1.015	-0.096	0.0308	1.105	-0.040	0.0319	1.175	-0.052	0.0299	1.265	-0.210	0.0301	1.355	-0.100	0.0319	1.425	-0.070	0.0325
1.015	-0.094	0.0307	1.105	-0.038	0.0318	1.175	-0.050	0.0298	1.265	-0.208	0.0300	1.355	-0.098	0.0323	1.425	-0.068	0.0329
1.015	-0.092	0.0307	1.105	-0.036	0.0316	1.175	-0.048	0.0298	1.265	-0.206	0.0299	1.355	-0.096	0.0321	1.425	-0.066	0.0338
1.015	-0.090	0.0306	1.105	-0.034	0.0314	1.175	-0.046	0.0297	1.265	-0.204	0.0299	1.355	-0.094	0.0315	1.425	-0.064	0.0335
1.015	-0.088	0.0306	1.105	-0.032	0.0311	1.175	-0.044	0.0297	1.265	-0.202	0.0299	1.355	-0.092	0.0308	1.425	-0.062	0.0327
1.015	-0.086	0.0306	1.105	-0.030	0.0308	1.175	-0.042	0.0296	1.265	-0.200	0.0303	1.355	-0.090	0.0302	1.425	-0.060	0.0335
1.015	-0.084	0.0308	1.105	-0.028	0.0306	1.175	-0.040	0.0296	1.265	-0.198	0.0310	1.355	-0.088	0.0298	1.425	-0.058	0.0330
1.015	-0.082	0.0310	1.105	-0.026	0.0303	1.175	-0.038	0.0295	1.265	-0.196	0.0319	1.355	-0.086	0.0294	1.425	-0.056	0.0313
1.015	-0.080	0.0312	1.105	-0.024	0.0301	1.175	-0.036	0.0295	1.265	-0.194	0.0324	1.355	-0.084	0.0291	1.425	-0.054	0.0312
1.015	-0.078	0.0315	1.105	-0.022	0.0298	1.175	-0.034	0.0294	1.265	-0.192	0.0318	1.355	-0.082	0.0290	1.425	-0.052	0.0321
1.015	-0.076	0.0317	1.105	-0.020	0.0296	1.175	-0.032	0.0293	1.265	-0.190	0.0311	1.355	-0.080	0.0289	1.425	-0.050	0.0321
1.015	-0.074	0.0319	1.105	-0.018	0.0294	1.175	-0.030	0.0292	1.265	-0.188	0.0306	1.355	-0.078	0.0290	1.425	-0.048	0.0316
1.015	-0.072	0.0320	1.105	-0.016	0.0292	1.175	-0.028	0.0292	1.265	-0.186	0.0304	1.355	-0.076	0.0292	1.425	-0.046	0.0310

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.015	-0.070	0.0321	1.105	-0.014	0.0290	1.175	-0.026	0.0291	1.265	-0.184	0.0311	1.355	-0.074	0.0294	1.425	-0.044	0.0306
1.015	-0.068	0.0322	1.105	-0.012	0.0288	1.175	-0.024	0.0290	1.265	-0.182	0.0308	1.355	-0.072	0.0297	1.425	-0.042	0.0308
1.015	-0.066	0.0321	1.105	-0.010	0.0286	1.175	-0.022	0.0289	1.265	-0.180	0.0311	1.355	-0.070	0.0300	1.425	-0.040	0.0313
1.015	-0.064	0.0318	1.105	-0.008	0.0284	1.175	-0.020	0.0288	1.265	-0.178	0.0326	1.355	-0.068	0.0302	1.425	-0.038	0.0321
1.015	-0.062	0.0314	1.105	-0.006	0.0283	1.175	-0.018	0.0287	1.265	-0.176	0.0335	1.355	-0.066	0.0305	1.425	-0.036	0.0329
1.015	-0.060	0.0309	1.105	-0.004	0.0281	1.175	-0.016	0.0285	1.265	-0.174	0.0335	1.355	-0.064	0.0307	1.425	-0.034	0.0327
1.015	-0.058	0.0305	1.105	-0.002	0.0279	1.175	-0.014	0.0284	1.265	-0.172	0.0331	1.355	-0.062	0.0308	1.425	-0.032	0.0317
1.015	-0.056	0.0302	1.105	0.000	0.0277	1.175	-0.012	0.0283	1.265	-0.170	0.0328	1.355	-0.060	0.0308	1.425	-0.030	0.0307
1.015	-0.054	0.0302	1.115	-0.230	0.0295	1.175	-0.010	0.0282	1.265	-0.168	0.0324	1.355	-0.058	0.0307	1.425	-0.028	0.0299
1.015	-0.052	0.0302	1.115	-0.228	0.0300	1.175	-0.008	0.0280	1.265	-0.166	0.0315	1.355	-0.056	0.0306	1.425	-0.026	0.0292
1.015	-0.050	0.0302	1.115	-0.226	0.0307	1.175	-0.006	0.0279	1.265	-0.164	0.0307	1.355	-0.054	0.0304	1.425	-0.024	0.0287
1.015	-0.048	0.0301	1.115	-0.224	0.0311	1.175	-0.004	0.0278	1.265	-0.162	0.0305	1.355	-0.052	0.0301	1.425	-0.022	0.0284
1.015	-0.046	0.0299	1.115	-0.222	0.0311	1.175	-0.002	0.0276	1.265	-0.160	0.0308	1.355	-0.050	0.0299	1.425	-0.020	0.0281
1.015	-0.044	0.0297	1.115	-0.220	0.0311	1.175	0.000	0.0275	1.265	-0.158	0.0306	1.355	-0.048	0.0296	1.425	-0.018	0.0278
1.015	-0.042	0.0295	1.115	-0.218	0.0312	1.185	-0.232	0.0327	1.265	-0.156	0.0305	1.355	-0.046	0.0293	1.425	-0.016	0.0276
1.015	-0.040	0.0293	1.115	-0.216	0.0316	1.185	-0.230	0.0327	1.265	-0.154	0.0304	1.355	-0.044	0.0291	1.425	-0.014	0.0274
1.015	-0.038	0.0291	1.115	-0.214	0.0320	1.185	-0.228	0.0324	1.265	-0.152	0.0303	1.355	-0.042	0.0288	1.425	-0.012	0.0272
1.015	-0.036	0.0290	1.115	-0.212	0.0325	1.185	-0.226	0.0319	1.265	-0.150	0.0299	1.355	-0.040	0.0286	1.425	-0.010	0.0271
1.015	-0.034	0.0288	1.115	-0.210	0.0338	1.185	-0.224	0.0326	1.265	-0.148	0.0293	1.355	-0.038	0.0284	1.425	-0.008	0.0269
1.015	-0.032	0.0287	1.115	-0.208	0.0346	1.185	-0.222	0.0313	1.265	-0.146	0.0285	1.355	-0.036	0.0282	1.425	-0.006	0.0268
1.015	-0.030	0.0286	1.115	-0.206	0.0330	1.185	-0.220	0.0307	1.265	-0.144	0.0278	1.355	-0.034	0.0279	1.425	-0.004	0.0266
1.015	-0.028	0.0285	1.115	-0.204	0.0323	1.185	-0.218	0.0321	1.265	-0.142	0.0273	1.355	-0.032	0.0277	1.425	-0.002	0.0265
1.015	-0.026	0.0284	1.115	-0.202	0.0330	1.185	-0.216	0.0339	1.265	-0.140	0.0272	1.355	-0.030	0.0275	1.425	0.000	0.0263
1.015	-0.024	0.0283	1.115	-0.200	0.0339	1.185	-0.214	0.0345	1.265	-0.138	0.0275	1.355	-0.028	0.0273	1.43	-0.130	0.0358
1.015	-0.022	0.0282	1.115	-0.198	0.0339	1.185	-0.212	0.0332	1.265	-0.136	0.0281	1.355	-0.026	0.0271	1.43	-0.128	0.0353

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.015	-0.020	0.0281	1.115	-0.196	0.0320	1.185	-0.210	0.0323	1.265	-0.134	0.0287	1.355	-0.024	0.0269	1.43	-0.126	0.0348
1.015	-0.018	0.0281	1.115	-0.194	0.0306	1.185	-0.208	0.0326	1.265	-0.132	0.0293	1.355	-0.022	0.0267	1.43	-0.124	0.0343
1.015	-0.016	0.0280	1.115	-0.192	0.0324	1.185	-0.206	0.0321	1.265	-0.130	0.0304	1.355	-0.020	0.0264	1.43	-0.122	0.0339
1.015	-0.014	0.0279	1.115	-0.190	0.0324	1.185	-0.204	0.0313	1.265	-0.128	0.0322	1.355	-0.018	0.0262	1.43	-0.120	0.0335
1.015	-0.012	0.0279	1.115	-0.188	0.0313	1.185	-0.202	0.0322	1.265	-0.126	0.0332	1.355	-0.016	0.0260	1.43	-0.118	0.0332
1.015	-0.010	0.0278	1.115	-0.186	0.0302	1.185	-0.200	0.0316	1.265	-0.124	0.0331	1.355	-0.014	0.0257	1.43	-0.116	0.0329
1.015	-0.008	0.0277	1.115	-0.184	0.0299	1.185	-0.198	0.0314	1.265	-0.122	0.0328	1.355	-0.012	0.0255	1.43	-0.114	0.0326
1.015	-0.006	0.0277	1.115	-0.182	0.0303	1.185	-0.196	0.0321	1.265	-0.120	0.0323	1.355	-0.010	0.0253	1.43	-0.112	0.0326
1.015	-0.004	0.0276	1.115	-0.180	0.0308	1.185	-0.194	0.0328	1.265	-0.118	0.0318	1.355	-0.008	0.0250	1.43	-0.110	0.0331
1.015	-0.002	0.0276	1.115	-0.178	0.0310	1.185	-0.192	0.0328	1.265	-0.116	0.0314	1.355	-0.006	0.0247	1.43	-0.108	0.0340
1.015	0.000	0.0275	1.115	-0.176	0.0308	1.185	-0.190	0.0324	1.265	-0.114	0.0309	1.355	-0.004	0.0245	1.43	-0.106	0.0346
1.025	-0.148	0.0313	1.115	-0.174	0.0306	1.185	-0.188	0.0313	1.265	-0.112	0.0306	1.355	-0.002	0.0242	1.43	-0.104	0.0345
1.025	-0.146	0.0319	1.115	-0.172	0.0306	1.185	-0.186	0.0316	1.265	-0.110	0.0305	1.355	0.000	0.0240	1.43	-0.102	0.0335
1.025	-0.144	0.0323	1.115	-0.170	0.0307	1.185	-0.184	0.0332	1.265	-0.108	0.0306	1.365	-0.170	0.0351	1.43	-0.100	0.0316
1.025	-0.142	0.0326	1.115	-0.168	0.0307	1.185	-0.182	0.0331	1.265	-0.106	0.0308	1.365	-0.168	0.0348	1.43	-0.098	0.0318
1.025	-0.140	0.0328	1.115	-0.166	0.0307	1.185	-0.180	0.0309	1.265	-0.104	0.0311	1.365	-0.166	0.0345	1.43	-0.096	0.0315
1.025	-0.138	0.0327	1.115	-0.164	0.0306	1.185	-0.178	0.0303	1.265	-0.102	0.0315	1.365	-0.164	0.0340	1.43	-0.094	0.0318
1.025	-0.136	0.0325	1.115	-0.162	0.0307	1.185	-0.176	0.0324	1.265	-0.100	0.0318	1.365	-0.162	0.0336	1.43	-0.092	0.0325
1.025	-0.134	0.0322	1.115	-0.160	0.0313	1.185	-0.174	0.0313	1.265	-0.098	0.0321	1.365	-0.160	0.0332	1.43	-0.090	0.0331
1.025	-0.132	0.0319	1.115	-0.158	0.0317	1.185	-0.172	0.0317	1.265	-0.096	0.0323	1.365	-0.158	0.0329	1.43	-0.088	0.0332
1.025	-0.130	0.0319	1.115	-0.156	0.0312	1.185	-0.170	0.0321	1.265	-0.094	0.0325	1.365	-0.156	0.0330	1.43	-0.086	0.0330
1.025	-0.128	0.0320	1.115	-0.154	0.0320	1.185	-0.168	0.0315	1.265	-0.092	0.0326	1.365	-0.154	0.0335	1.43	-0.084	0.0324
1.025	-0.126	0.0322	1.115	-0.152	0.0318	1.185	-0.166	0.0310	1.265	-0.090	0.0327	1.365	-0.152	0.0342	1.43	-0.082	0.0312
1.025	-0.124	0.0323	1.115	-0.150	0.0313	1.185	-0.164	0.0309	1.265	-0.088	0.0328	1.365	-0.150	0.0344	1.43	-0.080	0.0317
1.025	-0.122	0.0323	1.115	-0.148	0.0308	1.185	-0.162	0.0308	1.265	-0.086	0.0328	1.365	-0.148	0.0331	1.43	-0.078	0.0323

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.025	-0.120	0.0321	1.115	-0.146	0.0310	1.185	-0.160	0.0306	1.265	-0.084	0.0327	1.365	-0.146	0.0329	1.43	-0.076	0.0332
1.025	-0.118	0.0317	1.115	-0.144	0.0309	1.185	-0.158	0.0304	1.265	-0.082	0.0327	1.365	-0.144	0.0318	1.43	-0.074	0.0330
1.025	-0.116	0.0312	1.115	-0.142	0.0305	1.185	-0.156	0.0301	1.265	-0.080	0.0326	1.365	-0.142	0.0316	1.43	-0.072	0.0324
1.025	-0.114	0.0306	1.115	-0.140	0.0301	1.185	-0.154	0.0302	1.265	-0.078	0.0324	1.365	-0.140	0.0316	1.43	-0.070	0.0326
1.025	-0.112	0.0302	1.115	-0.138	0.0298	1.185	-0.152	0.0302	1.265	-0.076	0.0323	1.365	-0.138	0.0321	1.43	-0.068	0.0334
1.025	-0.110	0.0301	1.115	-0.136	0.0301	1.185	-0.150	0.0302	1.265	-0.074	0.0321	1.365	-0.136	0.0311	1.43	-0.066	0.0352
1.025	-0.108	0.0302	1.115	-0.134	0.0304	1.185	-0.148	0.0302	1.265	-0.072	0.0319	1.365	-0.134	0.0313	1.43	-0.064	0.0340
1.025	-0.106	0.0306	1.115	-0.132	0.0306	1.185	-0.146	0.0304	1.265	-0.070	0.0317	1.365	-0.132	0.0328	1.43	-0.062	0.0329
1.025	-0.104	0.0312	1.115	-0.130	0.0307	1.185	-0.144	0.0307	1.265	-0.068	0.0314	1.365	-0.130	0.0342	1.43	-0.060	0.0321
1.025	-0.102	0.0316	1.115	-0.128	0.0307	1.185	-0.142	0.0310	1.265	-0.066	0.0311	1.365	-0.128	0.0331	1.43	-0.058	0.0323
1.025	-0.100	0.0318	1.115	-0.126	0.0305	1.185	-0.140	0.0312	1.265	-0.064	0.0308	1.365	-0.126	0.0315	1.43	-0.056	0.0305
1.025	-0.098	0.0317	1.115	-0.124	0.0306	1.185	-0.138	0.0307	1.265	-0.062	0.0304	1.365	-0.124	0.0316	1.43	-0.054	0.0304
1.025	-0.096	0.0313	1.115	-0.122	0.0315	1.185	-0.136	0.0302	1.265	-0.060	0.0301	1.365	-0.122	0.0308	1.43	-0.052	0.0331
1.025	-0.094	0.0309	1.115	-0.120	0.0322	1.185	-0.134	0.0301	1.265	-0.058	0.0298	1.365	-0.120	0.0315	1.43	-0.050	0.0323
1.025	-0.092	0.0305	1.115	-0.118	0.0319	1.185	-0.132	0.0303	1.265	-0.056	0.0295	1.365	-0.118	0.0309	1.43	-0.048	0.0307
1.025	-0.090	0.0303	1.115	-0.116	0.0314	1.185	-0.130	0.0307	1.265	-0.054	0.0292	1.365	-0.116	0.0308	1.43	-0.046	0.0301
1.025	-0.088	0.0303	1.115	-0.114	0.0310	1.185	-0.128	0.0310	1.265	-0.052	0.0289	1.365	-0.114	0.0313	1.43	-0.044	0.0301
1.025	-0.086	0.0305	1.115	-0.112	0.0306	1.185	-0.126	0.0313	1.265	-0.050	0.0286	1.365	-0.112	0.0322	1.43	-0.042	0.0305
1.025	-0.084	0.0308	1.115	-0.110	0.0302	1.185	-0.124	0.0315	1.265	-0.048	0.0284	1.365	-0.110	0.0319	1.43	-0.040	0.0310
1.025	-0.082	0.0310	1.115	-0.108	0.0300	1.185	-0.122	0.0316	1.265	-0.046	0.0282	1.365	-0.108	0.0310	1.43	-0.038	0.0313
1.025	-0.080	0.0311	1.115	-0.106	0.0300	1.185	-0.120	0.0315	1.265	-0.044	0.0281	1.365	-0.106	0.0310	1.43	-0.036	0.0312
1.025	-0.078	0.0312	1.115	-0.104	0.0301	1.185	-0.118	0.0314	1.265	-0.042	0.0279	1.365	-0.104	0.0341	1.43	-0.034	0.0316
1.025	-0.076	0.0313	1.115	-0.102	0.0305	1.185	-0.116	0.0311	1.265	-0.040	0.0278	1.365	-0.102	0.0345	1.43	-0.032	0.0311
1.025	-0.074	0.0315	1.115	-0.100	0.0309	1.185	-0.114	0.0308	1.265	-0.038	0.0277	1.365	-0.100	0.0327	1.43	-0.030	0.0303
1.025	-0.072	0.0317	1.115	-0.098	0.0314	1.185	-0.112	0.0305	1.265	-0.036	0.0276	1.365	-0.098	0.0309	1.43	-0.028	0.0297

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.025	-0.070	0.0320	1.115	-0.096	0.0316	1.185	-0.110	0.0303	1.265	-0.034	0.0274	1.365	-0.096	0.0302	1.43	-0.026	0.0292
1.025	-0.068	0.0323	1.115	-0.094	0.0316	1.185	-0.108	0.0302	1.265	-0.032	0.0273	1.365	-0.094	0.0308	1.43	-0.024	0.0288
1.025	-0.066	0.0325	1.115	-0.092	0.0314	1.185	-0.106	0.0302	1.265	-0.030	0.0272	1.365	-0.092	0.0313	1.43	-0.022	0.0285
1.025	-0.064	0.0325	1.115	-0.090	0.0311	1.185	-0.104	0.0304	1.265	-0.028	0.0271	1.365	-0.090	0.0310	1.43	-0.020	0.0282
1.025	-0.062	0.0322	1.115	-0.088	0.0308	1.185	-0.102	0.0309	1.265	-0.026	0.0270	1.365	-0.088	0.0302	1.43	-0.018	0.0280
1.025	-0.060	0.0317	1.115	-0.086	0.0308	1.185	-0.100	0.0316	1.265	-0.024	0.0269	1.365	-0.086	0.0294	1.43	-0.016	0.0278
1.025	-0.058	0.0312	1.115	-0.084	0.0311	1.185	-0.098	0.0325	1.265	-0.022	0.0268	1.365	-0.084	0.0288	1.43	-0.014	0.0277
1.025	-0.056	0.0308	1.115	-0.082	0.0316	1.185	-0.096	0.0334	1.265	-0.020	0.0267	1.365	-0.082	0.0285	1.43	-0.012	0.0275
1.025	-0.054	0.0312	1.115	-0.080	0.0323	1.185	-0.094	0.0343	1.265	-0.018	0.0266	1.365	-0.080	0.0285	1.43	-0.010	0.0273
1.025	-0.052	0.0311	1.115	-0.078	0.0329	1.185	-0.092	0.0349	1.265	-0.016	0.0264	1.365	-0.078	0.0286	1.43	-0.008	0.0272
1.025	-0.050	0.0308	1.115	-0.076	0.0332	1.185	-0.090	0.0350	1.265	-0.014	0.0263	1.365	-0.076	0.0289	1.43	-0.006	0.0271
1.025	-0.048	0.0304	1.115	-0.074	0.0332	1.185	-0.088	0.0346	1.265	-0.012	0.0262	1.365	-0.074	0.0293	1.43	-0.004	0.0270
1.025	-0.046	0.0301	1.115	-0.072	0.0328	1.185	-0.086	0.0333	1.265	-0.010	0.0261	1.365	-0.072	0.0297	1.43	-0.002	0.0268
1.025	-0.044	0.0299	1.115	-0.070	0.0321	1.185	-0.084	0.0314	1.265	-0.008	0.0260	1.365	-0.070	0.0302	1.43	0.000	0.0267
1.025	-0.042	0.0296	1.115	-0.068	0.0313	1.185	-0.082	0.0289	1.265	-0.006	0.0258	1.365	-0.068	0.0306	1.435	-0.130	0.0358
1.025	-0.040	0.0294	1.115	-0.066	0.0306	1.185	-0.080	0.0265	1.265	-0.004	0.0257	1.365	-0.066	0.0309	1.435	-0.128	0.0353
1.025	-0.038	0.0292	1.115	-0.064	0.0302	1.185	-0.078	0.0247	1.265	-0.002	0.0256	1.365	-0.064	0.0311	1.435	-0.126	0.0348
1.025	-0.036	0.0291	1.115	-0.062	0.0300	1.185	-0.076	0.0239	1.265	0.000	0.0255	1.365	-0.062	0.0312	1.435	-0.124	0.0344
1.025	-0.034	0.0289	1.115	-0.060	0.0300	1.185	-0.074	0.0238	1.275	-0.210	0.0300	1.365	-0.060	0.0312	1.435	-0.122	0.0340
1.025	-0.032	0.0288	1.115	-0.058	0.0301	1.185	-0.072	0.0243	1.275	-0.208	0.0299	1.365	-0.058	0.0310	1.435	-0.120	0.0337
1.025	-0.030	0.0287	1.115	-0.056	0.0302	1.185	-0.070	0.0251	1.275	-0.206	0.0299	1.365	-0.056	0.0307	1.435	-0.118	0.0333
1.025	-0.028	0.0286	1.115	-0.054	0.0304	1.185	-0.068	0.0261	1.275	-0.204	0.0300	1.365	-0.054	0.0305	1.435	-0.116	0.0330
1.025	-0.026	0.0285	1.115	-0.052	0.0306	1.185	-0.066	0.0273	1.275	-0.202	0.0302	1.365	-0.052	0.0302	1.435	-0.114	0.0329
1.025	-0.024	0.0285	1.115	-0.050	0.0308	1.185	-0.064	0.0284	1.275	-0.200	0.0304	1.365	-0.050	0.0299	1.435	-0.112	0.0331
1.025	-0.022	0.0284	1.115	-0.048	0.0311	1.185	-0.062	0.0293	1.275	-0.198	0.0306	1.365	-0.048	0.0297	1.435	-0.110	0.0336

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.025	-0.020	0.0283	1.115	-0.046	0.0313	1.185	-0.060	0.0298	1.275	-0.196	0.0307	1.365	-0.046	0.0294	1.435	-0.108	0.0342
1.025	-0.018	0.0283	1.115	-0.044	0.0314	1.185	-0.058	0.0300	1.275	-0.194	0.0305	1.365	-0.044	0.0292	1.435	-0.106	0.0349
1.025	-0.016	0.0282	1.115	-0.042	0.0315	1.185	-0.056	0.0300	1.275	-0.192	0.0307	1.365	-0.042	0.0290	1.435	-0.104	0.0350
1.025	-0.014	0.0281	1.115	-0.040	0.0315	1.185	-0.054	0.0299	1.275	-0.190	0.0307	1.365	-0.040	0.0288	1.435	-0.102	0.0342
1.025	-0.012	0.0280	1.115	-0.038	0.0315	1.185	-0.052	0.0298	1.275	-0.188	0.0303	1.365	-0.038	0.0286	1.435	-0.100	0.0314
1.025	-0.010	0.0280	1.115	-0.036	0.0314	1.185	-0.050	0.0297	1.275	-0.186	0.0300	1.365	-0.036	0.0284	1.435	-0.098	0.0302
1.025	-0.008	0.0279	1.115	-0.034	0.0312	1.185	-0.048	0.0297	1.275	-0.184	0.0300	1.365	-0.034	0.0282	1.435	-0.096	0.0303
1.025	-0.006	0.0278	1.115	-0.032	0.0310	1.185	-0.046	0.0296	1.275	-0.182	0.0303	1.365	-0.032	0.0280	1.435	-0.094	0.0308
1.025	-0.004	0.0277	1.115	-0.030	0.0308	1.185	-0.044	0.0295	1.275	-0.180	0.0308	1.365	-0.030	0.0277	1.435	-0.092	0.0322
1.025	-0.002	0.0276	1.115	-0.028	0.0305	1.185	-0.042	0.0294	1.275	-0.178	0.0315	1.365	-0.028	0.0275	1.435	-0.090	0.0330
1.025	0.000	0.0276	1.115	-0.026	0.0303	1.185	-0.040	0.0294	1.275	-0.176	0.0316	1.365	-0.026	0.0273	1.435	-0.088	0.0332
1.035	-0.170	0.0281	1.115	-0.024	0.0300	1.185	-0.038	0.0293	1.275	-0.174	0.0315	1.365	-0.024	0.0271	1.435	-0.086	0.0332
1.035	-0.168	0.0292	1.115	-0.022	0.0298	1.185	-0.036	0.0292	1.275	-0.172	0.0313	1.365	-0.022	0.0269	1.435	-0.084	0.0332
1.035	-0.166	0.0300	1.115	-0.020	0.0296	1.185	-0.034	0.0292	1.275	-0.170	0.0310	1.365	-0.020	0.0267	1.435	-0.082	0.0329
1.035	-0.164	0.0305	1.115	-0.018	0.0294	1.185	-0.032	0.0291	1.275	-0.168	0.0312	1.365	-0.018	0.0264	1.435	-0.080	0.0315
1.035	-0.162	0.0309	1.115	-0.016	0.0292	1.185	-0.030	0.0290	1.275	-0.166	0.0314	1.365	-0.016	0.0262	1.435	-0.078	0.0312
1.035	-0.160	0.0310	1.115	-0.014	0.0290	1.185	-0.028	0.0289	1.275	-0.164	0.0313	1.365	-0.014	0.0259	1.435	-0.076	0.0317
1.035	-0.158	0.0310	1.115	-0.012	0.0288	1.185	-0.026	0.0288	1.275	-0.162	0.0312	1.365	-0.012	0.0256	1.435	-0.074	0.0319
1.035	-0.156	0.0308	1.115	-0.010	0.0286	1.185	-0.024	0.0287	1.275	-0.160	0.0310	1.365	-0.010	0.0254	1.435	-0.072	0.0321
1.035	-0.154	0.0307	1.115	-0.008	0.0284	1.185	-0.022	0.0286	1.275	-0.158	0.0307	1.365	-0.008	0.0251	1.435	-0.070	0.0325
1.035	-0.152	0.0305	1.115	-0.006	0.0283	1.185	-0.020	0.0285	1.275	-0.156	0.0310	1.365	-0.006	0.0248	1.435	-0.068	0.0319
1.035	-0.150	0.0307	1.115	-0.004	0.0281	1.185	-0.018	0.0284	1.275	-0.154	0.0315	1.365	-0.004	0.0245	1.435	-0.066	0.0319
1.035	-0.148	0.0314	1.115	-0.002	0.0279	1.185	-0.016	0.0283	1.275	-0.152	0.0319	1.365	-0.002	0.0243	1.435	-0.064	0.0317
1.035	-0.146	0.0325	1.115	0.000	0.0277	1.185	-0.014	0.0282	1.275	-0.150	0.0320	1.365	0.000	0.0240	1.435	-0.062	0.0326
1.035	-0.144	0.0337	1.125	-0.232	0.0299	1.185	-0.012	0.0281	1.275	-0.148	0.0313	1.375	-0.164	0.0345	1.435	-0.060	0.0323

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.035	-0.142	0.0342	1.125	-0.230	0.0305	1.185	-0.010	0.0280	1.275	-0.146	0.0302	1.375	-0.162	0.0343	1.435	-0.058	0.0318
1.035	-0.140	0.0341	1.125	-0.228	0.0313	1.185	-0.008	0.0279	1.275	-0.144	0.0289	1.375	-0.160	0.0342	1.435	-0.056	0.0306
1.035	-0.138	0.0337	1.125	-0.226	0.0320	1.185	-0.006	0.0277	1.275	-0.142	0.0281	1.375	-0.158	0.0342	1.435	-0.054	0.0308
1.035	-0.136	0.0331	1.125	-0.224	0.0317	1.185	-0.004	0.0276	1.275	-0.140	0.0285	1.375	-0.156	0.0343	1.435	-0.052	0.0320
1.035	-0.134	0.0322	1.125	-0.222	0.0311	1.185	-0.002	0.0275	1.275	-0.138	0.0294	1.375	-0.154	0.0343	1.435	-0.050	0.0312
1.035	-0.132	0.0315	1.125	-0.220	0.0300	1.185	0.000	0.0274	1.275	-0.136	0.0301	1.375	-0.152	0.0342	1.435	-0.048	0.0298
1.035	-0.130	0.0320	1.125	-0.218	0.0303	1.195	-0.230	0.0305	1.275	-0.134	0.0306	1.375	-0.150	0.0339	1.435	-0.046	0.0296
1.035	-0.128	0.0331	1.125	-0.216	0.0302	1.195	-0.228	0.0301	1.275	-0.132	0.0309	1.375	-0.148	0.0338	1.435	-0.044	0.0301
1.035	-0.126	0.0339	1.125	-0.214	0.0303	1.195	-0.226	0.0301	1.275	-0.130	0.0309	1.375	-0.146	0.0341	1.435	-0.042	0.0308
1.035	-0.124	0.0342	1.125	-0.212	0.0302	1.195	-0.224	0.0306	1.275	-0.128	0.0307	1.375	-0.144	0.0342	1.435	-0.040	0.0311
1.035	-0.122	0.0339	1.125	-0.210	0.0301	1.195	-0.222	0.0323	1.275	-0.126	0.0320	1.375	-0.142	0.0328	1.435	-0.038	0.0310
1.035	-0.120	0.0332	1.125	-0.208	0.0306	1.195	-0.220	0.0334	1.275	-0.124	0.0329	1.375	-0.140	0.0332	1.435	-0.036	0.0307
1.035	-0.118	0.0322	1.125	-0.206	0.0320	1.195	-0.218	0.0324	1.275	-0.122	0.0331	1.375	-0.138	0.0328	1.435	-0.034	0.0305
1.035	-0.116	0.0315	1.125	-0.204	0.0330	1.195	-0.216	0.0318	1.275	-0.120	0.0329	1.375	-0.136	0.0340	1.435	-0.032	0.0303
1.035	-0.114	0.0310	1.125	-0.202	0.0322	1.195	-0.214	0.0312	1.275	-0.118	0.0325	1.375	-0.134	0.0350	1.435	-0.030	0.0299
1.035	-0.112	0.0305	1.125	-0.200	0.0315	1.195	-0.212	0.0309	1.275	-0.116	0.0321	1.375	-0.132	0.0346	1.435	-0.028	0.0295
1.035	-0.110	0.0301	1.125	-0.198	0.0354	1.195	-0.210	0.0312	1.275	-0.114	0.0317	1.375	-0.130	0.0340	1.435	-0.026	0.0291
1.035	-0.108	0.0299	1.125	-0.196	0.0372	1.195	-0.208	0.0315	1.275	-0.112	0.0315	1.375	-0.128	0.0328	1.435	-0.024	0.0288
1.035	-0.106	0.0304	1.125	-0.194	0.0371	1.195	-0.206	0.0321	1.275	-0.110	0.0314	1.375	-0.126	0.0334	1.435	-0.022	0.0286
1.035	-0.104	0.0314	1.125	-0.192	0.0358	1.195	-0.204	0.0323	1.275	-0.108	0.0314	1.375	-0.124	0.0312	1.435	-0.020	0.0284
1.035	-0.102	0.0324	1.125	-0.190	0.0321	1.195	-0.202	0.0319	1.275	-0.106	0.0316	1.375	-0.122	0.0315	1.435	-0.018	0.0282
1.035	-0.100	0.0329	1.125	-0.188	0.0301	1.195	-0.200	0.0322	1.275	-0.104	0.0318	1.375	-0.120	0.0326	1.435	-0.016	0.0281
1.035	-0.098	0.0327	1.125	-0.186	0.0303	1.195	-0.198	0.0312	1.275	-0.102	0.0320	1.375	-0.118	0.0337	1.435	-0.014	0.0279
1.035	-0.096	0.0318	1.125	-0.184	0.0302	1.195	-0.196	0.0309	1.275	-0.100	0.0323	1.375	-0.116	0.0342	1.435	-0.012	0.0278
1.035	-0.094	0.0308	1.125	-0.182	0.0305	1.195	-0.194	0.0313	1.275	-0.098	0.0326	1.375	-0.114	0.0342	1.435	-0.010	0.0276

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.035	-0.092	0.0302	1.125	-0.180	0.0322	1.195	-0.192	0.0332	1.275	-0.096	0.0327	1.375	-0.112	0.0337	1.435	-0.008	0.0275
1.035	-0.090	0.0301	1.125	-0.178	0.0325	1.195	-0.190	0.0329	1.275	-0.094	0.0329	1.375	-0.110	0.0336	1.435	-0.006	0.0274
1.035	-0.088	0.0305	1.125	-0.176	0.0316	1.195	-0.188	0.0308	1.275	-0.092	0.0329	1.375	-0.108	0.0339	1.435	-0.004	0.0273
1.035	-0.086	0.0310	1.125	-0.174	0.0307	1.195	-0.186	0.0305	1.275	-0.090	0.0329	1.375	-0.106	0.0348	1.435	-0.002	0.0272
1.035	-0.084	0.0312	1.125	-0.172	0.0303	1.195	-0.184	0.0309	1.275	-0.088	0.0328	1.375	-0.104	0.0356	1.435	0.000	0.0271
1.035	-0.082	0.0313	1.125	-0.170	0.0303	1.195	-0.182	0.0313	1.275	-0.086	0.0327	1.375	-0.102	0.0335	1.44	-0.124	0.0346
1.035	-0.080	0.0313	1.125	-0.168	0.0303	1.195	-0.180	0.0346	1.275	-0.084	0.0326	1.375	-0.100	0.0316	1.44	-0.122	0.0342
1.035	-0.078	0.0309	1.125	-0.166	0.0302	1.195	-0.178	0.0361	1.275	-0.082	0.0324	1.375	-0.098	0.0312	1.44	-0.120	0.0338
1.035	-0.076	0.0306	1.125	-0.164	0.0303	1.195	-0.176	0.0352	1.275	-0.080	0.0323	1.375	-0.096	0.0322	1.44	-0.118	0.0335
1.035	-0.074	0.0308	1.125	-0.162	0.0305	1.195	-0.174	0.0340	1.275	-0.078	0.0321	1.375	-0.094	0.0347	1.44	-0.116	0.0333
1.035	-0.072	0.0312	1.125	-0.160	0.0313	1.195	-0.172	0.0330	1.275	-0.076	0.0320	1.375	-0.092	0.0354	1.44	-0.114	0.0333
1.035	-0.070	0.0316	1.125	-0.158	0.0325	1.195	-0.170	0.0325	1.275	-0.074	0.0318	1.375	-0.090	0.0342	1.44	-0.112	0.0336
1.035	-0.068	0.0320	1.125	-0.156	0.0327	1.195	-0.168	0.0321	1.275	-0.072	0.0316	1.375	-0.088	0.0325	1.44	-0.110	0.0340
1.035	-0.066	0.0322	1.125	-0.154	0.0327	1.195	-0.166	0.0319	1.275	-0.070	0.0314	1.375	-0.086	0.0304	1.44	-0.108	0.0345
1.035	-0.064	0.0323	1.125	-0.152	0.0325	1.195	-0.164	0.0317	1.275	-0.068	0.0312	1.375	-0.084	0.0294	1.44	-0.106	0.0348
1.035	-0.062	0.0322	1.125	-0.150	0.0318	1.195	-0.162	0.0313	1.275	-0.066	0.0310	1.375	-0.082	0.0287	1.44	-0.104	0.0348
1.035	-0.060	0.0318	1.125	-0.148	0.0311	1.195	-0.160	0.0309	1.275	-0.064	0.0307	1.375	-0.080	0.0285	1.44	-0.102	0.0339
1.035	-0.058	0.0312	1.125	-0.146	0.0308	1.195	-0.158	0.0304	1.275	-0.062	0.0304	1.375	-0.078	0.0287	1.44	-0.100	0.0323
1.035	-0.056	0.0306	1.125	-0.144	0.0307	1.195	-0.156	0.0301	1.275	-0.060	0.0301	1.375	-0.076	0.0289	1.44	-0.098	0.0314
1.035	-0.054	0.0310	1.125	-0.142	0.0305	1.195	-0.154	0.0300	1.275	-0.058	0.0298	1.375	-0.074	0.0293	1.44	-0.096	0.0310
1.035	-0.052	0.0309	1.125	-0.140	0.0303	1.195	-0.152	0.0301	1.275	-0.056	0.0296	1.375	-0.072	0.0297	1.44	-0.094	0.0306
1.035	-0.050	0.0307	1.125	-0.138	0.0302	1.195	-0.150	0.0302	1.275	-0.054	0.0293	1.375	-0.070	0.0303	1.44	-0.092	0.0317
1.035	-0.048	0.0304	1.125	-0.136	0.0305	1.195	-0.148	0.0303	1.275	-0.052	0.0290	1.375	-0.068	0.0308	1.44	-0.090	0.0328
1.035	-0.046	0.0301	1.125	-0.134	0.0309	1.195	-0.146	0.0304	1.275	-0.050	0.0288	1.375	-0.066	0.0313	1.44	-0.088	0.0329
1.035	-0.044	0.0299	1.125	-0.132	0.0312	1.195	-0.144	0.0305	1.275	-0.048	0.0286	1.375	-0.064	0.0316	1.44	-0.086	0.0330

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.035	-0.042	0.0297	1.125	-0.130	0.0312	1.195	-0.142	0.0305	1.275	-0.046	0.0283	1.375	-0.062	0.0315	1.44	-0.084	0.0333
1.035	-0.040	0.0295	1.125	-0.128	0.0309	1.195	-0.140	0.0303	1.275	-0.044	0.0282	1.375	-0.060	0.0312	1.44	-0.082	0.0330
1.035	-0.038	0.0293	1.125	-0.126	0.0305	1.195	-0.138	0.0302	1.275	-0.042	0.0280	1.375	-0.058	0.0308	1.44	-0.080	0.0320
1.035	-0.036	0.0292	1.125	-0.124	0.0302	1.195	-0.136	0.0306	1.275	-0.040	0.0278	1.375	-0.056	0.0305	1.44	-0.078	0.0310
1.035	-0.034	0.0291	1.125	-0.122	0.0305	1.195	-0.134	0.0310	1.275	-0.038	0.0277	1.375	-0.054	0.0302	1.44	-0.076	0.0309
1.035	-0.032	0.0290	1.125	-0.120	0.0310	1.195	-0.132	0.0313	1.275	-0.036	0.0275	1.375	-0.052	0.0301	1.44	-0.074	0.0307
1.035	-0.030	0.0289	1.125	-0.118	0.0313	1.195	-0.130	0.0315	1.275	-0.034	0.0274	1.375	-0.050	0.0299	1.44	-0.072	0.0312
1.035	-0.028	0.0288	1.125	-0.116	0.0312	1.195	-0.128	0.0316	1.275	-0.032	0.0273	1.375	-0.048	0.0298	1.44	-0.070	0.0330
1.035	-0.026	0.0287	1.125	-0.114	0.0309	1.195	-0.126	0.0318	1.275	-0.030	0.0271	1.375	-0.046	0.0296	1.44	-0.068	0.0335
1.035	-0.024	0.0287	1.125	-0.112	0.0305	1.195	-0.124	0.0320	1.275	-0.028	0.0270	1.375	-0.044	0.0295	1.44	-0.066	0.0332
1.035	-0.022	0.0286	1.125	-0.110	0.0301	1.195	-0.122	0.0321	1.275	-0.026	0.0269	1.375	-0.042	0.0293	1.44	-0.064	0.0328
1.035	-0.020	0.0286	1.125	-0.108	0.0299	1.195	-0.120	0.0321	1.275	-0.024	0.0268	1.375	-0.040	0.0291	1.44	-0.062	0.0324
1.035	-0.018	0.0285	1.125	-0.106	0.0298	1.195	-0.118	0.0319	1.275	-0.022	0.0266	1.375	-0.038	0.0289	1.44	-0.060	0.0323
1.035	-0.016	0.0284	1.125	-0.104	0.0299	1.195	-0.116	0.0316	1.275	-0.020	0.0265	1.375	-0.036	0.0287	1.44	-0.058	0.0329
1.035	-0.014	0.0283	1.125	-0.102	0.0300	1.195	-0.114	0.0312	1.275	-0.018	0.0264	1.375	-0.034	0.0285	1.44	-0.056	0.0328
1.035	-0.012	0.0282	1.125	-0.100	0.0301	1.195	-0.112	0.0309	1.275	-0.016	0.0262	1.375	-0.032	0.0283	1.44	-0.054	0.0325
1.035	-0.010	0.0281	1.125	-0.098	0.0303	1.195	-0.110	0.0307	1.275	-0.014	0.0261	1.375	-0.030	0.0281	1.44	-0.052	0.0325
1.035	-0.008	0.0280	1.125	-0.096	0.0304	1.195	-0.108	0.0305	1.275	-0.012	0.0260	1.375	-0.028	0.0278	1.44	-0.050	0.0323
1.035	-0.006	0.0279	1.125	-0.094	0.0305	1.195	-0.106	0.0305	1.275	-0.010	0.0259	1.375	-0.026	0.0276	1.44	-0.048	0.0315
1.035	-0.004	0.0278	1.125	-0.092	0.0304	1.195	-0.104	0.0306	1.275	-0.008	0.0257	1.375	-0.024	0.0274	1.44	-0.046	0.0308
1.035	-0.002	0.0277	1.125	-0.090	0.0303	1.195	-0.102	0.0310	1.275	-0.006	0.0256	1.375	-0.022	0.0272	1.44	-0.044	0.0308
1.035	0.000	0.0276	1.125	-0.088	0.0302	1.195	-0.100	0.0314	1.275	-0.004	0.0255	1.375	-0.020	0.0269	1.44	-0.042	0.0322
1.045	-0.186	0.0215	1.125	-0.086	0.0303	1.195	-0.098	0.0320	1.275	-0.002	0.0253	1.375	-0.018	0.0267	1.44	-0.040	0.0319
1.045	-0.184	0.0224	1.125	-0.084	0.0306	1.195	-0.096	0.0326	1.275	0.000	0.0252	1.375	-0.016	0.0264	1.44	-0.038	0.0313
1.045	-0.182	0.0233	1.125	-0.082	0.0313	1.195	-0.094	0.0329	1.285	-0.206	0.0302	1.375	-0.014	0.0261	1.44	-0.036	0.0307

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.045	-0.180	0.0243	1.125	-0.080	0.0324	1.195	-0.092	0.0330	1.285	-0.204	0.0303	1.375	-0.012	0.0258	1.44	-0.034	0.0302
1.045	-0.178	0.0253	1.125	-0.078	0.0334	1.195	-0.090	0.0326	1.285	-0.202	0.0304	1.375	-0.010	0.0255	1.44	-0.032	0.0300
1.045	-0.176	0.0264	1.125	-0.076	0.0340	1.195	-0.088	0.0318	1.285	-0.200	0.0304	1.375	-0.008	0.0252	1.44	-0.030	0.0297
1.045	-0.174	0.0275	1.125	-0.074	0.0339	1.195	-0.086	0.0305	1.285	-0.198	0.0305	1.375	-0.006	0.0250	1.44	-0.028	0.0294
1.045	-0.172	0.0286	1.125	-0.072	0.0332	1.195	-0.084	0.0290	1.285	-0.196	0.0306	1.375	-0.004	0.0247	1.44	-0.026	0.0292
1.045	-0.170	0.0297	1.125	-0.070	0.0320	1.195	-0.082	0.0273	1.285	-0.194	0.0308	1.375	-0.002	0.0244	1.44	-0.024	0.0290
1.045	-0.168	0.0307	1.125	-0.068	0.0308	1.195	-0.080	0.0258	1.285	-0.192	0.0311	1.375	0.000	0.0241	1.44	-0.022	0.0288
1.045	-0.166	0.0316	1.125	-0.066	0.0302	1.195	-0.078	0.0246	1.285	-0.190	0.0312	1.38	-0.160	0.0347	1.44	-0.020	0.0287
1.045	-0.164	0.0324	1.125	-0.064	0.0301	1.195	-0.076	0.0239	1.285	-0.188	0.0304	1.38	-0.158	0.0347	1.44	-0.018	0.0285
1.045	-0.162	0.0329	1.125	-0.062	0.0303	1.195	-0.074	0.0236	1.285	-0.186	0.0300	1.38	-0.156	0.0347	1.44	-0.016	0.0283
1.045	-0.160	0.0329	1.125	-0.060	0.0304	1.195	-0.072	0.0239	1.285	-0.184	0.0298	1.38	-0.154	0.0346	1.44	-0.014	0.0282
1.045	-0.158	0.0327	1.125	-0.058	0.0305	1.195	-0.070	0.0245	1.285	-0.182	0.0299	1.38	-0.152	0.0344	1.44	-0.012	0.0280
1.045	-0.156	0.0322	1.125	-0.056	0.0305	1.195	-0.068	0.0253	1.285	-0.180	0.0302	1.38	-0.150	0.0343	1.44	-0.010	0.0279
1.045	-0.154	0.0317	1.125	-0.054	0.0306	1.195	-0.066	0.0262	1.285	-0.178	0.0304	1.38	-0.148	0.0344	1.44	-0.008	0.0278
1.045	-0.152	0.0312	1.125	-0.052	0.0306	1.195	-0.064	0.0271	1.285	-0.176	0.0305	1.38	-0.146	0.0345	1.44	-0.006	0.0277
1.045	-0.150	0.0308	1.125	-0.050	0.0307	1.195	-0.062	0.0279	1.285	-0.174	0.0307	1.38	-0.144	0.0344	1.44	-0.004	0.0277
1.045	-0.148	0.0307	1.125	-0.048	0.0308	1.195	-0.060	0.0286	1.285	-0.172	0.0317	1.38	-0.142	0.0341	1.44	-0.002	0.0276
1.045	-0.146	0.0328	1.125	-0.046	0.0309	1.195	-0.058	0.0290	1.285	-0.170	0.0326	1.38	-0.140	0.0341	1.44	0.000	0.0275
1.045	-0.144	0.0350	1.125	-0.044	0.0310	1.195	-0.056	0.0293	1.285	-0.168	0.0331	1.38	-0.138	0.0341	1.445	-0.124	0.0347
1.045	-0.142	0.0360	1.125	-0.042	0.0311	1.195	-0.054	0.0295	1.285	-0.166	0.0318	1.38	-0.136	0.0344	1.445	-0.122	0.0344
1.045	-0.140	0.0349	1.125	-0.040	0.0311	1.195	-0.052	0.0295	1.285	-0.164	0.0308	1.38	-0.134	0.0348	1.445	-0.120	0.0341
1.045	-0.138	0.0330	1.125	-0.038	0.0311	1.195	-0.050	0.0295	1.285	-0.162	0.0305	1.38	-0.132	0.0345	1.445	-0.118	0.0339
1.045	-0.136	0.0322	1.125	-0.036	0.0310	1.195	-0.048	0.0295	1.285	-0.160	0.0308	1.38	-0.130	0.0341	1.445	-0.116	0.0338
1.045	-0.134	0.0326	1.125	-0.034	0.0309	1.195	-0.046	0.0294	1.285	-0.158	0.0314	1.38	-0.128	0.0334	1.445	-0.114	0.0338
1.045	-0.132	0.0329	1.125	-0.032	0.0307	1.195	-0.044	0.0293	1.285	-0.156	0.0321	1.38	-0.126	0.0333	1.445	-0.112	0.0340

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.045	-0.130	0.0332	1.125	-0.030	0.0306	1.195	-0.042	0.0293	1.285	-0.154	0.0323	1.38	-0.124	0.0322	1.445	-0.110	0.0343
1.045	-0.128	0.0350	1.125	-0.028	0.0304	1.195	-0.040	0.0292	1.285	-0.152	0.0325	1.38	-0.122	0.0336	1.445	-0.108	0.0345
1.045	-0.126	0.0363	1.125	-0.026	0.0302	1.195	-0.038	0.0291	1.285	-0.150	0.0335	1.38	-0.120	0.0356	1.445	-0.106	0.0346
1.045	-0.124	0.0359	1.125	-0.024	0.0300	1.195	-0.036	0.0290	1.285	-0.148	0.0326	1.38	-0.118	0.0349	1.445	-0.104	0.0344
1.045	-0.122	0.0346	1.125	-0.022	0.0298	1.195	-0.034	0.0289	1.285	-0.146	0.0327	1.38	-0.116	0.0357	1.445	-0.102	0.0337
1.045	-0.120	0.0332	1.125	-0.020	0.0296	1.195	-0.032	0.0288	1.285	-0.144	0.0336	1.38	-0.114	0.0355	1.445	-0.100	0.0330
1.045	-0.118	0.0320	1.125	-0.018	0.0294	1.195	-0.030	0.0288	1.285	-0.142	0.0343	1.38	-0.112	0.0320	1.445	-0.098	0.0323
1.045	-0.116	0.0313	1.125	-0.016	0.0292	1.195	-0.028	0.0287	1.285	-0.140	0.0341	1.38	-0.110	0.0318	1.445	-0.096	0.0317
1.045	-0.114	0.0314	1.125	-0.014	0.0290	1.195	-0.026	0.0286	1.285	-0.138	0.0336	1.38	-0.108	0.0331	1.445	-0.094	0.0309
1.045	-0.112	0.0322	1.125	-0.012	0.0288	1.195	-0.024	0.0285	1.285	-0.136	0.0326	1.38	-0.106	0.0351	1.445	-0.092	0.0308
1.045	-0.110	0.0319	1.125	-0.010	0.0286	1.195	-0.022	0.0284	1.285	-0.134	0.0317	1.38	-0.104	0.0345	1.445	-0.090	0.0316
1.045	-0.108	0.0315	1.125	-0.008	0.0284	1.195	-0.020	0.0283	1.285	-0.132	0.0310	1.38	-0.102	0.0327	1.445	-0.088	0.0319
1.045	-0.106	0.0311	1.125	-0.006	0.0283	1.195	-0.018	0.0282	1.285	-0.130	0.0308	1.38	-0.100	0.0308	1.445	-0.086	0.0319
1.045	-0.104	0.0308	1.125	-0.004	0.0281	1.195	-0.016	0.0281	1.285	-0.128	0.0311	1.38	-0.098	0.0317	1.445	-0.084	0.0316
1.045	-0.102	0.0306	1.125	-0.002	0.0279	1.195	-0.014	0.0280	1.285	-0.126	0.0319	1.38	-0.096	0.0337	1.445	-0.082	0.0320
1.045	-0.100	0.0315	1.125	0.000	0.0277	1.195	-0.012	0.0279	1.285	-0.124	0.0324	1.38	-0.094	0.0361	1.445	-0.080	0.0319
1.045	-0.098	0.0326	1.135	-0.234	0.0311	1.195	-0.010	0.0278	1.285	-0.122	0.0326	1.38	-0.092	0.0363	1.445	-0.078	0.0312
1.045	-0.096	0.0321	1.135	-0.232	0.0313	1.195	-0.008	0.0277	1.285	-0.120	0.0326	1.38	-0.090	0.0362	1.445	-0.076	0.0306
1.045	-0.094	0.0307	1.135	-0.230	0.0315	1.195	-0.006	0.0275	1.285	-0.118	0.0324	1.38	-0.088	0.0356	1.445	-0.074	0.0303
1.045	-0.092	0.0313	1.135	-0.228	0.0330	1.195	-0.004	0.0274	1.285	-0.116	0.0322	1.38	-0.086	0.0327	1.445	-0.072	0.0310
1.045	-0.090	0.0316	1.135	-0.226	0.0363	1.195	-0.002	0.0273	1.285	-0.114	0.0321	1.38	-0.084	0.0301	1.445	-0.070	0.0319
1.045	-0.088	0.0320	1.135	-0.224	0.0351	1.195	0.000	0.0272	1.285	-0.112	0.0320	1.38	-0.082	0.0291	1.445	-0.068	0.0320
1.045	-0.086	0.0322	1.135	-0.222	0.0357	1.205	-0.228	0.0301	1.285	-0.110	0.0320	1.38	-0.080	0.0290	1.445	-0.066	0.0319
1.045	-0.084	0.0320	1.135	-0.220	0.0356	1.205	-0.226	0.0305	1.285	-0.108	0.0322	1.38	-0.078	0.0290	1.445	-0.064	0.0315
1.045	-0.082	0.0316	1.135	-0.218	0.0334	1.205	-0.224	0.0312	1.285	-0.106	0.0324	1.38	-0.076	0.0292	1.445	-0.062	0.0315

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.045	-0.080	0.0309	1.135	-0.216	0.0318	1.205	-0.222	0.0321	1.285	-0.104	0.0326	1.38	-0.074	0.0294	1.445	-0.060	0.0306
1.045	-0.078	0.0305	1.135	-0.214	0.0321	1.205	-0.220	0.0326	1.285	-0.102	0.0328	1.38	-0.072	0.0297	1.445	-0.058	0.0316
1.045	-0.076	0.0304	1.135	-0.212	0.0315	1.205	-0.218	0.0320	1.285	-0.100	0.0330	1.38	-0.070	0.0303	1.445	-0.056	0.0341
1.045	-0.074	0.0305	1.135	-0.210	0.0320	1.205	-0.216	0.0310	1.285	-0.098	0.0331	1.38	-0.068	0.0308	1.445	-0.054	0.0344
1.045	-0.072	0.0307	1.135	-0.208	0.0327	1.205	-0.214	0.0306	1.285	-0.096	0.0331	1.38	-0.066	0.0313	1.445	-0.052	0.0339
1.045	-0.070	0.0310	1.135	-0.206	0.0326	1.205	-0.212	0.0307	1.285	-0.094	0.0331	1.38	-0.064	0.0316	1.445	-0.050	0.0345
1.045	-0.068	0.0313	1.135	-0.204	0.0317	1.205	-0.210	0.0310	1.285	-0.092	0.0329	1.38	-0.062	0.0315	1.445	-0.048	0.0348
1.045	-0.066	0.0315	1.135	-0.202	0.0308	1.205	-0.208	0.0316	1.285	-0.090	0.0328	1.38	-0.060	0.0310	1.445	-0.046	0.0344
1.045	-0.064	0.0315	1.135	-0.200	0.0316	1.205	-0.206	0.0316	1.285	-0.088	0.0326	1.38	-0.058	0.0305	1.445	-0.044	0.0329
1.045	-0.062	0.0313	1.135	-0.198	0.0324	1.205	-0.204	0.0323	1.285	-0.086	0.0324	1.38	-0.056	0.0302	1.445	-0.042	0.0327
1.045	-0.060	0.0309	1.135	-0.196	0.0317	1.205	-0.202	0.0345	1.285	-0.084	0.0322	1.38	-0.054	0.0301	1.445	-0.040	0.0322
1.045	-0.058	0.0303	1.135	-0.194	0.0307	1.205	-0.200	0.0344	1.285	-0.082	0.0320	1.38	-0.052	0.0300	1.445	-0.038	0.0315
1.045	-0.056	0.0299	1.135	-0.192	0.0300	1.205	-0.198	0.0322	1.285	-0.080	0.0319	1.38	-0.050	0.0299	1.445	-0.036	0.0308
1.045	-0.054	0.0299	1.135	-0.190	0.0334	1.205	-0.196	0.0311	1.285	-0.078	0.0317	1.38	-0.048	0.0299	1.445	-0.034	0.0303
1.045	-0.052	0.0300	1.135	-0.188	0.0349	1.205	-0.194	0.0304	1.285	-0.076	0.0316	1.38	-0.046	0.0298	1.445	-0.032	0.0301
1.045	-0.050	0.0302	1.135	-0.186	0.0347	1.205	-0.192	0.0299	1.285	-0.074	0.0315	1.38	-0.044	0.0296	1.445	-0.030	0.0298
1.045	-0.048	0.0302	1.135	-0.184	0.0346	1.205	-0.190	0.0301	1.285	-0.072	0.0313	1.38	-0.042	0.0295	1.445	-0.028	0.0296
1.045	-0.046	0.0301	1.135	-0.182	0.0328	1.205	-0.188	0.0304	1.285	-0.070	0.0312	1.38	-0.040	0.0293	1.445	-0.026	0.0294
1.045	-0.044	0.0299	1.135	-0.180	0.0317	1.205	-0.186	0.0306	1.285	-0.068	0.0310	1.38	-0.038	0.0291	1.445	-0.024	0.0293
1.045	-0.042	0.0298	1.135	-0.178	0.0326	1.205	-0.184	0.0306	1.285	-0.066	0.0308	1.38	-0.036	0.0289	1.445	-0.022	0.0291
1.045	-0.040	0.0296	1.135	-0.176	0.0318	1.205	-0.182	0.0310	1.285	-0.064	0.0305	1.38	-0.034	0.0287	1.445	-0.020	0.0289
1.045	-0.038	0.0295	1.135	-0.174	0.0305	1.205	-0.180	0.0323	1.285	-0.062	0.0303	1.38	-0.032	0.0285	1.445	-0.018	0.0287
1.045	-0.036	0.0293	1.135	-0.172	0.0307	1.205	-0.178	0.0337	1.285	-0.060	0.0301	1.38	-0.030	0.0282	1.445	-0.016	0.0286
1.045	-0.034	0.0292	1.135	-0.170	0.0315	1.205	-0.176	0.0343	1.285	-0.058	0.0298	1.38	-0.028	0.0280	1.445	-0.014	0.0284
1.045	-0.032	0.0292	1.135	-0.168	0.0323	1.205	-0.174	0.0342	1.285	-0.056	0.0296	1.38	-0.026	0.0278	1.445	-0.012	0.0283

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.045	-0.030	0.0291	1.135	-0.166	0.0326	1.205	-0.172	0.0336	1.285	-0.054	0.0294	1.38	-0.024	0.0276	1.445	-0.010	0.0282
1.045	-0.028	0.0291	1.135	-0.164	0.0328	1.205	-0.170	0.0329	1.285	-0.052	0.0291	1.38	-0.022	0.0273	1.445	-0.008	0.0282
1.045	-0.026	0.0290	1.135	-0.162	0.0320	1.205	-0.168	0.0322	1.285	-0.050	0.0289	1.38	-0.020	0.0271	1.445	-0.006	0.0281
1.045	-0.024	0.0289	1.135	-0.160	0.0309	1.205	-0.166	0.0316	1.285	-0.048	0.0287	1.38	-0.018	0.0268	1.445	-0.004	0.0280
1.045	-0.022	0.0289	1.135	-0.158	0.0306	1.205	-0.164	0.0313	1.285	-0.046	0.0285	1.38	-0.016	0.0265	1.445	-0.002	0.0280
1.045	-0.020	0.0288	1.135	-0.156	0.0310	1.205	-0.162	0.0310	1.285	-0.044	0.0283	1.38	-0.014	0.0262	1.445	0.000	0.0279
1.045	-0.018	0.0287	1.135	-0.154	0.0314	1.205	-0.160	0.0307	1.285	-0.042	0.0281	1.38	-0.012	0.0259	1.45	-0.118	0.0342
1.045	-0.016	0.0286	1.135	-0.152	0.0316	1.205	-0.158	0.0304	1.285	-0.040	0.0279	1.38	-0.010	0.0256	1.45	-0.116	0.0342
1.045	-0.014	0.0285	1.135	-0.150	0.0315	1.205	-0.156	0.0302	1.285	-0.038	0.0277	1.38	-0.008	0.0253	1.45	-0.114	0.0342
1.045	-0.012	0.0284	1.135	-0.148	0.0313	1.205	-0.154	0.0302	1.285	-0.036	0.0276	1.38	-0.006	0.0250	1.45	-0.112	0.0343
1.045	-0.010	0.0283	1.135	-0.146	0.0311	1.205	-0.152	0.0302	1.285	-0.034	0.0274	1.38	-0.004	0.0248	1.45	-0.110	0.0344
1.045	-0.008	0.0281	1.135	-0.144	0.0309	1.205	-0.150	0.0303	1.285	-0.032	0.0272	1.38	-0.002	0.0245	1.45	-0.108	0.0345
1.045	-0.006	0.0280	1.135	-0.142	0.0307	1.205	-0.148	0.0304	1.285	-0.030	0.0271	1.38	0.000	0.0242	1.45	-0.106	0.0344
1.045	-0.004	0.0279	1.135	-0.140	0.0306	1.205	-0.146	0.0304	1.285	-0.028	0.0269	1.385	-0.160	0.0351	1.45	-0.104	0.0341
1.045	-0.002	0.0278	1.135	-0.138	0.0312	1.205	-0.144	0.0303	1.285	-0.026	0.0268	1.385	-0.158	0.0351	1.45	-0.102	0.0337
1.045	0.000	0.0276	1.135	-0.136	0.0315	1.205	-0.142	0.0305	1.285	-0.024	0.0266	1.385	-0.156	0.0350	1.45	-0.100	0.0332
1.055	-0.198	0.0247	1.135	-0.134	0.0315	1.205	-0.140	0.0326	1.285	-0.022	0.0265	1.385	-0.154	0.0349	1.45	-0.098	0.0326
1.055	-0.196	0.0239	1.135	-0.132	0.0314	1.205	-0.138	0.0333	1.285	-0.020	0.0263	1.385	-0.152	0.0348	1.45	-0.096	0.0319
1.055	-0.194	0.0233	1.135	-0.130	0.0312	1.205	-0.136	0.0333	1.285	-0.018	0.0262	1.385	-0.150	0.0348	1.45	-0.094	0.0311
1.055	-0.192	0.0230	1.135	-0.128	0.0309	1.205	-0.134	0.0326	1.285	-0.016	0.0261	1.385	-0.148	0.0349	1.45	-0.092	0.0306
1.055	-0.190	0.0231	1.135	-0.126	0.0306	1.205	-0.132	0.0323	1.285	-0.014	0.0259	1.385	-0.146	0.0349	1.45	-0.090	0.0306
1.055	-0.188	0.0237	1.135	-0.124	0.0304	1.205	-0.130	0.0321	1.285	-0.012	0.0258	1.385	-0.144	0.0349	1.45	-0.088	0.0309
1.055	-0.186	0.0245	1.135	-0.122	0.0304	1.205	-0.128	0.0320	1.285	-0.010	0.0256	1.385	-0.142	0.0348	1.45	-0.086	0.0309
1.055	-0.184	0.0255	1.135	-0.120	0.0304	1.205	-0.126	0.0320	1.285	-0.008	0.0255	1.385	-0.140	0.0347	1.45	-0.084	0.0307
1.055	-0.182	0.0265	1.135	-0.118	0.0305	1.205	-0.124	0.0320	1.285	-0.006	0.0254	1.385	-0.138	0.0344	1.45	-0.082	0.0310

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.055	-0.180	0.0274	1.135	-0.116	0.0305	1.205	-0.122	0.0320	1.285	-0.004	0.0252	1.385	-0.136	0.0337	1.45	-0.080	0.0315
1.055	-0.178	0.0280	1.135	-0.114	0.0304	1.205	-0.120	0.0321	1.285	-0.002	0.0251	1.385	-0.134	0.0326	1.45	-0.078	0.0320
1.055	-0.176	0.0286	1.135	-0.112	0.0302	1.205	-0.118	0.0319	1.285	0.000	0.0250	1.385	-0.132	0.0314	1.45	-0.076	0.0324
1.055	-0.174	0.0292	1.135	-0.110	0.0300	1.205	-0.116	0.0317	1.295	-0.202	0.0306	1.385	-0.130	0.0308	1.45	-0.074	0.0318
1.055	-0.172	0.0298	1.135	-0.108	0.0297	1.205	-0.114	0.0314	1.295	-0.200	0.0307	1.385	-0.128	0.0321	1.45	-0.072	0.0315
1.055	-0.170	0.0303	1.135	-0.106	0.0295	1.205	-0.112	0.0311	1.295	-0.198	0.0308	1.385	-0.126	0.0322	1.45	-0.070	0.0310
1.055	-0.168	0.0308	1.135	-0.104	0.0293	1.205	-0.110	0.0309	1.295	-0.196	0.0309	1.385	-0.124	0.0324	1.45	-0.068	0.0307
1.055	-0.166	0.0317	1.135	-0.102	0.0291	1.205	-0.108	0.0307	1.295	-0.194	0.0310	1.385	-0.122	0.0355	1.45	-0.066	0.0307
1.055	-0.164	0.0329	1.135	-0.100	0.0290	1.205	-0.106	0.0306	1.295	-0.192	0.0310	1.385	-0.120	0.0372	1.45	-0.064	0.0311
1.055	-0.162	0.0342	1.135	-0.098	0.0291	1.205	-0.104	0.0306	1.295	-0.190	0.0309	1.385	-0.118	0.0365	1.45	-0.062	0.0308
1.055	-0.160	0.0349	1.135	-0.096	0.0293	1.205	-0.102	0.0306	1.295	-0.188	0.0306	1.385	-0.116	0.0356	1.45	-0.060	0.0300
1.055	-0.158	0.0348	1.135	-0.094	0.0297	1.205	-0.100	0.0308	1.295	-0.186	0.0304	1.385	-0.114	0.0341	1.45	-0.058	0.0313
1.055	-0.156	0.0336	1.135	-0.092	0.0302	1.205	-0.098	0.0311	1.295	-0.184	0.0303	1.385	-0.112	0.0312	1.45	-0.056	0.0346
1.055	-0.154	0.0322	1.135	-0.090	0.0306	1.205	-0.096	0.0314	1.295	-0.182	0.0305	1.385	-0.110	0.0309	1.45	-0.054	0.0360
1.055	-0.152	0.0318	1.135	-0.088	0.0310	1.205	-0.094	0.0315	1.295	-0.180	0.0312	1.385	-0.108	0.0313	1.45	-0.052	0.0358
1.055	-0.150	0.0339	1.135	-0.086	0.0312	1.205	-0.092	0.0313	1.295	-0.178	0.0325	1.385	-0.106	0.0321	1.45	-0.050	0.0355
1.055	-0.148	0.0336	1.135	-0.084	0.0310	1.205	-0.090	0.0310	1.295	-0.176	0.0338	1.385	-0.104	0.0325	1.45	-0.048	0.0356
1.055	-0.146	0.0333	1.135	-0.082	0.0306	1.205	-0.088	0.0304	1.295	-0.174	0.0335	1.385	-0.102	0.0315	1.45	-0.046	0.0352
1.055	-0.144	0.0325	1.135	-0.080	0.0304	1.205	-0.086	0.0298	1.295	-0.172	0.0321	1.385	-0.100	0.0306	1.45	-0.044	0.0339
1.055	-0.142	0.0318	1.135	-0.078	0.0307	1.205	-0.084	0.0291	1.295	-0.170	0.0326	1.385	-0.098	0.0317	1.45	-0.042	0.0329
1.055	-0.140	0.0326	1.135	-0.076	0.0311	1.205	-0.082	0.0284	1.295	-0.168	0.0324	1.385	-0.096	0.0339	1.45	-0.040	0.0322
1.055	-0.138	0.0323	1.135	-0.074	0.0312	1.205	-0.080	0.0278	1.295	-0.166	0.0316	1.385	-0.094	0.0347	1.45	-0.038	0.0315
1.055	-0.136	0.0307	1.135	-0.072	0.0305	1.205	-0.078	0.0272	1.295	-0.164	0.0306	1.385	-0.092	0.0343	1.45	-0.036	0.0308
1.055	-0.134	0.0311	1.135	-0.070	0.0304	1.205	-0.076	0.0267	1.295	-0.162	0.0303	1.385	-0.090	0.0346	1.45	-0.034	0.0305
1.055	-0.132	0.0329	1.135	-0.068	0.0303	1.205	-0.074	0.0263	1.295	-0.160	0.0305	1.385	-0.088	0.0339	1.45	-0.032	0.0304

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.055	-0.130	0.0337	1.135	-0.066	0.0302	1.205	-0.072	0.0261	1.295	-0.158	0.0314	1.385	-0.086	0.0327	1.45	-0.030	0.0304
1.055	-0.128	0.0331	1.135	-0.064	0.0303	1.205	-0.070	0.0260	1.295	-0.156	0.0323	1.385	-0.084	0.0305	1.45	-0.028	0.0302
1.055	-0.126	0.0332	1.135	-0.062	0.0304	1.205	-0.068	0.0262	1.295	-0.154	0.0325	1.385	-0.082	0.0300	1.45	-0.026	0.0298
1.055	-0.124	0.0329	1.135	-0.060	0.0305	1.205	-0.066	0.0265	1.295	-0.152	0.0327	1.385	-0.080	0.0298	1.45	-0.024	0.0297
1.055	-0.122	0.0312	1.135	-0.058	0.0306	1.205	-0.064	0.0270	1.295	-0.150	0.0322	1.385	-0.078	0.0296	1.45	-0.022	0.0294
1.055	-0.120	0.0321	1.135	-0.056	0.0306	1.205	-0.062	0.0274	1.295	-0.148	0.0318	1.385	-0.076	0.0294	1.45	-0.020	0.0292
1.055	-0.118	0.0331	1.135	-0.054	0.0306	1.205	-0.060	0.0279	1.295	-0.146	0.0321	1.385	-0.074	0.0295	1.45	-0.018	0.0290
1.055	-0.116	0.0329	1.135	-0.052	0.0306	1.205	-0.058	0.0283	1.295	-0.144	0.0327	1.385	-0.072	0.0298	1.45	-0.016	0.0288
1.055	-0.114	0.0322	1.135	-0.050	0.0306	1.205	-0.056	0.0287	1.295	-0.142	0.0311	1.385	-0.070	0.0302	1.45	-0.014	0.0287
1.055	-0.112	0.0321	1.135	-0.048	0.0306	1.205	-0.054	0.0289	1.295	-0.140	0.0325	1.385	-0.068	0.0307	1.45	-0.012	0.0286
1.055	-0.110	0.0321	1.135	-0.046	0.0306	1.205	-0.052	0.0291	1.295	-0.138	0.0327	1.385	-0.066	0.0311	1.45	-0.010	0.0285
1.055	-0.108	0.0321	1.135	-0.044	0.0307	1.205	-0.050	0.0292	1.295	-0.136	0.0321	1.385	-0.064	0.0313	1.45	-0.008	0.0285
1.055	-0.106	0.0320	1.135	-0.042	0.0307	1.205	-0.048	0.0292	1.295	-0.134	0.0316	1.385	-0.062	0.0310	1.45	-0.006	0.0284
1.055	-0.104	0.0319	1.135	-0.040	0.0307	1.205	-0.046	0.0292	1.295	-0.132	0.0314	1.385	-0.060	0.0304	1.45	-0.004	0.0284
1.055	-0.102	0.0317	1.135	-0.038	0.0307	1.205	-0.044	0.0291	1.295	-0.130	0.0314	1.385	-0.058	0.0301	1.45	-0.002	0.0284
1.055	-0.100	0.0311	1.135	-0.036	0.0306	1.205	-0.042	0.0290	1.295	-0.128	0.0314	1.385	-0.056	0.0300	1.45	0.000	0.0283
1.055	-0.098	0.0308	1.135	-0.034	0.0305	1.205	-0.040	0.0290	1.295	-0.126	0.0314	1.385	-0.054	0.0299	1.455	-0.118	0.0346
1.055	-0.096	0.0309	1.135	-0.032	0.0304	1.205	-0.038	0.0289	1.295	-0.124	0.0316	1.385	-0.052	0.0300	1.455	-0.116	0.0345
1.055	-0.094	0.0311	1.135	-0.030	0.0303	1.205	-0.036	0.0288	1.295	-0.122	0.0318	1.385	-0.050	0.0300	1.455	-0.114	0.0345
1.055	-0.092	0.0319	1.135	-0.028	0.0302	1.205	-0.034	0.0287	1.295	-0.120	0.0320	1.385	-0.048	0.0300	1.455	-0.112	0.0345
1.055	-0.090	0.0329	1.135	-0.026	0.0300	1.205	-0.032	0.0286	1.295	-0.118	0.0320	1.385	-0.046	0.0300	1.455	-0.110	0.0345
1.055	-0.088	0.0338	1.135	-0.024	0.0298	1.205	-0.030	0.0285	1.295	-0.116	0.0320	1.385	-0.044	0.0299	1.455	-0.108	0.0344
1.055	-0.086	0.0342	1.135	-0.022	0.0297	1.205	-0.028	0.0284	1.295	-0.114	0.0321	1.385	-0.042	0.0298	1.455	-0.106	0.0342
1.055	-0.084	0.0339	1.135	-0.020	0.0295	1.205	-0.026	0.0283	1.295	-0.112	0.0321	1.385	-0.040	0.0296	1.455	-0.104	0.0340
1.055	-0.082	0.0330	1.135	-0.018	0.0293	1.205	-0.024	0.0282	1.295	-0.110	0.0322	1.385	-0.038	0.0294	1.455	-0.102	0.0336

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.055	-0.080	0.0318	1.135	-0.016	0.0291	1.205	-0.022	0.0281	1.295	-0.108	0.0324	1.385	-0.036	0.0291	1.455	-0.100	0.0332
1.055	-0.078	0.0308	1.135	-0.014	0.0289	1.205	-0.020	0.0280	1.295	-0.106	0.0326	1.385	-0.034	0.0289	1.455	-0.098	0.0327
1.055	-0.076	0.0303	1.135	-0.012	0.0288	1.205	-0.018	0.0279	1.295	-0.104	0.0330	1.385	-0.032	0.0287	1.455	-0.096	0.0320
1.055	-0.074	0.0301	1.135	-0.010	0.0286	1.205	-0.016	0.0278	1.295	-0.102	0.0333	1.385	-0.030	0.0285	1.455	-0.094	0.0313
1.055	-0.072	0.0301	1.135	-0.008	0.0284	1.205	-0.014	0.0277	1.295	-0.100	0.0335	1.385	-0.028	0.0282	1.455	-0.092	0.0307
1.055	-0.070	0.0302	1.135	-0.006	0.0282	1.205	-0.012	0.0276	1.295	-0.098	0.0334	1.385	-0.026	0.0280	1.455	-0.090	0.0303
1.055	-0.068	0.0305	1.135	-0.004	0.0280	1.205	-0.010	0.0275	1.295	-0.096	0.0332	1.385	-0.024	0.0278	1.455	-0.088	0.0303
1.055	-0.066	0.0308	1.135	-0.002	0.0279	1.205	-0.008	0.0274	1.295	-0.094	0.0330	1.385	-0.022	0.0275	1.455	-0.086	0.0303
1.055	-0.064	0.0310	1.135	0.000	0.0277	1.205	-0.006	0.0273	1.295	-0.092	0.0326	1.385	-0.020	0.0272	1.455	-0.084	0.0303
1.055	-0.062	0.0311	1.14	-0.234	0.0320	1.205	-0.004	0.0272	1.295	-0.090	0.0323	1.385	-0.018	0.0269	1.455	-0.082	0.0304
1.055	-0.060	0.0310	1.14	-0.232	0.0327	1.205	-0.002	0.0271	1.295	-0.088	0.0320	1.385	-0.016	0.0266	1.455	-0.080	0.0308
1.055	-0.058	0.0307	1.14	-0.230	0.0329	1.205	0.000	0.0270	1.295	-0.086	0.0318	1.385	-0.014	0.0263	1.455	-0.078	0.0311
1.055	-0.056	0.0303	1.14	-0.228	0.0326	1.215	-0.226	0.0313	1.295	-0.084	0.0317	1.385	-0.012	0.0260	1.455	-0.076	0.0317
1.055	-0.054	0.0300	1.14	-0.226	0.0346	1.215	-0.224	0.0319	1.295	-0.082	0.0316	1.385	-0.010	0.0257	1.455	-0.074	0.0321
1.055	-0.052	0.0302	1.14	-0.224	0.0367	1.215	-0.222	0.0325	1.295	-0.080	0.0315	1.385	-0.008	0.0254	1.455	-0.072	0.0314
1.055	-0.050	0.0303	1.14	-0.222	0.0383	1.215	-0.220	0.0331	1.295	-0.078	0.0314	1.385	-0.006	0.0251	1.455	-0.070	0.0304
1.055	-0.048	0.0304	1.14	-0.220	0.0382	1.215	-0.218	0.0336	1.295	-0.076	0.0313	1.385	-0.004	0.0249	1.455	-0.068	0.0300
1.055	-0.046	0.0303	1.14	-0.218	0.0353	1.215	-0.216	0.0340	1.295	-0.074	0.0312	1.385	-0.002	0.0246	1.455	-0.066	0.0307
1.055	-0.044	0.0301	1.14	-0.216	0.0343	1.215	-0.214	0.0333	1.295	-0.072	0.0310	1.385	0.000	0.0243	1.455	-0.064	0.0323
1.055	-0.042	0.0299	1.14	-0.214	0.0329	1.215	-0.212	0.0320	1.295	-0.070	0.0308	1.39	-0.154	0.0353	1.455	-0.062	0.0322
1.055	-0.040	0.0297	1.14	-0.212	0.0315	1.215	-0.210	0.0324	1.295	-0.068	0.0307	1.39	-0.152	0.0353	1.455	-0.060	0.0340
1.055	-0.038	0.0296	1.14	-0.210	0.0337	1.215	-0.208	0.0341	1.295	-0.066	0.0305	1.39	-0.150	0.0353	1.455	-0.058	0.0362
1.055	-0.036	0.0296	1.14	-0.208	0.0350	1.215	-0.206	0.0353	1.295	-0.064	0.0303	1.39	-0.148	0.0353	1.455	-0.056	0.0365
1.055	-0.034	0.0295	1.14	-0.206	0.0343	1.215	-0.204	0.0340	1.295	-0.062	0.0301	1.39	-0.146	0.0353	1.455	-0.054	0.0367
1.055	-0.032	0.0295	1.14	-0.204	0.0322	1.215	-0.202	0.0313	1.295	-0.060	0.0300	1.39	-0.144	0.0353	1.455	-0.052	0.0361

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.055	-0.030	0.0294	1.14	-0.202	0.0314	1.215	-0.200	0.0322	1.295	-0.058	0.0298	1.39	-0.142	0.0352	1.455	-0.050	0.0352
1.055	-0.028	0.0294	1.14	-0.200	0.0335	1.215	-0.198	0.0339	1.295	-0.056	0.0296	1.39	-0.140	0.0349	1.455	-0.048	0.0346
1.055	-0.026	0.0293	1.14	-0.198	0.0356	1.215	-0.196	0.0324	1.295	-0.054	0.0294	1.39	-0.138	0.0344	1.455	-0.046	0.0340
1.055	-0.024	0.0292	1.14	-0.196	0.0348	1.215	-0.194	0.0311	1.295	-0.052	0.0292	1.39	-0.136	0.0337	1.455	-0.044	0.0333
1.055	-0.022	0.0291	1.14	-0.194	0.0318	1.215	-0.192	0.0307	1.295	-0.050	0.0290	1.39	-0.134	0.0330	1.455	-0.042	0.0327
1.055	-0.020	0.0290	1.14	-0.192	0.0310	1.215	-0.190	0.0305	1.295	-0.048	0.0288	1.39	-0.132	0.0336	1.455	-0.040	0.0322
1.055	-0.018	0.0289	1.14	-0.190	0.0329	1.215	-0.188	0.0305	1.295	-0.046	0.0286	1.39	-0.130	0.0356	1.455	-0.038	0.0316
1.055	-0.016	0.0288	1.14	-0.188	0.0330	1.215	-0.186	0.0307	1.295	-0.044	0.0284	1.39	-0.128	0.0316	1.455	-0.036	0.0308
1.055	-0.014	0.0287	1.14	-0.186	0.0322	1.215	-0.184	0.0310	1.295	-0.042	0.0282	1.39	-0.126	0.0306	1.455	-0.034	0.0304
1.055	-0.012	0.0285	1.14	-0.184	0.0325	1.215	-0.182	0.0313	1.295	-0.040	0.0280	1.39	-0.124	0.0355	1.455	-0.032	0.0306
1.055	-0.010	0.0284	1.14	-0.182	0.0323	1.215	-0.180	0.0317	1.295	-0.038	0.0278	1.39	-0.122	0.0378	1.455	-0.030	0.0313
1.055	-0.008	0.0282	1.14	-0.180	0.0320	1.215	-0.178	0.0321	1.295	-0.036	0.0276	1.39	-0.120	0.0377	1.455	-0.028	0.0313
1.055	-0.006	0.0281	1.14	-0.178	0.0329	1.215	-0.176	0.0325	1.295	-0.034	0.0274	1.39	-0.118	0.0364	1.455	-0.026	0.0307
1.055	-0.004	0.0280	1.14	-0.176	0.0323	1.215	-0.174	0.0327	1.295	-0.032	0.0272	1.39	-0.116	0.0350	1.455	-0.024	0.0302
1.055	-0.002	0.0278	1.14	-0.174	0.0311	1.215	-0.172	0.0326	1.295	-0.030	0.0271	1.39	-0.114	0.0337	1.455	-0.022	0.0297
1.055	0.000	0.0277	1.14	-0.172	0.0311	1.215	-0.170	0.0323	1.295	-0.028	0.0269	1.39	-0.112	0.0328	1.455	-0.020	0.0294
1.065	-0.206	0.0292	1.14	-0.170	0.0318	1.215	-0.168	0.0318	1.295	-0.026	0.0267	1.39	-0.110	0.0324	1.455	-0.018	0.0292
1.065	-0.204	0.0293	1.14	-0.168	0.0325	1.215	-0.166	0.0313	1.295	-0.024	0.0266	1.39	-0.108	0.0319	1.455	-0.016	0.0291
1.065	-0.202	0.0292	1.14	-0.166	0.0329	1.215	-0.164	0.0309	1.295	-0.022	0.0264	1.39	-0.106	0.0316	1.455	-0.014	0.0290
1.065	-0.200	0.0288	1.14	-0.164	0.0330	1.215	-0.162	0.0307	1.295	-0.020	0.0262	1.39	-0.104	0.0314	1.455	-0.012	0.0289
1.065	-0.198	0.0284	1.14	-0.162	0.0324	1.215	-0.160	0.0305	1.295	-0.018	0.0261	1.39	-0.102	0.0310	1.455	-0.010	0.0289
1.065	-0.196	0.0279	1.14	-0.160	0.0314	1.215	-0.158	0.0303	1.295	-0.016	0.0259	1.39	-0.100	0.0303	1.455	-0.008	0.0288
1.065	-0.194	0.0275	1.14	-0.158	0.0308	1.215	-0.156	0.0302	1.295	-0.014	0.0258	1.39	-0.098	0.0309	1.455	-0.006	0.0288
1.065	-0.192	0.0270	1.14	-0.156	0.0308	1.215	-0.154	0.0301	1.295	-0.012	0.0256	1.39	-0.096	0.0325	1.455	-0.004	0.0288
1.065	-0.190	0.0272	1.14	-0.154	0.0310	1.215	-0.152	0.0301	1.295	-0.010	0.0255	1.39	-0.094	0.0339	1.455	-0.002	0.0288

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.188	0.0282	1.14	-0.152	0.0311	1.215	-0.150	0.0302	1.295	-0.008	0.0253	1.39	-0.092	0.0336	1.455	0.000	0.0287
1.065	-0.186	0.0289	1.14	-0.150	0.0312	1.215	-0.148	0.0304	1.295	-0.006	0.0252	1.39	-0.090	0.0329	1.465	-0.110	0.0346
1.065	-0.184	0.0290	1.14	-0.148	0.0311	1.215	-0.146	0.0306	1.295	-0.004	0.0250	1.39	-0.088	0.0312	1.465	-0.108	0.0344
1.065	-0.182	0.0294	1.14	-0.146	0.0310	1.215	-0.144	0.0308	1.295	-0.002	0.0249	1.39	-0.086	0.0312	1.465	-0.106	0.0341
1.065	-0.180	0.0309	1.14	-0.144	0.0309	1.215	-0.142	0.0308	1.295	0.000	0.0247	1.39	-0.084	0.0314	1.465	-0.104	0.0338
1.065	-0.178	0.0323	1.14	-0.142	0.0308	1.215	-0.140	0.0314	1.305	-0.198	0.0312	1.39	-0.082	0.0312	1.465	-0.102	0.0335
1.065	-0.176	0.0319	1.14	-0.140	0.0309	1.215	-0.138	0.0327	1.305	-0.196	0.0312	1.39	-0.080	0.0309	1.465	-0.100	0.0331
1.065	-0.174	0.0308	1.14	-0.138	0.0313	1.215	-0.136	0.0333	1.305	-0.194	0.0312	1.39	-0.078	0.0301	1.465	-0.098	0.0326
1.065	-0.172	0.0303	1.14	-0.136	0.0317	1.215	-0.134	0.0332	1.305	-0.192	0.0312	1.39	-0.076	0.0297	1.465	-0.096	0.0320
1.065	-0.170	0.0301	1.14	-0.134	0.0316	1.215	-0.132	0.0327	1.305	-0.190	0.0312	1.39	-0.074	0.0298	1.465	-0.094	0.0315
1.065	-0.168	0.0302	1.14	-0.132	0.0314	1.215	-0.130	0.0323	1.305	-0.188	0.0312	1.39	-0.072	0.0300	1.465	-0.092	0.0309
1.065	-0.166	0.0306	1.14	-0.130	0.0312	1.215	-0.128	0.0319	1.305	-0.186	0.0313	1.39	-0.070	0.0302	1.465	-0.090	0.0305
1.065	-0.164	0.0302	1.14	-0.128	0.0309	1.215	-0.126	0.0317	1.305	-0.184	0.0315	1.39	-0.068	0.0306	1.465	-0.088	0.0301
1.065	-0.162	0.0325	1.14	-0.126	0.0307	1.215	-0.124	0.0315	1.305	-0.182	0.0319	1.39	-0.066	0.0309	1.465	-0.086	0.0300
1.065	-0.160	0.0355	1.14	-0.124	0.0305	1.215	-0.122	0.0314	1.305	-0.180	0.0323	1.39	-0.064	0.0310	1.465	-0.084	0.0300
1.065	-0.158	0.0352	1.14	-0.122	0.0303	1.215	-0.120	0.0314	1.305	-0.178	0.0326	1.39	-0.062	0.0306	1.465	-0.082	0.0300
1.065	-0.156	0.0340	1.14	-0.120	0.0303	1.215	-0.118	0.0314	1.305	-0.176	0.0327	1.39	-0.060	0.0299	1.465	-0.080	0.0302
1.065	-0.154	0.0310	1.14	-0.118	0.0302	1.215	-0.116	0.0313	1.305	-0.174	0.0322	1.39	-0.058	0.0298	1.465	-0.078	0.0303
1.065	-0.152	0.0323	1.14	-0.116	0.0302	1.215	-0.114	0.0312	1.305	-0.172	0.0319	1.39	-0.056	0.0298	1.465	-0.076	0.0306
1.065	-0.150	0.0334	1.14	-0.114	0.0301	1.215	-0.112	0.0311	1.305	-0.170	0.0306	1.39	-0.054	0.0298	1.465	-0.074	0.0307
1.065	-0.148	0.0349	1.14	-0.112	0.0300	1.215	-0.110	0.0310	1.305	-0.168	0.0317	1.39	-0.052	0.0300	1.465	-0.072	0.0306
1.065	-0.146	0.0342	1.14	-0.110	0.0298	1.215	-0.108	0.0309	1.305	-0.166	0.0318	1.39	-0.050	0.0301	1.465	-0.070	0.0303
1.065	-0.144	0.0317	1.14	-0.108	0.0296	1.215	-0.106	0.0308	1.305	-0.164	0.0319	1.39	-0.048	0.0302	1.465	-0.068	0.0304
1.065	-0.142	0.0301	1.14	-0.106	0.0293	1.215	-0.104	0.0307	1.305	-0.162	0.0313	1.39	-0.046	0.0302	1.465	-0.066	0.0309
1.065	-0.140	0.0299	1.14	-0.104	0.0290	1.215	-0.102	0.0306	1.305	-0.160	0.0308	1.39	-0.044	0.0302	1.465	-0.064	0.0314

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.138	0.0307	1.14	-0.102	0.0288	1.215	-0.100	0.0306	1.305	-0.158	0.0319	1.39	-0.042	0.0301	1.465	-0.062	0.0307
1.065	-0.136	0.0315	1.14	-0.100	0.0286	1.215	-0.098	0.0306	1.305	-0.156	0.0332	1.39	-0.040	0.0299	1.465	-0.060	0.0306
1.065	-0.134	0.0313	1.14	-0.098	0.0285	1.215	-0.096	0.0306	1.305	-0.154	0.0324	1.39	-0.038	0.0297	1.465	-0.058	0.0317
1.065	-0.132	0.0310	1.14	-0.096	0.0287	1.215	-0.094	0.0306	1.305	-0.152	0.0319	1.39	-0.036	0.0294	1.465	-0.056	0.0327
1.065	-0.130	0.0308	1.14	-0.094	0.0293	1.215	-0.092	0.0306	1.305	-0.150	0.0313	1.39	-0.034	0.0292	1.465	-0.054	0.0323
1.065	-0.128	0.0307	1.14	-0.092	0.0303	1.215	-0.090	0.0304	1.305	-0.148	0.0304	1.39	-0.032	0.0289	1.465	-0.052	0.0316
1.065	-0.126	0.0309	1.14	-0.090	0.0314	1.215	-0.088	0.0303	1.305	-0.146	0.0299	1.39	-0.030	0.0287	1.465	-0.050	0.0318
1.065	-0.124	0.0319	1.14	-0.088	0.0324	1.215	-0.086	0.0302	1.305	-0.144	0.0304	1.39	-0.028	0.0285	1.465	-0.048	0.0321
1.065	-0.122	0.0302	1.14	-0.086	0.0329	1.215	-0.084	0.0302	1.305	-0.142	0.0308	1.39	-0.026	0.0282	1.465	-0.046	0.0318
1.065	-0.120	0.0302	1.14	-0.084	0.0325	1.215	-0.082	0.0303	1.305	-0.140	0.0307	1.39	-0.024	0.0280	1.465	-0.044	0.0311
1.065	-0.118	0.0304	1.14	-0.082	0.0311	1.215	-0.080	0.0304	1.305	-0.138	0.0305	1.39	-0.022	0.0277	1.465	-0.042	0.0317
1.065	-0.116	0.0314	1.14	-0.080	0.0295	1.215	-0.078	0.0304	1.305	-0.136	0.0313	1.39	-0.020	0.0274	1.465	-0.040	0.0323
1.065	-0.114	0.0315	1.14	-0.078	0.0290	1.215	-0.076	0.0301	1.305	-0.134	0.0319	1.39	-0.018	0.0271	1.465	-0.038	0.0326
1.065	-0.112	0.0306	1.14	-0.076	0.0295	1.215	-0.074	0.0294	1.305	-0.132	0.0320	1.39	-0.016	0.0267	1.465	-0.036	0.0310
1.065	-0.110	0.0313	1.14	-0.074	0.0299	1.215	-0.072	0.0288	1.305	-0.130	0.0318	1.39	-0.014	0.0264	1.465	-0.034	0.0306
1.065	-0.108	0.0325	1.14	-0.072	0.0298	1.215	-0.070	0.0282	1.305	-0.128	0.0316	1.39	-0.012	0.0261	1.465	-0.032	0.0310
1.065	-0.106	0.0306	1.14	-0.070	0.0300	1.215	-0.068	0.0279	1.305	-0.126	0.0314	1.39	-0.010	0.0258	1.465	-0.030	0.0317
1.065	-0.104	0.0329	1.14	-0.068	0.0302	1.215	-0.066	0.0277	1.305	-0.124	0.0310	1.39	-0.008	0.0255	1.465	-0.028	0.0318
1.065	-0.102	0.0345	1.14	-0.066	0.0303	1.215	-0.064	0.0277	1.305	-0.122	0.0311	1.39	-0.006	0.0253	1.465	-0.026	0.0312
1.065	-0.100	0.0336	1.14	-0.064	0.0302	1.215	-0.062	0.0278	1.305	-0.120	0.0315	1.39	-0.004	0.0250	1.465	-0.024	0.0306
1.065	-0.098	0.0330	1.14	-0.062	0.0302	1.215	-0.060	0.0279	1.305	-0.118	0.0317	1.39	-0.002	0.0247	1.465	-0.022	0.0301
1.065	-0.096	0.0325	1.14	-0.060	0.0303	1.215	-0.058	0.0281	1.305	-0.116	0.0320	1.39	0.000	0.0244	1.465	-0.020	0.0298
1.065	-0.094	0.0317	1.14	-0.058	0.0304	1.215	-0.056	0.0283	1.305	-0.114	0.0323	1.395	-0.154	0.0357	1.465	-0.018	0.0296
1.065	-0.092	0.0325	1.14	-0.056	0.0305	1.215	-0.054	0.0285	1.305	-0.112	0.0322	1.395	-0.152	0.0357	1.465	-0.016	0.0296
1.065	-0.090	0.0331	1.14	-0.054	0.0305	1.215	-0.052	0.0287	1.305	-0.110	0.0319	1.395	-0.150	0.0357	1.465	-0.014	0.0295

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.088	0.0339	1.14	-0.052	0.0305	1.215	-0.050	0.0288	1.305	-0.108	0.0317	1.395	-0.148	0.0357	1.465	-0.012	0.0295
1.065	-0.086	0.0347	1.14	-0.050	0.0305	1.215	-0.048	0.0288	1.305	-0.106	0.0316	1.395	-0.146	0.0357	1.465	-0.010	0.0295
1.065	-0.084	0.0354	1.14	-0.048	0.0305	1.215	-0.046	0.0288	1.305	-0.104	0.0318	1.395	-0.144	0.0356	1.465	-0.008	0.0295
1.065	-0.082	0.0335	1.14	-0.046	0.0305	1.215	-0.044	0.0288	1.305	-0.102	0.0325	1.395	-0.142	0.0355	1.465	-0.006	0.0295
1.065	-0.080	0.0320	1.14	-0.044	0.0305	1.215	-0.042	0.0288	1.305	-0.100	0.0329	1.395	-0.140	0.0352	1.465	-0.004	0.0295
1.065	-0.078	0.0310	1.14	-0.042	0.0305	1.215	-0.040	0.0287	1.305	-0.098	0.0330	1.395	-0.138	0.0348	1.465	-0.002	0.0295
1.065	-0.076	0.0303	1.14	-0.040	0.0305	1.215	-0.038	0.0286	1.305	-0.096	0.0329	1.395	-0.136	0.0344	1.465	0.000	0.0295
1.065	-0.074	0.0299	1.14	-0.038	0.0305	1.215	-0.036	0.0285	1.305	-0.094	0.0323	1.395	-0.134	0.0345	1.47	-0.104	0.0338
1.065	-0.072	0.0297	1.14	-0.036	0.0304	1.215	-0.034	0.0285	1.305	-0.092	0.0317	1.395	-0.132	0.0355	1.47	-0.102	0.0334
1.065	-0.070	0.0297	1.14	-0.034	0.0304	1.215	-0.032	0.0284	1.305	-0.090	0.0314	1.395	-0.130	0.0361	1.47	-0.100	0.0330
1.065	-0.068	0.0298	1.14	-0.032	0.0303	1.215	-0.030	0.0283	1.305	-0.088	0.0313	1.395	-0.128	0.0336	1.47	-0.098	0.0325
1.065	-0.066	0.0301	1.14	-0.030	0.0302	1.215	-0.028	0.0282	1.305	-0.086	0.0313	1.395	-0.126	0.0319	1.47	-0.096	0.0321
1.065	-0.064	0.0306	1.14	-0.028	0.0301	1.215	-0.026	0.0281	1.305	-0.084	0.0313	1.395	-0.124	0.0353	1.47	-0.094	0.0316
1.065	-0.062	0.0312	1.14	-0.026	0.0299	1.215	-0.024	0.0280	1.305	-0.082	0.0313	1.395	-0.122	0.0379	1.47	-0.092	0.0311
1.065	-0.060	0.0318	1.14	-0.024	0.0298	1.215	-0.022	0.0279	1.305	-0.080	0.0313	1.395	-0.120	0.0371	1.47	-0.090	0.0306
1.065	-0.058	0.0321	1.14	-0.022	0.0296	1.215	-0.020	0.0278	1.305	-0.078	0.0311	1.395	-0.118	0.0346	1.47	-0.088	0.0303
1.065	-0.056	0.0320	1.14	-0.020	0.0294	1.215	-0.018	0.0277	1.305	-0.076	0.0310	1.395	-0.116	0.0337	1.47	-0.086	0.0301
1.065	-0.054	0.0318	1.14	-0.018	0.0293	1.215	-0.016	0.0276	1.305	-0.074	0.0308	1.395	-0.114	0.0338	1.47	-0.084	0.0301
1.065	-0.052	0.0316	1.14	-0.016	0.0291	1.215	-0.014	0.0275	1.305	-0.072	0.0306	1.395	-0.112	0.0344	1.47	-0.082	0.0301
1.065	-0.050	0.0314	1.14	-0.014	0.0289	1.215	-0.012	0.0274	1.305	-0.070	0.0305	1.395	-0.110	0.0339	1.47	-0.080	0.0302
1.065	-0.048	0.0312	1.14	-0.012	0.0287	1.215	-0.010	0.0273	1.305	-0.068	0.0304	1.395	-0.108	0.0330	1.47	-0.078	0.0303
1.065	-0.046	0.0310	1.14	-0.010	0.0286	1.215	-0.008	0.0272	1.305	-0.066	0.0302	1.395	-0.106	0.0324	1.47	-0.076	0.0305
1.065	-0.044	0.0306	1.14	-0.008	0.0284	1.215	-0.006	0.0271	1.305	-0.064	0.0301	1.395	-0.104	0.0320	1.47	-0.074	0.0306
1.065	-0.042	0.0303	1.14	-0.006	0.0282	1.215	-0.004	0.0270	1.305	-0.062	0.0300	1.395	-0.102	0.0318	1.47	-0.072	0.0306
1.065	-0.040	0.0301	1.14	-0.004	0.0280	1.215	-0.002	0.0269	1.305	-0.060	0.0299	1.395	-0.100	0.0318	1.47	-0.070	0.0305

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.038	0.0300	1.14	-0.002	0.0279	1.215	0.000	0.0268	1.305	-0.058	0.0297	1.395	-0.098	0.0322	1.47	-0.068	0.0305
1.065	-0.036	0.0299	1.14	0.000	0.0277	1.225	-0.224	0.0323	1.305	-0.056	0.0296	1.395	-0.096	0.0324	1.47	-0.066	0.0304
1.065	-0.034	0.0299	1.145	-0.234	0.0323	1.225	-0.222	0.0328	1.305	-0.054	0.0294	1.395	-0.094	0.0317	1.47	-0.064	0.0302
1.065	-0.032	0.0299	1.145	-0.232	0.0325	1.225	-0.220	0.0333	1.305	-0.052	0.0293	1.395	-0.092	0.0307	1.47	-0.062	0.0300
1.065	-0.030	0.0299	1.145	-0.230	0.0322	1.225	-0.218	0.0335	1.305	-0.050	0.0291	1.395	-0.090	0.0317	1.47	-0.060	0.0299
1.065	-0.028	0.0298	1.145	-0.228	0.0320	1.225	-0.216	0.0332	1.305	-0.048	0.0289	1.395	-0.088	0.0317	1.47	-0.058	0.0300
1.065	-0.026	0.0297	1.145	-0.226	0.0373	1.225	-0.214	0.0321	1.305	-0.046	0.0287	1.395	-0.086	0.0307	1.47	-0.056	0.0305
1.065	-0.024	0.0295	1.145	-0.224	0.0384	1.225	-0.212	0.0307	1.305	-0.044	0.0285	1.395	-0.084	0.0305	1.47	-0.054	0.0305
1.065	-0.022	0.0294	1.145	-0.222	0.0384	1.225	-0.210	0.0305	1.305	-0.042	0.0283	1.395	-0.082	0.0320	1.47	-0.052	0.0305
1.065	-0.020	0.0293	1.145	-0.220	0.0355	1.225	-0.208	0.0313	1.305	-0.040	0.0281	1.395	-0.080	0.0315	1.47	-0.050	0.0309
1.065	-0.018	0.0291	1.145	-0.218	0.0321	1.225	-0.206	0.0317	1.305	-0.038	0.0279	1.395	-0.078	0.0302	1.47	-0.048	0.0322
1.065	-0.016	0.0290	1.145	-0.216	0.0337	1.225	-0.204	0.0311	1.305	-0.036	0.0277	1.395	-0.076	0.0301	1.47	-0.046	0.0333
1.065	-0.014	0.0288	1.145	-0.214	0.0344	1.225	-0.202	0.0302	1.305	-0.034	0.0275	1.395	-0.074	0.0304	1.47	-0.044	0.0329
1.065	-0.012	0.0286	1.145	-0.212	0.0354	1.225	-0.200	0.0299	1.305	-0.032	0.0273	1.395	-0.072	0.0305	1.47	-0.042	0.0318
1.065	-0.010	0.0285	1.145	-0.210	0.0359	1.225	-0.198	0.0303	1.305	-0.030	0.0271	1.395	-0.070	0.0303	1.47	-0.040	0.0315
1.065	-0.008	0.0283	1.145	-0.208	0.0365	1.225	-0.196	0.0310	1.305	-0.028	0.0269	1.395	-0.068	0.0305	1.47	-0.038	0.0318
1.065	-0.006	0.0282	1.145	-0.206	0.0356	1.225	-0.194	0.0314	1.305	-0.026	0.0267	1.395	-0.066	0.0308	1.47	-0.036	0.0318
1.065	-0.004	0.0280	1.145	-0.204	0.0315	1.225	-0.192	0.0315	1.305	-0.024	0.0265	1.395	-0.064	0.0310	1.47	-0.034	0.0320
1.065	-0.002	0.0278	1.145	-0.202	0.0323	1.225	-0.190	0.0314	1.305	-0.022	0.0263	1.395	-0.062	0.0310	1.47	-0.032	0.0321
1.065	0.000	0.0277	1.145	-0.200	0.0330	1.225	-0.188	0.0314	1.305	-0.020	0.0262	1.395	-0.060	0.0303	1.47	-0.030	0.0310
1.075	-0.214	0.0286	1.145	-0.198	0.0326	1.225	-0.186	0.0313	1.305	-0.018	0.0260	1.395	-0.058	0.0299	1.47	-0.028	0.0307
1.075	-0.212	0.0292	1.145	-0.196	0.0317	1.225	-0.184	0.0312	1.305	-0.016	0.0258	1.395	-0.056	0.0298	1.47	-0.026	0.0306
1.075	-0.210	0.0300	1.145	-0.194	0.0321	1.225	-0.182	0.0312	1.305	-0.014	0.0256	1.395	-0.054	0.0299	1.47	-0.024	0.0304
1.075	-0.208	0.0309	1.145	-0.192	0.0315	1.225	-0.180	0.0312	1.305	-0.012	0.0255	1.395	-0.052	0.0300	1.47	-0.022	0.0302
1.075	-0.206	0.0315	1.145	-0.190	0.0310	1.225	-0.178	0.0313	1.305	-0.010	0.0253	1.395	-0.050	0.0301	1.47	-0.020	0.0300

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.204	0.0317	1.145	-0.188	0.0313	1.225	-0.176	0.0314	1.305	-0.008	0.0252	1.395	-0.048	0.0303	1.47	-0.018	0.0299
1.075	-0.202	0.0315	1.145	-0.186	0.0306	1.225	-0.174	0.0315	1.305	-0.006	0.0250	1.395	-0.046	0.0305	1.47	-0.016	0.0298
1.075	-0.200	0.0308	1.145	-0.184	0.0304	1.225	-0.172	0.0315	1.305	-0.004	0.0248	1.395	-0.044	0.0306	1.47	-0.014	0.0298
1.075	-0.198	0.0306	1.145	-0.182	0.0314	1.225	-0.170	0.0315	1.305	-0.002	0.0247	1.395	-0.042	0.0306	1.47	-0.012	0.0298
1.075	-0.196	0.0323	1.145	-0.180	0.0309	1.225	-0.168	0.0314	1.305	0.000	0.0245	1.395	-0.040	0.0304	1.47	-0.010	0.0298
1.075	-0.194	0.0350	1.145	-0.178	0.0306	1.225	-0.166	0.0312	1.315	-0.194	0.0318	1.395	-0.038	0.0301	1.47	-0.008	0.0298
1.075	-0.192	0.0365	1.145	-0.176	0.0311	1.225	-0.164	0.0309	1.315	-0.192	0.0318	1.395	-0.036	0.0298	1.47	-0.006	0.0298
1.075	-0.190	0.0363	1.145	-0.174	0.0313	1.225	-0.162	0.0307	1.315	-0.190	0.0320	1.395	-0.034	0.0295	1.47	-0.004	0.0298
1.075	-0.188	0.0342	1.145	-0.172	0.0314	1.225	-0.160	0.0304	1.315	-0.188	0.0322	1.395	-0.032	0.0292	1.47	-0.002	0.0298
1.075	-0.186	0.0334	1.145	-0.170	0.0317	1.225	-0.158	0.0302	1.315	-0.186	0.0325	1.395	-0.030	0.0290	1.47	0.000	0.0298
1.075	-0.184	0.0343	1.145	-0.168	0.0322	1.225	-0.156	0.0300	1.315	-0.184	0.0328	1.395	-0.028	0.0288	1.475	-0.104	0.0337
1.075	-0.182	0.0326	1.145	-0.166	0.0326	1.225	-0.154	0.0299	1.315	-0.182	0.0331	1.395	-0.026	0.0285	1.475	-0.102	0.0334
1.075	-0.180	0.0325	1.145	-0.164	0.0326	1.225	-0.152	0.0299	1.315	-0.180	0.0334	1.395	-0.024	0.0282	1.475	-0.100	0.0330
1.075	-0.178	0.0352	1.145	-0.162	0.0323	1.225	-0.150	0.0299	1.315	-0.178	0.0337	1.395	-0.022	0.0278	1.475	-0.098	0.0326
1.075	-0.176	0.0349	1.145	-0.160	0.0316	1.225	-0.148	0.0300	1.315	-0.176	0.0342	1.395	-0.020	0.0275	1.475	-0.096	0.0321
1.075	-0.174	0.0323	1.145	-0.158	0.0311	1.225	-0.146	0.0301	1.315	-0.174	0.0347	1.395	-0.018	0.0272	1.475	-0.094	0.0317
1.075	-0.172	0.0328	1.145	-0.156	0.0308	1.225	-0.144	0.0303	1.315	-0.172	0.0340	1.395	-0.016	0.0268	1.475	-0.092	0.0312
1.075	-0.170	0.0334	1.145	-0.154	0.0308	1.225	-0.142	0.0306	1.315	-0.170	0.0321	1.395	-0.014	0.0265	1.475	-0.090	0.0309
1.075	-0.168	0.0327	1.145	-0.152	0.0308	1.225	-0.140	0.0309	1.315	-0.168	0.0304	1.395	-0.012	0.0262	1.475	-0.088	0.0306
1.075	-0.166	0.0315	1.145	-0.150	0.0309	1.225	-0.138	0.0313	1.315	-0.166	0.0333	1.395	-0.010	0.0259	1.475	-0.086	0.0304
1.075	-0.164	0.0307	1.145	-0.148	0.0310	1.225	-0.136	0.0317	1.315	-0.164	0.0346	1.395	-0.008	0.0257	1.475	-0.084	0.0303
1.075	-0.162	0.0305	1.145	-0.146	0.0309	1.225	-0.134	0.0319	1.315	-0.162	0.0343	1.395	-0.006	0.0254	1.475	-0.082	0.0303
1.075	-0.160	0.0302	1.145	-0.144	0.0309	1.225	-0.132	0.0319	1.315	-0.160	0.0332	1.395	-0.004	0.0251	1.475	-0.080	0.0303
1.075	-0.158	0.0297	1.145	-0.142	0.0309	1.225	-0.130	0.0316	1.315	-0.158	0.0325	1.395	-0.002	0.0249	1.475	-0.078	0.0305
1.075	-0.156	0.0308	1.145	-0.140	0.0310	1.225	-0.128	0.0313	1.315	-0.156	0.0325	1.395	0.000	0.0246	1.475	-0.076	0.0306

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.154	0.0325	1.145	-0.138	0.0313	1.225	-0.126	0.0311	1.315	-0.154	0.0326	1.4	-0.148	0.0360	1.475	-0.074	0.0307
1.075	-0.152	0.0327	1.145	-0.136	0.0315	1.225	-0.124	0.0308	1.315	-0.152	0.0327	1.4	-0.146	0.0360	1.475	-0.072	0.0309
1.075	-0.150	0.0310	1.145	-0.134	0.0315	1.225	-0.122	0.0307	1.315	-0.150	0.0320	1.4	-0.144	0.0359	1.475	-0.070	0.0309
1.075	-0.148	0.0320	1.145	-0.132	0.0314	1.225	-0.120	0.0306	1.315	-0.148	0.0307	1.4	-0.142	0.0357	1.475	-0.068	0.0307
1.075	-0.146	0.0331	1.145	-0.130	0.0312	1.225	-0.118	0.0307	1.315	-0.146	0.0322	1.4	-0.140	0.0355	1.475	-0.066	0.0305
1.075	-0.144	0.0314	1.145	-0.128	0.0309	1.225	-0.116	0.0307	1.315	-0.144	0.0312	1.4	-0.138	0.0353	1.475	-0.064	0.0302
1.075	-0.142	0.0306	1.145	-0.126	0.0307	1.225	-0.114	0.0309	1.315	-0.142	0.0310	1.4	-0.136	0.0353	1.475	-0.062	0.0303
1.075	-0.140	0.0301	1.145	-0.124	0.0305	1.225	-0.112	0.0310	1.315	-0.140	0.0309	1.4	-0.134	0.0356	1.475	-0.060	0.0304
1.075	-0.138	0.0307	1.145	-0.122	0.0303	1.225	-0.110	0.0310	1.315	-0.138	0.0312	1.4	-0.132	0.0360	1.475	-0.058	0.0301
1.075	-0.136	0.0323	1.145	-0.120	0.0302	1.225	-0.108	0.0310	1.315	-0.136	0.0321	1.4	-0.130	0.0358	1.475	-0.056	0.0298
1.075	-0.134	0.0325	1.145	-0.118	0.0301	1.225	-0.106	0.0310	1.315	-0.134	0.0332	1.4	-0.128	0.0347	1.475	-0.054	0.0300
1.075	-0.132	0.0314	1.145	-0.116	0.0300	1.225	-0.104	0.0309	1.315	-0.132	0.0329	1.4	-0.126	0.0340	1.475	-0.052	0.0308
1.075	-0.130	0.0315	1.145	-0.114	0.0300	1.225	-0.102	0.0308	1.315	-0.130	0.0313	1.4	-0.124	0.0352	1.475	-0.050	0.0311
1.075	-0.128	0.0314	1.145	-0.112	0.0298	1.225	-0.100	0.0307	1.315	-0.128	0.0318	1.4	-0.122	0.0364	1.475	-0.048	0.0333
1.075	-0.126	0.0316	1.145	-0.110	0.0297	1.225	-0.098	0.0306	1.315	-0.126	0.0326	1.4	-0.120	0.0362	1.475	-0.046	0.0358
1.075	-0.124	0.0314	1.145	-0.108	0.0294	1.225	-0.096	0.0306	1.315	-0.124	0.0318	1.4	-0.118	0.0349	1.475	-0.044	0.0351
1.075	-0.122	0.0308	1.145	-0.106	0.0292	1.225	-0.094	0.0305	1.315	-0.122	0.0312	1.4	-0.116	0.0333	1.475	-0.042	0.0323
1.075	-0.120	0.0301	1.145	-0.104	0.0289	1.225	-0.092	0.0306	1.315	-0.120	0.0310	1.4	-0.114	0.0331	1.475	-0.040	0.0305
1.075	-0.118	0.0295	1.145	-0.102	0.0285	1.225	-0.090	0.0307	1.315	-0.118	0.0319	1.4	-0.112	0.0326	1.475	-0.038	0.0307
1.075	-0.116	0.0293	1.145	-0.100	0.0283	1.225	-0.088	0.0308	1.315	-0.116	0.0325	1.4	-0.110	0.0327	1.475	-0.036	0.0317
1.075	-0.114	0.0295	1.145	-0.098	0.0281	1.225	-0.086	0.0311	1.315	-0.114	0.0322	1.4	-0.108	0.0325	1.475	-0.034	0.0333
1.075	-0.112	0.0300	1.145	-0.096	0.0283	1.225	-0.084	0.0313	1.315	-0.112	0.0315	1.4	-0.106	0.0328	1.475	-0.032	0.0333
1.075	-0.110	0.0307	1.145	-0.094	0.0289	1.225	-0.082	0.0316	1.315	-0.110	0.0310	1.4	-0.104	0.0330	1.475	-0.030	0.0311
1.075	-0.108	0.0315	1.145	-0.092	0.0303	1.225	-0.080	0.0318	1.315	-0.108	0.0307	1.4	-0.102	0.0330	1.475	-0.028	0.0302
1.075	-0.106	0.0326	1.145	-0.090	0.0323	1.225	-0.078	0.0319	1.315	-0.106	0.0305	1.4	-0.100	0.0334	1.475	-0.026	0.0302

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.104	0.0340	1.145	-0.088	0.0342	1.225	-0.076	0.0317	1.315	-0.104	0.0304	1.4	-0.098	0.0342	1.475	-0.024	0.0302
1.075	-0.102	0.0347	1.145	-0.086	0.0352	1.225	-0.074	0.0313	1.315	-0.102	0.0305	1.4	-0.096	0.0345	1.475	-0.022	0.0301
1.075	-0.100	0.0358	1.145	-0.084	0.0350	1.225	-0.072	0.0307	1.315	-0.100	0.0311	1.4	-0.094	0.0331	1.475	-0.020	0.0301
1.075	-0.098	0.0365	1.145	-0.082	0.0333	1.225	-0.070	0.0301	1.315	-0.098	0.0318	1.4	-0.092	0.0321	1.475	-0.018	0.0301
1.075	-0.096	0.0361	1.145	-0.080	0.0306	1.225	-0.068	0.0295	1.315	-0.096	0.0316	1.4	-0.090	0.0323	1.475	-0.016	0.0301
1.075	-0.094	0.0340	1.145	-0.078	0.0299	1.225	-0.066	0.0291	1.315	-0.094	0.0304	1.4	-0.088	0.0338	1.475	-0.014	0.0301
1.075	-0.092	0.0330	1.145	-0.076	0.0303	1.225	-0.064	0.0287	1.315	-0.092	0.0302	1.4	-0.086	0.0329	1.475	-0.012	0.0301
1.075	-0.090	0.0322	1.145	-0.074	0.0308	1.225	-0.062	0.0285	1.315	-0.090	0.0303	1.4	-0.084	0.0335	1.475	-0.010	0.0301
1.075	-0.088	0.0319	1.145	-0.072	0.0307	1.225	-0.060	0.0284	1.315	-0.088	0.0307	1.4	-0.082	0.0346	1.475	-0.008	0.0301
1.075	-0.086	0.0320	1.145	-0.070	0.0304	1.225	-0.058	0.0283	1.315	-0.086	0.0313	1.4	-0.080	0.0326	1.475	-0.006	0.0301
1.075	-0.084	0.0319	1.145	-0.068	0.0303	1.225	-0.056	0.0283	1.315	-0.084	0.0317	1.4	-0.078	0.0302	1.475	-0.004	0.0301
1.075	-0.082	0.0319	1.145	-0.066	0.0302	1.225	-0.054	0.0284	1.315	-0.082	0.0314	1.4	-0.076	0.0309	1.475	-0.002	0.0301
1.075	-0.080	0.0315	1.145	-0.064	0.0300	1.225	-0.052	0.0284	1.315	-0.080	0.0310	1.4	-0.074	0.0313	1.475	0.000	0.0301
1.075	-0.078	0.0309	1.145	-0.062	0.0300	1.225	-0.050	0.0285	1.315	-0.078	0.0307	1.4	-0.072	0.0312	1.485	-0.096	0.0323
1.075	-0.076	0.0304	1.145	-0.060	0.0302	1.225	-0.048	0.0285	1.315	-0.076	0.0305	1.4	-0.070	0.0307	1.485	-0.094	0.0320
1.075	-0.074	0.0300	1.145	-0.058	0.0303	1.225	-0.046	0.0285	1.315	-0.074	0.0304	1.4	-0.068	0.0306	1.485	-0.092	0.0317
1.075	-0.072	0.0297	1.145	-0.056	0.0304	1.225	-0.044	0.0285	1.315	-0.072	0.0302	1.4	-0.066	0.0308	1.485	-0.090	0.0314
1.075	-0.070	0.0296	1.145	-0.054	0.0304	1.225	-0.042	0.0285	1.315	-0.070	0.0302	1.4	-0.064	0.0310	1.485	-0.088	0.0312
1.075	-0.068	0.0296	1.145	-0.052	0.0304	1.225	-0.040	0.0284	1.315	-0.068	0.0301	1.4	-0.062	0.0310	1.485	-0.086	0.0310
1.075	-0.066	0.0297	1.145	-0.050	0.0304	1.225	-0.038	0.0284	1.315	-0.066	0.0300	1.4	-0.060	0.0307	1.485	-0.084	0.0309
1.075	-0.064	0.0300	1.145	-0.048	0.0304	1.225	-0.036	0.0283	1.315	-0.064	0.0300	1.4	-0.058	0.0303	1.485	-0.082	0.0309
1.075	-0.062	0.0306	1.145	-0.046	0.0304	1.225	-0.034	0.0282	1.315	-0.062	0.0299	1.4	-0.056	0.0300	1.485	-0.080	0.0310
1.075	-0.060	0.0315	1.145	-0.044	0.0304	1.225	-0.032	0.0281	1.315	-0.060	0.0298	1.4	-0.054	0.0300	1.485	-0.078	0.0311
1.075	-0.058	0.0326	1.145	-0.042	0.0304	1.225	-0.030	0.0280	1.315	-0.058	0.0297	1.4	-0.052	0.0300	1.485	-0.076	0.0313
1.075	-0.056	0.0334	1.145	-0.040	0.0303	1.225	-0.028	0.0279	1.315	-0.056	0.0296	1.4	-0.050	0.0301	1.485	-0.074	0.0316

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.054	0.0325	1.145	-0.038	0.0303	1.225	-0.026	0.0278	1.315	-0.054	0.0295	1.4	-0.048	0.0303	1.485	-0.072	0.0320
1.075	-0.052	0.0325	1.145	-0.036	0.0303	1.225	-0.024	0.0277	1.315	-0.052	0.0294	1.4	-0.046	0.0307	1.485	-0.070	0.0324
1.075	-0.050	0.0324	1.145	-0.034	0.0302	1.225	-0.022	0.0276	1.315	-0.050	0.0292	1.4	-0.044	0.0310	1.485	-0.068	0.0328
1.075	-0.048	0.0324	1.145	-0.032	0.0301	1.225	-0.020	0.0276	1.315	-0.048	0.0291	1.4	-0.042	0.0311	1.485	-0.066	0.0331
1.075	-0.046	0.0323	1.145	-0.030	0.0300	1.225	-0.018	0.0275	1.315	-0.046	0.0289	1.4	-0.040	0.0310	1.485	-0.064	0.0328
1.075	-0.044	0.0320	1.145	-0.028	0.0299	1.225	-0.016	0.0274	1.315	-0.044	0.0287	1.4	-0.038	0.0306	1.485	-0.062	0.0323
1.075	-0.042	0.0315	1.145	-0.026	0.0298	1.225	-0.014	0.0273	1.315	-0.042	0.0285	1.4	-0.036	0.0301	1.485	-0.060	0.0319
1.075	-0.040	0.0310	1.145	-0.024	0.0297	1.225	-0.012	0.0272	1.315	-0.040	0.0282	1.4	-0.034	0.0298	1.485	-0.058	0.0317
1.075	-0.038	0.0307	1.145	-0.022	0.0295	1.225	-0.010	0.0271	1.315	-0.038	0.0280	1.4	-0.032	0.0296	1.485	-0.056	0.0315
1.075	-0.036	0.0306	1.145	-0.020	0.0294	1.225	-0.008	0.0270	1.315	-0.036	0.0278	1.4	-0.030	0.0294	1.485	-0.054	0.0318
1.075	-0.034	0.0305	1.145	-0.018	0.0292	1.225	-0.006	0.0269	1.315	-0.034	0.0276	1.4	-0.028	0.0291	1.485	-0.052	0.0334
1.075	-0.032	0.0304	1.145	-0.016	0.0290	1.225	-0.004	0.0268	1.315	-0.032	0.0273	1.4	-0.026	0.0287	1.485	-0.050	0.0344
1.075	-0.030	0.0303	1.145	-0.014	0.0289	1.225	-0.002	0.0267	1.315	-0.030	0.0271	1.4	-0.024	0.0284	1.485	-0.048	0.0343
1.075	-0.028	0.0301	1.145	-0.012	0.0287	1.225	0.000	0.0266	1.315	-0.028	0.0269	1.4	-0.022	0.0280	1.485	-0.046	0.0335
1.075	-0.026	0.0300	1.145	-0.010	0.0285	1.235	-0.222	0.0323	1.315	-0.026	0.0267	1.4	-0.020	0.0276	1.485	-0.044	0.0322
1.075	-0.024	0.0298	1.145	-0.008	0.0284	1.235	-0.220	0.0324	1.315	-0.024	0.0265	1.4	-0.018	0.0273	1.485	-0.042	0.0331
1.075	-0.022	0.0296	1.145	-0.006	0.0282	1.235	-0.218	0.0322	1.315	-0.022	0.0263	1.4	-0.016	0.0269	1.485	-0.040	0.0333
1.075	-0.020	0.0294	1.145	-0.004	0.0280	1.235	-0.216	0.0317	1.315	-0.020	0.0261	1.4	-0.014	0.0266	1.485	-0.038	0.0325
1.075	-0.018	0.0293	1.145	-0.002	0.0278	1.235	-0.214	0.0312	1.315	-0.018	0.0259	1.4	-0.012	0.0263	1.485	-0.036	0.0312
1.075	-0.016	0.0291	1.145	0.000	0.0277	1.235	-0.212	0.0308	1.315	-0.016	0.0257	1.4	-0.010	0.0261	1.485	-0.034	0.0304
1.075	-0.014	0.0289	1.155	-0.234	0.0323	1.235	-0.210	0.0305	1.315	-0.014	0.0256	1.4	-0.008	0.0258	1.485	-0.032	0.0301
1.075	-0.012	0.0287	1.155	-0.232	0.0320	1.235	-0.208	0.0304	1.315	-0.012	0.0254	1.4	-0.006	0.0256	1.485	-0.030	0.0304
1.075	-0.010	0.0285	1.155	-0.230	0.0316	1.235	-0.206	0.0304	1.315	-0.010	0.0252	1.4	-0.004	0.0253	1.485	-0.028	0.0307
1.075	-0.008	0.0284	1.155	-0.228	0.0313	1.235	-0.204	0.0303	1.315	-0.008	0.0250	1.4	-0.002	0.0251	1.485	-0.026	0.0306
1.075	-0.006	0.0282	1.155	-0.226	0.0309	1.235	-0.202	0.0301	1.315	-0.006	0.0249	1.4	0.000	0.0248	1.485	-0.024	0.0304

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.004	0.0280	1.155	-0.224	0.0334	1.235	-0.200	0.0300	1.315	-0.004	0.0247	1.405	-0.148	0.0363	1.485	-0.022	0.0303
1.075	-0.002	0.0279	1.155	-0.222	0.0344	1.235	-0.198	0.0301	1.315	-0.002	0.0245	1.405	-0.146	0.0363	1.485	-0.020	0.0304
1.075	0.000	0.0277	1.155	-0.220	0.0338	1.235	-0.196	0.0305	1.315	0.000	0.0243	1.405	-0.144	0.0362	1.485	-0.018	0.0305
1.085	-0.220	0.0290	1.155	-0.218	0.0330	1.235	-0.194	0.0311	1.325	-0.190	0.0329	1.405	-0.142	0.0360	1.485	-0.016	0.0305
1.085	-0.218	0.0291	1.155	-0.216	0.0325	1.235	-0.192	0.0318	1.325	-0.188	0.0332	1.405	-0.140	0.0359	1.485	-0.014	0.0304
1.085	-0.216	0.0293	1.155	-0.214	0.0320	1.235	-0.190	0.0322	1.325	-0.186	0.0335	1.405	-0.138	0.0359	1.485	-0.012	0.0304
1.085	-0.214	0.0294	1.155	-0.212	0.0316	1.235	-0.188	0.0320	1.325	-0.184	0.0338	1.405	-0.136	0.0360	1.485	-0.010	0.0305
1.085	-0.212	0.0296	1.155	-0.210	0.0323	1.235	-0.186	0.0318	1.325	-0.182	0.0341	1.405	-0.134	0.0362	1.485	-0.008	0.0305
1.085	-0.210	0.0300	1.155	-0.208	0.0321	1.235	-0.184	0.0315	1.325	-0.180	0.0345	1.405	-0.132	0.0362	1.485	-0.006	0.0305
1.085	-0.208	0.0313	1.155	-0.206	0.0312	1.235	-0.182	0.0312	1.325	-0.178	0.0350	1.405	-0.130	0.0358	1.485	-0.004	0.0305
1.085	-0.206	0.0328	1.155	-0.204	0.0299	1.235	-0.180	0.0309	1.325	-0.176	0.0353	1.405	-0.128	0.0354	1.485	-0.002	0.0306
1.085	-0.204	0.0325	1.155	-0.202	0.0304	1.235	-0.178	0.0307	1.325	-0.174	0.0354	1.405	-0.126	0.0351	1.485	0.000	0.0306
1.085	-0.202	0.0310	1.155	-0.200	0.0312	1.235	-0.176	0.0308	1.325	-0.172	0.0349	1.405	-0.124	0.0350	1.495	-0.090	0.0320
1.085	-0.200	0.0309	1.155	-0.198	0.0315	1.235	-0.174	0.0309	1.325	-0.170	0.0337	1.405	-0.122	0.0348	1.495	-0.088	0.0319
1.085	-0.198	0.0317	1.155	-0.196	0.0336	1.235	-0.172	0.0311	1.325	-0.168	0.0330	1.405	-0.120	0.0339	1.495	-0.086	0.0318
1.085	-0.196	0.0312	1.155	-0.194	0.0333	1.235	-0.170	0.0312	1.325	-0.166	0.0322	1.405	-0.118	0.0321	1.495	-0.084	0.0318
1.085	-0.194	0.0321	1.155	-0.192	0.0324	1.235	-0.168	0.0312	1.325	-0.164	0.0330	1.405	-0.116	0.0334	1.495	-0.082	0.0318
1.085	-0.192	0.0326	1.155	-0.190	0.0325	1.235	-0.166	0.0311	1.325	-0.162	0.0313	1.405	-0.114	0.0337	1.495	-0.080	0.0319
1.085	-0.190	0.0329	1.155	-0.188	0.0319	1.235	-0.164	0.0310	1.325	-0.160	0.0327	1.405	-0.112	0.0320	1.495	-0.078	0.0321
1.085	-0.188	0.0343	1.155	-0.186	0.0317	1.235	-0.162	0.0307	1.325	-0.158	0.0359	1.405	-0.110	0.0319	1.495	-0.076	0.0323
1.085	-0.186	0.0342	1.155	-0.184	0.0324	1.235	-0.160	0.0304	1.325	-0.156	0.0364	1.405	-0.108	0.0317	1.495	-0.074	0.0327
1.085	-0.184	0.0329	1.155	-0.182	0.0329	1.235	-0.158	0.0301	1.325	-0.154	0.0351	1.405	-0.106	0.0330	1.495	-0.072	0.0331
1.085	-0.182	0.0325	1.155	-0.180	0.0323	1.235	-0.156	0.0299	1.325	-0.152	0.0320	1.405	-0.104	0.0335	1.495	-0.070	0.0335
1.085	-0.180	0.0325	1.155	-0.178	0.0310	1.235	-0.154	0.0296	1.325	-0.150	0.0345	1.405	-0.102	0.0339	1.495	-0.068	0.0338
1.085	-0.178	0.0325	1.155	-0.176	0.0305	1.235	-0.152	0.0295	1.325	-0.148	0.0353	1.405	-0.100	0.0338	1.495	-0.066	0.0340

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.176	0.0321	1.155	-0.174	0.0311	1.235	-0.150	0.0293	1.325	-0.146	0.0324	1.405	-0.098	0.0349	1.495	-0.064	0.0340
1.085	-0.174	0.0311	1.155	-0.172	0.0315	1.235	-0.148	0.0293	1.325	-0.144	0.0320	1.405	-0.096	0.0366	1.495	-0.062	0.0339
1.085	-0.172	0.0304	1.155	-0.170	0.0311	1.235	-0.146	0.0293	1.325	-0.142	0.0317	1.405	-0.094	0.0356	1.495	-0.060	0.0337
1.085	-0.170	0.0315	1.155	-0.168	0.0313	1.235	-0.144	0.0294	1.325	-0.140	0.0317	1.405	-0.092	0.0339	1.495	-0.058	0.0337
1.085	-0.168	0.0321	1.155	-0.166	0.0316	1.235	-0.142	0.0296	1.325	-0.138	0.0312	1.405	-0.090	0.0328	1.495	-0.056	0.0338
1.085	-0.166	0.0313	1.155	-0.164	0.0316	1.235	-0.140	0.0298	1.325	-0.136	0.0304	1.405	-0.088	0.0335	1.495	-0.054	0.0339
1.085	-0.164	0.0309	1.155	-0.162	0.0316	1.235	-0.138	0.0300	1.325	-0.134	0.0305	1.405	-0.086	0.0349	1.495	-0.052	0.0340
1.085	-0.162	0.0311	1.155	-0.160	0.0314	1.235	-0.136	0.0303	1.325	-0.132	0.0314	1.405	-0.084	0.0372	1.495	-0.050	0.0339
1.085	-0.160	0.0314	1.155	-0.158	0.0312	1.235	-0.134	0.0305	1.325	-0.130	0.0314	1.405	-0.082	0.0366	1.495	-0.048	0.0338
1.085	-0.158	0.0320	1.155	-0.156	0.0310	1.235	-0.132	0.0306	1.325	-0.128	0.0311	1.405	-0.080	0.0353	1.495	-0.046	0.0340
1.085	-0.156	0.0328	1.155	-0.154	0.0308	1.235	-0.130	0.0307	1.325	-0.126	0.0306	1.405	-0.078	0.0334	1.495	-0.044	0.0322
1.085	-0.154	0.0332	1.155	-0.152	0.0307	1.235	-0.128	0.0306	1.325	-0.124	0.0347	1.405	-0.076	0.0327	1.495	-0.042	0.0313
1.085	-0.152	0.0328	1.155	-0.150	0.0307	1.235	-0.126	0.0304	1.325	-0.122	0.0356	1.405	-0.074	0.0317	1.495	-0.040	0.0312
1.085	-0.150	0.0331	1.155	-0.148	0.0307	1.235	-0.124	0.0302	1.325	-0.120	0.0354	1.405	-0.072	0.0314	1.495	-0.038	0.0311
1.085	-0.148	0.0332	1.155	-0.146	0.0307	1.235	-0.122	0.0301	1.325	-0.118	0.0343	1.405	-0.070	0.0311	1.495	-0.036	0.0305
1.085	-0.146	0.0329	1.155	-0.144	0.0308	1.235	-0.120	0.0300	1.325	-0.116	0.0322	1.405	-0.068	0.0308	1.495	-0.034	0.0299
1.085	-0.144	0.0316	1.155	-0.142	0.0308	1.235	-0.118	0.0301	1.325	-0.114	0.0310	1.405	-0.066	0.0309	1.495	-0.032	0.0296
1.085	-0.142	0.0302	1.155	-0.140	0.0309	1.235	-0.116	0.0302	1.325	-0.112	0.0309	1.405	-0.064	0.0312	1.495	-0.030	0.0298
1.085	-0.140	0.0301	1.155	-0.138	0.0310	1.235	-0.114	0.0305	1.325	-0.110	0.0307	1.405	-0.062	0.0313	1.495	-0.028	0.0301
1.085	-0.138	0.0300	1.155	-0.136	0.0311	1.235	-0.112	0.0308	1.325	-0.108	0.0306	1.405	-0.060	0.0310	1.495	-0.026	0.0303
1.085	-0.136	0.0301	1.155	-0.134	0.0311	1.235	-0.110	0.0310	1.325	-0.106	0.0304	1.405	-0.058	0.0307	1.495	-0.024	0.0303
1.085	-0.134	0.0316	1.155	-0.132	0.0310	1.235	-0.108	0.0312	1.325	-0.104	0.0305	1.405	-0.056	0.0305	1.495	-0.022	0.0304
1.085	-0.132	0.0329	1.155	-0.130	0.0309	1.235	-0.106	0.0312	1.325	-0.102	0.0311	1.405	-0.054	0.0302	1.495	-0.020	0.0305
1.085	-0.130	0.0316	1.155	-0.128	0.0308	1.235	-0.104	0.0311	1.325	-0.100	0.0319	1.405	-0.052	0.0301	1.495	-0.018	0.0306
1.085	-0.128	0.0313	1.155	-0.126	0.0307	1.235	-0.102	0.0310	1.325	-0.098	0.0312	1.405	-0.050	0.0300	1.495	-0.016	0.0306

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.126	0.0309	1.155	-0.124	0.0305	1.235	-0.100	0.0309	1.325	-0.096	0.0304	1.405	-0.048	0.0303	1.495	-0.014	0.0304
1.085	-0.124	0.0305	1.155	-0.122	0.0304	1.235	-0.098	0.0309	1.325	-0.094	0.0305	1.405	-0.046	0.0308	1.495	-0.012	0.0303
1.085	-0.122	0.0301	1.155	-0.120	0.0302	1.235	-0.096	0.0309	1.325	-0.092	0.0305	1.405	-0.044	0.0314	1.495	-0.010	0.0303
1.085	-0.120	0.0301	1.155	-0.118	0.0301	1.235	-0.094	0.0309	1.325	-0.090	0.0307	1.405	-0.042	0.0317	1.495	-0.008	0.0303
1.085	-0.118	0.0303	1.155	-0.116	0.0300	1.235	-0.092	0.0311	1.325	-0.088	0.0312	1.405	-0.040	0.0316	1.495	-0.006	0.0307
1.085	-0.116	0.0303	1.155	-0.114	0.0298	1.235	-0.090	0.0313	1.325	-0.086	0.0316	1.405	-0.038	0.0312	1.495	-0.004	0.0309
1.085	-0.114	0.0302	1.155	-0.112	0.0297	1.235	-0.088	0.0315	1.325	-0.084	0.0319	1.405	-0.036	0.0306	1.495	-0.002	0.0309
1.085	-0.112	0.0303	1.155	-0.110	0.0295	1.235	-0.086	0.0318	1.325	-0.082	0.0313	1.405	-0.034	0.0303	1.495	0.000	0.0309
1.085	-0.110	0.0306	1.155	-0.108	0.0293	1.235	-0.084	0.0321	1.325	-0.080	0.0306	1.405	-0.032	0.0301	1.505	-0.082	0.0327
1.085	-0.108	0.0310	1.155	-0.106	0.0291	1.235	-0.082	0.0323	1.325	-0.078	0.0303	1.405	-0.030	0.0298	1.505	-0.080	0.0328
1.085	-0.106	0.0314	1.155	-0.104	0.0288	1.235	-0.080	0.0325	1.325	-0.076	0.0301	1.405	-0.028	0.0294	1.505	-0.078	0.0330
1.085	-0.104	0.0315	1.155	-0.102	0.0286	1.235	-0.078	0.0325	1.325	-0.074	0.0300	1.405	-0.026	0.0290	1.505	-0.076	0.0333
1.085	-0.102	0.0316	1.155	-0.100	0.0285	1.235	-0.076	0.0323	1.325	-0.072	0.0299	1.405	-0.024	0.0285	1.505	-0.074	0.0335
1.085	-0.100	0.0309	1.155	-0.098	0.0285	1.235	-0.074	0.0321	1.325	-0.070	0.0299	1.405	-0.022	0.0281	1.505	-0.072	0.0338
1.085	-0.098	0.0309	1.155	-0.096	0.0286	1.235	-0.072	0.0317	1.325	-0.068	0.0299	1.405	-0.020	0.0277	1.505	-0.070	0.0341
1.085	-0.096	0.0320	1.155	-0.094	0.0289	1.235	-0.070	0.0312	1.325	-0.066	0.0299	1.405	-0.018	0.0274	1.505	-0.068	0.0343
1.085	-0.094	0.0322	1.155	-0.092	0.0298	1.235	-0.068	0.0307	1.325	-0.064	0.0299	1.405	-0.016	0.0270	1.505	-0.066	0.0345
1.085	-0.092	0.0318	1.155	-0.090	0.0326	1.235	-0.066	0.0301	1.325	-0.062	0.0299	1.405	-0.014	0.0267	1.505	-0.064	0.0346
1.085	-0.090	0.0311	1.155	-0.088	0.0361	1.235	-0.064	0.0297	1.325	-0.060	0.0299	1.405	-0.012	0.0265	1.505	-0.062	0.0346
1.085	-0.088	0.0305	1.155	-0.086	0.0388	1.235	-0.062	0.0293	1.325	-0.058	0.0298	1.405	-0.010	0.0262	1.505	-0.060	0.0346
1.085	-0.086	0.0304	1.155	-0.084	0.0400	1.235	-0.060	0.0290	1.325	-0.056	0.0298	1.405	-0.008	0.0260	1.505	-0.058	0.0346
1.085	-0.084	0.0304	1.155	-0.082	0.0413	1.235	-0.058	0.0287	1.325	-0.054	0.0297	1.405	-0.006	0.0258	1.505	-0.056	0.0344
1.085	-0.082	0.0305	1.155	-0.080	0.0427	1.235	-0.056	0.0286	1.325	-0.052	0.0296	1.405	-0.004	0.0255	1.505	-0.054	0.0342
1.085	-0.080	0.0305	1.155	-0.078	0.0441	1.235	-0.054	0.0285	1.325	-0.050	0.0294	1.405	-0.002	0.0253	1.505	-0.052	0.0338
1.085	-0.078	0.0305	1.155	-0.076	0.0433	1.235	-0.052	0.0284	1.325	-0.048	0.0292	1.405	0.000	0.0251	1.505	-0.050	0.0332

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.076	0.0304	1.155	-0.074	0.0401	1.235	-0.050	0.0283	1.325	-0.046	0.0290	1.41	-0.142	0.0364	1.505	-0.048	0.0321
1.085	-0.074	0.0303	1.155	-0.072	0.0362	1.235	-0.048	0.0283	1.325	-0.044	0.0288	1.41	-0.140	0.0364	1.505	-0.046	0.0304
1.085	-0.072	0.0301	1.155	-0.070	0.0342	1.235	-0.046	0.0283	1.325	-0.042	0.0286	1.41	-0.138	0.0364	1.505	-0.044	0.0288
1.085	-0.070	0.0300	1.155	-0.068	0.0317	1.235	-0.044	0.0283	1.325	-0.040	0.0283	1.41	-0.136	0.0364	1.505	-0.042	0.0285
1.085	-0.068	0.0298	1.155	-0.066	0.0300	1.235	-0.042	0.0282	1.325	-0.038	0.0281	1.41	-0.134	0.0364	1.505	-0.040	0.0286
1.085	-0.066	0.0297	1.155	-0.064	0.0300	1.235	-0.040	0.0282	1.325	-0.036	0.0279	1.41	-0.132	0.0362	1.505	-0.038	0.0287
1.085	-0.064	0.0295	1.155	-0.062	0.0302	1.235	-0.038	0.0281	1.325	-0.034	0.0276	1.41	-0.130	0.0360	1.505	-0.036	0.0289
1.085	-0.062	0.0294	1.155	-0.060	0.0302	1.235	-0.036	0.0280	1.325	-0.032	0.0274	1.41	-0.128	0.0357	1.505	-0.034	0.0290
1.085	-0.060	0.0292	1.155	-0.058	0.0302	1.235	-0.034	0.0280	1.325	-0.030	0.0272	1.41	-0.126	0.0353	1.505	-0.032	0.0290
1.085	-0.058	0.0294	1.155	-0.056	0.0302	1.235	-0.032	0.0279	1.325	-0.028	0.0269	1.41	-0.124	0.0346	1.505	-0.030	0.0291
1.085	-0.056	0.0303	1.155	-0.054	0.0302	1.235	-0.030	0.0278	1.325	-0.026	0.0267	1.41	-0.122	0.0337	1.505	-0.028	0.0293
1.085	-0.054	0.0318	1.155	-0.052	0.0302	1.235	-0.028	0.0277	1.325	-0.024	0.0265	1.41	-0.120	0.0328	1.505	-0.026	0.0295
1.085	-0.052	0.0325	1.155	-0.050	0.0302	1.235	-0.026	0.0276	1.325	-0.022	0.0263	1.41	-0.118	0.0324	1.505	-0.024	0.0297
1.085	-0.050	0.0327	1.155	-0.048	0.0302	1.235	-0.024	0.0275	1.325	-0.020	0.0261	1.41	-0.116	0.0336	1.505	-0.022	0.0300
1.085	-0.048	0.0327	1.155	-0.046	0.0301	1.235	-0.022	0.0274	1.325	-0.018	0.0259	1.41	-0.114	0.0350	1.505	-0.020	0.0302
1.085	-0.046	0.0326	1.155	-0.044	0.0301	1.235	-0.020	0.0273	1.325	-0.016	0.0257	1.41	-0.112	0.0340	1.505	-0.018	0.0304
1.085	-0.044	0.0324	1.155	-0.042	0.0301	1.235	-0.018	0.0272	1.325	-0.014	0.0255	1.41	-0.110	0.0336	1.505	-0.016	0.0305
1.085	-0.042	0.0321	1.155	-0.040	0.0301	1.235	-0.016	0.0271	1.325	-0.012	0.0253	1.41	-0.108	0.0333	1.505	-0.014	0.0304
1.085	-0.040	0.0318	1.155	-0.038	0.0300	1.235	-0.014	0.0270	1.325	-0.010	0.0251	1.41	-0.106	0.0331	1.505	-0.012	0.0300
1.085	-0.038	0.0315	1.155	-0.036	0.0300	1.235	-0.012	0.0269	1.325	-0.008	0.0250	1.41	-0.104	0.0331	1.505	-0.010	0.0302
1.085	-0.036	0.0313	1.155	-0.034	0.0299	1.235	-0.010	0.0268	1.325	-0.006	0.0248	1.41	-0.102	0.0334	1.505	-0.008	0.0309
1.085	-0.034	0.0310	1.155	-0.032	0.0298	1.235	-0.008	0.0267	1.325	-0.004	0.0246	1.41	-0.100	0.0331	1.505	-0.006	0.0309
1.085	-0.032	0.0308	1.155	-0.030	0.0298	1.235	-0.006	0.0266	1.325	-0.002	0.0244	1.41	-0.098	0.0329	1.505	-0.004	0.0309
1.085	-0.030	0.0306	1.155	-0.028	0.0297	1.235	-0.004	0.0265	1.325	0.000	0.0242	1.41	-0.096	0.0334	1.505	-0.002	0.0309
1.085	-0.028	0.0304	1.155	-0.026	0.0296	1.235	-0.002	0.0264	1.335	-0.184	0.0346	1.41	-0.094	0.0332	1.505	0.000	0.0309

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.026	0.0302	1.155	-0.024	0.0295	1.235	0.000	0.0263	1.335	-0.182	0.0348	1.41	-0.092	0.0320	1.515	-0.074	0.0341
1.085	-0.024	0.0300	1.155	-0.022	0.0293	1.245	-0.218	0.0312	1.335	-0.180	0.0351	1.41	-0.090	0.0316	1.515	-0.072	0.0343
1.085	-0.022	0.0298	1.155	-0.020	0.0292	1.245	-0.216	0.0310	1.335	-0.178	0.0351	1.41	-0.088	0.0331	1.515	-0.070	0.0345
1.085	-0.020	0.0296	1.155	-0.018	0.0291	1.245	-0.214	0.0307	1.335	-0.176	0.0349	1.41	-0.086	0.0351	1.515	-0.068	0.0346
1.085	-0.018	0.0294	1.155	-0.016	0.0289	1.245	-0.212	0.0305	1.335	-0.174	0.0344	1.41	-0.084	0.0369	1.515	-0.066	0.0347
1.085	-0.016	0.0292	1.155	-0.014	0.0287	1.245	-0.210	0.0303	1.335	-0.172	0.0337	1.41	-0.082	0.0369	1.515	-0.064	0.0347
1.085	-0.014	0.0290	1.155	-0.012	0.0286	1.245	-0.208	0.0303	1.335	-0.170	0.0331	1.41	-0.080	0.0356	1.515	-0.062	0.0347
1.085	-0.012	0.0288	1.155	-0.010	0.0284	1.245	-0.206	0.0304	1.335	-0.168	0.0332	1.41	-0.078	0.0340	1.515	-0.060	0.0346
1.085	-0.010	0.0286	1.155	-0.008	0.0283	1.245	-0.204	0.0308	1.335	-0.166	0.0339	1.41	-0.076	0.0324	1.515	-0.058	0.0343
1.085	-0.008	0.0284	1.155	-0.006	0.0281	1.245	-0.202	0.0310	1.335	-0.164	0.0336	1.41	-0.074	0.0312	1.515	-0.056	0.0339
1.085	-0.006	0.0282	1.155	-0.004	0.0280	1.245	-0.200	0.0307	1.335	-0.162	0.0329	1.41	-0.072	0.0312	1.515	-0.054	0.0333
1.085	-0.004	0.0280	1.155	-0.002	0.0278	1.245	-0.198	0.0306	1.335	-0.160	0.0333	1.41	-0.070	0.0314	1.515	-0.052	0.0325
1.085	-0.002	0.0279	1.155	0.000	0.0276	1.245	-0.196	0.0310	1.335	-0.158	0.0330	1.41	-0.068	0.0309	1.515	-0.050	0.0315
1.085	0.000	0.0277	1.165	-0.234	0.0325	1.245	-0.194	0.0315	1.335	-0.156	0.0303	1.41	-0.066	0.0308	1.515	-0.048	0.0302
1.095	-0.224	0.0300	1.165	-0.232	0.0322	1.245	-0.192	0.0317	1.335	-0.154	0.0308	1.41	-0.064	0.0315	1.515	-0.046	0.0290
1.095	-0.222	0.0302	1.165	-0.230	0.0315	1.245	-0.190	0.0314	1.335	-0.152	0.0326	1.41	-0.062	0.0319	1.515	-0.044	0.0281
1.095	-0.220	0.0303	1.165	-0.228	0.0314	1.245	-0.188	0.0308	1.335	-0.150	0.0317	1.41	-0.060	0.0315	1.515	-0.042	0.0275
1.095	-0.218	0.0305	1.165	-0.226	0.0321	1.245	-0.186	0.0314	1.335	-0.148	0.0321	1.41	-0.058	0.0313	1.515	-0.040	0.0273
1.095	-0.216	0.0308	1.165	-0.224	0.0316	1.245	-0.184	0.0330	1.335	-0.146	0.0319	1.41	-0.056	0.0310	1.515	-0.038	0.0273
1.095	-0.214	0.0309	1.165	-0.222	0.0323	1.245	-0.182	0.0318	1.335	-0.144	0.0344	1.41	-0.054	0.0305	1.515	-0.036	0.0275
1.095	-0.212	0.0313	1.165	-0.220	0.0340	1.245	-0.180	0.0301	1.335	-0.142	0.0345	1.41	-0.052	0.0301	1.515	-0.034	0.0278
1.095	-0.210	0.0316	1.165	-0.218	0.0344	1.245	-0.178	0.0306	1.335	-0.140	0.0329	1.41	-0.050	0.0299	1.515	-0.032	0.0281
1.095	-0.208	0.0314	1.165	-0.216	0.0341	1.245	-0.176	0.0309	1.335	-0.138	0.0320	1.41	-0.048	0.0302	1.515	-0.030	0.0283
1.095	-0.206	0.0313	1.165	-0.214	0.0319	1.245	-0.174	0.0312	1.335	-0.136	0.0320	1.41	-0.046	0.0309	1.515	-0.028	0.0285
1.095	-0.204	0.0310	1.165	-0.212	0.0309	1.245	-0.172	0.0315	1.335	-0.134	0.0322	1.41	-0.044	0.0317	1.515	-0.026	0.0288

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.202	0.0323	1.165	-0.210	0.0304	1.245	-0.170	0.0316	1.335	-0.132	0.0319	1.41	-0.042	0.0321	1.515	-0.024	0.0291
1.095	-0.200	0.0340	1.165	-0.208	0.0307	1.245	-0.168	0.0315	1.335	-0.130	0.0310	1.41	-0.040	0.0321	1.515	-0.022	0.0293
1.095	-0.198	0.0353	1.165	-0.206	0.0320	1.245	-0.166	0.0313	1.335	-0.128	0.0305	1.41	-0.038	0.0318	1.515	-0.020	0.0296
1.095	-0.196	0.0323	1.165	-0.204	0.0337	1.245	-0.164	0.0310	1.335	-0.126	0.0307	1.41	-0.036	0.0314	1.515	-0.018	0.0298
1.095	-0.194	0.0315	1.165	-0.202	0.0342	1.245	-0.162	0.0307	1.335	-0.124	0.0312	1.41	-0.034	0.0311	1.515	-0.016	0.0300
1.095	-0.192	0.0321	1.165	-0.200	0.0345	1.245	-0.160	0.0304	1.335	-0.122	0.0315	1.41	-0.032	0.0307	1.515	-0.014	0.0301
1.095	-0.190	0.0312	1.165	-0.198	0.0350	1.245	-0.158	0.0301	1.335	-0.120	0.0306	1.41	-0.030	0.0302	1.515	-0.012	0.0302
1.095	-0.188	0.0315	1.165	-0.196	0.0353	1.245	-0.156	0.0298	1.335	-0.118	0.0307	1.41	-0.028	0.0297	1.515	-0.010	0.0303
1.095	-0.186	0.0319	1.165	-0.194	0.0353	1.245	-0.154	0.0295	1.335	-0.116	0.0313	1.41	-0.026	0.0292	1.515	-0.008	0.0305
1.095	-0.184	0.0308	1.165	-0.192	0.0358	1.245	-0.152	0.0292	1.335	-0.114	0.0318	1.41	-0.024	0.0286	1.515	-0.006	0.0306
1.095	-0.182	0.0308	1.165	-0.190	0.0363	1.245	-0.150	0.0289	1.335	-0.112	0.0311	1.41	-0.022	0.0282	1.515	-0.004	0.0307
1.095	-0.180	0.0309	1.165	-0.188	0.0349	1.245	-0.148	0.0287	1.335	-0.110	0.0313	1.41	-0.020	0.0278	1.515	-0.002	0.0308
1.095	-0.178	0.0308	1.165	-0.186	0.0331	1.245	-0.146	0.0286	1.335	-0.108	0.0311	1.41	-0.018	0.0274	1.515	0.000	0.0310
1.095	-0.176	0.0305	1.165	-0.184	0.0339	1.245	-0.144	0.0285	1.335	-0.106	0.0311	1.41	-0.016	0.0271	1.525	-0.066	0.0345
1.095	-0.174	0.0303	1.165	-0.182	0.0343	1.245	-0.142	0.0285	1.335	-0.104	0.0314	1.41	-0.014	0.0269	1.525	-0.064	0.0344
1.095	-0.172	0.0303	1.165	-0.180	0.0328	1.245	-0.140	0.0285	1.335	-0.102	0.0309	1.41	-0.012	0.0266	1.525	-0.062	0.0342
1.095	-0.170	0.0304	1.165	-0.178	0.0315	1.245	-0.138	0.0287	1.335	-0.100	0.0320	1.41	-0.010	0.0264	1.525	-0.060	0.0339
1.095	-0.168	0.0311	1.165	-0.176	0.0314	1.245	-0.136	0.0290	1.335	-0.098	0.0327	1.41	-0.008	0.0262	1.525	-0.058	0.0335
1.095	-0.166	0.0324	1.165	-0.174	0.0310	1.245	-0.134	0.0293	1.335	-0.096	0.0317	1.41	-0.006	0.0260	1.525	-0.056	0.0329
1.095	-0.164	0.0323	1.165	-0.172	0.0320	1.245	-0.132	0.0297	1.335	-0.094	0.0309	1.41	-0.004	0.0258	1.525	-0.054	0.0321
1.095	-0.162	0.0316	1.165	-0.170	0.0321	1.245	-0.130	0.0301	1.335	-0.092	0.0310	1.41	-0.002	0.0256	1.525	-0.052	0.0312
1.095	-0.160	0.0323	1.165	-0.168	0.0315	1.245	-0.128	0.0304	1.335	-0.090	0.0311	1.41	0.000	0.0254	1.525	-0.050	0.0303
1.095	-0.158	0.0337	1.165	-0.166	0.0309	1.245	-0.126	0.0304	1.335	-0.088	0.0313	1.415	-0.142	0.0367	1.525	-0.048	0.0293
1.095	-0.156	0.0340	1.165	-0.164	0.0308	1.245	-0.124	0.0303	1.335	-0.086	0.0312	1.415	-0.140	0.0367	1.525	-0.046	0.0285
1.095	-0.154	0.0331	1.165	-0.162	0.0308	1.245	-0.122	0.0301	1.335	-0.084	0.0309	1.415	-0.138	0.0367	1.525	-0.044	0.0278

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.152	0.0330	1.165	-0.160	0.0309	1.245	-0.120	0.0300	1.335	-0.082	0.0306	1.415	-0.136	0.0367	1.525	-0.042	0.0273
1.095	-0.150	0.0333	1.165	-0.158	0.0309	1.245	-0.118	0.0300	1.335	-0.080	0.0303	1.415	-0.134	0.0365	1.525	-0.040	0.0269
1.095	-0.148	0.0334	1.165	-0.156	0.0310	1.245	-0.116	0.0300	1.335	-0.078	0.0300	1.415	-0.132	0.0363	1.525	-0.038	0.0268
1.095	-0.146	0.0328	1.165	-0.154	0.0309	1.245	-0.114	0.0300	1.335	-0.076	0.0299	1.415	-0.130	0.0360	1.525	-0.036	0.0268
1.095	-0.144	0.0322	1.165	-0.152	0.0307	1.245	-0.112	0.0304	1.335	-0.074	0.0298	1.415	-0.128	0.0356	1.525	-0.034	0.0270
1.095	-0.142	0.0325	1.165	-0.150	0.0306	1.245	-0.110	0.0311	1.335	-0.072	0.0298	1.415	-0.126	0.0351	1.525	-0.032	0.0272
1.095	-0.140	0.0325	1.165	-0.148	0.0305	1.245	-0.108	0.0312	1.335	-0.070	0.0298	1.415	-0.124	0.0342	1.525	-0.030	0.0275
1.095	-0.138	0.0321	1.165	-0.146	0.0305	1.245	-0.106	0.0312	1.335	-0.068	0.0299	1.415	-0.122	0.0334	1.525	-0.028	0.0278
1.095	-0.136	0.0314	1.165	-0.144	0.0306	1.245	-0.104	0.0312	1.335	-0.066	0.0299	1.415	-0.120	0.0328	1.525	-0.026	0.0281
1.095	-0.134	0.0315	1.165	-0.142	0.0307	1.245	-0.102	0.0312	1.335	-0.064	0.0300	1.415	-0.118	0.0329	1.525	-0.024	0.0284
1.095	-0.132	0.0323	1.165	-0.140	0.0307	1.245	-0.100	0.0312	1.335	-0.062	0.0300	1.415	-0.116	0.0338	1.525	-0.022	0.0287
1.095	-0.130	0.0323	1.165	-0.138	0.0307	1.245	-0.098	0.0312	1.335	-0.060	0.0301	1.415	-0.114	0.0350	1.525	-0.020	0.0289
1.095	-0.128	0.0314	1.165	-0.136	0.0307	1.245	-0.096	0.0313	1.335	-0.058	0.0301	1.415	-0.112	0.0351	1.525	-0.018	0.0292
1.095	-0.126	0.0310	1.165	-0.134	0.0306	1.245	-0.094	0.0315	1.335	-0.056	0.0300	1.415	-0.110	0.0343	1.525	-0.016	0.0294
1.095	-0.124	0.0307	1.165	-0.132	0.0306	1.245	-0.092	0.0317	1.335	-0.054	0.0299	1.415	-0.108	0.0335	1.525	-0.014	0.0296
1.095	-0.122	0.0305	1.165	-0.130	0.0306	1.245	-0.090	0.0319	1.335	-0.052	0.0298	1.415	-0.106	0.0310	1.525	-0.012	0.0299
1.095	-0.120	0.0306	1.165	-0.128	0.0306	1.245	-0.088	0.0321	1.335	-0.050	0.0296	1.415	-0.104	0.0314	1.525	-0.010	0.0302
1.095	-0.118	0.0308	1.165	-0.126	0.0306	1.245	-0.086	0.0323	1.335	-0.048	0.0294	1.415	-0.102	0.0319	1.525	-0.008	0.0306
1.095	-0.116	0.0310	1.165	-0.124	0.0306	1.245	-0.084	0.0325	1.335	-0.046	0.0292	1.415	-0.100	0.0316	1.525	-0.006	0.0308
1.095	-0.114	0.0309	1.165	-0.122	0.0306	1.245	-0.082	0.0327	1.335	-0.044	0.0289	1.415	-0.098	0.0310	1.525	-0.004	0.0309
1.095	-0.112	0.0307	1.165	-0.120	0.0305	1.245	-0.080	0.0327	1.335	-0.042	0.0287	1.415	-0.096	0.0306	1.525	-0.002	0.0310
1.095	-0.110	0.0306	1.165	-0.118	0.0303	1.245	-0.078	0.0327	1.335	-0.040	0.0284	1.415	-0.094	0.0308	1.525	0.000	0.0311
1.095	-0.108	0.0303	1.165	-0.116	0.0302	1.245	-0.076	0.0325	1.335	-0.038	0.0282	1.415	-0.092	0.0312	1.535	-0.058	0.0325
1.095	-0.106	0.0300	1.165	-0.114	0.0300	1.245	-0.074	0.0323	1.335	-0.036	0.0279	1.415	-0.090	0.0318	1.535	-0.056	0.0318
1.095	-0.104	0.0297	1.165	-0.112	0.0298	1.245	-0.072	0.0320	1.335	-0.034	0.0277	1.415	-0.088	0.0330	1.535	-0.054	0.0311

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.102	0.0295	1.165	-0.110	0.0296	1.245	-0.070	0.0317	1.335	-0.032	0.0275	1.415	-0.086	0.0343	1.535	-0.052	0.0304
1.095	-0.100	0.0297	1.165	-0.108	0.0294	1.245	-0.068	0.0312	1.335	-0.030	0.0272	1.415	-0.084	0.0353	1.535	-0.050	0.0296
1.095	-0.098	0.0304	1.165	-0.106	0.0293	1.245	-0.066	0.0308	1.335	-0.028	0.0270	1.415	-0.082	0.0355	1.535	-0.048	0.0289
1.095	-0.096	0.0315	1.165	-0.104	0.0292	1.245	-0.064	0.0303	1.335	-0.026	0.0268	1.415	-0.080	0.0344	1.535	-0.046	0.0282
1.095	-0.094	0.0322	1.165	-0.102	0.0293	1.245	-0.062	0.0299	1.335	-0.024	0.0266	1.415	-0.078	0.0328	1.535	-0.044	0.0277
1.095	-0.092	0.0321	1.165	-0.100	0.0295	1.245	-0.060	0.0295	1.335	-0.022	0.0264	1.415	-0.076	0.0313	1.535	-0.042	0.0272
1.095	-0.090	0.0315	1.165	-0.098	0.0300	1.245	-0.058	0.0292	1.335	-0.020	0.0262	1.415	-0.074	0.0302	1.535	-0.040	0.0269
1.095	-0.088	0.0307	1.165	-0.096	0.0308	1.245	-0.056	0.0289	1.335	-0.018	0.0260	1.415	-0.072	0.0311	1.535	-0.038	0.0267
1.095	-0.086	0.0302	1.165	-0.094	0.0321	1.245	-0.054	0.0287	1.335	-0.016	0.0258	1.415	-0.070	0.0321	1.535	-0.036	0.0266
1.095	-0.084	0.0300	1.165	-0.092	0.0340	1.245	-0.052	0.0285	1.335	-0.014	0.0256	1.415	-0.068	0.0309	1.535	-0.034	0.0266
1.095	-0.082	0.0301	1.165	-0.090	0.0361	1.245	-0.050	0.0284	1.335	-0.012	0.0253	1.415	-0.066	0.0305	1.535	-0.032	0.0267
1.095	-0.080	0.0304	1.165	-0.088	0.0384	1.245	-0.048	0.0283	1.335	-0.010	0.0251	1.415	-0.064	0.0317	1.535	-0.030	0.0269
1.095	-0.078	0.0307	1.165	-0.086	0.0405	1.245	-0.046	0.0282	1.335	-0.008	0.0249	1.415	-0.062	0.0327	1.535	-0.028	0.0272
1.095	-0.076	0.0308	1.165	-0.084	0.0429	1.245	-0.044	0.0281	1.335	-0.006	0.0247	1.415	-0.060	0.0326	1.535	-0.026	0.0275
1.095	-0.074	0.0309	1.165	-0.082	0.0452	1.245	-0.042	0.0280	1.335	-0.004	0.0245	1.415	-0.058	0.0320	1.535	-0.024	0.0277
1.095	-0.072	0.0308	1.165	-0.080	0.0463	1.245	-0.040	0.0280	1.335	-0.002	0.0243	1.415	-0.056	0.0315	1.535	-0.022	0.0280
1.095	-0.070	0.0306	1.165	-0.078	0.0459	1.245	-0.038	0.0279	1.335	0.000	0.0241	1.415	-0.054	0.0309	1.535	-0.020	0.0283
1.095	-0.068	0.0303	1.165	-0.076	0.0444	1.245	-0.036	0.0278	1.345	-0.180	0.0351	1.415	-0.052	0.0303	1.535	-0.018	0.0286
1.095	-0.066	0.0300	1.165	-0.074	0.0422	1.245	-0.034	0.0277	1.345	-0.178	0.0350	1.415	-0.050	0.0300	1.535	-0.016	0.0289
1.095	-0.064	0.0296	1.165	-0.072	0.0408	1.245	-0.032	0.0277	1.345	-0.176	0.0348	1.415	-0.048	0.0305	1.535	-0.014	0.0292
1.095	-0.062	0.0292	1.165	-0.070	0.0390	1.245	-0.030	0.0276	1.345	-0.174	0.0345	1.415	-0.046	0.0311	1.535	-0.012	0.0296
1.095	-0.060	0.0291	1.165	-0.068	0.0368	1.245	-0.028	0.0275	1.345	-0.172	0.0344	1.415	-0.044	0.0316	1.535	-0.010	0.0299
1.095	-0.058	0.0293	1.165	-0.066	0.0350	1.245	-0.026	0.0274	1.345	-0.170	0.0345	1.415	-0.042	0.0320	1.535	-0.008	0.0302
1.095	-0.056	0.0298	1.165	-0.064	0.0327	1.245	-0.024	0.0273	1.345	-0.168	0.0347	1.415	-0.040	0.0322	1.535	-0.006	0.0305
1.095	-0.054	0.0305	1.165	-0.062	0.0314	1.245	-0.022	0.0272	1.345	-0.166	0.0348	1.415	-0.038	0.0323	1.535	-0.004	0.0307

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.052	0.0313	1.165	-0.060	0.0307	1.245	-0.020	0.0271	1.345	-0.164	0.0343	1.415	-0.036	0.0323	1.535	-0.002	0.0309
1.095	-0.050	0.0319	1.165	-0.058	0.0303	1.245	-0.018	0.0270	1.345	-0.162	0.0334	1.415	-0.034	0.0319	1.535	0.000	0.0311
1.095	-0.048	0.0322	1.165	-0.056	0.0301	1.245	-0.016	0.0269	1.345	-0.160	0.0326	1.415	-0.032	0.0314	1.545	-0.050	0.0291
1.095	-0.046	0.0324	1.165	-0.054	0.0300	1.245	-0.014	0.0268	1.345	-0.158	0.0326	1.415	-0.030	0.0306	1.545	-0.048	0.0285
1.095	-0.044	0.0324	1.165	-0.052	0.0300	1.245	-0.012	0.0267	1.345	-0.156	0.0326	1.415	-0.028	0.0299	1.545	-0.046	0.0280
1.095	-0.042	0.0323	1.165	-0.050	0.0300	1.245	-0.010	0.0266	1.345	-0.154	0.0325	1.415	-0.026	0.0293	1.545	-0.044	0.0275
1.095	-0.040	0.0321	1.165	-0.048	0.0300	1.245	-0.008	0.0265	1.345	-0.152	0.0313	1.415	-0.024	0.0287	1.545	-0.042	0.0272
1.095	-0.038	0.0319	1.165	-0.046	0.0299	1.245	-0.006	0.0264	1.345	-0.150	0.0313	1.415	-0.022	0.0282	1.545	-0.040	0.0268
1.095	-0.036	0.0316	1.165	-0.044	0.0299	1.245	-0.004	0.0262	1.345	-0.148	0.0316	1.415	-0.020	0.0279	1.545	-0.038	0.0266
1.095	-0.034	0.0313	1.165	-0.042	0.0299	1.245	-0.002	0.0261	1.345	-0.146	0.0357	1.415	-0.018	0.0275	1.545	-0.036	0.0265
1.095	-0.032	0.0311	1.165	-0.040	0.0298	1.245	0.000	0.0260	1.345	-0.144	0.0365	1.415	-0.016	0.0273	1.545	-0.034	0.0264
1.095	-0.030	0.0308	1.165	-0.038	0.0298	1.255	-0.216	0.0305	1.345	-0.142	0.0350	1.415	-0.014	0.0270	1.545	-0.032	0.0265
1.095	-0.028	0.0305	1.165	-0.036	0.0297	1.255	-0.214	0.0304	1.345	-0.140	0.0346	1.415	-0.012	0.0268	1.545	-0.030	0.0266
1.095	-0.026	0.0303	1.165	-0.034	0.0296	1.255	-0.212	0.0302	1.345	-0.138	0.0340	1.415	-0.010	0.0266	1.545	-0.028	0.0268
1.095	-0.024	0.0301	1.165	-0.032	0.0296	1.255	-0.210	0.0302	1.345	-0.136	0.0332	1.415	-0.008	0.0264	1.545	-0.026	0.0270
1.095	-0.022	0.0298	1.165	-0.030	0.0295	1.255	-0.208	0.0302	1.345	-0.134	0.0324	1.415	-0.006	0.0262	1.545	-0.024	0.0272
1.095	-0.020	0.0296	1.165	-0.028	0.0294	1.255	-0.206	0.0303	1.345	-0.132	0.0315	1.415	-0.004	0.0260	1.545	-0.022	0.0275
1.095	-0.018	0.0294	1.165	-0.026	0.0293	1.255	-0.204	0.0305	1.345	-0.130	0.0307	1.415	-0.002	0.0258	1.545	-0.020	0.0278
1.095	-0.016	0.0292	1.165	-0.024	0.0292	1.255	-0.202	0.0305	1.345	-0.128	0.0303	1.415	0.000	0.0257	1.545	-0.018	0.0281
1.095	-0.014	0.0290	1.165	-0.022	0.0291	1.255	-0.200	0.0306	1.345	-0.126	0.0304	1.42	-0.136	0.0368	1.545	-0.016	0.0284
1.095	-0.012	0.0288	1.165	-0.020	0.0290	1.255	-0.198	0.0304	1.345	-0.124	0.0310	1.42	-0.134	0.0366	1.545	-0.014	0.0288
1.095	-0.010	0.0286	1.165	-0.018	0.0289	1.255	-0.196	0.0315	1.345	-0.122	0.0321	1.42	-0.132	0.0363	1.545	-0.012	0.0291
1.095	-0.008	0.0284	1.165	-0.016	0.0287	1.255	-0.194	0.0327	1.345	-0.120	0.0334	1.42	-0.130	0.0360	1.545	-0.010	0.0294
1.095	-0.006	0.0282	1.165	-0.014	0.0286	1.255	-0.192	0.0333	1.345	-0.118	0.0333	1.42	-0.128	0.0355	1.545	-0.008	0.0298
1.095	-0.004	0.0281	1.165	-0.012	0.0285	1.255	-0.190	0.0339	1.345	-0.116	0.0334	1.42	-0.126	0.0348	1.545	-0.006	0.0301

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.002	0.0279	1.165	-0.010	0.0283	1.255	-0.188	0.0333	1.345	-0.114	0.0333	1.42	-0.124	0.0341	1.545	-0.004	0.0304
1.095	0.000	0.0277	1.165	-0.008	0.0282	1.255	-0.186	0.0325	1.345	-0.112	0.0338	1.42	-0.122	0.0334	1.545	-0.002	0.0307
1.105	-0.228	0.0296	1.165	-0.006	0.0280	1.255	-0.184	0.0324	1.345	-0.110	0.0322	1.42	-0.120	0.0331	1.545	0.000	0.0310
1.105	-0.226	0.0304	1.165	-0.004	0.0279	1.255	-0.182	0.0319	1.345	-0.108	0.0306	1.42	-0.118	0.0332	1.555	-0.040	0.0268
1.105	-0.224	0.0314	1.165	-0.002	0.0277	1.255	-0.180	0.0313	1.345	-0.106	0.0302	1.42	-0.116	0.0335	1.555	-0.038	0.0266
1.105	-0.222	0.0319	1.165	0.000	0.0276	1.255	-0.178	0.0314	1.345	-0.104	0.0305	1.42	-0.114	0.0335	1.555	-0.036	0.0264
1.105	-0.220	0.0316	1.175	-0.232	0.0334	1.255	-0.176	0.0319	1.345	-0.102	0.0314	1.42	-0.112	0.0329	1.555	-0.034	0.0263
1.105	-0.218	0.0314	1.175	-0.230	0.0346	1.255	-0.174	0.0324	1.345	-0.100	0.0330	1.42	-0.110	0.0333	1.555	-0.032	0.0263
1.105	-0.216	0.0325	1.175	-0.228	0.0360	1.255	-0.172	0.0326	1.345	-0.098	0.0340	1.42	-0.108	0.0342	1.555	-0.030	0.0264
1.105	-0.214	0.0334	1.175	-0.226	0.0344	1.255	-0.170	0.0324	1.345	-0.096	0.0332	1.42	-0.106	0.0327	1.555	-0.028	0.0265
1.105	-0.212	0.0324	1.175	-0.224	0.0355	1.255	-0.168	0.0320	1.345	-0.094	0.0323	1.42	-0.104	0.0310	1.555	-0.026	0.0266
1.105	-0.210	0.0312	1.175	-0.222	0.0353	1.255	-0.166	0.0314	1.345	-0.092	0.0313	1.42	-0.102	0.0305	1.555	-0.024	0.0268
1.105	-0.208	0.0321	1.175	-0.220	0.0331	1.255	-0.164	0.0309	1.345	-0.090	0.0307	1.42	-0.100	0.0312	1.555	-0.022	0.0271
1.105	-0.206	0.0321	1.175	-0.218	0.0327	1.255	-0.162	0.0306	1.345	-0.088	0.0303	1.42	-0.098	0.0315	1.555	-0.020	0.0273
1.105	-0.204	0.0316	1.175	-0.216	0.0320	1.255	-0.160	0.0304	1.345	-0.086	0.0301	1.42	-0.096	0.0317	1.555	-0.018	0.0276
1.105	-0.202	0.0321	1.175	-0.214	0.0308	1.255	-0.158	0.0303	1.345	-0.084	0.0299	1.42	-0.094	0.0334	1.555	-0.016	0.0279
1.105	-0.200	0.0325	1.175	-0.212	0.0311	1.255	-0.156	0.0300	1.345	-0.082	0.0298	1.42	-0.092	0.0338	1.555	-0.014	0.0283
1.105	-0.198	0.0318	1.175	-0.210	0.0313	1.255	-0.154	0.0298	1.345	-0.080	0.0296	1.42	-0.090	0.0338	1.555	-0.012	0.0286
1.105	-0.196	0.0307	1.175	-0.208	0.0319	1.255	-0.152	0.0294	1.345	-0.078	0.0296	1.42	-0.088	0.0332	1.555	-0.010	0.0289
1.105	-0.194	0.0311	1.175	-0.206	0.0324	1.255	-0.150	0.0290	1.345	-0.076	0.0296	1.42	-0.086	0.0333	1.555	-0.008	0.0292
1.105	-0.192	0.0333	1.175	-0.204	0.0320	1.255	-0.148	0.0285	1.345	-0.074	0.0296	1.42	-0.084	0.0336	1.555	-0.006	0.0296
1.105	-0.190	0.0327	1.175	-0.202	0.0313	1.255	-0.146	0.0281	1.345	-0.072	0.0297	1.42	-0.082	0.0338	1.555	-0.004	0.0299
1.105	-0.188	0.0307	1.175	-0.200	0.0317	1.255	-0.144	0.0278	1.345	-0.070	0.0298	1.42	-0.080	0.0330	1.555	-0.002	0.0302
1.105	-0.186	0.0301	1.175	-0.198	0.0329	1.255	-0.142	0.0276	1.345	-0.068	0.0300	1.42	-0.078	0.0317	1.555	0.000	0.0305
1.105	-0.184	0.0301	1.175	-0.196	0.0338	1.255	-0.140	0.0275	1.345	-0.066	0.0301	1.42	-0.076	0.0320	1.565	-0.030	0.0262

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.105	-0.182	0.0301	1.175	-0.194	0.0337	1.255	-0.138	0.0276	1.345	-0.064	0.0303	1.42	-0.074	0.0314	1.565	-0.028	0.0263
1.105	-0.180	0.0300	1.175	-0.192	0.0325	1.255	-0.136	0.0279	1.345	-0.062	0.0303	1.42	-0.072	0.0311	1.565	-0.026	0.0264
1.105	-0.178	0.0300	1.175	-0.190	0.0307	1.255	-0.134	0.0285	1.345	-0.060	0.0304	1.42	-0.070	0.0311	1.565	-0.024	0.0265
1.105	-0.176	0.0303	1.175	-0.188	0.0309	1.255	-0.132	0.0293	1.345	-0.058	0.0304	1.42	-0.068	0.0314	1.565	-0.022	0.0267
1.105	-0.174	0.0308	1.175	-0.186	0.0312	1.255	-0.130	0.0302	1.345	-0.056	0.0303	1.42	-0.066	0.0317	1.565	-0.020	0.0269
1.105	-0.172	0.0310	1.175	-0.184	0.0312	1.255	-0.128	0.0311	1.345	-0.054	0.0302	1.42	-0.064	0.0326	1.565	-0.018	0.0272
1.105	-0.170	0.0305	1.175	-0.182	0.0314	1.255	-0.126	0.0316	1.345	-0.052	0.0300	1.42	-0.062	0.0334	1.565	-0.016	0.0275
1.105	-0.168	0.0315	1.175	-0.180	0.0310	1.255	-0.124	0.0317	1.345	-0.050	0.0298	1.42	-0.060	0.0337	1.565	-0.014	0.0278
1.105	-0.166	0.0329	1.175	-0.178	0.0306	1.255	-0.122	0.0315	1.345	-0.048	0.0295	1.42	-0.058	0.0326	1.565	-0.012	0.0281
1.105	-0.164	0.0320	1.175	-0.176	0.0310	1.255	-0.120	0.0312	1.345	-0.046	0.0293	1.42	-0.056	0.0317	1.565	-0.010	0.0284
1.105	-0.162	0.0313	1.175	-0.174	0.0318	1.255	-0.118	0.0308	1.345	-0.044	0.0290	1.42	-0.054	0.0312	1.565	-0.008	0.0287
1.105	-0.160	0.0311	1.175	-0.172	0.0307	1.255	-0.116	0.0305	1.345	-0.042	0.0288	1.42	-0.052	0.0311	1.565	-0.006	0.0290
1.105	-0.158	0.0314	1.175	-0.170	0.0312	1.255	-0.114	0.0303	1.345	-0.040	0.0285	1.42	-0.050	0.0312	1.565	-0.004	0.0293
1.105	-0.156	0.0312	1.175	-0.168	0.0311	1.255	-0.112	0.0301	1.345	-0.038	0.0283	1.42	-0.048	0.0316	1.565	-0.002	0.0296
1.105	-0.154	0.0303	1.175	-0.166	0.0307	1.255	-0.110	0.0301	1.345	-0.036	0.0280	1.42	-0.046	0.0313	1.565	0.000	0.0299
1.105	-0.152	0.0311	1.175	-0.164	0.0305	1.255	-0.108	0.0305	1.345	-0.034	0.0278	1.42	-0.044	0.0312	1.575	-0.022	0.0264
1.105	-0.150	0.0321	1.175	-0.162	0.0305	1.255	-0.106	0.0308	1.345	-0.032	0.0276	1.42	-0.042	0.0314	1.575	-0.020	0.0266
1.105	-0.148	0.0328	1.175	-0.160	0.0305	1.255	-0.104	0.0310	1.345	-0.030	0.0274	1.42	-0.040	0.0319	1.575	-0.018	0.0268
1.105	-0.146	0.0326	1.175	-0.158	0.0306	1.255	-0.102	0.0313	1.345	-0.028	0.0271	1.42	-0.038	0.0325	1.575	-0.016	0.0270
1.105	-0.144	0.0315	1.175	-0.156	0.0308	1.255	-0.100	0.0314	1.345	-0.026	0.0269	1.42	-0.036	0.0329	1.575	-0.014	0.0273
1.105	-0.142	0.0318	1.175	-0.154	0.0309	1.255	-0.098	0.0316	1.345	-0.024	0.0267	1.42	-0.034	0.0326	1.575	-0.012	0.0275
1.105	-0.140	0.0324	1.175	-0.152	0.0309	1.255	-0.096	0.0318	1.345	-0.022	0.0265	1.42	-0.032	0.0318	1.575	-0.010	0.0278
1.105	-0.138	0.0321	1.175	-0.150	0.0301	1.255	-0.094	0.0320	1.345	-0.020	0.0263	1.42	-0.030	0.0308	1.575	-0.008	0.0281
1.105	-0.136	0.0310	1.175	-0.148	0.0301	1.255	-0.092	0.0322	1.345	-0.018	0.0261	1.42	-0.028	0.0300	1.575	-0.006	0.0284
1.105	-0.134	0.0300	1.175	-0.146	0.0303	1.255	-0.090	0.0324	1.345	-0.016	0.0258	1.42	-0.026	0.0293	1.575	-0.004	0.0286

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.105	-0.132	0.0298	1.175	-0.144	0.0306	1.255	-0.088	0.0325	1.345	-0.014	0.0256	1.42	-0.024	0.0287	1.575	-0.002	0.0289
1.105	-0.130	0.0303	1.175	-0.142	0.0308	1.255	-0.086	0.0327	1.345	-0.012	0.0254	1.42	-0.022	0.0283	1.575	0.000	0.0292
1.105	-0.128	0.0310	1.175	-0.140	0.0308	1.255	-0.084	0.0327	1.345	-0.010	0.0252	1.42	-0.020	0.0279	1.585	-0.010	0.0272
1.105	-0.126	0.0316	1.175	-0.138	0.0306	1.255	-0.082	0.0328	1.345	-0.008	0.0249	1.42	-0.018	0.0277	1.585	-0.008	0.0275
1.105	-0.124	0.0317	1.175	-0.136	0.0303	1.255	-0.080	0.0327	1.345	-0.006	0.0247	1.42	-0.016	0.0274	1.585	-0.006	0.0277
1.105	-0.122	0.0313	1.175	-0.134	0.0302	1.255	-0.078	0.0326	1.345	-0.004	0.0245	1.42	-0.014	0.0272	1.585	-0.004	0.0280
1.105	-0.120	0.0309	1.175	-0.132	0.0302	1.255	-0.076	0.0325	1.345	-0.002	0.0242	1.42	-0.012	0.0270	1.585	-0.002	0.0282
1.105	-0.118	0.0309	1.175	-0.130	0.0304	1.255	-0.074	0.0323	1.345	0.000	0.0240	1.42	-0.010	0.0268	1.585	0.000	0.0285
1.105	-0.116	0.0310	1.175	-0.128	0.0306	1.255	-0.072	0.0321	1.355	-0.176	0.0351	1.42	-0.008	0.0267	1.595	0.000	0.0276
1.105	-0.114	0.0310	1.175	-0.126	0.0308	1.255	-0.070	0.0318	1.355	-0.174	0.0351	1.42	-0.006	0.0265	1.5	0	0.030
1	0	0.034	1.1	0	0.032	1.2	0	0.024	1.3	0	0.021	1.4	0	0.028	1.51	0	0.030
1.01	0	0.034	1.11	0	0.032	1.21	0	0.023	1.31	0	0.022	1.41	0	0.029	1.52	0	0.030
1.02	0	0.034	1.12	0	0.031	1.22	0	0.022	1.32	0	0.022	1.42	0	0.029	1.53	0	0.030
1.03	0	0.034	1.13	0	0.030	1.23	0	0.022	1.33	0	0.023	1.43	0	0.029	1.54	0	0.029
1.04	0	0.034	1.14	0	0.029	1.24	0	0.021	1.34	0	0.023	1.44	0	0.029	1.55	0	0.028
1.05	0	0.034	1.15	0	0.028	1.25	0	0.021	1.35	0	0.024	1.45	0	0.029	1.56	0	0.028
1.06	0	0.034	1.16	0	0.027	1.26	0	0.021	1.36	0	0.025	1.46	0	0.029	1.57	0	0.028
1.07	0	0.034	1.17	0	0.026	1.27	0	0.021	1.37	0	0.026	1.47	0	0.029	1.58	0	0.028
1.08	0	0.033	1.18	0	0.025	1.28	0	0.021	1.38	0	0.027	1.48	0	0.030	1.59	0	0.028
1.09	0	0.033	1.19	0	0.024	1.29	0	0.021	1.39	0	0.028	1.49	0	0.030			

Table B.3 Forward conic cavity streambed bathymetry.

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.005	0.000	0.030	1.215	-0.112	0.033	1.315	-0.002	0.030	1.39	-0.008	0.031	1.435	-0.116	0.038	1.485	-0.002	0.036
1.015	-0.010	0.030	1.215	-0.110	0.034	1.315	0.000	0.030	1.39	-0.006	0.032	1.435	-0.114	0.037	1.485	0.000	0.036
1.015	-0.008	0.030	1.215	-0.108	0.034	1.325	-0.210	0.049	1.39	-0.004	0.032	1.435	-0.112	0.038	1.495	-0.228	0.046
1.015	-0.006	0.030	1.215	-0.106	0.032	1.325	-0.208	0.046	1.39	-0.002	0.033	1.435	-0.110	0.038	1.495	-0.226	0.045
1.015	-0.004	0.030	1.215	-0.104	0.033	1.325	-0.206	0.045	1.39	0.000	0.033	1.435	-0.108	0.038	1.495	-0.224	0.045
1.015	-0.002	0.030	1.215	-0.102	0.033	1.325	-0.204	0.047	1.395	-0.228	0.048	1.435	-0.106	0.038	1.495	-0.222	0.043
1.015	0.000	0.031	1.215	-0.100	0.032	1.325	-0.202	0.047	1.395	-0.226	0.046	1.435	-0.104	0.038	1.495	-0.220	0.043
1.025	-0.022	0.032	1.215	-0.098	0.032	1.325	-0.200	0.045	1.395	-0.224	0.047	1.435	-0.102	0.038	1.495	-0.218	0.043
1.025	-0.020	0.032	1.215	-0.096	0.033	1.325	-0.198	0.043	1.395	-0.222	0.050	1.435	-0.100	0.039	1.495	-0.216	0.045
1.025	-0.018	0.032	1.215	-0.094	0.033	1.325	-0.196	0.043	1.395	-0.220	0.051	1.435	-0.098	0.040	1.495	-0.214	0.045
1.025	-0.016	0.031	1.215	-0.092	0.033	1.325	-0.194	0.042	1.395	-0.218	0.050	1.435	-0.096	0.039	1.495	-0.212	0.044
1.025	-0.014	0.031	1.215	-0.090	0.034	1.325	-0.192	0.041	1.395	-0.216	0.049	1.435	-0.094	0.038	1.495	-0.210	0.044
1.025	-0.012	0.031	1.215	-0.088	0.034	1.325	-0.190	0.041	1.395	-0.214	0.047	1.435	-0.092	0.037	1.495	-0.208	0.046
1.025	-0.010	0.031	1.215	-0.086	0.033	1.325	-0.188	0.041	1.395	-0.212	0.047	1.435	-0.090	0.036	1.495	-0.206	0.048
1.025	-0.008	0.031	1.215	-0.084	0.031	1.325	-0.186	0.040	1.395	-0.210	0.047	1.435	-0.088	0.033	1.495	-0.204	0.047
1.025	-0.006	0.031	1.215	-0.082	0.031	1.325	-0.184	0.044	1.395	-0.208	0.045	1.435	-0.086	0.033	1.495	-0.202	0.047
1.025	-0.004	0.031	1.215	-0.080	0.033	1.325	-0.182	0.044	1.395	-0.206	0.045	1.435	-0.084	0.034	1.495	-0.200	0.048
1.025	-0.002	0.031	1.215	-0.078	0.033	1.325	-0.180	0.041	1.395	-0.204	0.046	1.435	-0.082	0.035	1.495	-0.198	0.049
1.025	0.000	0.031	1.215	-0.076	0.033	1.325	-0.178	0.039	1.395	-0.202	0.045	1.435	-0.080	0.035	1.495	-0.196	0.046
1.035	-0.030	0.033	1.215	-0.074	0.034	1.325	-0.176	0.039	1.395	-0.200	0.043	1.435	-0.078	0.034	1.495	-0.194	0.041
1.035	-0.028	0.033	1.215	-0.072	0.035	1.325	-0.174	0.041	1.395	-0.198	0.043	1.435	-0.076	0.033	1.495	-0.192	0.043
1.035	-0.026	0.033	1.215	-0.070	0.035	1.325	-0.172	0.041	1.395	-0.196	0.044	1.435	-0.074	0.033	1.495	-0.190	0.045
1.035	-0.024	0.033	1.215	-0.068	0.036	1.325	-0.170	0.042	1.395	-0.194	0.043	1.435	-0.072	0.031	1.495	-0.188	0.046
1.035	-0.022	0.032	1.215	-0.066	0.035	1.325	-0.168	0.042	1.395	-0.192	0.043	1.435	-0.070	0.033	1.495	-0.186	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.035	-0.020	0.032	1.215	-0.064	0.033	1.325	-0.166	0.042	1.395	-0.190	0.042	1.435	-0.068	0.035	1.495	-0.184	0.049
1.035	-0.018	0.032	1.215	-0.062	0.033	1.325	-0.164	0.040	1.395	-0.188	0.044	1.435	-0.066	0.035	1.495	-0.182	0.044
1.035	-0.016	0.032	1.215	-0.060	0.033	1.325	-0.162	0.040	1.395	-0.186	0.045	1.435	-0.064	0.034	1.495	-0.180	0.042
1.035	-0.014	0.032	1.215	-0.058	0.033	1.325	-0.160	0.040	1.395	-0.184	0.044	1.435	-0.062	0.033	1.495	-0.178	0.046
1.035	-0.012	0.032	1.215	-0.056	0.033	1.325	-0.158	0.040	1.395	-0.182	0.045	1.435	-0.060	0.031	1.495	-0.176	0.044
1.035	-0.010	0.032	1.215	-0.054	0.032	1.325	-0.156	0.040	1.395	-0.180	0.047	1.435	-0.058	0.030	1.495	-0.174	0.042
1.035	-0.008	0.031	1.215	-0.052	0.031	1.325	-0.154	0.041	1.395	-0.178	0.048	1.435	-0.056	0.030	1.495	-0.172	0.041
1.035	-0.006	0.032	1.215	-0.050	0.030	1.325	-0.152	0.041	1.395	-0.176	0.046	1.435	-0.054	0.030	1.495	-0.170	0.041
1.035	-0.004	0.032	1.215	-0.048	0.030	1.325	-0.150	0.039	1.395	-0.174	0.042	1.435	-0.052	0.030	1.495	-0.168	0.042
1.035	-0.002	0.032	1.215	-0.046	0.031	1.325	-0.148	0.039	1.395	-0.172	0.040	1.435	-0.050	0.031	1.495	-0.166	0.043
1.035	0.000	0.032	1.215	-0.044	0.032	1.325	-0.146	0.038	1.395	-0.170	0.043	1.435	-0.048	0.031	1.495	-0.164	0.044
1.045	-0.040	0.033	1.215	-0.042	0.032	1.325	-0.144	0.039	1.395	-0.168	0.043	1.435	-0.046	0.032	1.495	-0.162	0.046
1.045	-0.038	0.033	1.215	-0.040	0.032	1.325	-0.142	0.040	1.395	-0.166	0.044	1.435	-0.044	0.032	1.495	-0.160	0.046
1.045	-0.036	0.033	1.215	-0.038	0.032	1.325	-0.140	0.040	1.395	-0.164	0.044	1.435	-0.042	0.032	1.495	-0.158	0.044
1.045	-0.034	0.033	1.215	-0.036	0.032	1.325	-0.138	0.042	1.395	-0.162	0.042	1.435	-0.040	0.031	1.495	-0.156	0.043
1.045	-0.032	0.033	1.215	-0.034	0.031	1.325	-0.136	0.041	1.395	-0.160	0.041	1.435	-0.038	0.030	1.495	-0.154	0.043
1.045	-0.030	0.033	1.215	-0.032	0.031	1.325	-0.134	0.040	1.395	-0.158	0.043	1.435	-0.036	0.031	1.495	-0.152	0.040
1.045	-0.028	0.033	1.215	-0.030	0.031	1.325	-0.132	0.040	1.395	-0.156	0.044	1.435	-0.034	0.031	1.495	-0.150	0.039
1.045	-0.026	0.033	1.215	-0.028	0.031	1.325	-0.130	0.040	1.395	-0.154	0.045	1.435	-0.032	0.031	1.495	-0.148	0.039
1.045	-0.024	0.033	1.215	-0.026	0.033	1.325	-0.128	0.039	1.395	-0.152	0.043	1.435	-0.030	0.031	1.495	-0.146	0.040
1.045	-0.022	0.032	1.215	-0.024	0.033	1.325	-0.126	0.039	1.395	-0.150	0.037	1.435	-0.028	0.031	1.495	-0.144	0.039
1.045	-0.020	0.032	1.215	-0.022	0.032	1.325	-0.124	0.039	1.395	-0.148	0.037	1.435	-0.026	0.032	1.495	-0.142	0.045
1.045	-0.018	0.032	1.215	-0.020	0.031	1.325	-0.122	0.039	1.395	-0.146	0.036	1.435	-0.024	0.031	1.495	-0.140	0.047
1.045	-0.016	0.032	1.215	-0.018	0.031	1.325	-0.120	0.037	1.395	-0.144	0.037	1.435	-0.022	0.031	1.495	-0.138	0.049
1.045	-0.014	0.032	1.215	-0.016	0.030	1.325	-0.118	0.036	1.395	-0.142	0.038	1.435	-0.020	0.032	1.495	-0.136	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.045	-0.012	0.032	1.215	-0.014	0.030	1.325	-0.116	0.037	1.395	-0.140	0.038	1.435	-0.018	0.031	1.495	-0.134	0.048
1.045	-0.010	0.032	1.215	-0.012	0.030	1.325	-0.114	0.039	1.395	-0.138	0.038	1.435	-0.016	0.031	1.495	-0.132	0.046
1.045	-0.008	0.032	1.215	-0.010	0.030	1.325	-0.112	0.039	1.395	-0.136	0.037	1.435	-0.014	0.031	1.495	-0.130	0.041
1.045	-0.006	0.032	1.215	-0.008	0.030	1.325	-0.110	0.036	1.395	-0.134	0.037	1.435	-0.012	0.031	1.495	-0.128	0.038
1.045	-0.004	0.033	1.215	-0.006	0.031	1.325	-0.108	0.034	1.395	-0.132	0.037	1.435	-0.010	0.032	1.495	-0.126	0.042
1.045	-0.002	0.033	1.215	-0.004	0.031	1.325	-0.106	0.033	1.395	-0.130	0.036	1.435	-0.008	0.033	1.495	-0.124	0.043
1.045	0.000	0.033	1.215	-0.002	0.031	1.325	-0.104	0.034	1.395	-0.128	0.035	1.435	-0.006	0.035	1.495	-0.122	0.044
1.055	-0.050	0.032	1.215	0.000	0.031	1.325	-0.102	0.033	1.395	-0.126	0.037	1.435	-0.004	0.033	1.495	-0.120	0.042
1.055	-0.048	0.032	1.225	-0.164	0.039	1.325	-0.100	0.032	1.395	-0.124	0.036	1.435	-0.002	0.031	1.495	-0.118	0.040
1.055	-0.046	0.032	1.225	-0.162	0.039	1.325	-0.098	0.033	1.395	-0.122	0.036	1.435	0.000	0.031	1.495	-0.116	0.039
1.055	-0.044	0.032	1.225	-0.160	0.038	1.325	-0.096	0.034	1.395	-0.120	0.035	1.44	-0.234	0.046	1.495	-0.114	0.039
1.055	-0.042	0.032	1.225	-0.158	0.039	1.325	-0.094	0.032	1.395	-0.118	0.034	1.44	-0.232	0.045	1.495	-0.112	0.040
1.055	-0.040	0.033	1.225	-0.156	0.040	1.325	-0.092	0.034	1.395	-0.116	0.036	1.44	-0.230	0.045	1.495	-0.110	0.040
1.055	-0.038	0.033	1.225	-0.154	0.040	1.325	-0.090	0.036	1.395	-0.114	0.037	1.44	-0.228	0.047	1.495	-0.108	0.039
1.055	-0.036	0.033	1.225	-0.152	0.038	1.325	-0.088	0.035	1.395	-0.112	0.037	1.44	-0.226	0.047	1.495	-0.106	0.040
1.055	-0.034	0.033	1.225	-0.150	0.039	1.325	-0.086	0.034	1.395	-0.110	0.036	1.44	-0.224	0.046	1.495	-0.104	0.036
1.055	-0.032	0.033	1.225	-0.148	0.040	1.325	-0.084	0.034	1.395	-0.108	0.036	1.44	-0.222	0.045	1.495	-0.102	0.038
1.055	-0.030	0.033	1.225	-0.146	0.040	1.325	-0.082	0.035	1.395	-0.106	0.039	1.44	-0.220	0.046	1.495	-0.100	0.041
1.055	-0.028	0.033	1.225	-0.144	0.039	1.325	-0.080	0.037	1.395	-0.104	0.040	1.44	-0.218	0.047	1.495	-0.098	0.041
1.055	-0.026	0.033	1.225	-0.142	0.038	1.325	-0.078	0.035	1.395	-0.102	0.039	1.44	-0.216	0.047	1.495	-0.096	0.040
1.055	-0.024	0.033	1.225	-0.140	0.039	1.325	-0.076	0.035	1.395	-0.100	0.037	1.44	-0.214	0.047	1.495	-0.094	0.040
1.055	-0.022	0.033	1.225	-0.138	0.039	1.325	-0.074	0.037	1.395	-0.098	0.035	1.44	-0.212	0.049	1.495	-0.092	0.040
1.055	-0.020	0.032	1.225	-0.136	0.040	1.325	-0.072	0.036	1.395	-0.096	0.035	1.44	-0.210	0.052	1.495	-0.090	0.035
1.055	-0.018	0.032	1.225	-0.134	0.041	1.325	-0.070	0.033	1.395	-0.094	0.037	1.44	-0.208	0.052	1.495	-0.088	0.040
1.055	-0.016	0.032	1.225	-0.132	0.038	1.325	-0.068	0.036	1.395	-0.092	0.036	1.44	-0.206	0.050	1.495	-0.086	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.055	-0.014	0.031	1.225	-0.130	0.036	1.325	-0.066	0.037	1.395	-0.090	0.035	1.44	-0.204	0.048	1.495	-0.084	0.041
1.055	-0.012	0.032	1.225	-0.128	0.037	1.325	-0.064	0.036	1.395	-0.088	0.035	1.44	-0.202	0.046	1.495	-0.082	0.039
1.055	-0.010	0.032	1.225	-0.126	0.036	1.325	-0.062	0.034	1.395	-0.086	0.034	1.44	-0.200	0.045	1.495	-0.080	0.040
1.055	-0.008	0.032	1.225	-0.124	0.034	1.325	-0.060	0.031	1.395	-0.084	0.034	1.44	-0.198	0.048	1.495	-0.078	0.040
1.055	-0.006	0.033	1.225	-0.122	0.036	1.325	-0.058	0.032	1.395	-0.082	0.034	1.44	-0.196	0.050	1.495	-0.076	0.039
1.055	-0.004	0.034	1.225	-0.120	0.036	1.325	-0.056	0.033	1.395	-0.080	0.034	1.44	-0.194	0.048	1.495	-0.074	0.038
1.055	-0.002	0.035	1.225	-0.118	0.036	1.325	-0.054	0.031	1.395	-0.078	0.033	1.44	-0.192	0.046	1.495	-0.072	0.035
1.055	0.000	0.036	1.225	-0.116	0.036	1.325	-0.052	0.031	1.395	-0.076	0.034	1.44	-0.190	0.044	1.495	-0.070	0.034
1.065	-0.058	0.031	1.225	-0.114	0.035	1.325	-0.050	0.033	1.395	-0.074	0.035	1.44	-0.188	0.044	1.495	-0.068	0.036
1.065	-0.056	0.031	1.225	-0.112	0.035	1.325	-0.048	0.034	1.395	-0.072	0.035	1.44	-0.186	0.045	1.495	-0.066	0.038
1.065	-0.054	0.031	1.225	-0.110	0.035	1.325	-0.046	0.034	1.395	-0.070	0.035	1.44	-0.184	0.047	1.495	-0.064	0.038
1.065	-0.052	0.031	1.225	-0.108	0.035	1.325	-0.044	0.033	1.395	-0.068	0.033	1.44	-0.182	0.047	1.495	-0.062	0.038
1.065	-0.050	0.031	1.225	-0.106	0.034	1.325	-0.042	0.033	1.395	-0.066	0.033	1.44	-0.180	0.044	1.495	-0.060	0.041
1.065	-0.048	0.031	1.225	-0.104	0.033	1.325	-0.040	0.034	1.395	-0.064	0.032	1.44	-0.178	0.038	1.495	-0.058	0.042
1.065	-0.046	0.031	1.225	-0.102	0.033	1.325	-0.038	0.033	1.395	-0.062	0.032	1.44	-0.176	0.039	1.495	-0.056	0.040
1.065	-0.044	0.032	1.225	-0.100	0.033	1.325	-0.036	0.032	1.395	-0.060	0.033	1.44	-0.174	0.041	1.495	-0.054	0.037
1.065	-0.042	0.032	1.225	-0.098	0.033	1.325	-0.034	0.032	1.395	-0.058	0.034	1.44	-0.172	0.042	1.495	-0.052	0.036
1.065	-0.040	0.032	1.225	-0.096	0.033	1.325	-0.032	0.031	1.395	-0.056	0.035	1.44	-0.170	0.039	1.495	-0.050	0.035
1.065	-0.038	0.032	1.225	-0.094	0.033	1.325	-0.030	0.031	1.395	-0.054	0.034	1.44	-0.168	0.038	1.495	-0.048	0.035
1.065	-0.036	0.033	1.225	-0.092	0.032	1.325	-0.028	0.031	1.395	-0.052	0.032	1.44	-0.166	0.038	1.495	-0.046	0.035
1.065	-0.034	0.033	1.225	-0.090	0.033	1.325	-0.026	0.030	1.395	-0.050	0.032	1.44	-0.164	0.039	1.495	-0.044	0.035
1.065	-0.032	0.033	1.225	-0.088	0.033	1.325	-0.024	0.030	1.395	-0.048	0.031	1.44	-0.162	0.041	1.495	-0.042	0.037
1.065	-0.030	0.032	1.225	-0.086	0.032	1.325	-0.022	0.030	1.395	-0.046	0.031	1.44	-0.160	0.041	1.495	-0.040	0.037
1.065	-0.028	0.032	1.225	-0.084	0.031	1.325	-0.020	0.030	1.395	-0.044	0.031	1.44	-0.158	0.040	1.495	-0.038	0.037
1.065	-0.026	0.033	1.225	-0.082	0.032	1.325	-0.018	0.031	1.395	-0.042	0.032	1.44	-0.156	0.039	1.495	-0.036	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.065	-0.024	0.033	1.225	-0.080	0.033	1.325	-0.016	0.031	1.395	-0.040	0.032	1.44	-0.154	0.039	1.495	-0.034	0.037
1.065	-0.022	0.032	1.225	-0.078	0.032	1.325	-0.014	0.031	1.395	-0.038	0.032	1.44	-0.152	0.040	1.495	-0.032	0.036
1.065	-0.020	0.032	1.225	-0.076	0.032	1.325	-0.012	0.031	1.395	-0.036	0.032	1.44	-0.150	0.042	1.495	-0.030	0.036
1.065	-0.018	0.032	1.225	-0.074	0.034	1.325	-0.010	0.031	1.395	-0.034	0.032	1.44	-0.148	0.041	1.495	-0.028	0.037
1.065	-0.016	0.031	1.225	-0.072	0.036	1.325	-0.008	0.031	1.395	-0.032	0.032	1.44	-0.146	0.038	1.495	-0.026	0.035
1.065	-0.014	0.031	1.225	-0.070	0.035	1.325	-0.006	0.031	1.395	-0.030	0.032	1.44	-0.144	0.038	1.495	-0.024	0.035
1.065	-0.012	0.031	1.225	-0.068	0.034	1.325	-0.004	0.030	1.395	-0.028	0.032	1.44	-0.142	0.039	1.495	-0.022	0.037
1.065	-0.010	0.031	1.225	-0.066	0.033	1.325	-0.002	0.030	1.395	-0.026	0.032	1.44	-0.140	0.038	1.495	-0.020	0.036
1.065	-0.008	0.032	1.225	-0.064	0.031	1.325	0.000	0.030	1.395	-0.024	0.031	1.44	-0.138	0.038	1.495	-0.018	0.035
1.065	-0.006	0.034	1.225	-0.062	0.030	1.335	-0.212	0.047	1.395	-0.022	0.031	1.44	-0.136	0.038	1.495	-0.016	0.036
1.065	-0.004	0.035	1.225	-0.060	0.030	1.335	-0.210	0.047	1.395	-0.020	0.031	1.44	-0.134	0.039	1.495	-0.014	0.038
1.065	-0.002	0.037	1.225	-0.058	0.031	1.335	-0.208	0.046	1.395	-0.018	0.031	1.44	-0.132	0.039	1.495	-0.012	0.039
1.065	0.000	0.039	1.225	-0.056	0.032	1.335	-0.206	0.046	1.395	-0.016	0.031	1.44	-0.130	0.039	1.495	-0.010	0.037
1.075	-0.066	0.030	1.225	-0.054	0.032	1.335	-0.204	0.046	1.395	-0.014	0.030	1.44	-0.128	0.039	1.495	-0.008	0.037
1.075	-0.064	0.030	1.225	-0.052	0.031	1.335	-0.202	0.046	1.395	-0.012	0.031	1.44	-0.126	0.038	1.495	-0.006	0.037
1.075	-0.062	0.030	1.225	-0.050	0.031	1.335	-0.200	0.044	1.395	-0.010	0.031	1.44	-0.124	0.035	1.495	-0.004	0.037
1.075	-0.060	0.031	1.225	-0.048	0.031	1.335	-0.198	0.045	1.395	-0.008	0.031	1.44	-0.122	0.035	1.495	-0.002	0.036
1.075	-0.058	0.031	1.225	-0.046	0.031	1.335	-0.196	0.045	1.395	-0.006	0.032	1.44	-0.120	0.035	1.495	0.000	0.037
1.075	-0.056	0.031	1.225	-0.044	0.031	1.335	-0.194	0.044	1.395	-0.004	0.032	1.44	-0.118	0.037	1.505	-0.224	0.042
1.075	-0.054	0.031	1.225	-0.042	0.031	1.335	-0.192	0.045	1.395	-0.002	0.033	1.44	-0.116	0.037	1.505	-0.222	0.043
1.075	-0.052	0.031	1.225	-0.040	0.032	1.335	-0.190	0.047	1.395	0.000	0.033	1.44	-0.114	0.037	1.505	-0.220	0.042
1.075	-0.050	0.031	1.225	-0.038	0.032	1.335	-0.188	0.048	1.4	-0.230	0.051	1.44	-0.112	0.038	1.505	-0.218	0.042
1.075	-0.048	0.031	1.225	-0.036	0.032	1.335	-0.186	0.048	1.4	-0.228	0.050	1.44	-0.110	0.037	1.505	-0.216	0.042
1.075	-0.046	0.031	1.225	-0.034	0.031	1.335	-0.184	0.047	1.4	-0.226	0.048	1.44	-0.108	0.035	1.505	-0.214	0.043
1.075	-0.044	0.031	1.225	-0.032	0.031	1.335	-0.182	0.044	1.4	-0.224	0.048	1.44	-0.106	0.036	1.505	-0.212	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.075	-0.042	0.031	1.225	-0.030	0.032	1.335	-0.180	0.044	1.4	-0.222	0.049	1.44	-0.104	0.038	1.505	-0.210	0.044
1.075	-0.040	0.031	1.225	-0.028	0.033	1.335	-0.178	0.043	1.4	-0.220	0.048	1.44	-0.102	0.040	1.505	-0.208	0.043
1.075	-0.038	0.031	1.225	-0.026	0.032	1.335	-0.176	0.045	1.4	-0.218	0.048	1.44	-0.100	0.042	1.505	-0.206	0.044
1.075	-0.036	0.032	1.225	-0.024	0.032	1.335	-0.174	0.044	1.4	-0.216	0.047	1.44	-0.098	0.042	1.505	-0.204	0.043
1.075	-0.034	0.032	1.225	-0.022	0.032	1.335	-0.172	0.043	1.4	-0.214	0.047	1.44	-0.096	0.042	1.505	-0.202	0.041
1.075	-0.032	0.031	1.225	-0.020	0.032	1.335	-0.170	0.042	1.4	-0.212	0.045	1.44	-0.094	0.037	1.505	-0.200	0.044
1.075	-0.030	0.031	1.225	-0.018	0.031	1.335	-0.168	0.042	1.4	-0.210	0.045	1.44	-0.092	0.036	1.505	-0.198	0.045
1.075	-0.028	0.031	1.225	-0.016	0.030	1.335	-0.166	0.042	1.4	-0.208	0.043	1.44	-0.090	0.035	1.505	-0.196	0.041
1.075	-0.026	0.031	1.225	-0.014	0.030	1.335	-0.164	0.040	1.4	-0.206	0.044	1.44	-0.088	0.036	1.505	-0.194	0.044
1.075	-0.024	0.032	1.225	-0.012	0.030	1.335	-0.162	0.039	1.4	-0.204	0.046	1.44	-0.086	0.037	1.505	-0.192	0.045
1.075	-0.022	0.032	1.225	-0.010	0.030	1.335	-0.160	0.040	1.4	-0.202	0.046	1.44	-0.084	0.037	1.505	-0.190	0.043
1.075	-0.020	0.032	1.225	-0.008	0.030	1.335	-0.158	0.040	1.4	-0.200	0.045	1.44	-0.082	0.036	1.505	-0.188	0.042
1.075	-0.018	0.031	1.225	-0.006	0.031	1.335	-0.156	0.042	1.4	-0.198	0.041	1.44	-0.080	0.036	1.505	-0.186	0.043
1.075	-0.016	0.031	1.225	-0.004	0.032	1.335	-0.154	0.043	1.4	-0.196	0.042	1.44	-0.078	0.036	1.505	-0.184	0.044
1.075	-0.014	0.031	1.225	-0.002	0.032	1.335	-0.152	0.043	1.4	-0.194	0.042	1.44	-0.076	0.035	1.505	-0.182	0.043
1.075	-0.012	0.031	1.225	0.000	0.032	1.335	-0.150	0.040	1.4	-0.192	0.041	1.44	-0.074	0.034	1.505	-0.180	0.044
1.075	-0.010	0.031	1.235	-0.170	0.042	1.335	-0.148	0.041	1.4	-0.190	0.042	1.44	-0.072	0.032	1.505	-0.178	0.045
1.075	-0.008	0.031	1.235	-0.168	0.044	1.335	-0.146	0.041	1.4	-0.188	0.044	1.44	-0.070	0.033	1.505	-0.176	0.046
1.075	-0.006	0.033	1.235	-0.166	0.045	1.335	-0.144	0.040	1.4	-0.186	0.043	1.44	-0.068	0.034	1.505	-0.174	0.046
1.075	-0.004	0.036	1.235	-0.164	0.045	1.335	-0.142	0.040	1.4	-0.184	0.042	1.44	-0.066	0.034	1.505	-0.172	0.045
1.075	-0.002	0.039	1.235	-0.162	0.044	1.335	-0.140	0.041	1.4	-0.182	0.044	1.44	-0.064	0.033	1.505	-0.170	0.045
1.075	0.000	0.041	1.235	-0.160	0.043	1.335	-0.138	0.041	1.4	-0.180	0.045	1.44	-0.062	0.032	1.505	-0.168	0.046
1.085	-0.074	0.035	1.235	-0.158	0.041	1.335	-0.136	0.041	1.4	-0.178	0.045	1.44	-0.060	0.031	1.505	-0.166	0.047
1.085	-0.072	0.034	1.235	-0.156	0.040	1.335	-0.134	0.041	1.4	-0.176	0.044	1.44	-0.058	0.030	1.505	-0.164	0.048
1.085	-0.070	0.033	1.235	-0.154	0.039	1.335	-0.132	0.041	1.4	-0.174	0.040	1.44	-0.056	0.030	1.505	-0.162	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.068	0.032	1.235	-0.152	0.038	1.335	-0.130	0.041	1.4	-0.172	0.037	1.44	-0.054	0.030	1.505	-0.160	0.047
1.085	-0.066	0.031	1.235	-0.150	0.039	1.335	-0.128	0.041	1.4	-0.170	0.040	1.44	-0.052	0.031	1.505	-0.158	0.045
1.085	-0.064	0.031	1.235	-0.148	0.039	1.335	-0.126	0.042	1.4	-0.168	0.042	1.44	-0.050	0.031	1.505	-0.156	0.044
1.085	-0.062	0.031	1.235	-0.146	0.039	1.335	-0.124	0.041	1.4	-0.166	0.042	1.44	-0.048	0.032	1.505	-0.154	0.044
1.085	-0.060	0.031	1.235	-0.144	0.039	1.335	-0.122	0.039	1.4	-0.164	0.042	1.44	-0.046	0.032	1.505	-0.152	0.044
1.085	-0.058	0.031	1.235	-0.142	0.040	1.335	-0.120	0.036	1.4	-0.162	0.040	1.44	-0.044	0.032	1.505	-0.150	0.046
1.085	-0.056	0.031	1.235	-0.140	0.039	1.335	-0.118	0.033	1.4	-0.160	0.041	1.44	-0.042	0.031	1.505	-0.148	0.047
1.085	-0.054	0.031	1.235	-0.138	0.038	1.335	-0.116	0.034	1.4	-0.158	0.043	1.44	-0.040	0.031	1.505	-0.146	0.050
1.085	-0.052	0.031	1.235	-0.136	0.038	1.335	-0.114	0.035	1.4	-0.156	0.041	1.44	-0.038	0.030	1.505	-0.144	0.050
1.085	-0.050	0.031	1.235	-0.134	0.039	1.335	-0.112	0.036	1.4	-0.154	0.042	1.44	-0.036	0.031	1.505	-0.142	0.048
1.085	-0.048	0.031	1.235	-0.132	0.039	1.335	-0.110	0.037	1.4	-0.152	0.041	1.44	-0.034	0.032	1.505	-0.140	0.049
1.085	-0.046	0.031	1.235	-0.130	0.039	1.335	-0.108	0.036	1.4	-0.150	0.038	1.44	-0.032	0.032	1.505	-0.138	0.049
1.085	-0.044	0.031	1.235	-0.128	0.038	1.335	-0.106	0.036	1.4	-0.148	0.038	1.44	-0.030	0.031	1.505	-0.136	0.048
1.085	-0.042	0.031	1.235	-0.126	0.036	1.335	-0.104	0.035	1.4	-0.146	0.037	1.44	-0.028	0.031	1.505	-0.134	0.047
1.085	-0.040	0.030	1.235	-0.124	0.035	1.335	-0.102	0.034	1.4	-0.144	0.036	1.44	-0.026	0.031	1.505	-0.132	0.045
1.085	-0.038	0.030	1.235	-0.122	0.036	1.335	-0.100	0.033	1.4	-0.142	0.039	1.44	-0.024	0.032	1.505	-0.130	0.046
1.085	-0.036	0.030	1.235	-0.120	0.035	1.335	-0.098	0.032	1.4	-0.140	0.041	1.44	-0.022	0.032	1.505	-0.128	0.047
1.085	-0.034	0.030	1.235	-0.118	0.035	1.335	-0.096	0.032	1.4	-0.138	0.040	1.44	-0.020	0.033	1.505	-0.126	0.048
1.085	-0.032	0.031	1.235	-0.116	0.034	1.335	-0.094	0.034	1.4	-0.136	0.038	1.44	-0.018	0.033	1.505	-0.124	0.046
1.085	-0.030	0.031	1.235	-0.114	0.032	1.335	-0.092	0.035	1.4	-0.134	0.037	1.44	-0.016	0.032	1.505	-0.122	0.042
1.085	-0.028	0.030	1.235	-0.112	0.034	1.335	-0.090	0.033	1.4	-0.132	0.036	1.44	-0.014	0.030	1.505	-0.120	0.042
1.085	-0.026	0.030	1.235	-0.110	0.037	1.335	-0.088	0.033	1.4	-0.130	0.036	1.44	-0.012	0.031	1.505	-0.118	0.042
1.085	-0.024	0.030	1.235	-0.108	0.036	1.335	-0.086	0.034	1.4	-0.128	0.036	1.44	-0.010	0.033	1.505	-0.116	0.042
1.085	-0.022	0.030	1.235	-0.106	0.034	1.335	-0.084	0.034	1.4	-0.126	0.038	1.44	-0.008	0.034	1.505	-0.114	0.040
1.085	-0.020	0.030	1.235	-0.104	0.034	1.335	-0.082	0.034	1.4	-0.124	0.036	1.44	-0.006	0.036	1.505	-0.112	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.085	-0.018	0.031	1.235	-0.102	0.034	1.335	-0.080	0.034	1.4	-0.122	0.035	1.44	-0.004	0.035	1.505	-0.110	0.044
1.085	-0.016	0.031	1.235	-0.100	0.034	1.335	-0.078	0.034	1.4	-0.120	0.034	1.44	-0.002	0.033	1.505	-0.108	0.044
1.085	-0.014	0.031	1.235	-0.098	0.035	1.335	-0.076	0.033	1.4	-0.118	0.037	1.44	0.000	0.031	1.505	-0.106	0.042
1.085	-0.012	0.031	1.235	-0.096	0.035	1.335	-0.074	0.034	1.4	-0.116	0.039	1.445	-0.234	0.048	1.505	-0.104	0.040
1.085	-0.010	0.031	1.235	-0.094	0.033	1.335	-0.072	0.035	1.4	-0.114	0.039	1.445	-0.232	0.049	1.505	-0.102	0.040
1.085	-0.008	0.030	1.235	-0.092	0.033	1.335	-0.070	0.034	1.4	-0.112	0.036	1.445	-0.230	0.049	1.505	-0.100	0.042
1.085	-0.006	0.030	1.235	-0.090	0.035	1.335	-0.068	0.031	1.4	-0.110	0.035	1.445	-0.228	0.048	1.505	-0.098	0.042
1.085	-0.004	0.031	1.235	-0.088	0.036	1.335	-0.066	0.032	1.4	-0.108	0.035	1.445	-0.226	0.048	1.505	-0.096	0.040
1.085	-0.002	0.034	1.235	-0.086	0.035	1.335	-0.064	0.033	1.4	-0.106	0.037	1.445	-0.224	0.046	1.505	-0.094	0.039
1.085	0.000	0.037	1.235	-0.084	0.034	1.335	-0.062	0.033	1.4	-0.104	0.038	1.445	-0.222	0.047	1.505	-0.092	0.041
1.095	-0.082	0.037	1.235	-0.082	0.031	1.335	-0.060	0.034	1.4	-0.102	0.038	1.445	-0.220	0.048	1.505	-0.090	0.043
1.095	-0.080	0.035	1.235	-0.080	0.034	1.335	-0.058	0.034	1.4	-0.100	0.038	1.445	-0.218	0.047	1.505	-0.088	0.042
1.095	-0.078	0.033	1.235	-0.078	0.036	1.335	-0.056	0.035	1.4	-0.098	0.037	1.445	-0.216	0.048	1.505	-0.086	0.042
1.095	-0.076	0.032	1.235	-0.076	0.037	1.335	-0.054	0.035	1.4	-0.096	0.036	1.445	-0.214	0.048	1.505	-0.084	0.040
1.095	-0.074	0.033	1.235	-0.074	0.036	1.335	-0.052	0.034	1.4	-0.094	0.036	1.445	-0.212	0.049	1.505	-0.082	0.037
1.095	-0.072	0.032	1.235	-0.072	0.033	1.335	-0.050	0.033	1.4	-0.092	0.035	1.445	-0.210	0.048	1.505	-0.080	0.037
1.095	-0.070	0.031	1.235	-0.070	0.031	1.335	-0.048	0.033	1.4	-0.090	0.034	1.445	-0.208	0.047	1.505	-0.078	0.038
1.095	-0.068	0.032	1.235	-0.068	0.031	1.335	-0.046	0.032	1.4	-0.088	0.035	1.445	-0.206	0.046	1.505	-0.076	0.038
1.095	-0.066	0.032	1.235	-0.066	0.031	1.335	-0.044	0.033	1.4	-0.086	0.035	1.445	-0.204	0.046	1.505	-0.074	0.038
1.095	-0.064	0.031	1.235	-0.064	0.031	1.335	-0.042	0.033	1.4	-0.084	0.034	1.445	-0.202	0.046	1.505	-0.072	0.037
1.095	-0.062	0.031	1.235	-0.062	0.031	1.335	-0.040	0.033	1.4	-0.082	0.033	1.445	-0.200	0.047	1.505	-0.070	0.039
1.095	-0.060	0.030	1.235	-0.060	0.031	1.335	-0.038	0.032	1.4	-0.080	0.032	1.445	-0.198	0.049	1.505	-0.068	0.040
1.095	-0.058	0.030	1.235	-0.058	0.031	1.335	-0.036	0.030	1.4	-0.078	0.032	1.445	-0.196	0.049	1.505	-0.066	0.040
1.095	-0.056	0.031	1.235	-0.056	0.031	1.335	-0.034	0.031	1.4	-0.076	0.035	1.445	-0.194	0.047	1.505	-0.064	0.039
1.095	-0.054	0.031	1.235	-0.054	0.031	1.335	-0.032	0.031	1.4	-0.074	0.036	1.445	-0.192	0.046	1.505	-0.062	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.052	0.031	1.235	-0.052	0.031	1.335	-0.030	0.031	1.4	-0.072	0.035	1.445	-0.190	0.044	1.505	-0.060	0.040
1.095	-0.050	0.031	1.235	-0.050	0.031	1.335	-0.028	0.031	1.4	-0.070	0.034	1.445	-0.188	0.044	1.505	-0.058	0.040
1.095	-0.048	0.031	1.235	-0.048	0.030	1.335	-0.026	0.031	1.4	-0.068	0.033	1.445	-0.186	0.044	1.505	-0.056	0.039
1.095	-0.046	0.031	1.235	-0.046	0.030	1.335	-0.024	0.030	1.4	-0.066	0.034	1.445	-0.184	0.044	1.505	-0.054	0.038
1.095	-0.044	0.030	1.235	-0.044	0.031	1.335	-0.022	0.030	1.4	-0.064	0.033	1.445	-0.182	0.045	1.505	-0.052	0.037
1.095	-0.042	0.030	1.235	-0.042	0.031	1.335	-0.020	0.030	1.4	-0.062	0.033	1.445	-0.180	0.043	1.505	-0.050	0.038
1.095	-0.040	0.030	1.235	-0.040	0.031	1.335	-0.018	0.031	1.4	-0.060	0.034	1.445	-0.178	0.040	1.505	-0.048	0.038
1.095	-0.038	0.030	1.235	-0.038	0.032	1.335	-0.016	0.031	1.4	-0.058	0.035	1.445	-0.176	0.041	1.505	-0.046	0.036
1.095	-0.036	0.030	1.235	-0.036	0.033	1.335	-0.014	0.031	1.4	-0.056	0.034	1.445	-0.174	0.041	1.505	-0.044	0.035
1.095	-0.034	0.030	1.235	-0.034	0.033	1.335	-0.012	0.031	1.4	-0.054	0.031	1.445	-0.172	0.041	1.505	-0.042	0.035
1.095	-0.032	0.030	1.235	-0.032	0.033	1.335	-0.010	0.031	1.4	-0.052	0.031	1.445	-0.170	0.039	1.505	-0.040	0.037
1.095	-0.030	0.031	1.235	-0.030	0.035	1.335	-0.008	0.031	1.4	-0.050	0.031	1.445	-0.168	0.038	1.505	-0.038	0.038
1.095	-0.028	0.031	1.235	-0.028	0.035	1.335	-0.006	0.031	1.4	-0.048	0.032	1.445	-0.166	0.040	1.505	-0.036	0.039
1.095	-0.026	0.030	1.235	-0.026	0.034	1.335	-0.004	0.031	1.4	-0.046	0.032	1.445	-0.164	0.039	1.505	-0.034	0.039
1.095	-0.024	0.030	1.235	-0.024	0.032	1.335	-0.002	0.030	1.4	-0.044	0.032	1.445	-0.162	0.039	1.505	-0.032	0.036
1.095	-0.022	0.030	1.235	-0.022	0.031	1.335	0.000	0.030	1.4	-0.042	0.032	1.445	-0.160	0.039	1.505	-0.030	0.034
1.095	-0.020	0.030	1.235	-0.020	0.031	1.345	-0.216	0.047	1.4	-0.040	0.032	1.445	-0.158	0.039	1.505	-0.028	0.035
1.095	-0.018	0.030	1.235	-0.018	0.031	1.345	-0.214	0.048	1.4	-0.038	0.032	1.445	-0.156	0.039	1.505	-0.026	0.034
1.095	-0.016	0.030	1.235	-0.016	0.031	1.345	-0.212	0.048	1.4	-0.036	0.033	1.445	-0.154	0.039	1.505	-0.024	0.036
1.095	-0.014	0.030	1.235	-0.014	0.030	1.345	-0.210	0.047	1.4	-0.034	0.033	1.445	-0.152	0.039	1.505	-0.022	0.039
1.095	-0.012	0.030	1.235	-0.012	0.030	1.345	-0.208	0.047	1.4	-0.032	0.032	1.445	-0.150	0.041	1.505	-0.020	0.039
1.095	-0.010	0.030	1.235	-0.010	0.030	1.345	-0.206	0.046	1.4	-0.030	0.032	1.445	-0.148	0.041	1.505	-0.018	0.039
1.095	-0.008	0.030	1.235	-0.008	0.030	1.345	-0.204	0.045	1.4	-0.028	0.032	1.445	-0.146	0.040	1.505	-0.016	0.037
1.095	-0.006	0.030	1.235	-0.006	0.030	1.345	-0.202	0.046	1.4	-0.026	0.032	1.445	-0.144	0.039	1.505	-0.014	0.035
1.095	-0.004	0.030	1.235	-0.004	0.030	1.345	-0.200	0.046	1.4	-0.024	0.031	1.445	-0.142	0.039	1.505	-0.012	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.095	-0.002	0.031	1.235	-0.002	0.031	1.345	-0.198	0.045	1.4	-0.022	0.031	1.445	-0.140	0.039	1.505	-0.010	0.037
1.095	0.000	0.032	1.235	0.000	0.032	1.345	-0.196	0.046	1.4	-0.020	0.031	1.445	-0.138	0.039	1.505	-0.008	0.037
1.105	-0.090	0.037	1.245	-0.176	0.046	1.345	-0.194	0.045	1.4	-0.018	0.031	1.445	-0.136	0.036	1.505	-0.006	0.036
1.105	-0.088	0.037	1.245	-0.174	0.044	1.345	-0.192	0.044	1.4	-0.016	0.031	1.445	-0.134	0.038	1.505	-0.004	0.037
1.105	-0.086	0.036	1.245	-0.172	0.044	1.345	-0.190	0.045	1.4	-0.014	0.031	1.445	-0.132	0.041	1.505	-0.002	0.036
1.105	-0.084	0.036	1.245	-0.170	0.046	1.345	-0.188	0.045	1.4	-0.012	0.031	1.445	-0.130	0.041	1.505	0.000	0.034
1.105	-0.082	0.036	1.245	-0.168	0.047	1.345	-0.186	0.048	1.4	-0.010	0.031	1.445	-0.128	0.039	1.515	-0.220	0.041
1.105	-0.080	0.033	1.245	-0.166	0.046	1.345	-0.184	0.049	1.4	-0.008	0.031	1.445	-0.126	0.037	1.515	-0.218	0.042
1.105	-0.078	0.032	1.245	-0.164	0.043	1.345	-0.182	0.049	1.4	-0.006	0.032	1.445	-0.124	0.038	1.515	-0.216	0.043
1.105	-0.076	0.032	1.245	-0.162	0.042	1.345	-0.180	0.049	1.4	-0.004	0.033	1.445	-0.122	0.037	1.515	-0.214	0.044
1.105	-0.074	0.031	1.245	-0.160	0.041	1.345	-0.178	0.047	1.4	-0.002	0.033	1.445	-0.120	0.034	1.515	-0.212	0.045
1.105	-0.072	0.031	1.245	-0.158	0.041	1.345	-0.176	0.045	1.4	0.000	0.034	1.445	-0.118	0.035	1.515	-0.210	0.045
1.105	-0.070	0.031	1.245	-0.156	0.041	1.345	-0.174	0.042	1.405	-0.230	0.048	1.445	-0.116	0.037	1.515	-0.208	0.045
1.105	-0.068	0.031	1.245	-0.154	0.041	1.345	-0.172	0.044	1.405	-0.228	0.048	1.445	-0.114	0.037	1.515	-0.206	0.044
1.105	-0.066	0.031	1.245	-0.152	0.043	1.345	-0.170	0.043	1.405	-0.226	0.047	1.445	-0.112	0.037	1.515	-0.204	0.042
1.105	-0.064	0.031	1.245	-0.150	0.042	1.345	-0.168	0.040	1.405	-0.224	0.047	1.445	-0.110	0.036	1.515	-0.202	0.042
1.105	-0.062	0.031	1.245	-0.148	0.041	1.345	-0.166	0.039	1.405	-0.222	0.048	1.445	-0.108	0.034	1.515	-0.200	0.045
1.105	-0.060	0.031	1.245	-0.146	0.040	1.345	-0.164	0.040	1.405	-0.220	0.049	1.445	-0.106	0.037	1.515	-0.198	0.044
1.105	-0.058	0.031	1.245	-0.144	0.041	1.345	-0.162	0.041	1.405	-0.218	0.047	1.445	-0.104	0.038	1.515	-0.196	0.043
1.105	-0.056	0.031	1.245	-0.142	0.040	1.345	-0.160	0.042	1.405	-0.216	0.045	1.445	-0.102	0.040	1.515	-0.194	0.043
1.105	-0.054	0.031	1.245	-0.140	0.039	1.345	-0.158	0.041	1.405	-0.214	0.046	1.445	-0.100	0.041	1.515	-0.192	0.043
1.105	-0.052	0.031	1.245	-0.138	0.038	1.345	-0.156	0.040	1.405	-0.212	0.045	1.445	-0.098	0.042	1.515	-0.190	0.042
1.105	-0.050	0.031	1.245	-0.136	0.038	1.345	-0.154	0.041	1.405	-0.210	0.043	1.445	-0.096	0.041	1.515	-0.188	0.044
1.105	-0.048	0.031	1.245	-0.134	0.038	1.345	-0.152	0.043	1.405	-0.208	0.042	1.445	-0.094	0.037	1.515	-0.186	0.045
1.105	-0.046	0.031	1.245	-0.132	0.040	1.345	-0.150	0.044	1.405	-0.206	0.044	1.445	-0.092	0.037	1.515	-0.184	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.105	-0.044	0.031	1.245	-0.130	0.040	1.345	-0.148	0.042	1.405	-0.204	0.044	1.445	-0.090	0.035	1.515	-0.182	0.046
1.105	-0.042	0.031	1.245	-0.128	0.040	1.345	-0.146	0.043	1.405	-0.202	0.044	1.445	-0.088	0.038	1.515	-0.180	0.048
1.105	-0.040	0.030	1.245	-0.126	0.039	1.345	-0.144	0.043	1.405	-0.200	0.044	1.445	-0.086	0.040	1.515	-0.178	0.048
1.105	-0.038	0.030	1.245	-0.124	0.041	1.345	-0.142	0.042	1.405	-0.198	0.042	1.445	-0.084	0.039	1.515	-0.176	0.046
1.105	-0.036	0.030	1.245	-0.122	0.040	1.345	-0.140	0.039	1.405	-0.196	0.042	1.445	-0.082	0.038	1.515	-0.174	0.045
1.105	-0.034	0.030	1.245	-0.120	0.038	1.345	-0.138	0.036	1.405	-0.194	0.043	1.445	-0.080	0.037	1.515	-0.172	0.046
1.105	-0.032	0.030	1.245	-0.118	0.034	1.345	-0.136	0.039	1.405	-0.192	0.042	1.445	-0.078	0.037	1.515	-0.170	0.046
1.105	-0.030	0.030	1.245	-0.116	0.036	1.345	-0.134	0.038	1.405	-0.190	0.043	1.445	-0.076	0.036	1.515	-0.168	0.047
1.105	-0.028	0.030	1.245	-0.114	0.038	1.345	-0.132	0.038	1.405	-0.188	0.043	1.445	-0.074	0.035	1.515	-0.166	0.048
1.105	-0.026	0.030	1.245	-0.112	0.036	1.345	-0.130	0.039	1.405	-0.186	0.041	1.445	-0.072	0.032	1.515	-0.164	0.048
1.105	-0.024	0.030	1.245	-0.110	0.035	1.345	-0.128	0.038	1.405	-0.184	0.041	1.445	-0.070	0.032	1.515	-0.162	0.048
1.105	-0.022	0.030	1.245	-0.108	0.035	1.345	-0.126	0.036	1.405	-0.182	0.041	1.445	-0.068	0.032	1.515	-0.160	0.046
1.105	-0.020	0.030	1.245	-0.106	0.033	1.345	-0.124	0.035	1.405	-0.180	0.042	1.445	-0.066	0.033	1.515	-0.158	0.044
1.105	-0.018	0.030	1.245	-0.104	0.032	1.345	-0.122	0.034	1.405	-0.178	0.042	1.445	-0.064	0.033	1.515	-0.156	0.045
1.105	-0.016	0.030	1.245	-0.102	0.033	1.345	-0.120	0.035	1.405	-0.176	0.041	1.445	-0.062	0.031	1.515	-0.154	0.048
1.105	-0.014	0.030	1.245	-0.100	0.033	1.345	-0.118	0.034	1.405	-0.174	0.040	1.445	-0.060	0.032	1.515	-0.152	0.050
1.105	-0.012	0.030	1.245	-0.098	0.034	1.345	-0.116	0.033	1.405	-0.172	0.038	1.445	-0.058	0.031	1.515	-0.150	0.050
1.105	-0.010	0.029	1.245	-0.096	0.034	1.345	-0.114	0.033	1.405	-0.170	0.039	1.445	-0.056	0.031	1.515	-0.148	0.050
1.105	-0.008	0.029	1.245	-0.094	0.034	1.345	-0.112	0.032	1.405	-0.168	0.042	1.445	-0.054	0.033	1.515	-0.146	0.050
1.105	-0.006	0.029	1.245	-0.092	0.034	1.345	-0.110	0.032	1.405	-0.166	0.040	1.445	-0.052	0.031	1.515	-0.144	0.047
1.105	-0.004	0.029	1.245	-0.090	0.033	1.345	-0.108	0.032	1.405	-0.164	0.038	1.445	-0.050	0.031	1.515	-0.142	0.050
1.105	-0.002	0.029	1.245	-0.088	0.032	1.345	-0.106	0.033	1.405	-0.162	0.041	1.445	-0.048	0.032	1.515	-0.140	0.049
1.105	0.000	0.028	1.245	-0.086	0.033	1.345	-0.104	0.034	1.405	-0.160	0.044	1.445	-0.046	0.033	1.515	-0.138	0.046
1.115	-0.096	0.035	1.245	-0.084	0.033	1.345	-0.102	0.033	1.405	-0.158	0.045	1.445	-0.044	0.032	1.515	-0.136	0.045
1.115	-0.094	0.034	1.245	-0.082	0.032	1.345	-0.100	0.033	1.405	-0.156	0.044	1.445	-0.042	0.031	1.515	-0.134	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.115	-0.092	0.034	1.245	-0.080	0.032	1.345	-0.098	0.033	1.405	-0.154	0.041	1.445	-0.040	0.031	1.515	-0.132	0.044
1.115	-0.090	0.034	1.245	-0.078	0.032	1.345	-0.096	0.035	1.405	-0.152	0.040	1.445	-0.038	0.031	1.515	-0.130	0.044
1.115	-0.088	0.034	1.245	-0.076	0.032	1.345	-0.094	0.037	1.405	-0.150	0.040	1.445	-0.036	0.031	1.515	-0.128	0.044
1.115	-0.086	0.034	1.245	-0.074	0.031	1.345	-0.092	0.038	1.405	-0.148	0.039	1.445	-0.034	0.031	1.515	-0.126	0.045
1.115	-0.084	0.034	1.245	-0.072	0.031	1.345	-0.090	0.038	1.405	-0.146	0.038	1.445	-0.032	0.031	1.515	-0.124	0.045
1.115	-0.082	0.033	1.245	-0.070	0.031	1.345	-0.088	0.037	1.405	-0.144	0.036	1.445	-0.030	0.031	1.515	-0.122	0.045
1.115	-0.080	0.032	1.245	-0.068	0.032	1.345	-0.086	0.036	1.405	-0.142	0.037	1.445	-0.028	0.030	1.515	-0.120	0.044
1.115	-0.078	0.030	1.245	-0.066	0.032	1.345	-0.084	0.035	1.405	-0.140	0.040	1.445	-0.026	0.031	1.515	-0.118	0.041
1.115	-0.076	0.031	1.245	-0.064	0.032	1.345	-0.082	0.034	1.405	-0.138	0.041	1.445	-0.024	0.032	1.515	-0.116	0.040
1.115	-0.074	0.031	1.245	-0.062	0.032	1.345	-0.080	0.035	1.405	-0.136	0.040	1.445	-0.022	0.033	1.515	-0.114	0.042
1.115	-0.072	0.031	1.245	-0.060	0.032	1.345	-0.078	0.035	1.405	-0.134	0.039	1.445	-0.020	0.034	1.515	-0.112	0.043
1.115	-0.070	0.031	1.245	-0.058	0.032	1.345	-0.076	0.033	1.405	-0.132	0.038	1.445	-0.018	0.033	1.515	-0.110	0.042
1.115	-0.068	0.031	1.245	-0.056	0.032	1.345	-0.074	0.033	1.405	-0.130	0.037	1.445	-0.016	0.033	1.515	-0.108	0.042
1.115	-0.066	0.031	1.245	-0.054	0.033	1.345	-0.072	0.033	1.405	-0.128	0.037	1.445	-0.014	0.032	1.515	-0.106	0.043
1.115	-0.064	0.031	1.245	-0.052	0.033	1.345	-0.070	0.033	1.405	-0.126	0.038	1.445	-0.012	0.032	1.515	-0.104	0.044
1.115	-0.062	0.032	1.245	-0.050	0.032	1.345	-0.068	0.033	1.405	-0.124	0.037	1.445	-0.010	0.033	1.515	-0.102	0.043
1.115	-0.060	0.032	1.245	-0.048	0.030	1.345	-0.066	0.035	1.405	-0.122	0.038	1.445	-0.008	0.034	1.515	-0.100	0.044
1.115	-0.058	0.032	1.245	-0.046	0.030	1.345	-0.064	0.037	1.405	-0.120	0.037	1.445	-0.006	0.034	1.515	-0.098	0.043
1.115	-0.056	0.031	1.245	-0.044	0.030	1.345	-0.062	0.037	1.405	-0.118	0.038	1.445	-0.004	0.035	1.515	-0.096	0.041
1.115	-0.054	0.031	1.245	-0.042	0.031	1.345	-0.060	0.036	1.405	-0.116	0.040	1.445	-0.002	0.034	1.515	-0.094	0.042
1.115	-0.052	0.031	1.245	-0.040	0.031	1.345	-0.058	0.033	1.405	-0.114	0.040	1.445	0.000	0.032	1.515	-0.092	0.043
1.115	-0.050	0.032	1.245	-0.038	0.031	1.345	-0.056	0.032	1.405	-0.112	0.038	1.45	-0.234	0.052	1.515	-0.090	0.043
1.115	-0.048	0.032	1.245	-0.036	0.031	1.345	-0.054	0.033	1.405	-0.110	0.036	1.45	-0.232	0.051	1.515	-0.088	0.043
1.115	-0.046	0.032	1.245	-0.034	0.030	1.345	-0.052	0.032	1.405	-0.108	0.036	1.45	-0.230	0.050	1.515	-0.086	0.042
1.115	-0.044	0.031	1.245	-0.032	0.030	1.345	-0.050	0.031	1.405	-0.106	0.034	1.45	-0.228	0.048	1.515	-0.084	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.115	-0.042	0.031	1.245	-0.030	0.031	1.345	-0.048	0.032	1.405	-0.104	0.037	1.45	-0.226	0.048	1.515	-0.082	0.043
1.115	-0.040	0.031	1.245	-0.028	0.033	1.345	-0.046	0.031	1.405	-0.102	0.037	1.45	-0.224	0.048	1.515	-0.080	0.043
1.115	-0.038	0.031	1.245	-0.026	0.033	1.345	-0.044	0.030	1.405	-0.100	0.037	1.45	-0.222	0.047	1.515	-0.078	0.043
1.115	-0.036	0.031	1.245	-0.024	0.032	1.345	-0.042	0.031	1.405	-0.098	0.037	1.45	-0.220	0.047	1.515	-0.076	0.044
1.115	-0.034	0.031	1.245	-0.022	0.031	1.345	-0.040	0.031	1.405	-0.096	0.037	1.45	-0.218	0.048	1.515	-0.074	0.045
1.115	-0.032	0.031	1.245	-0.020	0.031	1.345	-0.038	0.031	1.405	-0.094	0.035	1.45	-0.216	0.048	1.515	-0.072	0.044
1.115	-0.030	0.030	1.245	-0.018	0.031	1.345	-0.036	0.031	1.405	-0.092	0.034	1.45	-0.214	0.047	1.515	-0.070	0.042
1.115	-0.028	0.031	1.245	-0.016	0.031	1.345	-0.034	0.031	1.405	-0.090	0.033	1.45	-0.212	0.048	1.515	-0.068	0.042
1.115	-0.026	0.031	1.245	-0.014	0.031	1.345	-0.032	0.030	1.405	-0.088	0.034	1.45	-0.210	0.046	1.515	-0.066	0.041
1.115	-0.024	0.031	1.245	-0.012	0.030	1.345	-0.030	0.031	1.405	-0.086	0.035	1.45	-0.208	0.045	1.515	-0.064	0.041
1.115	-0.022	0.031	1.245	-0.010	0.030	1.345	-0.028	0.031	1.405	-0.084	0.034	1.45	-0.206	0.045	1.515	-0.062	0.041
1.115	-0.020	0.031	1.245	-0.008	0.030	1.345	-0.026	0.031	1.405	-0.082	0.033	1.45	-0.204	0.045	1.515	-0.060	0.039
1.115	-0.018	0.030	1.245	-0.006	0.030	1.345	-0.024	0.031	1.405	-0.080	0.032	1.45	-0.202	0.045	1.515	-0.058	0.041
1.115	-0.016	0.030	1.245	-0.004	0.030	1.345	-0.022	0.031	1.405	-0.078	0.033	1.45	-0.200	0.046	1.515	-0.056	0.043
1.115	-0.014	0.030	1.245	-0.002	0.030	1.345	-0.020	0.031	1.405	-0.076	0.036	1.45	-0.198	0.047	1.515	-0.054	0.041
1.115	-0.012	0.029	1.245	0.000	0.030	1.345	-0.018	0.031	1.405	-0.074	0.036	1.45	-0.196	0.047	1.515	-0.052	0.041
1.115	-0.010	0.029	1.255	-0.180	0.042	1.345	-0.016	0.031	1.405	-0.072	0.036	1.45	-0.194	0.046	1.515	-0.050	0.041
1.115	-0.008	0.029	1.255	-0.178	0.041	1.345	-0.014	0.031	1.405	-0.070	0.034	1.45	-0.192	0.046	1.515	-0.048	0.040
1.115	-0.006	0.028	1.255	-0.176	0.043	1.345	-0.012	0.031	1.405	-0.068	0.032	1.45	-0.190	0.044	1.515	-0.046	0.040
1.115	-0.004	0.028	1.255	-0.174	0.045	1.345	-0.010	0.031	1.405	-0.066	0.033	1.45	-0.188	0.043	1.515	-0.044	0.040
1.115	-0.002	0.027	1.255	-0.172	0.045	1.345	-0.008	0.031	1.405	-0.064	0.033	1.45	-0.186	0.042	1.515	-0.042	0.040
1.115	0.000	0.027	1.255	-0.170	0.043	1.345	-0.006	0.031	1.405	-0.062	0.033	1.45	-0.184	0.042	1.515	-0.040	0.040
1.125	-0.104	0.036	1.255	-0.168	0.043	1.345	-0.004	0.031	1.405	-0.060	0.034	1.45	-0.182	0.043	1.515	-0.038	0.040
1.125	-0.102	0.036	1.255	-0.166	0.043	1.345	-0.002	0.031	1.405	-0.058	0.034	1.45	-0.180	0.043	1.515	-0.036	0.040
1.125	-0.100	0.035	1.255	-0.164	0.044	1.345	0.000	0.031	1.405	-0.056	0.033	1.45	-0.178	0.043	1.515	-0.034	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.125	-0.098	0.035	1.255	-0.162	0.043	1.355	-0.218	0.053	1.405	-0.054	0.031	1.45	-0.176	0.043	1.515	-0.032	0.039
1.125	-0.096	0.035	1.255	-0.160	0.041	1.355	-0.216	0.052	1.405	-0.052	0.031	1.45	-0.174	0.042	1.515	-0.030	0.039
1.125	-0.094	0.035	1.255	-0.158	0.041	1.355	-0.214	0.050	1.405	-0.050	0.031	1.45	-0.172	0.040	1.515	-0.028	0.039
1.125	-0.092	0.034	1.255	-0.156	0.041	1.355	-0.212	0.047	1.405	-0.048	0.032	1.45	-0.170	0.039	1.515	-0.026	0.038
1.125	-0.090	0.033	1.255	-0.154	0.040	1.355	-0.210	0.046	1.405	-0.046	0.032	1.45	-0.168	0.038	1.515	-0.024	0.038
1.125	-0.088	0.033	1.255	-0.152	0.039	1.355	-0.208	0.046	1.405	-0.044	0.032	1.45	-0.166	0.038	1.515	-0.022	0.039
1.125	-0.086	0.034	1.255	-0.150	0.041	1.355	-0.206	0.048	1.405	-0.042	0.032	1.45	-0.164	0.038	1.515	-0.020	0.039
1.125	-0.084	0.034	1.255	-0.148	0.045	1.355	-0.204	0.048	1.405	-0.040	0.033	1.45	-0.162	0.038	1.515	-0.018	0.036
1.125	-0.082	0.035	1.255	-0.146	0.045	1.355	-0.202	0.049	1.405	-0.038	0.033	1.45	-0.160	0.039	1.515	-0.016	0.036
1.125	-0.080	0.036	1.255	-0.144	0.044	1.355	-0.200	0.049	1.405	-0.036	0.033	1.45	-0.158	0.040	1.515	-0.014	0.036
1.125	-0.078	0.035	1.255	-0.142	0.043	1.355	-0.198	0.046	1.405	-0.034	0.033	1.45	-0.156	0.038	1.515	-0.012	0.036
1.125	-0.076	0.034	1.255	-0.140	0.041	1.355	-0.196	0.045	1.405	-0.032	0.033	1.45	-0.154	0.039	1.515	-0.010	0.037
1.125	-0.074	0.032	1.255	-0.138	0.043	1.355	-0.194	0.044	1.405	-0.030	0.032	1.45	-0.152	0.040	1.515	-0.008	0.036
1.125	-0.072	0.033	1.255	-0.136	0.042	1.355	-0.192	0.048	1.405	-0.028	0.032	1.45	-0.150	0.040	1.515	-0.006	0.036
1.125	-0.070	0.031	1.255	-0.134	0.041	1.355	-0.190	0.048	1.405	-0.026	0.032	1.45	-0.148	0.040	1.515	-0.004	0.036
1.125	-0.068	0.031	1.255	-0.132	0.040	1.355	-0.188	0.047	1.405	-0.024	0.031	1.45	-0.146	0.040	1.515	-0.002	0.035
1.125	-0.066	0.031	1.255	-0.130	0.039	1.355	-0.186	0.046	1.405	-0.022	0.031	1.45	-0.144	0.039	1.515	0.000	0.031
1.125	-0.064	0.031	1.255	-0.128	0.038	1.355	-0.184	0.043	1.405	-0.020	0.031	1.45	-0.142	0.038	1.525	-0.214	0.043
1.125	-0.062	0.031	1.255	-0.126	0.036	1.355	-0.182	0.043	1.405	-0.018	0.031	1.45	-0.140	0.039	1.525	-0.212	0.043
1.125	-0.060	0.032	1.255	-0.124	0.035	1.355	-0.180	0.043	1.405	-0.016	0.031	1.45	-0.138	0.038	1.525	-0.210	0.043
1.125	-0.058	0.032	1.255	-0.122	0.037	1.355	-0.178	0.043	1.405	-0.014	0.031	1.45	-0.136	0.038	1.525	-0.208	0.042
1.125	-0.056	0.032	1.255	-0.120	0.035	1.355	-0.176	0.042	1.405	-0.012	0.031	1.45	-0.134	0.039	1.525	-0.206	0.042
1.125	-0.054	0.031	1.255	-0.118	0.035	1.355	-0.174	0.042	1.405	-0.010	0.031	1.45	-0.132	0.041	1.525	-0.204	0.041
1.125	-0.052	0.030	1.255	-0.116	0.038	1.355	-0.172	0.041	1.405	-0.008	0.032	1.45	-0.130	0.040	1.525	-0.202	0.041
1.125	-0.050	0.030	1.255	-0.114	0.037	1.355	-0.170	0.039	1.405	-0.006	0.032	1.45	-0.128	0.038	1.525	-0.200	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.125	-0.048	0.031	1.255	-0.112	0.037	1.355	-0.168	0.040	1.405	-0.004	0.033	1.45	-0.126	0.037	1.525	-0.198	0.044
1.125	-0.046	0.032	1.255	-0.110	0.037	1.355	-0.166	0.041	1.405	-0.002	0.033	1.45	-0.124	0.035	1.525	-0.196	0.043
1.125	-0.044	0.031	1.255	-0.108	0.036	1.355	-0.164	0.040	1.405	0.000	0.034	1.45	-0.122	0.035	1.525	-0.194	0.043
1.125	-0.042	0.031	1.255	-0.106	0.034	1.355	-0.162	0.041	1.41	-0.232	0.049	1.45	-0.120	0.035	1.525	-0.192	0.045
1.125	-0.040	0.031	1.255	-0.104	0.033	1.355	-0.160	0.042	1.41	-0.230	0.050	1.45	-0.118	0.037	1.525	-0.190	0.046
1.125	-0.038	0.032	1.255	-0.102	0.032	1.355	-0.158	0.040	1.41	-0.228	0.050	1.45	-0.116	0.038	1.525	-0.188	0.049
1.125	-0.036	0.032	1.255	-0.100	0.033	1.355	-0.156	0.040	1.41	-0.226	0.051	1.45	-0.114	0.037	1.525	-0.186	0.051
1.125	-0.034	0.033	1.255	-0.098	0.034	1.355	-0.154	0.040	1.41	-0.224	0.050	1.45	-0.112	0.037	1.525	-0.184	0.048
1.125	-0.032	0.033	1.255	-0.096	0.033	1.355	-0.152	0.038	1.41	-0.222	0.048	1.45	-0.110	0.037	1.525	-0.182	0.046
1.125	-0.030	0.033	1.255	-0.094	0.034	1.355	-0.150	0.037	1.41	-0.220	0.047	1.45	-0.108	0.039	1.525	-0.180	0.044
1.125	-0.028	0.032	1.255	-0.092	0.033	1.355	-0.148	0.039	1.41	-0.218	0.049	1.45	-0.106	0.039	1.525	-0.178	0.043
1.125	-0.026	0.032	1.255	-0.090	0.034	1.355	-0.146	0.039	1.41	-0.216	0.047	1.45	-0.104	0.040	1.525	-0.176	0.043
1.125	-0.024	0.032	1.255	-0.088	0.034	1.355	-0.144	0.037	1.41	-0.214	0.045	1.45	-0.102	0.040	1.525	-0.174	0.044
1.125	-0.022	0.031	1.255	-0.086	0.034	1.355	-0.142	0.038	1.41	-0.212	0.043	1.45	-0.100	0.038	1.525	-0.172	0.046
1.125	-0.020	0.031	1.255	-0.084	0.034	1.355	-0.140	0.037	1.41	-0.210	0.043	1.45	-0.098	0.039	1.525	-0.170	0.045
1.125	-0.018	0.031	1.255	-0.082	0.034	1.355	-0.138	0.037	1.41	-0.208	0.043	1.45	-0.096	0.038	1.525	-0.168	0.045
1.125	-0.016	0.030	1.255	-0.080	0.033	1.355	-0.136	0.037	1.41	-0.206	0.046	1.45	-0.094	0.038	1.525	-0.166	0.046
1.125	-0.014	0.030	1.255	-0.078	0.034	1.355	-0.134	0.036	1.41	-0.204	0.046	1.45	-0.092	0.039	1.525	-0.164	0.046
1.125	-0.012	0.030	1.255	-0.076	0.035	1.355	-0.132	0.036	1.41	-0.202	0.045	1.45	-0.090	0.038	1.525	-0.162	0.043
1.125	-0.010	0.029	1.255	-0.074	0.035	1.355	-0.130	0.038	1.41	-0.200	0.044	1.45	-0.088	0.038	1.525	-0.160	0.045
1.125	-0.008	0.029	1.255	-0.072	0.032	1.355	-0.128	0.041	1.41	-0.198	0.043	1.45	-0.086	0.039	1.525	-0.158	0.043
1.125	-0.006	0.028	1.255	-0.070	0.034	1.355	-0.126	0.041	1.41	-0.196	0.044	1.45	-0.084	0.037	1.525	-0.156	0.042
1.125	-0.004	0.027	1.255	-0.068	0.034	1.355	-0.124	0.039	1.41	-0.194	0.045	1.45	-0.082	0.037	1.525	-0.154	0.043
1.125	-0.002	0.027	1.255	-0.066	0.033	1.355	-0.122	0.036	1.41	-0.192	0.044	1.45	-0.080	0.037	1.525	-0.152	0.044
1.125	0.000	0.026	1.255	-0.064	0.032	1.355	-0.120	0.035	1.41	-0.190	0.042	1.45	-0.078	0.037	1.525	-0.150	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.135	-0.110	0.037	1.255	-0.062	0.033	1.355	-0.118	0.035	1.41	-0.188	0.042	1.45	-0.076	0.037	1.525	-0.148	0.048
1.135	-0.108	0.038	1.255	-0.060	0.032	1.355	-0.116	0.036	1.41	-0.186	0.043	1.45	-0.074	0.035	1.525	-0.146	0.046
1.135	-0.106	0.037	1.255	-0.058	0.034	1.355	-0.114	0.037	1.41	-0.184	0.043	1.45	-0.072	0.032	1.525	-0.144	0.047
1.135	-0.104	0.038	1.255	-0.056	0.036	1.355	-0.112	0.038	1.41	-0.182	0.042	1.45	-0.070	0.031	1.525	-0.142	0.049
1.135	-0.102	0.037	1.255	-0.054	0.036	1.355	-0.110	0.037	1.41	-0.180	0.041	1.45	-0.068	0.032	1.525	-0.140	0.046
1.135	-0.100	0.036	1.255	-0.052	0.033	1.355	-0.108	0.035	1.41	-0.178	0.041	1.45	-0.066	0.033	1.525	-0.138	0.048
1.135	-0.098	0.034	1.255	-0.050	0.034	1.355	-0.106	0.033	1.41	-0.176	0.039	1.45	-0.064	0.032	1.525	-0.136	0.048
1.135	-0.096	0.034	1.255	-0.048	0.033	1.355	-0.104	0.033	1.41	-0.174	0.039	1.45	-0.062	0.031	1.525	-0.134	0.047
1.135	-0.094	0.035	1.255	-0.046	0.032	1.355	-0.102	0.033	1.41	-0.172	0.039	1.45	-0.060	0.031	1.525	-0.132	0.044
1.135	-0.092	0.035	1.255	-0.044	0.032	1.355	-0.100	0.032	1.41	-0.170	0.039	1.45	-0.058	0.032	1.525	-0.130	0.044
1.135	-0.090	0.035	1.255	-0.042	0.032	1.355	-0.098	0.032	1.41	-0.168	0.041	1.45	-0.056	0.032	1.525	-0.128	0.045
1.135	-0.088	0.034	1.255	-0.040	0.033	1.355	-0.096	0.033	1.41	-0.166	0.041	1.45	-0.054	0.033	1.525	-0.126	0.046
1.135	-0.086	0.033	1.255	-0.038	0.033	1.355	-0.094	0.034	1.41	-0.164	0.042	1.45	-0.052	0.032	1.525	-0.124	0.044
1.135	-0.084	0.033	1.255	-0.036	0.032	1.355	-0.092	0.035	1.41	-0.162	0.041	1.45	-0.050	0.031	1.525	-0.122	0.043
1.135	-0.082	0.035	1.255	-0.034	0.031	1.355	-0.090	0.034	1.41	-0.160	0.042	1.45	-0.048	0.033	1.525	-0.120	0.043
1.135	-0.080	0.038	1.255	-0.032	0.031	1.355	-0.088	0.033	1.41	-0.158	0.042	1.45	-0.046	0.033	1.525	-0.118	0.043
1.135	-0.078	0.037	1.255	-0.030	0.032	1.355	-0.086	0.032	1.41	-0.156	0.043	1.45	-0.044	0.032	1.525	-0.116	0.043
1.135	-0.076	0.034	1.255	-0.028	0.032	1.355	-0.084	0.033	1.41	-0.154	0.041	1.45	-0.042	0.031	1.525	-0.114	0.044
1.135	-0.074	0.033	1.255	-0.026	0.032	1.355	-0.082	0.033	1.41	-0.152	0.038	1.45	-0.040	0.031	1.525	-0.112	0.043
1.135	-0.072	0.033	1.255	-0.024	0.032	1.355	-0.080	0.033	1.41	-0.150	0.038	1.45	-0.038	0.031	1.525	-0.110	0.043
1.135	-0.070	0.034	1.255	-0.022	0.032	1.355	-0.078	0.034	1.41	-0.148	0.038	1.45	-0.036	0.030	1.525	-0.108	0.045
1.135	-0.068	0.033	1.255	-0.020	0.031	1.355	-0.076	0.035	1.41	-0.146	0.037	1.45	-0.034	0.030	1.525	-0.106	0.046
1.135	-0.066	0.033	1.255	-0.018	0.031	1.355	-0.074	0.035	1.41	-0.144	0.036	1.45	-0.032	0.030	1.525	-0.104	0.045
1.135	-0.064	0.033	1.255	-0.016	0.031	1.355	-0.072	0.034	1.41	-0.142	0.037	1.45	-0.030	0.030	1.525	-0.102	0.045
1.135	-0.062	0.034	1.255	-0.014	0.031	1.355	-0.070	0.033	1.41	-0.140	0.038	1.45	-0.028	0.030	1.525	-0.100	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.135	-0.060	0.033	1.255	-0.012	0.030	1.355	-0.068	0.034	1.41	-0.138	0.039	1.45	-0.026	0.031	1.525	-0.098	0.048
1.135	-0.058	0.032	1.255	-0.010	0.030	1.355	-0.066	0.034	1.41	-0.136	0.039	1.45	-0.024	0.032	1.525	-0.096	0.047
1.135	-0.056	0.032	1.255	-0.008	0.030	1.355	-0.064	0.034	1.41	-0.134	0.039	1.45	-0.022	0.033	1.525	-0.094	0.046
1.135	-0.054	0.031	1.255	-0.006	0.030	1.355	-0.062	0.034	1.41	-0.132	0.039	1.45	-0.020	0.033	1.525	-0.092	0.046
1.135	-0.052	0.031	1.255	-0.004	0.029	1.355	-0.060	0.032	1.41	-0.130	0.039	1.45	-0.018	0.034	1.525	-0.090	0.046
1.135	-0.050	0.032	1.255	-0.002	0.029	1.355	-0.058	0.031	1.41	-0.128	0.039	1.45	-0.016	0.033	1.525	-0.088	0.043
1.135	-0.048	0.031	1.255	0.000	0.029	1.355	-0.056	0.031	1.41	-0.126	0.039	1.45	-0.014	0.031	1.525	-0.086	0.043
1.135	-0.046	0.030	1.265	-0.184	0.042	1.355	-0.054	0.032	1.41	-0.124	0.039	1.45	-0.012	0.031	1.525	-0.084	0.043
1.135	-0.044	0.030	1.265	-0.182	0.042	1.355	-0.052	0.032	1.41	-0.122	0.039	1.45	-0.010	0.032	1.525	-0.082	0.041
1.135	-0.042	0.031	1.265	-0.180	0.044	1.355	-0.050	0.033	1.41	-0.120	0.041	1.45	-0.008	0.033	1.525	-0.080	0.043
1.135	-0.040	0.032	1.265	-0.178	0.045	1.355	-0.048	0.034	1.41	-0.118	0.040	1.45	-0.006	0.033	1.525	-0.078	0.042
1.135	-0.038	0.032	1.265	-0.176	0.043	1.355	-0.046	0.034	1.41	-0.116	0.040	1.45	-0.004	0.033	1.525	-0.076	0.043
1.135	-0.036	0.033	1.265	-0.174	0.042	1.355	-0.044	0.031	1.41	-0.114	0.039	1.45	-0.002	0.033	1.525	-0.074	0.044
1.135	-0.034	0.034	1.265	-0.172	0.042	1.355	-0.042	0.030	1.41	-0.112	0.038	1.45	0.000	0.032	1.525	-0.072	0.044
1.135	-0.032	0.034	1.265	-0.170	0.041	1.355	-0.040	0.030	1.41	-0.110	0.037	1.455	-0.234	0.051	1.525	-0.070	0.044
1.135	-0.030	0.034	1.265	-0.168	0.040	1.355	-0.038	0.030	1.41	-0.108	0.037	1.455	-0.232	0.050	1.525	-0.068	0.044
1.135	-0.028	0.034	1.265	-0.166	0.043	1.355	-0.036	0.031	1.41	-0.106	0.036	1.455	-0.230	0.046	1.525	-0.066	0.044
1.135	-0.026	0.033	1.265	-0.164	0.043	1.355	-0.034	0.031	1.41	-0.104	0.035	1.455	-0.228	0.048	1.525	-0.064	0.044
1.135	-0.024	0.033	1.265	-0.162	0.041	1.355	-0.032	0.031	1.41	-0.102	0.036	1.455	-0.226	0.048	1.525	-0.062	0.045
1.135	-0.022	0.032	1.265	-0.160	0.039	1.355	-0.030	0.031	1.41	-0.100	0.036	1.455	-0.224	0.048	1.525	-0.060	0.044
1.135	-0.020	0.032	1.265	-0.158	0.038	1.355	-0.028	0.031	1.41	-0.098	0.036	1.455	-0.222	0.049	1.525	-0.058	0.042
1.135	-0.018	0.031	1.265	-0.156	0.040	1.355	-0.026	0.031	1.41	-0.096	0.036	1.455	-0.220	0.049	1.525	-0.056	0.042
1.135	-0.016	0.031	1.265	-0.154	0.042	1.355	-0.024	0.031	1.41	-0.094	0.036	1.455	-0.218	0.051	1.525	-0.054	0.040
1.135	-0.014	0.030	1.265	-0.152	0.042	1.355	-0.022	0.031	1.41	-0.092	0.035	1.455	-0.216	0.051	1.525	-0.052	0.044
1.135	-0.012	0.030	1.265	-0.150	0.042	1.355	-0.020	0.031	1.41	-0.090	0.034	1.455	-0.214	0.051	1.525	-0.050	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.135	-0.010	0.029	1.265	-0.148	0.043	1.355	-0.018	0.031	1.41	-0.088	0.035	1.455	-0.212	0.047	1.525	-0.048	0.043
1.135	-0.008	0.029	1.265	-0.146	0.043	1.355	-0.016	0.031	1.41	-0.086	0.036	1.455	-0.210	0.046	1.525	-0.046	0.040
1.135	-0.006	0.028	1.265	-0.144	0.043	1.355	-0.014	0.031	1.41	-0.084	0.036	1.455	-0.208	0.046	1.525	-0.044	0.038
1.135	-0.004	0.027	1.265	-0.142	0.042	1.355	-0.012	0.031	1.41	-0.082	0.035	1.455	-0.206	0.047	1.525	-0.042	0.037
1.135	-0.002	0.026	1.265	-0.140	0.043	1.355	-0.010	0.031	1.41	-0.080	0.033	1.455	-0.204	0.046	1.525	-0.040	0.037
1.135	0.000	0.026	1.265	-0.138	0.042	1.355	-0.008	0.031	1.41	-0.078	0.032	1.455	-0.202	0.045	1.525	-0.038	0.038
1.14	-0.118	0.040	1.265	-0.136	0.040	1.355	-0.006	0.031	1.41	-0.076	0.033	1.455	-0.200	0.045	1.525	-0.036	0.040
1.14	-0.116	0.040	1.265	-0.134	0.040	1.355	-0.004	0.031	1.41	-0.074	0.034	1.455	-0.198	0.045	1.525	-0.034	0.042
1.14	-0.114	0.039	1.265	-0.132	0.038	1.355	-0.002	0.031	1.41	-0.072	0.035	1.455	-0.196	0.046	1.525	-0.032	0.042
1.14	-0.112	0.038	1.265	-0.130	0.036	1.355	0.000	0.031	1.41	-0.070	0.033	1.455	-0.194	0.046	1.525	-0.030	0.041
1.14	-0.110	0.038	1.265	-0.128	0.036	1.365	-0.222	0.045	1.41	-0.068	0.032	1.455	-0.192	0.048	1.525	-0.028	0.040
1.14	-0.108	0.037	1.265	-0.126	0.038	1.365	-0.220	0.046	1.41	-0.066	0.033	1.455	-0.190	0.048	1.525	-0.026	0.040
1.14	-0.106	0.036	1.265	-0.124	0.038	1.365	-0.218	0.046	1.41	-0.064	0.033	1.455	-0.188	0.046	1.525	-0.024	0.039
1.14	-0.104	0.037	1.265	-0.122	0.039	1.365	-0.216	0.045	1.41	-0.062	0.033	1.455	-0.186	0.043	1.525	-0.022	0.037
1.14	-0.102	0.037	1.265	-0.120	0.037	1.365	-0.214	0.046	1.41	-0.060	0.034	1.455	-0.184	0.043	1.525	-0.020	0.039
1.14	-0.100	0.037	1.265	-0.118	0.036	1.365	-0.212	0.046	1.41	-0.058	0.034	1.455	-0.182	0.043	1.525	-0.018	0.040
1.14	-0.098	0.037	1.265	-0.116	0.035	1.365	-0.210	0.050	1.41	-0.056	0.032	1.455	-0.180	0.043	1.525	-0.016	0.041
1.14	-0.096	0.038	1.265	-0.114	0.036	1.365	-0.208	0.051	1.41	-0.054	0.031	1.455	-0.178	0.043	1.525	-0.014	0.038
1.14	-0.094	0.035	1.265	-0.112	0.037	1.365	-0.206	0.052	1.41	-0.052	0.031	1.455	-0.176	0.043	1.525	-0.012	0.036
1.14	-0.092	0.033	1.265	-0.110	0.034	1.365	-0.204	0.049	1.41	-0.050	0.031	1.455	-0.174	0.044	1.525	-0.010	0.035
1.14	-0.090	0.034	1.265	-0.108	0.034	1.365	-0.202	0.047	1.41	-0.048	0.032	1.455	-0.172	0.044	1.525	-0.008	0.036
1.14	-0.088	0.035	1.265	-0.106	0.036	1.365	-0.200	0.046	1.41	-0.046	0.032	1.455	-0.170	0.042	1.525	-0.006	0.036
1.14	-0.086	0.035	1.265	-0.104	0.035	1.365	-0.198	0.045	1.41	-0.044	0.032	1.455	-0.168	0.038	1.525	-0.004	0.036
1.14	-0.084	0.034	1.265	-0.102	0.034	1.365	-0.196	0.045	1.41	-0.042	0.033	1.455	-0.166	0.039	1.525	-0.002	0.037
1.14	-0.082	0.036	1.265	-0.100	0.033	1.365	-0.194	0.045	1.41	-0.040	0.033	1.455	-0.164	0.040	1.525	0.000	0.033

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.14	-0.080	0.037	1.265	-0.098	0.032	1.365	-0.192	0.046	1.41	-0.038	0.033	1.455	-0.162	0.039	1.535	-0.206	0.041
1.14	-0.078	0.037	1.265	-0.096	0.033	1.365	-0.190	0.046	1.41	-0.036	0.033	1.455	-0.160	0.041	1.535	-0.204	0.042
1.14	-0.076	0.034	1.265	-0.094	0.036	1.365	-0.188	0.044	1.41	-0.034	0.033	1.455	-0.158	0.041	1.535	-0.202	0.042
1.14	-0.074	0.033	1.265	-0.092	0.034	1.365	-0.186	0.042	1.41	-0.032	0.033	1.455	-0.156	0.038	1.535	-0.200	0.043
1.14	-0.072	0.033	1.265	-0.090	0.033	1.365	-0.184	0.042	1.41	-0.030	0.032	1.455	-0.154	0.037	1.535	-0.198	0.043
1.14	-0.070	0.034	1.265	-0.088	0.033	1.365	-0.182	0.042	1.41	-0.028	0.032	1.455	-0.152	0.039	1.535	-0.196	0.044
1.14	-0.068	0.034	1.265	-0.086	0.033	1.365	-0.180	0.041	1.41	-0.026	0.032	1.455	-0.150	0.039	1.535	-0.194	0.045
1.14	-0.066	0.034	1.265	-0.084	0.032	1.365	-0.178	0.041	1.41	-0.024	0.031	1.455	-0.148	0.040	1.535	-0.192	0.046
1.14	-0.064	0.035	1.265	-0.082	0.033	1.365	-0.176	0.041	1.41	-0.022	0.031	1.455	-0.146	0.041	1.535	-0.190	0.047
1.14	-0.062	0.035	1.265	-0.080	0.033	1.365	-0.174	0.043	1.41	-0.020	0.031	1.455	-0.144	0.039	1.535	-0.188	0.048
1.14	-0.060	0.035	1.265	-0.078	0.032	1.365	-0.172	0.043	1.41	-0.018	0.031	1.455	-0.142	0.035	1.535	-0.186	0.047
1.14	-0.058	0.034	1.265	-0.076	0.032	1.365	-0.170	0.041	1.41	-0.016	0.031	1.455	-0.140	0.037	1.535	-0.184	0.045
1.14	-0.056	0.034	1.265	-0.074	0.032	1.365	-0.168	0.041	1.41	-0.014	0.031	1.455	-0.138	0.036	1.535	-0.182	0.043
1.14	-0.054	0.033	1.265	-0.072	0.033	1.365	-0.166	0.041	1.41	-0.012	0.031	1.455	-0.136	0.039	1.535	-0.180	0.044
1.14	-0.052	0.032	1.265	-0.070	0.032	1.365	-0.164	0.039	1.41	-0.010	0.032	1.455	-0.134	0.040	1.535	-0.178	0.045
1.14	-0.050	0.032	1.265	-0.068	0.032	1.365	-0.162	0.037	1.41	-0.008	0.032	1.455	-0.132	0.039	1.535	-0.176	0.046
1.14	-0.048	0.031	1.265	-0.066	0.031	1.365	-0.160	0.039	1.41	-0.006	0.033	1.455	-0.130	0.037	1.535	-0.174	0.045
1.14	-0.046	0.031	1.265	-0.064	0.031	1.365	-0.158	0.039	1.41	-0.004	0.033	1.455	-0.128	0.037	1.535	-0.172	0.043
1.14	-0.044	0.031	1.265	-0.062	0.032	1.365	-0.156	0.038	1.41	-0.002	0.034	1.455	-0.126	0.036	1.535	-0.170	0.041
1.14	-0.042	0.031	1.265	-0.060	0.033	1.365	-0.154	0.039	1.41	0.000	0.034	1.455	-0.124	0.034	1.535	-0.168	0.044
1.14	-0.040	0.032	1.265	-0.058	0.034	1.365	-0.152	0.038	1.415	-0.232	0.047	1.455	-0.122	0.036	1.535	-0.166	0.048
1.14	-0.038	0.032	1.265	-0.056	0.035	1.365	-0.150	0.037	1.415	-0.230	0.047	1.455	-0.120	0.039	1.535	-0.164	0.048
1.14	-0.036	0.033	1.265	-0.054	0.036	1.365	-0.148	0.035	1.415	-0.228	0.050	1.455	-0.118	0.040	1.535	-0.162	0.049
1.14	-0.034	0.034	1.265	-0.052	0.036	1.365	-0.146	0.036	1.415	-0.226	0.054	1.455	-0.116	0.040	1.535	-0.160	0.048
1.14	-0.032	0.034	1.265	-0.050	0.034	1.365	-0.144	0.039	1.415	-0.224	0.053	1.455	-0.114	0.037	1.535	-0.158	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.14	-0.030	0.034	1.265	-0.048	0.033	1.365	-0.142	0.041	1.415	-0.222	0.051	1.455	-0.112	0.037	1.535	-0.156	0.048
1.14	-0.028	0.034	1.265	-0.046	0.034	1.365	-0.140	0.040	1.415	-0.220	0.050	1.455	-0.110	0.039	1.535	-0.154	0.046
1.14	-0.026	0.033	1.265	-0.044	0.035	1.365	-0.138	0.037	1.415	-0.218	0.048	1.455	-0.108	0.039	1.535	-0.152	0.044
1.14	-0.024	0.033	1.265	-0.042	0.036	1.365	-0.136	0.036	1.415	-0.216	0.048	1.455	-0.106	0.041	1.535	-0.150	0.046
1.14	-0.022	0.032	1.265	-0.040	0.036	1.365	-0.134	0.035	1.415	-0.214	0.047	1.455	-0.104	0.042	1.535	-0.148	0.045
1.14	-0.020	0.032	1.265	-0.038	0.035	1.365	-0.132	0.035	1.415	-0.212	0.046	1.455	-0.102	0.042	1.535	-0.146	0.044
1.14	-0.018	0.031	1.265	-0.036	0.035	1.365	-0.130	0.036	1.415	-0.210	0.046	1.455	-0.100	0.041	1.535	-0.144	0.044
1.14	-0.016	0.031	1.265	-0.034	0.034	1.365	-0.128	0.036	1.415	-0.208	0.046	1.455	-0.098	0.040	1.535	-0.142	0.046
1.14	-0.014	0.030	1.265	-0.032	0.032	1.365	-0.126	0.036	1.415	-0.206	0.045	1.455	-0.096	0.038	1.535	-0.140	0.047
1.14	-0.012	0.030	1.265	-0.030	0.032	1.365	-0.124	0.034	1.415	-0.204	0.045	1.455	-0.094	0.038	1.535	-0.138	0.048
1.14	-0.010	0.029	1.265	-0.028	0.032	1.365	-0.122	0.034	1.415	-0.202	0.045	1.455	-0.092	0.038	1.535	-0.136	0.048
1.14	-0.008	0.029	1.265	-0.026	0.032	1.365	-0.120	0.035	1.415	-0.200	0.043	1.455	-0.090	0.038	1.535	-0.134	0.048
1.14	-0.006	0.028	1.265	-0.024	0.032	1.365	-0.118	0.035	1.415	-0.198	0.043	1.455	-0.088	0.037	1.535	-0.132	0.049
1.14	-0.004	0.027	1.265	-0.022	0.032	1.365	-0.116	0.036	1.415	-0.196	0.045	1.455	-0.086	0.037	1.535	-0.130	0.046
1.14	-0.002	0.026	1.265	-0.020	0.032	1.365	-0.114	0.037	1.415	-0.194	0.046	1.455	-0.084	0.036	1.535	-0.128	0.046
1.14	0.000	0.026	1.265	-0.018	0.031	1.365	-0.112	0.037	1.415	-0.192	0.045	1.455	-0.082	0.035	1.535	-0.126	0.046
1.145	-0.118	0.040	1.265	-0.016	0.031	1.365	-0.110	0.036	1.415	-0.190	0.043	1.455	-0.080	0.035	1.535	-0.124	0.047
1.145	-0.116	0.040	1.265	-0.014	0.031	1.365	-0.108	0.035	1.415	-0.188	0.043	1.455	-0.078	0.035	1.535	-0.122	0.047
1.145	-0.114	0.041	1.265	-0.012	0.031	1.365	-0.106	0.035	1.415	-0.186	0.044	1.455	-0.076	0.036	1.535	-0.120	0.045
1.145	-0.112	0.041	1.265	-0.010	0.030	1.365	-0.104	0.034	1.415	-0.184	0.044	1.455	-0.074	0.035	1.535	-0.118	0.044
1.145	-0.110	0.040	1.265	-0.008	0.030	1.365	-0.102	0.035	1.415	-0.182	0.042	1.455	-0.072	0.034	1.535	-0.116	0.045
1.145	-0.108	0.038	1.265	-0.006	0.030	1.365	-0.100	0.036	1.415	-0.180	0.038	1.455	-0.070	0.033	1.535	-0.114	0.046
1.145	-0.106	0.036	1.265	-0.004	0.029	1.365	-0.098	0.036	1.415	-0.178	0.039	1.455	-0.068	0.032	1.535	-0.112	0.046
1.145	-0.104	0.037	1.265	-0.002	0.029	1.365	-0.096	0.035	1.415	-0.176	0.041	1.455	-0.066	0.033	1.535	-0.110	0.046
1.145	-0.102	0.036	1.265	0.000	0.029	1.365	-0.094	0.032	1.415	-0.174	0.040	1.455	-0.064	0.032	1.535	-0.108	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.145	-0.100	0.036	1.275	-0.190	0.043	1.365	-0.092	0.031	1.415	-0.172	0.041	1.455	-0.062	0.032	1.535	-0.106	0.045
1.145	-0.098	0.038	1.275	-0.188	0.043	1.365	-0.090	0.033	1.415	-0.170	0.042	1.455	-0.060	0.032	1.535	-0.104	0.044
1.145	-0.096	0.039	1.275	-0.186	0.046	1.365	-0.088	0.034	1.415	-0.168	0.042	1.455	-0.058	0.033	1.535	-0.102	0.043
1.145	-0.094	0.037	1.275	-0.184	0.047	1.365	-0.086	0.035	1.415	-0.166	0.041	1.455	-0.056	0.034	1.535	-0.100	0.044
1.145	-0.092	0.035	1.275	-0.182	0.045	1.365	-0.084	0.035	1.415	-0.164	0.039	1.455	-0.054	0.034	1.535	-0.098	0.046
1.145	-0.090	0.035	1.275	-0.180	0.044	1.365	-0.082	0.034	1.415	-0.162	0.039	1.455	-0.052	0.033	1.535	-0.096	0.048
1.145	-0.088	0.036	1.275	-0.178	0.047	1.365	-0.080	0.034	1.415	-0.160	0.041	1.455	-0.050	0.034	1.535	-0.094	0.047
1.145	-0.086	0.037	1.275	-0.176	0.046	1.365	-0.078	0.033	1.415	-0.158	0.041	1.455	-0.048	0.035	1.535	-0.092	0.046
1.145	-0.084	0.038	1.275	-0.174	0.045	1.365	-0.076	0.032	1.415	-0.156	0.041	1.455	-0.046	0.033	1.535	-0.090	0.045
1.145	-0.082	0.039	1.275	-0.172	0.044	1.365	-0.074	0.032	1.415	-0.154	0.040	1.455	-0.044	0.031	1.535	-0.088	0.044
1.145	-0.080	0.038	1.275	-0.170	0.044	1.365	-0.072	0.035	1.415	-0.152	0.037	1.455	-0.042	0.031	1.535	-0.086	0.044
1.145	-0.078	0.037	1.275	-0.168	0.045	1.365	-0.070	0.037	1.415	-0.150	0.034	1.455	-0.040	0.032	1.535	-0.084	0.042
1.145	-0.076	0.036	1.275	-0.166	0.045	1.365	-0.068	0.036	1.415	-0.148	0.037	1.455	-0.038	0.032	1.535	-0.082	0.042
1.145	-0.074	0.035	1.275	-0.164	0.045	1.365	-0.066	0.035	1.415	-0.146	0.038	1.455	-0.036	0.031	1.535	-0.080	0.044
1.145	-0.072	0.036	1.275	-0.162	0.043	1.365	-0.064	0.034	1.415	-0.144	0.037	1.455	-0.034	0.030	1.535	-0.078	0.044
1.145	-0.070	0.034	1.275	-0.160	0.041	1.365	-0.062	0.032	1.415	-0.142	0.037	1.455	-0.032	0.030	1.535	-0.076	0.040
1.145	-0.068	0.035	1.275	-0.158	0.040	1.365	-0.060	0.031	1.415	-0.140	0.038	1.455	-0.030	0.030	1.535	-0.074	0.041
1.145	-0.066	0.035	1.275	-0.156	0.039	1.365	-0.058	0.031	1.415	-0.138	0.040	1.455	-0.028	0.031	1.535	-0.072	0.041
1.145	-0.064	0.035	1.275	-0.154	0.041	1.365	-0.056	0.031	1.415	-0.136	0.038	1.455	-0.026	0.032	1.535	-0.070	0.041
1.145	-0.062	0.035	1.275	-0.152	0.043	1.365	-0.054	0.032	1.415	-0.134	0.039	1.455	-0.024	0.034	1.535	-0.068	0.040
1.145	-0.060	0.036	1.275	-0.150	0.043	1.365	-0.052	0.032	1.415	-0.132	0.040	1.455	-0.022	0.034	1.535	-0.066	0.040
1.145	-0.058	0.036	1.275	-0.148	0.042	1.365	-0.050	0.032	1.415	-0.130	0.039	1.455	-0.020	0.033	1.535	-0.064	0.041
1.145	-0.056	0.035	1.275	-0.146	0.042	1.365	-0.048	0.031	1.415	-0.128	0.039	1.455	-0.018	0.032	1.535	-0.062	0.042
1.145	-0.054	0.034	1.275	-0.144	0.042	1.365	-0.046	0.031	1.415	-0.126	0.038	1.455	-0.016	0.032	1.535	-0.060	0.042
1.145	-0.052	0.033	1.275	-0.142	0.042	1.365	-0.044	0.031	1.415	-0.124	0.038	1.455	-0.014	0.031	1.535	-0.058	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.145	-0.050	0.033	1.275	-0.140	0.041	1.365	-0.042	0.031	1.415	-0.122	0.038	1.455	-0.012	0.031	1.535	-0.056	0.041
1.145	-0.048	0.034	1.275	-0.138	0.042	1.365	-0.040	0.031	1.415	-0.120	0.039	1.455	-0.010	0.032	1.535	-0.054	0.041
1.145	-0.046	0.034	1.275	-0.136	0.042	1.365	-0.038	0.031	1.415	-0.118	0.039	1.455	-0.008	0.033	1.535	-0.052	0.042
1.145	-0.044	0.034	1.275	-0.134	0.041	1.365	-0.036	0.031	1.415	-0.116	0.039	1.455	-0.006	0.033	1.535	-0.050	0.043
1.145	-0.042	0.034	1.275	-0.132	0.039	1.365	-0.034	0.031	1.415	-0.114	0.039	1.455	-0.004	0.032	1.535	-0.048	0.042
1.145	-0.040	0.032	1.275	-0.130	0.039	1.365	-0.032	0.031	1.415	-0.112	0.037	1.455	-0.002	0.032	1.535	-0.046	0.041
1.145	-0.038	0.032	1.275	-0.128	0.040	1.365	-0.030	0.031	1.415	-0.110	0.036	1.455	0.000	0.033	1.535	-0.044	0.041
1.145	-0.036	0.032	1.275	-0.126	0.039	1.365	-0.028	0.031	1.415	-0.108	0.036	1.465	-0.234	0.049	1.535	-0.042	0.040
1.145	-0.034	0.033	1.275	-0.124	0.035	1.365	-0.026	0.031	1.415	-0.106	0.035	1.465	-0.232	0.048	1.535	-0.040	0.038
1.145	-0.032	0.033	1.275	-0.122	0.038	1.365	-0.024	0.031	1.415	-0.104	0.032	1.465	-0.230	0.048	1.535	-0.038	0.037
1.145	-0.030	0.033	1.275	-0.120	0.039	1.365	-0.022	0.031	1.415	-0.102	0.034	1.465	-0.228	0.047	1.535	-0.036	0.038
1.145	-0.028	0.033	1.275	-0.118	0.039	1.365	-0.020	0.031	1.415	-0.100	0.036	1.465	-0.226	0.049	1.535	-0.034	0.038
1.145	-0.026	0.033	1.275	-0.116	0.038	1.365	-0.018	0.031	1.415	-0.098	0.036	1.465	-0.224	0.049	1.535	-0.032	0.038
1.145	-0.024	0.033	1.275	-0.114	0.037	1.365	-0.016	0.031	1.415	-0.096	0.035	1.465	-0.222	0.048	1.535	-0.030	0.037
1.145	-0.022	0.032	1.275	-0.112	0.036	1.365	-0.014	0.031	1.415	-0.094	0.035	1.465	-0.220	0.048	1.535	-0.028	0.037
1.145	-0.020	0.032	1.275	-0.110	0.035	1.365	-0.012	0.031	1.415	-0.092	0.036	1.465	-0.218	0.049	1.535	-0.026	0.037
1.145	-0.018	0.032	1.275	-0.108	0.036	1.365	-0.010	0.031	1.415	-0.090	0.036	1.465	-0.216	0.049	1.535	-0.024	0.034
1.145	-0.016	0.031	1.275	-0.106	0.039	1.365	-0.008	0.031	1.415	-0.088	0.036	1.465	-0.214	0.048	1.535	-0.022	0.036
1.145	-0.014	0.031	1.275	-0.104	0.039	1.365	-0.006	0.031	1.415	-0.086	0.037	1.465	-0.212	0.046	1.535	-0.020	0.037
1.145	-0.012	0.030	1.275	-0.102	0.036	1.365	-0.004	0.031	1.415	-0.084	0.038	1.465	-0.210	0.045	1.535	-0.018	0.037
1.145	-0.010	0.029	1.275	-0.100	0.034	1.365	-0.002	0.031	1.415	-0.082	0.037	1.465	-0.208	0.044	1.535	-0.016	0.038
1.145	-0.008	0.029	1.275	-0.098	0.033	1.365	0.000	0.031	1.415	-0.080	0.035	1.465	-0.206	0.044	1.535	-0.014	0.039
1.145	-0.006	0.028	1.275	-0.096	0.032	1.375	-0.224	0.045	1.415	-0.078	0.034	1.465	-0.204	0.046	1.535	-0.012	0.039
1.145	-0.004	0.027	1.275	-0.094	0.032	1.375	-0.222	0.045	1.415	-0.076	0.033	1.465	-0.202	0.047	1.535	-0.010	0.039
1.145	-0.002	0.026	1.275	-0.092	0.032	1.375	-0.220	0.042	1.415	-0.074	0.032	1.465	-0.200	0.046	1.535	-0.008	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.145	0.000	0.026	1.275	-0.090	0.032	1.375	-0.218	0.043	1.415	-0.072	0.032	1.465	-0.198	0.045	1.535	-0.006	0.036
1.155	-0.124	0.042	1.275	-0.088	0.032	1.375	-0.216	0.043	1.415	-0.070	0.031	1.465	-0.196	0.044	1.535	-0.004	0.035
1.155	-0.122	0.042	1.275	-0.086	0.033	1.375	-0.214	0.043	1.415	-0.068	0.032	1.465	-0.194	0.043	1.535	-0.002	0.035
1.155	-0.120	0.042	1.275	-0.084	0.032	1.375	-0.212	0.047	1.415	-0.066	0.032	1.465	-0.192	0.043	1.535	0.000	0.037
1.155	-0.118	0.038	1.275	-0.082	0.032	1.375	-0.210	0.049	1.415	-0.064	0.032	1.465	-0.190	0.044	1.545	-0.198	0.043
1.155	-0.116	0.036	1.275	-0.080	0.032	1.375	-0.208	0.049	1.415	-0.062	0.031	1.465	-0.188	0.044	1.545	-0.196	0.044
1.155	-0.114	0.036	1.275	-0.078	0.032	1.375	-0.206	0.046	1.415	-0.060	0.032	1.465	-0.186	0.043	1.545	-0.194	0.045
1.155	-0.112	0.036	1.275	-0.076	0.033	1.375	-0.204	0.042	1.415	-0.058	0.032	1.465	-0.184	0.044	1.545	-0.192	0.046
1.155	-0.110	0.036	1.275	-0.074	0.033	1.375	-0.202	0.043	1.415	-0.056	0.032	1.465	-0.182	0.043	1.545	-0.190	0.046
1.155	-0.108	0.037	1.275	-0.072	0.031	1.375	-0.200	0.042	1.415	-0.054	0.031	1.465	-0.180	0.043	1.545	-0.188	0.045
1.155	-0.106	0.036	1.275	-0.070	0.032	1.375	-0.198	0.043	1.415	-0.052	0.031	1.465	-0.178	0.042	1.545	-0.186	0.045
1.155	-0.104	0.036	1.275	-0.068	0.031	1.375	-0.196	0.045	1.415	-0.050	0.031	1.465	-0.176	0.042	1.545	-0.184	0.044
1.155	-0.102	0.036	1.275	-0.066	0.031	1.375	-0.194	0.045	1.415	-0.048	0.031	1.465	-0.174	0.044	1.545	-0.182	0.044
1.155	-0.100	0.037	1.275	-0.064	0.032	1.375	-0.192	0.043	1.415	-0.046	0.032	1.465	-0.172	0.045	1.545	-0.180	0.044
1.155	-0.098	0.039	1.275	-0.062	0.033	1.375	-0.190	0.044	1.415	-0.044	0.033	1.465	-0.170	0.043	1.545	-0.178	0.044
1.155	-0.096	0.039	1.275	-0.060	0.034	1.375	-0.188	0.043	1.415	-0.042	0.033	1.465	-0.168	0.042	1.545	-0.176	0.044
1.155	-0.094	0.038	1.275	-0.058	0.035	1.375	-0.186	0.042	1.415	-0.040	0.034	1.465	-0.166	0.042	1.545	-0.174	0.043
1.155	-0.092	0.035	1.275	-0.056	0.034	1.375	-0.184	0.041	1.415	-0.038	0.034	1.465	-0.164	0.041	1.545	-0.172	0.043
1.155	-0.090	0.035	1.275	-0.054	0.032	1.375	-0.182	0.041	1.415	-0.036	0.033	1.465	-0.162	0.039	1.545	-0.170	0.043
1.155	-0.088	0.035	1.275	-0.052	0.032	1.375	-0.180	0.042	1.415	-0.034	0.033	1.465	-0.160	0.041	1.545	-0.168	0.045
1.155	-0.086	0.036	1.275	-0.050	0.032	1.375	-0.178	0.041	1.415	-0.032	0.033	1.465	-0.158	0.041	1.545	-0.166	0.047
1.155	-0.084	0.036	1.275	-0.048	0.031	1.375	-0.176	0.041	1.415	-0.030	0.033	1.465	-0.156	0.040	1.545	-0.164	0.049
1.155	-0.082	0.035	1.275	-0.046	0.032	1.375	-0.174	0.042	1.415	-0.028	0.032	1.465	-0.154	0.039	1.545	-0.162	0.050
1.155	-0.080	0.034	1.275	-0.044	0.034	1.375	-0.172	0.043	1.415	-0.026	0.032	1.465	-0.152	0.040	1.545	-0.160	0.051
1.155	-0.078	0.034	1.275	-0.042	0.034	1.375	-0.170	0.041	1.415	-0.024	0.031	1.465	-0.150	0.040	1.545	-0.158	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.155	-0.076	0.035	1.275	-0.040	0.033	1.375	-0.168	0.039	1.415	-0.022	0.031	1.465	-0.148	0.039	1.545	-0.156	0.049
1.155	-0.074	0.037	1.275	-0.038	0.033	1.375	-0.166	0.039	1.415	-0.020	0.031	1.465	-0.146	0.039	1.545	-0.154	0.047
1.155	-0.072	0.038	1.275	-0.036	0.032	1.375	-0.164	0.037	1.415	-0.018	0.031	1.465	-0.144	0.040	1.545	-0.152	0.045
1.155	-0.070	0.037	1.275	-0.034	0.032	1.375	-0.162	0.037	1.415	-0.016	0.031	1.465	-0.142	0.040	1.545	-0.150	0.043
1.155	-0.068	0.034	1.275	-0.032	0.032	1.375	-0.160	0.038	1.415	-0.014	0.032	1.465	-0.140	0.042	1.545	-0.148	0.044
1.155	-0.066	0.032	1.275	-0.030	0.032	1.375	-0.158	0.039	1.415	-0.012	0.032	1.465	-0.138	0.043	1.545	-0.146	0.047
1.155	-0.064	0.032	1.275	-0.028	0.032	1.375	-0.156	0.037	1.415	-0.010	0.032	1.465	-0.136	0.040	1.545	-0.144	0.049
1.155	-0.062	0.033	1.275	-0.026	0.032	1.375	-0.154	0.036	1.415	-0.008	0.033	1.465	-0.134	0.037	1.545	-0.142	0.049
1.155	-0.060	0.033	1.275	-0.024	0.032	1.375	-0.152	0.038	1.415	-0.006	0.033	1.465	-0.132	0.039	1.545	-0.140	0.050
1.155	-0.058	0.032	1.275	-0.022	0.032	1.375	-0.150	0.036	1.415	-0.004	0.033	1.465	-0.130	0.038	1.545	-0.138	0.050
1.155	-0.056	0.032	1.275	-0.020	0.031	1.375	-0.148	0.036	1.415	-0.002	0.034	1.465	-0.128	0.038	1.545	-0.136	0.050
1.155	-0.054	0.031	1.275	-0.018	0.031	1.375	-0.146	0.037	1.415	0.000	0.034	1.465	-0.126	0.040	1.545	-0.134	0.050
1.155	-0.052	0.033	1.275	-0.016	0.031	1.375	-0.144	0.038	1.42	-0.232	0.047	1.465	-0.124	0.041	1.545	-0.132	0.050
1.155	-0.050	0.037	1.275	-0.014	0.031	1.375	-0.142	0.037	1.42	-0.230	0.048	1.465	-0.122	0.040	1.545	-0.130	0.048
1.155	-0.048	0.038	1.275	-0.012	0.031	1.375	-0.140	0.039	1.42	-0.228	0.050	1.465	-0.120	0.037	1.545	-0.128	0.045
1.155	-0.046	0.037	1.275	-0.010	0.030	1.375	-0.138	0.038	1.42	-0.226	0.051	1.465	-0.118	0.037	1.545	-0.126	0.046
1.155	-0.044	0.035	1.275	-0.008	0.030	1.375	-0.136	0.037	1.42	-0.224	0.050	1.465	-0.116	0.037	1.545	-0.124	0.048
1.155	-0.042	0.033	1.275	-0.006	0.030	1.375	-0.134	0.037	1.42	-0.222	0.048	1.465	-0.114	0.038	1.545	-0.122	0.047
1.155	-0.040	0.032	1.275	-0.004	0.029	1.375	-0.132	0.037	1.42	-0.220	0.050	1.465	-0.112	0.040	1.545	-0.120	0.047
1.155	-0.038	0.032	1.275	-0.002	0.029	1.375	-0.130	0.036	1.42	-0.218	0.049	1.465	-0.110	0.041	1.545	-0.118	0.046
1.155	-0.036	0.031	1.275	0.000	0.029	1.375	-0.128	0.036	1.42	-0.216	0.048	1.465	-0.108	0.039	1.545	-0.116	0.046
1.155	-0.034	0.031	1.285	-0.194	0.043	1.375	-0.126	0.035	1.42	-0.214	0.048	1.465	-0.106	0.038	1.545	-0.114	0.046
1.155	-0.032	0.030	1.285	-0.192	0.044	1.375	-0.124	0.035	1.42	-0.212	0.047	1.465	-0.104	0.037	1.545	-0.112	0.045
1.155	-0.030	0.030	1.285	-0.190	0.043	1.375	-0.122	0.035	1.42	-0.210	0.047	1.465	-0.102	0.036	1.545	-0.110	0.044
1.155	-0.028	0.031	1.285	-0.188	0.043	1.375	-0.120	0.035	1.42	-0.208	0.047	1.465	-0.100	0.037	1.545	-0.108	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.155	-0.026	0.031	1.285	-0.186	0.042	1.375	-0.118	0.034	1.42	-0.206	0.044	1.465	-0.098	0.036	1.545	-0.106	0.043
1.155	-0.024	0.032	1.285	-0.184	0.042	1.375	-0.116	0.035	1.42	-0.204	0.043	1.465	-0.096	0.036	1.545	-0.104	0.042
1.155	-0.022	0.032	1.285	-0.182	0.042	1.375	-0.114	0.034	1.42	-0.202	0.044	1.465	-0.094	0.038	1.545	-0.102	0.041
1.155	-0.020	0.032	1.285	-0.180	0.043	1.375	-0.112	0.034	1.42	-0.200	0.045	1.465	-0.092	0.038	1.545	-0.100	0.043
1.155	-0.018	0.032	1.285	-0.178	0.043	1.375	-0.110	0.035	1.42	-0.198	0.044	1.465	-0.090	0.037	1.545	-0.098	0.040
1.155	-0.016	0.031	1.285	-0.176	0.043	1.375	-0.108	0.036	1.42	-0.196	0.046	1.465	-0.088	0.036	1.545	-0.096	0.044
1.155	-0.014	0.031	1.285	-0.174	0.041	1.375	-0.106	0.036	1.42	-0.194	0.046	1.465	-0.086	0.036	1.545	-0.094	0.047
1.155	-0.012	0.030	1.285	-0.172	0.040	1.375	-0.104	0.036	1.42	-0.192	0.046	1.465	-0.084	0.035	1.545	-0.092	0.047
1.155	-0.010	0.030	1.285	-0.170	0.041	1.375	-0.102	0.035	1.42	-0.190	0.045	1.465	-0.082	0.034	1.545	-0.090	0.046
1.155	-0.008	0.029	1.285	-0.168	0.041	1.375	-0.100	0.034	1.42	-0.188	0.044	1.465	-0.080	0.035	1.545	-0.088	0.043
1.155	-0.006	0.028	1.285	-0.166	0.044	1.375	-0.098	0.034	1.42	-0.186	0.044	1.465	-0.078	0.035	1.545	-0.086	0.042
1.155	-0.004	0.027	1.285	-0.164	0.043	1.375	-0.096	0.034	1.42	-0.184	0.044	1.465	-0.076	0.035	1.545	-0.084	0.039
1.155	-0.002	0.027	1.285	-0.162	0.040	1.375	-0.094	0.036	1.42	-0.182	0.042	1.465	-0.074	0.035	1.545	-0.082	0.039
1.155	0.000	0.026	1.285	-0.160	0.040	1.375	-0.092	0.037	1.42	-0.180	0.039	1.465	-0.072	0.036	1.545	-0.080	0.041
1.165	-0.130	0.038	1.285	-0.158	0.041	1.375	-0.090	0.038	1.42	-0.178	0.037	1.465	-0.070	0.037	1.545	-0.078	0.042
1.165	-0.128	0.038	1.285	-0.156	0.042	1.375	-0.088	0.037	1.42	-0.176	0.042	1.465	-0.068	0.038	1.545	-0.076	0.041
1.165	-0.126	0.037	1.285	-0.154	0.042	1.375	-0.086	0.036	1.42	-0.174	0.042	1.465	-0.066	0.036	1.545	-0.074	0.039
1.165	-0.124	0.037	1.285	-0.152	0.042	1.375	-0.084	0.035	1.42	-0.172	0.039	1.465	-0.064	0.032	1.545	-0.072	0.040
1.165	-0.122	0.036	1.285	-0.150	0.040	1.375	-0.082	0.036	1.42	-0.170	0.043	1.465	-0.062	0.032	1.545	-0.070	0.042
1.165	-0.120	0.036	1.285	-0.148	0.040	1.375	-0.080	0.035	1.42	-0.168	0.044	1.465	-0.060	0.033	1.545	-0.068	0.042
1.165	-0.118	0.038	1.285	-0.146	0.042	1.375	-0.078	0.034	1.42	-0.166	0.044	1.465	-0.058	0.033	1.545	-0.066	0.042
1.165	-0.116	0.038	1.285	-0.144	0.040	1.375	-0.076	0.035	1.42	-0.164	0.042	1.465	-0.056	0.033	1.545	-0.064	0.042
1.165	-0.114	0.037	1.285	-0.142	0.038	1.375	-0.074	0.035	1.42	-0.162	0.040	1.465	-0.054	0.033	1.545	-0.062	0.042
1.165	-0.112	0.037	1.285	-0.140	0.038	1.375	-0.072	0.034	1.42	-0.160	0.040	1.465	-0.052	0.031	1.545	-0.060	0.042
1.165	-0.110	0.037	1.285	-0.138	0.039	1.375	-0.070	0.035	1.42	-0.158	0.040	1.465	-0.050	0.032	1.545	-0.058	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.165	-0.108	0.038	1.285	-0.136	0.038	1.375	-0.068	0.037	1.42	-0.156	0.041	1.465	-0.048	0.032	1.545	-0.056	0.042
1.165	-0.106	0.037	1.285	-0.134	0.039	1.375	-0.066	0.037	1.42	-0.154	0.040	1.465	-0.046	0.032	1.545	-0.054	0.042
1.165	-0.104	0.036	1.285	-0.132	0.038	1.375	-0.064	0.035	1.42	-0.152	0.038	1.465	-0.044	0.033	1.545	-0.052	0.042
1.165	-0.102	0.036	1.285	-0.130	0.038	1.375	-0.062	0.031	1.42	-0.150	0.037	1.465	-0.042	0.033	1.545	-0.050	0.042
1.165	-0.100	0.037	1.285	-0.128	0.038	1.375	-0.060	0.030	1.42	-0.148	0.039	1.465	-0.040	0.033	1.545	-0.048	0.043
1.165	-0.098	0.038	1.285	-0.126	0.037	1.375	-0.058	0.030	1.42	-0.146	0.040	1.465	-0.038	0.032	1.545	-0.046	0.042
1.165	-0.096	0.038	1.285	-0.124	0.039	1.375	-0.056	0.030	1.42	-0.144	0.037	1.465	-0.036	0.031	1.545	-0.044	0.041
1.165	-0.094	0.038	1.285	-0.122	0.039	1.375	-0.054	0.030	1.42	-0.142	0.039	1.465	-0.034	0.031	1.545	-0.042	0.040
1.165	-0.092	0.039	1.285	-0.120	0.038	1.375	-0.052	0.030	1.42	-0.140	0.041	1.465	-0.032	0.031	1.545	-0.040	0.040
1.165	-0.090	0.037	1.285	-0.118	0.037	1.375	-0.050	0.030	1.42	-0.138	0.040	1.465	-0.030	0.031	1.545	-0.038	0.040
1.165	-0.088	0.038	1.285	-0.116	0.037	1.375	-0.048	0.030	1.42	-0.136	0.038	1.465	-0.028	0.033	1.545	-0.036	0.038
1.165	-0.086	0.038	1.285	-0.114	0.036	1.375	-0.046	0.030	1.42	-0.134	0.039	1.465	-0.026	0.033	1.545	-0.034	0.036
1.165	-0.084	0.037	1.285	-0.112	0.035	1.375	-0.044	0.030	1.42	-0.132	0.040	1.465	-0.024	0.033	1.545	-0.032	0.036
1.165	-0.082	0.036	1.285	-0.110	0.036	1.375	-0.042	0.030	1.42	-0.130	0.041	1.465	-0.022	0.033	1.545	-0.030	0.036
1.165	-0.080	0.034	1.285	-0.108	0.038	1.375	-0.040	0.030	1.42	-0.128	0.041	1.465	-0.020	0.034	1.545	-0.028	0.036
1.165	-0.078	0.034	1.285	-0.106	0.038	1.375	-0.038	0.031	1.42	-0.126	0.040	1.465	-0.018	0.033	1.545	-0.026	0.034
1.165	-0.076	0.035	1.285	-0.104	0.036	1.375	-0.036	0.031	1.42	-0.124	0.036	1.465	-0.016	0.033	1.545	-0.024	0.032
1.165	-0.074	0.036	1.285	-0.102	0.034	1.375	-0.034	0.031	1.42	-0.122	0.035	1.465	-0.014	0.034	1.545	-0.022	0.033
1.165	-0.072	0.036	1.285	-0.100	0.032	1.375	-0.032	0.031	1.42	-0.120	0.037	1.465	-0.012	0.034	1.545	-0.020	0.034
1.165	-0.070	0.034	1.285	-0.098	0.032	1.375	-0.030	0.031	1.42	-0.118	0.037	1.465	-0.010	0.033	1.545	-0.018	0.033
1.165	-0.068	0.034	1.285	-0.096	0.033	1.375	-0.028	0.031	1.42	-0.116	0.038	1.465	-0.008	0.032	1.545	-0.016	0.032
1.165	-0.066	0.034	1.285	-0.094	0.032	1.375	-0.026	0.031	1.42	-0.114	0.039	1.465	-0.006	0.032	1.545	-0.014	0.033
1.165	-0.064	0.033	1.285	-0.092	0.031	1.375	-0.024	0.031	1.42	-0.112	0.037	1.465	-0.004	0.035	1.545	-0.012	0.033
1.165	-0.062	0.032	1.285	-0.090	0.032	1.375	-0.022	0.031	1.42	-0.110	0.035	1.465	-0.002	0.036	1.545	-0.010	0.032
1.165	-0.060	0.032	1.285	-0.088	0.032	1.375	-0.020	0.031	1.42	-0.108	0.034	1.465	0.000	0.036	1.545	-0.008	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.165	-0.058	0.033	1.285	-0.086	0.033	1.375	-0.018	0.031	1.42	-0.106	0.035	1.47	-0.232	0.047	1.545	-0.006	0.033
1.165	-0.056	0.034	1.285	-0.084	0.033	1.375	-0.016	0.031	1.42	-0.104	0.034	1.47	-0.230	0.045	1.545	-0.004	0.033
1.165	-0.054	0.036	1.285	-0.082	0.032	1.375	-0.014	0.031	1.42	-0.102	0.034	1.47	-0.228	0.045	1.545	-0.002	0.033
1.165	-0.052	0.036	1.285	-0.080	0.033	1.375	-0.012	0.031	1.42	-0.100	0.035	1.47	-0.226	0.046	1.545	0.000	0.034
1.165	-0.050	0.035	1.285	-0.078	0.033	1.375	-0.010	0.031	1.42	-0.098	0.037	1.47	-0.224	0.047	1.555	-0.186	0.044
1.165	-0.048	0.034	1.285	-0.076	0.032	1.375	-0.008	0.031	1.42	-0.096	0.039	1.47	-0.222	0.048	1.555	-0.184	0.044
1.165	-0.046	0.035	1.285	-0.074	0.032	1.375	-0.006	0.031	1.42	-0.094	0.038	1.47	-0.220	0.048	1.555	-0.182	0.044
1.165	-0.044	0.034	1.285	-0.072	0.033	1.375	-0.004	0.031	1.42	-0.092	0.038	1.47	-0.218	0.048	1.555	-0.180	0.044
1.165	-0.042	0.033	1.285	-0.070	0.033	1.375	-0.002	0.032	1.42	-0.090	0.037	1.47	-0.216	0.047	1.555	-0.178	0.044
1.165	-0.040	0.033	1.285	-0.068	0.034	1.375	0.000	0.032	1.42	-0.088	0.035	1.47	-0.214	0.047	1.555	-0.176	0.044
1.165	-0.038	0.033	1.285	-0.066	0.034	1.38	-0.226	0.049	1.42	-0.086	0.036	1.47	-0.212	0.045	1.555	-0.174	0.044
1.165	-0.036	0.032	1.285	-0.064	0.033	1.38	-0.224	0.049	1.42	-0.084	0.038	1.47	-0.210	0.046	1.555	-0.172	0.045
1.165	-0.034	0.031	1.285	-0.062	0.034	1.38	-0.222	0.048	1.42	-0.082	0.038	1.47	-0.208	0.047	1.555	-0.170	0.045
1.165	-0.032	0.030	1.285	-0.060	0.036	1.38	-0.220	0.045	1.42	-0.080	0.036	1.47	-0.206	0.048	1.555	-0.168	0.047
1.165	-0.030	0.030	1.285	-0.058	0.036	1.38	-0.218	0.043	1.42	-0.078	0.035	1.47	-0.204	0.049	1.555	-0.166	0.048
1.165	-0.028	0.030	1.285	-0.056	0.035	1.38	-0.216	0.042	1.42	-0.076	0.034	1.47	-0.202	0.048	1.555	-0.164	0.049
1.165	-0.026	0.031	1.285	-0.054	0.034	1.38	-0.214	0.042	1.42	-0.074	0.032	1.47	-0.200	0.045	1.555	-0.162	0.050
1.165	-0.024	0.031	1.285	-0.052	0.034	1.38	-0.212	0.043	1.42	-0.072	0.031	1.47	-0.198	0.043	1.555	-0.160	0.050
1.165	-0.022	0.031	1.285	-0.050	0.035	1.38	-0.210	0.045	1.42	-0.070	0.031	1.47	-0.196	0.045	1.555	-0.158	0.050
1.165	-0.020	0.031	1.285	-0.048	0.034	1.38	-0.208	0.044	1.42	-0.068	0.031	1.47	-0.194	0.044	1.555	-0.156	0.050
1.165	-0.018	0.031	1.285	-0.046	0.032	1.38	-0.206	0.043	1.42	-0.066	0.031	1.47	-0.192	0.044	1.555	-0.154	0.049
1.165	-0.016	0.031	1.285	-0.044	0.031	1.38	-0.204	0.042	1.42	-0.064	0.031	1.47	-0.190	0.047	1.555	-0.152	0.048
1.165	-0.014	0.031	1.285	-0.042	0.031	1.38	-0.202	0.043	1.42	-0.062	0.031	1.47	-0.188	0.047	1.555	-0.150	0.048
1.165	-0.012	0.030	1.285	-0.040	0.030	1.38	-0.200	0.043	1.42	-0.060	0.031	1.47	-0.186	0.045	1.555	-0.148	0.049
1.165	-0.010	0.030	1.285	-0.038	0.030	1.38	-0.198	0.044	1.42	-0.058	0.032	1.47	-0.184	0.044	1.555	-0.146	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.165	-0.008	0.029	1.285	-0.036	0.030	1.38	-0.196	0.045	1.42	-0.056	0.032	1.47	-0.182	0.043	1.555	-0.144	0.052
1.165	-0.006	0.028	1.285	-0.034	0.031	1.38	-0.194	0.045	1.42	-0.054	0.032	1.47	-0.180	0.043	1.555	-0.142	0.053
1.165	-0.004	0.028	1.285	-0.032	0.031	1.38	-0.192	0.043	1.42	-0.052	0.031	1.47	-0.178	0.042	1.555	-0.140	0.053
1.165	-0.002	0.027	1.285	-0.030	0.031	1.38	-0.190	0.043	1.42	-0.050	0.031	1.47	-0.176	0.042	1.555	-0.138	0.053
1.165	0.000	0.027	1.285	-0.028	0.031	1.38	-0.188	0.043	1.42	-0.048	0.030	1.47	-0.174	0.044	1.555	-0.136	0.052
1.175	-0.136	0.036	1.285	-0.026	0.031	1.38	-0.186	0.042	1.42	-0.046	0.031	1.47	-0.172	0.045	1.555	-0.134	0.051
1.175	-0.134	0.038	1.285	-0.024	0.031	1.38	-0.184	0.041	1.42	-0.044	0.032	1.47	-0.170	0.044	1.555	-0.132	0.049
1.175	-0.132	0.038	1.285	-0.022	0.031	1.38	-0.182	0.040	1.42	-0.042	0.034	1.47	-0.168	0.042	1.555	-0.130	0.048
1.175	-0.130	0.039	1.285	-0.020	0.031	1.38	-0.180	0.040	1.42	-0.040	0.034	1.47	-0.166	0.040	1.555	-0.128	0.046
1.175	-0.128	0.040	1.285	-0.018	0.031	1.38	-0.178	0.042	1.42	-0.038	0.033	1.47	-0.164	0.040	1.555	-0.126	0.045
1.175	-0.126	0.040	1.285	-0.016	0.031	1.38	-0.176	0.043	1.42	-0.036	0.032	1.47	-0.162	0.039	1.555	-0.124	0.045
1.175	-0.124	0.040	1.285	-0.014	0.031	1.38	-0.174	0.042	1.42	-0.034	0.032	1.47	-0.160	0.040	1.555	-0.122	0.044
1.175	-0.122	0.040	1.285	-0.012	0.031	1.38	-0.172	0.042	1.42	-0.032	0.032	1.47	-0.158	0.039	1.555	-0.120	0.043
1.175	-0.120	0.039	1.285	-0.010	0.030	1.38	-0.170	0.041	1.42	-0.030	0.033	1.47	-0.156	0.039	1.555	-0.118	0.042
1.175	-0.118	0.037	1.285	-0.008	0.030	1.38	-0.168	0.040	1.42	-0.028	0.032	1.47	-0.154	0.039	1.555	-0.116	0.043
1.175	-0.116	0.035	1.285	-0.006	0.030	1.38	-0.166	0.038	1.42	-0.026	0.032	1.47	-0.152	0.040	1.555	-0.114	0.043
1.175	-0.114	0.038	1.285	-0.004	0.029	1.38	-0.164	0.037	1.42	-0.024	0.031	1.47	-0.150	0.042	1.555	-0.112	0.045
1.175	-0.112	0.038	1.285	-0.002	0.029	1.38	-0.162	0.040	1.42	-0.022	0.031	1.47	-0.148	0.041	1.555	-0.110	0.046
1.175	-0.110	0.037	1.285	0.000	0.029	1.38	-0.160	0.039	1.42	-0.020	0.031	1.47	-0.146	0.041	1.555	-0.108	0.046
1.175	-0.108	0.036	1.295	-0.198	0.044	1.38	-0.158	0.039	1.42	-0.018	0.031	1.47	-0.144	0.040	1.555	-0.106	0.046
1.175	-0.106	0.037	1.295	-0.196	0.044	1.38	-0.156	0.038	1.42	-0.016	0.031	1.47	-0.142	0.040	1.555	-0.104	0.045
1.175	-0.104	0.037	1.295	-0.194	0.043	1.38	-0.154	0.037	1.42	-0.014	0.032	1.47	-0.140	0.042	1.555	-0.102	0.045
1.175	-0.102	0.037	1.295	-0.192	0.043	1.38	-0.152	0.038	1.42	-0.012	0.033	1.47	-0.138	0.043	1.555	-0.100	0.045
1.175	-0.100	0.035	1.295	-0.190	0.043	1.38	-0.150	0.037	1.42	-0.010	0.033	1.47	-0.136	0.042	1.555	-0.098	0.043
1.175	-0.098	0.034	1.295	-0.188	0.044	1.38	-0.148	0.037	1.42	-0.008	0.033	1.47	-0.134	0.040	1.555	-0.096	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.175	-0.096	0.036	1.295	-0.186	0.044	1.38	-0.146	0.037	1.42	-0.006	0.033	1.47	-0.132	0.041	1.555	-0.094	0.048
1.175	-0.094	0.036	1.295	-0.184	0.044	1.38	-0.144	0.038	1.42	-0.004	0.033	1.47	-0.130	0.039	1.555	-0.092	0.048
1.175	-0.092	0.035	1.295	-0.182	0.043	1.38	-0.142	0.038	1.42	-0.002	0.033	1.47	-0.128	0.039	1.555	-0.090	0.046
1.175	-0.090	0.037	1.295	-0.180	0.042	1.38	-0.140	0.038	1.42	0.000	0.034	1.47	-0.126	0.039	1.555	-0.088	0.042
1.175	-0.088	0.037	1.295	-0.178	0.041	1.38	-0.138	0.039	1.425	-0.232	0.050	1.47	-0.124	0.042	1.555	-0.086	0.039
1.175	-0.086	0.036	1.295	-0.176	0.040	1.38	-0.136	0.038	1.425	-0.230	0.050	1.47	-0.122	0.040	1.555	-0.084	0.038
1.175	-0.084	0.035	1.295	-0.174	0.041	1.38	-0.134	0.039	1.425	-0.228	0.048	1.47	-0.120	0.037	1.555	-0.082	0.038
1.175	-0.082	0.035	1.295	-0.172	0.042	1.38	-0.132	0.041	1.425	-0.226	0.049	1.47	-0.118	0.036	1.555	-0.080	0.038
1.175	-0.080	0.035	1.295	-0.170	0.042	1.38	-0.130	0.040	1.425	-0.224	0.047	1.47	-0.116	0.037	1.555	-0.078	0.040
1.175	-0.078	0.035	1.295	-0.168	0.042	1.38	-0.128	0.038	1.425	-0.222	0.047	1.47	-0.114	0.037	1.555	-0.076	0.040
1.175	-0.076	0.036	1.295	-0.166	0.041	1.38	-0.126	0.035	1.425	-0.220	0.049	1.47	-0.112	0.038	1.555	-0.074	0.039
1.175	-0.074	0.037	1.295	-0.164	0.041	1.38	-0.124	0.037	1.425	-0.218	0.049	1.47	-0.110	0.039	1.555	-0.072	0.039
1.175	-0.072	0.037	1.295	-0.162	0.042	1.38	-0.122	0.038	1.425	-0.216	0.048	1.47	-0.108	0.039	1.555	-0.070	0.041
1.175	-0.070	0.039	1.295	-0.160	0.043	1.38	-0.120	0.039	1.425	-0.214	0.048	1.47	-0.106	0.038	1.555	-0.068	0.042
1.175	-0.068	0.038	1.295	-0.158	0.043	1.38	-0.118	0.038	1.425	-0.212	0.047	1.47	-0.104	0.037	1.555	-0.066	0.041
1.175	-0.066	0.037	1.295	-0.156	0.042	1.38	-0.116	0.036	1.425	-0.210	0.047	1.47	-0.102	0.038	1.555	-0.064	0.042
1.175	-0.064	0.036	1.295	-0.154	0.041	1.38	-0.114	0.035	1.425	-0.208	0.047	1.47	-0.100	0.039	1.555	-0.062	0.043
1.175	-0.062	0.034	1.295	-0.152	0.040	1.38	-0.112	0.037	1.425	-0.206	0.045	1.47	-0.098	0.039	1.555	-0.060	0.043
1.175	-0.060	0.034	1.295	-0.150	0.040	1.38	-0.110	0.037	1.425	-0.204	0.046	1.47	-0.096	0.039	1.555	-0.058	0.041
1.175	-0.058	0.036	1.295	-0.148	0.040	1.38	-0.108	0.037	1.425	-0.202	0.048	1.47	-0.094	0.040	1.555	-0.056	0.042
1.175	-0.056	0.036	1.295	-0.146	0.040	1.38	-0.106	0.036	1.425	-0.200	0.046	1.47	-0.092	0.040	1.555	-0.054	0.041
1.175	-0.054	0.036	1.295	-0.144	0.039	1.38	-0.104	0.036	1.425	-0.198	0.045	1.47	-0.090	0.040	1.555	-0.052	0.042
1.175	-0.052	0.036	1.295	-0.142	0.039	1.38	-0.102	0.036	1.425	-0.196	0.045	1.47	-0.088	0.037	1.555	-0.050	0.042
1.175	-0.050	0.034	1.295	-0.140	0.040	1.38	-0.100	0.034	1.425	-0.194	0.046	1.47	-0.086	0.036	1.555	-0.048	0.041
1.175	-0.048	0.033	1.295	-0.138	0.039	1.38	-0.098	0.035	1.425	-0.192	0.046	1.47	-0.084	0.036	1.555	-0.046	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.175	-0.046	0.033	1.295	-0.136	0.037	1.38	-0.096	0.037	1.425	-0.190	0.045	1.47	-0.082	0.036	1.555	-0.044	0.041
1.175	-0.044	0.034	1.295	-0.134	0.037	1.38	-0.094	0.037	1.425	-0.188	0.043	1.47	-0.080	0.037	1.555	-0.042	0.040
1.175	-0.042	0.033	1.295	-0.132	0.039	1.38	-0.092	0.036	1.425	-0.186	0.042	1.47	-0.078	0.036	1.555	-0.040	0.040
1.175	-0.040	0.032	1.295	-0.130	0.040	1.38	-0.090	0.034	1.425	-0.184	0.042	1.47	-0.076	0.036	1.555	-0.038	0.040
1.175	-0.038	0.032	1.295	-0.128	0.040	1.38	-0.088	0.034	1.425	-0.182	0.039	1.47	-0.074	0.036	1.555	-0.036	0.039
1.175	-0.036	0.032	1.295	-0.126	0.039	1.38	-0.086	0.035	1.425	-0.180	0.041	1.47	-0.072	0.036	1.555	-0.034	0.039
1.175	-0.034	0.032	1.295	-0.124	0.038	1.38	-0.084	0.038	1.425	-0.178	0.041	1.47	-0.070	0.035	1.555	-0.032	0.039
1.175	-0.032	0.032	1.295	-0.122	0.039	1.38	-0.082	0.039	1.425	-0.176	0.045	1.47	-0.068	0.035	1.555	-0.030	0.038
1.175	-0.030	0.032	1.295	-0.120	0.036	1.38	-0.080	0.037	1.425	-0.174	0.046	1.47	-0.066	0.033	1.555	-0.028	0.034
1.175	-0.028	0.030	1.295	-0.118	0.036	1.38	-0.078	0.035	1.425	-0.172	0.043	1.47	-0.064	0.031	1.555	-0.026	0.031
1.175	-0.026	0.030	1.295	-0.116	0.037	1.38	-0.076	0.036	1.425	-0.170	0.041	1.47	-0.062	0.032	1.555	-0.024	0.031
1.175	-0.024	0.030	1.295	-0.114	0.036	1.38	-0.074	0.036	1.425	-0.168	0.044	1.47	-0.060	0.033	1.555	-0.022	0.031
1.175	-0.022	0.031	1.295	-0.112	0.035	1.38	-0.072	0.033	1.425	-0.166	0.045	1.47	-0.058	0.034	1.555	-0.020	0.031
1.175	-0.020	0.031	1.295	-0.110	0.034	1.38	-0.070	0.033	1.425	-0.164	0.044	1.47	-0.056	0.033	1.555	-0.018	0.031
1.175	-0.018	0.031	1.295	-0.108	0.034	1.38	-0.068	0.034	1.425	-0.162	0.041	1.47	-0.054	0.033	1.555	-0.016	0.031
1.175	-0.016	0.031	1.295	-0.106	0.035	1.38	-0.066	0.034	1.425	-0.160	0.039	1.47	-0.052	0.034	1.555	-0.014	0.031
1.175	-0.014	0.030	1.295	-0.104	0.033	1.38	-0.064	0.032	1.425	-0.158	0.039	1.47	-0.050	0.035	1.555	-0.012	0.031
1.175	-0.012	0.030	1.295	-0.102	0.032	1.38	-0.062	0.030	1.425	-0.156	0.040	1.47	-0.048	0.032	1.555	-0.010	0.031
1.175	-0.010	0.030	1.295	-0.100	0.034	1.38	-0.060	0.031	1.425	-0.154	0.039	1.47	-0.046	0.032	1.555	-0.008	0.031
1.175	-0.008	0.029	1.295	-0.098	0.036	1.38	-0.058	0.031	1.425	-0.152	0.038	1.47	-0.044	0.033	1.555	-0.006	0.031
1.175	-0.006	0.029	1.295	-0.096	0.036	1.38	-0.056	0.031	1.425	-0.150	0.041	1.47	-0.042	0.032	1.555	-0.004	0.032
1.175	-0.004	0.028	1.295	-0.094	0.035	1.38	-0.054	0.031	1.425	-0.148	0.042	1.47	-0.040	0.032	1.555	-0.002	0.032
1.175	-0.002	0.028	1.295	-0.092	0.033	1.38	-0.052	0.030	1.425	-0.146	0.042	1.47	-0.038	0.032	1.555	0.000	0.032
1.175	0.000	0.027	1.295	-0.090	0.032	1.38	-0.050	0.030	1.425	-0.144	0.041	1.47	-0.036	0.031	1.565	-0.170	0.047
1.185	-0.142	0.046	1.295	-0.088	0.032	1.38	-0.048	0.030	1.425	-0.142	0.040	1.47	-0.034	0.032	1.565	-0.168	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.185	-0.140	0.046	1.295	-0.086	0.031	1.38	-0.046	0.030	1.425	-0.140	0.041	1.47	-0.032	0.033	1.565	-0.166	0.049
1.185	-0.138	0.044	1.295	-0.084	0.031	1.38	-0.044	0.030	1.425	-0.138	0.039	1.47	-0.030	0.033	1.565	-0.164	0.049
1.185	-0.136	0.042	1.295	-0.082	0.033	1.38	-0.042	0.030	1.425	-0.136	0.036	1.47	-0.028	0.033	1.565	-0.162	0.050
1.185	-0.134	0.044	1.295	-0.080	0.033	1.38	-0.040	0.031	1.425	-0.134	0.038	1.47	-0.026	0.033	1.565	-0.160	0.050
1.185	-0.132	0.043	1.295	-0.078	0.032	1.38	-0.038	0.031	1.425	-0.132	0.040	1.47	-0.024	0.033	1.565	-0.158	0.051
1.185	-0.130	0.041	1.295	-0.076	0.034	1.38	-0.036	0.031	1.425	-0.130	0.041	1.47	-0.022	0.033	1.565	-0.156	0.051
1.185	-0.128	0.040	1.295	-0.074	0.037	1.38	-0.034	0.031	1.425	-0.128	0.040	1.47	-0.020	0.033	1.565	-0.154	0.051
1.185	-0.126	0.040	1.295	-0.072	0.038	1.38	-0.032	0.031	1.425	-0.126	0.038	1.47	-0.018	0.033	1.565	-0.152	0.051
1.185	-0.124	0.039	1.295	-0.070	0.035	1.38	-0.030	0.031	1.425	-0.124	0.035	1.47	-0.016	0.034	1.565	-0.150	0.052
1.185	-0.122	0.037	1.295	-0.068	0.038	1.38	-0.028	0.031	1.425	-0.122	0.034	1.47	-0.014	0.035	1.565	-0.148	0.052
1.185	-0.120	0.037	1.295	-0.066	0.040	1.38	-0.026	0.031	1.425	-0.120	0.037	1.47	-0.012	0.036	1.565	-0.146	0.053
1.185	-0.118	0.036	1.295	-0.064	0.038	1.38	-0.024	0.031	1.425	-0.118	0.039	1.47	-0.010	0.036	1.565	-0.144	0.054
1.185	-0.116	0.036	1.295	-0.062	0.034	1.38	-0.022	0.031	1.425	-0.116	0.039	1.47	-0.008	0.035	1.565	-0.142	0.054
1.185	-0.114	0.035	1.295	-0.060	0.032	1.38	-0.020	0.031	1.425	-0.114	0.039	1.47	-0.006	0.034	1.565	-0.140	0.054
1.185	-0.112	0.036	1.295	-0.058	0.031	1.38	-0.018	0.031	1.425	-0.112	0.038	1.47	-0.004	0.036	1.565	-0.138	0.054
1.185	-0.110	0.036	1.295	-0.056	0.031	1.38	-0.016	0.031	1.425	-0.110	0.037	1.47	-0.002	0.036	1.565	-0.136	0.053
1.185	-0.108	0.034	1.295	-0.054	0.032	1.38	-0.014	0.031	1.425	-0.108	0.036	1.47	0.000	0.034	1.565	-0.134	0.051
1.185	-0.106	0.033	1.295	-0.052	0.034	1.38	-0.012	0.031	1.425	-0.106	0.035	1.475	-0.232	0.048	1.565	-0.132	0.050
1.185	-0.104	0.033	1.295	-0.050	0.032	1.38	-0.010	0.031	1.425	-0.104	0.035	1.475	-0.230	0.043	1.565	-0.130	0.048
1.185	-0.102	0.034	1.295	-0.048	0.031	1.38	-0.008	0.031	1.425	-0.102	0.035	1.475	-0.228	0.046	1.565	-0.128	0.047
1.185	-0.100	0.034	1.295	-0.046	0.031	1.38	-0.006	0.031	1.425	-0.100	0.035	1.475	-0.226	0.047	1.565	-0.126	0.045
1.185	-0.098	0.034	1.295	-0.044	0.030	1.38	-0.004	0.032	1.425	-0.098	0.037	1.475	-0.224	0.048	1.565	-0.124	0.044
1.185	-0.096	0.033	1.295	-0.042	0.030	1.38	-0.002	0.032	1.425	-0.096	0.038	1.475	-0.222	0.050	1.565	-0.122	0.043
1.185	-0.094	0.034	1.295	-0.040	0.030	1.38	0.000	0.032	1.425	-0.094	0.037	1.475	-0.220	0.050	1.565	-0.120	0.042
1.185	-0.092	0.034	1.295	-0.038	0.030	1.385	-0.226	0.048	1.425	-0.092	0.038	1.475	-0.218	0.048	1.565	-0.118	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.185	-0.090	0.034	1.295	-0.036	0.030	1.385	-0.224	0.050	1.425	-0.090	0.039	1.475	-0.216	0.047	1.565	-0.116	0.042
1.185	-0.088	0.034	1.295	-0.034	0.030	1.385	-0.222	0.051	1.425	-0.088	0.036	1.475	-0.214	0.048	1.565	-0.114	0.043
1.185	-0.086	0.034	1.295	-0.032	0.030	1.385	-0.220	0.051	1.425	-0.086	0.034	1.475	-0.212	0.048	1.565	-0.112	0.044
1.185	-0.084	0.033	1.295	-0.030	0.030	1.385	-0.218	0.048	1.425	-0.084	0.035	1.475	-0.210	0.048	1.565	-0.110	0.045
1.185	-0.082	0.035	1.295	-0.028	0.030	1.385	-0.216	0.044	1.425	-0.082	0.035	1.475	-0.208	0.049	1.565	-0.108	0.046
1.185	-0.080	0.036	1.295	-0.026	0.030	1.385	-0.214	0.043	1.425	-0.080	0.036	1.475	-0.206	0.050	1.565	-0.106	0.046
1.185	-0.078	0.037	1.295	-0.024	0.030	1.385	-0.212	0.044	1.425	-0.078	0.035	1.475	-0.204	0.050	1.565	-0.104	0.046
1.185	-0.076	0.038	1.295	-0.022	0.031	1.385	-0.210	0.044	1.425	-0.076	0.034	1.475	-0.202	0.047	1.565	-0.102	0.046
1.185	-0.074	0.037	1.295	-0.020	0.031	1.385	-0.208	0.044	1.425	-0.074	0.032	1.475	-0.200	0.044	1.565	-0.100	0.046
1.185	-0.072	0.034	1.295	-0.018	0.031	1.385	-0.206	0.044	1.425	-0.072	0.031	1.475	-0.198	0.044	1.565	-0.098	0.046
1.185	-0.070	0.033	1.295	-0.016	0.031	1.385	-0.204	0.044	1.425	-0.070	0.031	1.475	-0.196	0.045	1.565	-0.096	0.045
1.185	-0.068	0.033	1.295	-0.014	0.031	1.385	-0.202	0.044	1.425	-0.068	0.032	1.475	-0.194	0.045	1.565	-0.094	0.044
1.185	-0.066	0.035	1.295	-0.012	0.031	1.385	-0.200	0.044	1.425	-0.066	0.031	1.475	-0.192	0.045	1.565	-0.092	0.043
1.185	-0.064	0.036	1.295	-0.010	0.031	1.385	-0.198	0.045	1.425	-0.064	0.031	1.475	-0.190	0.048	1.565	-0.090	0.041
1.185	-0.062	0.034	1.295	-0.008	0.030	1.385	-0.196	0.045	1.425	-0.062	0.031	1.475	-0.188	0.048	1.565	-0.088	0.039
1.185	-0.060	0.032	1.295	-0.006	0.030	1.385	-0.194	0.045	1.425	-0.060	0.031	1.475	-0.186	0.046	1.565	-0.086	0.037
1.185	-0.058	0.033	1.295	-0.004	0.030	1.385	-0.192	0.042	1.425	-0.058	0.032	1.475	-0.184	0.044	1.565	-0.084	0.037
1.185	-0.056	0.034	1.295	-0.002	0.029	1.385	-0.190	0.040	1.425	-0.056	0.032	1.475	-0.182	0.043	1.565	-0.082	0.037
1.185	-0.054	0.033	1.295	0.000	0.029	1.385	-0.188	0.040	1.425	-0.054	0.031	1.475	-0.180	0.042	1.565	-0.080	0.038
1.185	-0.052	0.034	1.305	-0.202	0.044	1.385	-0.186	0.041	1.425	-0.052	0.031	1.475	-0.178	0.043	1.565	-0.078	0.038
1.185	-0.050	0.032	1.305	-0.200	0.045	1.385	-0.184	0.044	1.425	-0.050	0.030	1.475	-0.176	0.043	1.565	-0.076	0.038
1.185	-0.048	0.030	1.305	-0.198	0.044	1.385	-0.182	0.042	1.425	-0.048	0.030	1.475	-0.174	0.045	1.565	-0.074	0.038
1.185	-0.046	0.030	1.305	-0.196	0.045	1.385	-0.180	0.041	1.425	-0.046	0.031	1.475	-0.172	0.046	1.565	-0.072	0.038
1.185	-0.044	0.031	1.305	-0.194	0.046	1.385	-0.178	0.044	1.425	-0.044	0.032	1.475	-0.170	0.045	1.565	-0.070	0.039
1.185	-0.042	0.031	1.305	-0.192	0.047	1.385	-0.176	0.044	1.425	-0.042	0.034	1.475	-0.168	0.044	1.565	-0.068	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.185	-0.040	0.031	1.305	-0.190	0.046	1.385	-0.174	0.041	1.425	-0.040	0.034	1.475	-0.166	0.041	1.565	-0.066	0.042
1.185	-0.038	0.031	1.305	-0.188	0.045	1.385	-0.172	0.041	1.425	-0.038	0.033	1.475	-0.164	0.040	1.565	-0.064	0.043
1.185	-0.036	0.031	1.305	-0.186	0.043	1.385	-0.170	0.043	1.425	-0.036	0.031	1.475	-0.162	0.041	1.565	-0.062	0.044
1.185	-0.034	0.031	1.305	-0.184	0.043	1.385	-0.168	0.042	1.425	-0.034	0.031	1.475	-0.160	0.042	1.565	-0.060	0.044
1.185	-0.032	0.031	1.305	-0.182	0.046	1.385	-0.166	0.041	1.425	-0.032	0.032	1.475	-0.158	0.040	1.565	-0.058	0.043
1.185	-0.030	0.031	1.305	-0.180	0.046	1.385	-0.164	0.042	1.425	-0.030	0.032	1.475	-0.156	0.040	1.565	-0.056	0.043
1.185	-0.028	0.031	1.305	-0.178	0.046	1.385	-0.162	0.043	1.425	-0.028	0.032	1.475	-0.154	0.039	1.565	-0.054	0.042
1.185	-0.026	0.031	1.305	-0.176	0.045	1.385	-0.160	0.042	1.425	-0.026	0.032	1.475	-0.152	0.039	1.565	-0.052	0.041
1.185	-0.024	0.031	1.305	-0.174	0.044	1.385	-0.158	0.041	1.425	-0.024	0.031	1.475	-0.150	0.040	1.565	-0.050	0.041
1.185	-0.022	0.031	1.305	-0.172	0.044	1.385	-0.156	0.040	1.425	-0.022	0.031	1.475	-0.148	0.040	1.565	-0.048	0.041
1.185	-0.020	0.031	1.305	-0.170	0.042	1.385	-0.154	0.040	1.425	-0.020	0.031	1.475	-0.146	0.041	1.565	-0.046	0.041
1.185	-0.018	0.030	1.305	-0.168	0.041	1.385	-0.152	0.038	1.425	-0.018	0.031	1.475	-0.144	0.041	1.565	-0.044	0.041
1.185	-0.016	0.030	1.305	-0.166	0.040	1.385	-0.150	0.036	1.425	-0.016	0.031	1.475	-0.142	0.040	1.565	-0.042	0.041
1.185	-0.014	0.030	1.305	-0.164	0.040	1.385	-0.148	0.037	1.425	-0.014	0.032	1.475	-0.140	0.041	1.565	-0.040	0.040
1.185	-0.012	0.030	1.305	-0.162	0.042	1.385	-0.146	0.039	1.425	-0.012	0.033	1.475	-0.138	0.042	1.565	-0.038	0.040
1.185	-0.010	0.030	1.305	-0.160	0.042	1.385	-0.144	0.039	1.425	-0.010	0.034	1.475	-0.136	0.042	1.565	-0.036	0.040
1.185	-0.008	0.029	1.305	-0.158	0.043	1.385	-0.142	0.038	1.425	-0.008	0.034	1.475	-0.134	0.040	1.565	-0.034	0.040
1.185	-0.006	0.029	1.305	-0.156	0.044	1.385	-0.140	0.037	1.425	-0.006	0.033	1.475	-0.132	0.040	1.565	-0.032	0.040
1.185	-0.004	0.029	1.305	-0.154	0.044	1.385	-0.138	0.036	1.425	-0.004	0.033	1.475	-0.130	0.039	1.565	-0.030	0.038
1.185	-0.002	0.028	1.305	-0.152	0.043	1.385	-0.136	0.037	1.425	-0.002	0.033	1.475	-0.128	0.039	1.565	-0.028	0.035
1.185	0.000	0.028	1.305	-0.150	0.042	1.385	-0.134	0.039	1.425	0.000	0.033	1.475	-0.126	0.043	1.565	-0.026	0.032
1.195	-0.148	0.046	1.305	-0.148	0.040	1.385	-0.132	0.041	1.43	-0.234	0.047	1.475	-0.124	0.044	1.565	-0.024	0.030
1.195	-0.146	0.045	1.305	-0.146	0.040	1.385	-0.130	0.040	1.43	-0.232	0.046	1.475	-0.122	0.041	1.565	-0.022	0.029
1.195	-0.144	0.044	1.305	-0.144	0.040	1.385	-0.128	0.038	1.43	-0.230	0.045	1.475	-0.120	0.037	1.565	-0.020	0.029
1.195	-0.142	0.043	1.305	-0.142	0.039	1.385	-0.126	0.036	1.43	-0.228	0.046	1.475	-0.118	0.038	1.565	-0.018	0.029

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.195	-0.140	0.041	1.305	-0.140	0.039	1.385	-0.124	0.037	1.43	-0.226	0.047	1.475	-0.116	0.039	1.565	-0.016	0.029
1.195	-0.138	0.043	1.305	-0.138	0.038	1.385	-0.122	0.037	1.43	-0.224	0.047	1.475	-0.114	0.038	1.565	-0.014	0.030
1.195	-0.136	0.042	1.305	-0.136	0.039	1.385	-0.120	0.038	1.43	-0.222	0.047	1.475	-0.112	0.038	1.565	-0.012	0.031
1.195	-0.134	0.041	1.305	-0.134	0.039	1.385	-0.118	0.036	1.43	-0.220	0.046	1.475	-0.110	0.038	1.565	-0.010	0.033
1.195	-0.132	0.041	1.305	-0.132	0.038	1.385	-0.116	0.036	1.43	-0.218	0.047	1.475	-0.108	0.039	1.565	-0.008	0.034
1.195	-0.130	0.039	1.305	-0.130	0.038	1.385	-0.114	0.036	1.43	-0.216	0.046	1.475	-0.106	0.041	1.565	-0.006	0.034
1.195	-0.128	0.038	1.305	-0.128	0.039	1.385	-0.112	0.037	1.43	-0.214	0.046	1.475	-0.104	0.040	1.565	-0.004	0.033
1.195	-0.126	0.037	1.305	-0.126	0.037	1.385	-0.110	0.038	1.43	-0.212	0.049	1.475	-0.102	0.041	1.565	-0.002	0.032
1.195	-0.124	0.038	1.305	-0.124	0.039	1.385	-0.108	0.038	1.43	-0.210	0.050	1.475	-0.100	0.043	1.565	0.000	0.031
1.195	-0.122	0.038	1.305	-0.122	0.039	1.385	-0.106	0.036	1.43	-0.208	0.049	1.475	-0.098	0.041	1.575	-0.148	0.055
1.195	-0.120	0.039	1.305	-0.120	0.037	1.385	-0.104	0.036	1.43	-0.206	0.048	1.475	-0.096	0.038	1.575	-0.146	0.055
1.195	-0.118	0.038	1.305	-0.118	0.037	1.385	-0.102	0.035	1.43	-0.204	0.048	1.475	-0.094	0.038	1.575	-0.144	0.055
1.195	-0.116	0.035	1.305	-0.116	0.038	1.385	-0.100	0.035	1.43	-0.202	0.048	1.475	-0.092	0.039	1.575	-0.142	0.055
1.195	-0.114	0.034	1.305	-0.114	0.037	1.385	-0.098	0.035	1.43	-0.200	0.047	1.475	-0.090	0.039	1.575	-0.140	0.054
1.195	-0.112	0.034	1.305	-0.112	0.035	1.385	-0.096	0.034	1.43	-0.198	0.046	1.475	-0.088	0.037	1.575	-0.138	0.054
1.195	-0.110	0.033	1.305	-0.110	0.035	1.385	-0.094	0.036	1.43	-0.196	0.047	1.475	-0.086	0.037	1.575	-0.136	0.053
1.195	-0.108	0.032	1.305	-0.108	0.035	1.385	-0.092	0.036	1.43	-0.194	0.045	1.475	-0.084	0.039	1.575	-0.134	0.052
1.195	-0.106	0.032	1.305	-0.106	0.035	1.385	-0.090	0.036	1.43	-0.192	0.043	1.475	-0.082	0.041	1.575	-0.132	0.050
1.195	-0.104	0.034	1.305	-0.104	0.035	1.385	-0.088	0.034	1.43	-0.190	0.043	1.475	-0.080	0.041	1.575	-0.130	0.049
1.195	-0.102	0.033	1.305	-0.102	0.034	1.385	-0.086	0.034	1.43	-0.188	0.043	1.475	-0.078	0.038	1.575	-0.128	0.047
1.195	-0.100	0.034	1.305	-0.100	0.033	1.385	-0.084	0.036	1.43	-0.186	0.042	1.475	-0.076	0.036	1.575	-0.126	0.046
1.195	-0.098	0.035	1.305	-0.098	0.033	1.385	-0.082	0.037	1.43	-0.184	0.043	1.475	-0.074	0.036	1.575	-0.124	0.045
1.195	-0.096	0.034	1.305	-0.096	0.034	1.385	-0.080	0.035	1.43	-0.182	0.041	1.475	-0.072	0.036	1.575	-0.122	0.044
1.195	-0.094	0.035	1.305	-0.094	0.035	1.385	-0.078	0.034	1.43	-0.180	0.041	1.475	-0.070	0.036	1.575	-0.120	0.043
1.195	-0.092	0.037	1.305	-0.092	0.035	1.385	-0.076	0.035	1.43	-0.178	0.042	1.475	-0.068	0.035	1.575	-0.118	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.195	-0.090	0.038	1.305	-0.090	0.035	1.385	-0.074	0.036	1.43	-0.176	0.042	1.475	-0.066	0.034	1.575	-0.116	0.043
1.195	-0.088	0.037	1.305	-0.088	0.033	1.385	-0.072	0.035	1.43	-0.174	0.043	1.475	-0.064	0.033	1.575	-0.114	0.043
1.195	-0.086	0.034	1.305	-0.086	0.034	1.385	-0.070	0.033	1.43	-0.172	0.042	1.475	-0.062	0.034	1.575	-0.112	0.044
1.195	-0.084	0.033	1.305	-0.084	0.034	1.385	-0.068	0.033	1.43	-0.170	0.038	1.475	-0.060	0.035	1.575	-0.110	0.044
1.195	-0.082	0.035	1.305	-0.082	0.032	1.385	-0.066	0.032	1.43	-0.168	0.038	1.475	-0.058	0.033	1.575	-0.108	0.045
1.195	-0.080	0.034	1.305	-0.080	0.032	1.385	-0.064	0.031	1.43	-0.166	0.040	1.475	-0.056	0.031	1.575	-0.106	0.045
1.195	-0.078	0.035	1.305	-0.078	0.035	1.385	-0.062	0.031	1.43	-0.164	0.042	1.475	-0.054	0.032	1.575	-0.104	0.045
1.195	-0.076	0.036	1.305	-0.076	0.039	1.385	-0.060	0.032	1.43	-0.162	0.042	1.475	-0.052	0.035	1.575	-0.102	0.045
1.195	-0.074	0.035	1.305	-0.074	0.040	1.385	-0.058	0.032	1.43	-0.160	0.040	1.475	-0.050	0.035	1.575	-0.100	0.045
1.195	-0.072	0.033	1.305	-0.072	0.039	1.385	-0.056	0.031	1.43	-0.158	0.038	1.475	-0.048	0.034	1.575	-0.098	0.044
1.195	-0.070	0.034	1.305	-0.070	0.040	1.385	-0.054	0.032	1.43	-0.156	0.039	1.475	-0.046	0.034	1.575	-0.096	0.043
1.195	-0.068	0.035	1.305	-0.068	0.040	1.385	-0.052	0.031	1.43	-0.154	0.039	1.475	-0.044	0.033	1.575	-0.094	0.042
1.195	-0.066	0.034	1.305	-0.066	0.040	1.385	-0.050	0.031	1.43	-0.152	0.038	1.475	-0.042	0.033	1.575	-0.092	0.040
1.195	-0.064	0.034	1.305	-0.064	0.040	1.385	-0.048	0.031	1.43	-0.150	0.042	1.475	-0.040	0.032	1.575	-0.090	0.039
1.195	-0.062	0.033	1.305	-0.062	0.039	1.385	-0.046	0.031	1.43	-0.148	0.044	1.475	-0.038	0.032	1.575	-0.088	0.038
1.195	-0.060	0.033	1.305	-0.060	0.034	1.385	-0.044	0.031	1.43	-0.146	0.045	1.475	-0.036	0.033	1.575	-0.086	0.037
1.195	-0.058	0.033	1.305	-0.058	0.032	1.385	-0.042	0.031	1.43	-0.144	0.044	1.475	-0.034	0.032	1.575	-0.084	0.036
1.195	-0.056	0.033	1.305	-0.056	0.032	1.385	-0.040	0.031	1.43	-0.142	0.042	1.475	-0.032	0.033	1.575	-0.082	0.036
1.195	-0.054	0.032	1.305	-0.054	0.032	1.385	-0.038	0.031	1.43	-0.140	0.041	1.475	-0.030	0.034	1.575	-0.080	0.036
1.195	-0.052	0.031	1.305	-0.052	0.033	1.385	-0.036	0.031	1.43	-0.138	0.040	1.475	-0.028	0.033	1.575	-0.078	0.037
1.195	-0.050	0.030	1.305	-0.050	0.032	1.385	-0.034	0.031	1.43	-0.136	0.038	1.475	-0.026	0.032	1.575	-0.076	0.037
1.195	-0.048	0.031	1.305	-0.048	0.031	1.385	-0.032	0.032	1.43	-0.134	0.038	1.475	-0.024	0.032	1.575	-0.074	0.037
1.195	-0.046	0.031	1.305	-0.046	0.030	1.385	-0.030	0.032	1.43	-0.132	0.039	1.475	-0.022	0.032	1.575	-0.072	0.038
1.195	-0.044	0.031	1.305	-0.044	0.031	1.385	-0.028	0.031	1.43	-0.130	0.039	1.475	-0.020	0.032	1.575	-0.070	0.039
1.195	-0.042	0.030	1.305	-0.042	0.030	1.385	-0.026	0.031	1.43	-0.128	0.040	1.475	-0.018	0.033	1.575	-0.068	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.195	-0.040	0.030	1.305	-0.040	0.030	1.385	-0.024	0.031	1.43	-0.126	0.038	1.475	-0.016	0.034	1.575	-0.066	0.041
1.195	-0.038	0.030	1.305	-0.038	0.030	1.385	-0.022	0.031	1.43	-0.124	0.035	1.475	-0.014	0.035	1.575	-0.064	0.042
1.195	-0.036	0.030	1.305	-0.036	0.031	1.385	-0.020	0.031	1.43	-0.122	0.035	1.475	-0.012	0.036	1.575	-0.062	0.043
1.195	-0.034	0.030	1.305	-0.034	0.031	1.385	-0.018	0.031	1.43	-0.120	0.040	1.475	-0.010	0.036	1.575	-0.060	0.043
1.195	-0.032	0.030	1.305	-0.032	0.031	1.385	-0.016	0.031	1.43	-0.118	0.041	1.475	-0.008	0.034	1.575	-0.058	0.043
1.195	-0.030	0.030	1.305	-0.030	0.030	1.385	-0.014	0.031	1.43	-0.116	0.040	1.475	-0.006	0.033	1.575	-0.056	0.043
1.195	-0.028	0.031	1.305	-0.028	0.030	1.385	-0.012	0.031	1.43	-0.114	0.039	1.475	-0.004	0.035	1.575	-0.054	0.042
1.195	-0.026	0.032	1.305	-0.026	0.030	1.385	-0.010	0.031	1.43	-0.112	0.038	1.475	-0.002	0.034	1.575	-0.052	0.041
1.195	-0.024	0.031	1.305	-0.024	0.030	1.385	-0.008	0.031	1.43	-0.110	0.037	1.475	0.000	0.031	1.575	-0.050	0.041
1.195	-0.022	0.031	1.305	-0.022	0.030	1.385	-0.006	0.031	1.43	-0.108	0.037	1.485	-0.230	0.049	1.575	-0.048	0.041
1.195	-0.020	0.031	1.305	-0.020	0.031	1.385	-0.004	0.032	1.43	-0.106	0.037	1.485	-0.228	0.048	1.575	-0.046	0.041
1.195	-0.018	0.030	1.305	-0.018	0.031	1.385	-0.002	0.032	1.43	-0.104	0.036	1.485	-0.226	0.047	1.575	-0.044	0.041
1.195	-0.016	0.030	1.305	-0.016	0.031	1.385	0.000	0.033	1.43	-0.102	0.036	1.485	-0.224	0.046	1.575	-0.042	0.041
1.195	-0.014	0.030	1.305	-0.014	0.031	1.39	-0.228	0.049	1.43	-0.100	0.037	1.485	-0.222	0.046	1.575	-0.040	0.040
1.195	-0.012	0.030	1.305	-0.012	0.031	1.39	-0.226	0.046	1.43	-0.098	0.038	1.485	-0.220	0.046	1.575	-0.038	0.040
1.195	-0.010	0.030	1.305	-0.010	0.031	1.39	-0.224	0.047	1.43	-0.096	0.038	1.485	-0.218	0.047	1.575	-0.036	0.039
1.195	-0.008	0.030	1.305	-0.008	0.031	1.39	-0.222	0.052	1.43	-0.094	0.038	1.485	-0.216	0.052	1.575	-0.034	0.039
1.195	-0.006	0.029	1.305	-0.006	0.030	1.39	-0.220	0.053	1.43	-0.092	0.038	1.485	-0.214	0.052	1.575	-0.032	0.038
1.195	-0.004	0.029	1.305	-0.004	0.030	1.39	-0.218	0.053	1.43	-0.090	0.038	1.485	-0.212	0.052	1.575	-0.030	0.036
1.195	-0.002	0.029	1.305	-0.002	0.030	1.39	-0.216	0.048	1.43	-0.088	0.035	1.485	-0.210	0.052	1.575	-0.028	0.034
1.195	0.000	0.029	1.305	0.000	0.029	1.39	-0.214	0.045	1.43	-0.086	0.033	1.485	-0.208	0.048	1.575	-0.026	0.032
1.205	-0.154	0.040	1.315	-0.206	0.047	1.39	-0.212	0.045	1.43	-0.084	0.033	1.485	-0.206	0.043	1.575	-0.024	0.031
1.205	-0.152	0.041	1.315	-0.204	0.047	1.39	-0.210	0.045	1.43	-0.082	0.034	1.485	-0.204	0.043	1.575	-0.022	0.029
1.205	-0.150	0.042	1.315	-0.202	0.046	1.39	-0.208	0.044	1.43	-0.080	0.035	1.485	-0.202	0.043	1.575	-0.020	0.029
1.205	-0.148	0.041	1.315	-0.200	0.043	1.39	-0.206	0.044	1.43	-0.078	0.034	1.485	-0.200	0.044	1.575	-0.018	0.029

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.205	-0.146	0.040	1.315	-0.198	0.042	1.39	-0.204	0.044	1.43	-0.076	0.034	1.485	-0.198	0.044	1.575	-0.016	0.029
1.205	-0.144	0.041	1.315	-0.196	0.042	1.39	-0.202	0.044	1.43	-0.074	0.032	1.485	-0.196	0.043	1.575	-0.014	0.030
1.205	-0.142	0.040	1.315	-0.194	0.043	1.39	-0.200	0.044	1.43	-0.072	0.032	1.485	-0.194	0.043	1.575	-0.012	0.031
1.205	-0.140	0.038	1.315	-0.192	0.044	1.39	-0.198	0.044	1.43	-0.070	0.032	1.485	-0.192	0.044	1.575	-0.010	0.033
1.205	-0.138	0.038	1.315	-0.190	0.044	1.39	-0.196	0.043	1.43	-0.068	0.034	1.485	-0.190	0.046	1.575	-0.008	0.033
1.205	-0.136	0.041	1.315	-0.188	0.043	1.39	-0.194	0.044	1.43	-0.066	0.035	1.485	-0.188	0.045	1.575	-0.006	0.033
1.205	-0.134	0.041	1.315	-0.186	0.042	1.39	-0.192	0.043	1.43	-0.064	0.034	1.485	-0.186	0.043	1.575	-0.004	0.032
1.205	-0.132	0.039	1.315	-0.184	0.042	1.39	-0.190	0.042	1.43	-0.062	0.033	1.485	-0.184	0.041	1.575	-0.002	0.031
1.205	-0.130	0.038	1.315	-0.182	0.043	1.39	-0.188	0.044	1.43	-0.060	0.031	1.485	-0.182	0.042	1.575	0.000	0.030
1.205	-0.128	0.038	1.315	-0.180	0.041	1.39	-0.186	0.044	1.43	-0.058	0.031	1.485	-0.180	0.041	1.585	-0.118	0.044
1.205	-0.126	0.037	1.315	-0.178	0.042	1.39	-0.184	0.045	1.43	-0.056	0.031	1.485	-0.178	0.040	1.585	-0.116	0.044
1.205	-0.124	0.037	1.315	-0.176	0.042	1.39	-0.182	0.044	1.43	-0.054	0.031	1.485	-0.176	0.043	1.585	-0.114	0.044
1.205	-0.122	0.037	1.315	-0.174	0.041	1.39	-0.180	0.044	1.43	-0.052	0.031	1.485	-0.174	0.044	1.585	-0.112	0.044
1.205	-0.120	0.038	1.315	-0.172	0.043	1.39	-0.178	0.046	1.43	-0.050	0.031	1.485	-0.172	0.044	1.585	-0.110	0.044
1.205	-0.118	0.038	1.315	-0.170	0.045	1.39	-0.176	0.045	1.43	-0.048	0.031	1.485	-0.170	0.043	1.585	-0.108	0.044
1.205	-0.116	0.037	1.315	-0.168	0.045	1.39	-0.174	0.042	1.43	-0.046	0.031	1.485	-0.168	0.042	1.585	-0.106	0.044
1.205	-0.114	0.034	1.315	-0.166	0.044	1.39	-0.172	0.040	1.43	-0.044	0.032	1.485	-0.166	0.041	1.585	-0.104	0.044
1.205	-0.112	0.034	1.315	-0.164	0.043	1.39	-0.170	0.042	1.43	-0.042	0.032	1.485	-0.164	0.042	1.585	-0.102	0.043
1.205	-0.110	0.033	1.315	-0.162	0.042	1.39	-0.168	0.043	1.43	-0.040	0.032	1.485	-0.162	0.043	1.585	-0.100	0.043
1.205	-0.108	0.032	1.315	-0.160	0.041	1.39	-0.166	0.043	1.43	-0.038	0.031	1.485	-0.160	0.041	1.585	-0.098	0.042
1.205	-0.106	0.031	1.315	-0.158	0.041	1.39	-0.164	0.044	1.43	-0.036	0.030	1.485	-0.158	0.040	1.585	-0.096	0.041
1.205	-0.104	0.031	1.315	-0.156	0.043	1.39	-0.162	0.044	1.43	-0.034	0.031	1.485	-0.156	0.043	1.585	-0.094	0.040
1.205	-0.102	0.033	1.315	-0.154	0.040	1.39	-0.160	0.043	1.43	-0.032	0.031	1.485	-0.154	0.043	1.585	-0.092	0.038
1.205	-0.100	0.032	1.315	-0.152	0.038	1.39	-0.158	0.044	1.43	-0.030	0.032	1.485	-0.152	0.043	1.585	-0.090	0.038
1.205	-0.098	0.032	1.315	-0.150	0.041	1.39	-0.156	0.044	1.43	-0.028	0.032	1.485	-0.150	0.044	1.585	-0.088	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.205	-0.096	0.033	1.315	-0.148	0.039	1.39	-0.154	0.044	1.43	-0.026	0.032	1.485	-0.148	0.040	1.585	-0.086	0.036
1.205	-0.094	0.034	1.315	-0.146	0.039	1.39	-0.152	0.042	1.43	-0.024	0.031	1.485	-0.146	0.037	1.585	-0.084	0.036
1.205	-0.092	0.034	1.315	-0.144	0.038	1.39	-0.150	0.038	1.43	-0.022	0.031	1.485	-0.144	0.042	1.585	-0.082	0.036
1.205	-0.090	0.032	1.315	-0.142	0.039	1.39	-0.148	0.037	1.43	-0.020	0.031	1.485	-0.142	0.042	1.585	-0.080	0.036
1.205	-0.088	0.033	1.315	-0.140	0.039	1.39	-0.146	0.038	1.43	-0.018	0.031	1.485	-0.140	0.042	1.585	-0.078	0.036
1.205	-0.086	0.034	1.315	-0.138	0.037	1.39	-0.144	0.038	1.43	-0.016	0.031	1.485	-0.138	0.043	1.585	-0.076	0.036
1.205	-0.084	0.034	1.315	-0.136	0.037	1.39	-0.142	0.037	1.43	-0.014	0.031	1.485	-0.136	0.045	1.585	-0.074	0.037
1.205	-0.082	0.033	1.315	-0.134	0.039	1.39	-0.140	0.036	1.43	-0.012	0.033	1.485	-0.134	0.045	1.585	-0.072	0.038
1.205	-0.080	0.033	1.315	-0.132	0.040	1.39	-0.138	0.036	1.43	-0.010	0.034	1.485	-0.132	0.041	1.585	-0.070	0.038
1.205	-0.078	0.034	1.315	-0.130	0.039	1.39	-0.136	0.036	1.43	-0.008	0.034	1.485	-0.130	0.039	1.585	-0.068	0.039
1.205	-0.076	0.036	1.315	-0.128	0.037	1.39	-0.134	0.038	1.43	-0.006	0.033	1.485	-0.128	0.038	1.585	-0.066	0.040
1.205	-0.074	0.037	1.315	-0.126	0.036	1.39	-0.132	0.039	1.43	-0.004	0.032	1.485	-0.126	0.037	1.585	-0.064	0.041
1.205	-0.072	0.036	1.315	-0.124	0.037	1.39	-0.130	0.038	1.43	-0.002	0.032	1.485	-0.124	0.036	1.585	-0.062	0.041
1.205	-0.070	0.033	1.315	-0.122	0.036	1.39	-0.128	0.036	1.43	0.000	0.032	1.485	-0.122	0.038	1.585	-0.060	0.042
1.205	-0.068	0.032	1.315	-0.120	0.037	1.39	-0.126	0.037	1.435	-0.234	0.046	1.485	-0.120	0.042	1.585	-0.058	0.042
1.205	-0.066	0.032	1.315	-0.118	0.037	1.39	-0.124	0.037	1.435	-0.232	0.043	1.485	-0.118	0.041	1.585	-0.056	0.042
1.205	-0.064	0.033	1.315	-0.116	0.036	1.39	-0.122	0.037	1.435	-0.230	0.045	1.485	-0.116	0.039	1.585	-0.054	0.042
1.205	-0.062	0.033	1.315	-0.114	0.037	1.39	-0.120	0.037	1.435	-0.228	0.047	1.485	-0.114	0.040	1.585	-0.052	0.042
1.205	-0.060	0.033	1.315	-0.112	0.034	1.39	-0.118	0.036	1.435	-0.226	0.049	1.485	-0.112	0.042	1.585	-0.050	0.041
1.205	-0.058	0.032	1.315	-0.110	0.033	1.39	-0.116	0.036	1.435	-0.224	0.048	1.485	-0.110	0.043	1.585	-0.048	0.041
1.205	-0.056	0.031	1.315	-0.108	0.035	1.39	-0.114	0.036	1.435	-0.222	0.044	1.485	-0.108	0.042	1.585	-0.046	0.041
1.205	-0.054	0.031	1.315	-0.106	0.035	1.39	-0.112	0.038	1.435	-0.220	0.046	1.485	-0.106	0.041	1.585	-0.044	0.040
1.205	-0.052	0.032	1.315	-0.104	0.034	1.39	-0.110	0.038	1.435	-0.218	0.048	1.485	-0.104	0.041	1.585	-0.042	0.040
1.205	-0.050	0.033	1.315	-0.102	0.033	1.39	-0.108	0.038	1.435	-0.216	0.047	1.485	-0.102	0.041	1.585	-0.040	0.040
1.205	-0.048	0.033	1.315	-0.100	0.032	1.39	-0.106	0.037	1.435	-0.214	0.046	1.485	-0.100	0.042	1.585	-0.038	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.205	-0.046	0.032	1.315	-0.098	0.033	1.39	-0.104	0.036	1.435	-0.212	0.051	1.485	-0.098	0.041	1.585	-0.036	0.038
1.205	-0.044	0.032	1.315	-0.096	0.034	1.39	-0.102	0.036	1.435	-0.210	0.053	1.485	-0.096	0.039	1.585	-0.034	0.037
1.205	-0.042	0.032	1.315	-0.094	0.034	1.39	-0.100	0.035	1.435	-0.208	0.052	1.485	-0.094	0.039	1.585	-0.032	0.036
1.205	-0.040	0.032	1.315	-0.092	0.034	1.39	-0.098	0.035	1.435	-0.206	0.049	1.485	-0.092	0.037	1.585	-0.030	0.035
1.205	-0.038	0.032	1.315	-0.090	0.035	1.39	-0.096	0.034	1.435	-0.204	0.048	1.485	-0.090	0.038	1.585	-0.028	0.033
1.205	-0.036	0.031	1.315	-0.088	0.035	1.39	-0.094	0.035	1.435	-0.202	0.047	1.485	-0.088	0.036	1.585	-0.026	0.032
1.205	-0.034	0.030	1.315	-0.086	0.034	1.39	-0.092	0.036	1.435	-0.200	0.046	1.485	-0.086	0.037	1.585	-0.024	0.031
1.205	-0.032	0.030	1.315	-0.084	0.033	1.39	-0.090	0.036	1.435	-0.198	0.048	1.485	-0.084	0.039	1.585	-0.022	0.030
1.205	-0.030	0.030	1.315	-0.082	0.032	1.39	-0.088	0.035	1.435	-0.196	0.050	1.485	-0.082	0.039	1.585	-0.020	0.029
1.205	-0.028	0.031	1.315	-0.080	0.034	1.39	-0.086	0.035	1.435	-0.194	0.047	1.485	-0.080	0.038	1.585	-0.018	0.029
1.205	-0.026	0.033	1.315	-0.078	0.036	1.39	-0.084	0.035	1.435	-0.192	0.045	1.485	-0.078	0.037	1.585	-0.016	0.029
1.205	-0.024	0.033	1.315	-0.076	0.036	1.39	-0.082	0.036	1.435	-0.190	0.044	1.485	-0.076	0.038	1.585	-0.014	0.029
1.205	-0.022	0.032	1.315	-0.074	0.036	1.39	-0.080	0.035	1.435	-0.188	0.044	1.485	-0.074	0.038	1.585	-0.012	0.030
1.205	-0.020	0.031	1.315	-0.072	0.036	1.39	-0.078	0.033	1.435	-0.186	0.045	1.485	-0.072	0.035	1.585	-0.010	0.031
1.205	-0.018	0.030	1.315	-0.070	0.037	1.39	-0.076	0.035	1.435	-0.184	0.046	1.485	-0.070	0.036	1.585	-0.008	0.032
1.205	-0.016	0.030	1.315	-0.068	0.037	1.39	-0.074	0.036	1.435	-0.182	0.046	1.485	-0.068	0.036	1.585	-0.006	0.033
1.205	-0.014	0.030	1.315	-0.066	0.038	1.39	-0.072	0.036	1.435	-0.180	0.044	1.485	-0.066	0.036	1.585	-0.004	0.033
1.205	-0.012	0.030	1.315	-0.064	0.038	1.39	-0.070	0.034	1.435	-0.178	0.040	1.485	-0.064	0.036	1.585	-0.002	0.032
1.205	-0.010	0.030	1.315	-0.062	0.036	1.39	-0.068	0.033	1.435	-0.176	0.039	1.485	-0.062	0.035	1.585	0.000	0.031
1.205	-0.008	0.030	1.315	-0.060	0.035	1.39	-0.066	0.032	1.435	-0.174	0.041	1.485	-0.060	0.035	1.595	-0.048	0.041
1.205	-0.006	0.030	1.315	-0.058	0.034	1.39	-0.064	0.031	1.435	-0.172	0.042	1.485	-0.058	0.034	1.595	-0.046	0.041
1.205	-0.004	0.030	1.315	-0.056	0.033	1.39	-0.062	0.031	1.435	-0.170	0.041	1.485	-0.056	0.034	1.595	-0.044	0.040
1.205	-0.002	0.030	1.315	-0.054	0.032	1.39	-0.060	0.031	1.435	-0.168	0.039	1.485	-0.054	0.035	1.595	-0.042	0.040
1.205	0.000	0.030	1.315	-0.052	0.031	1.39	-0.058	0.032	1.435	-0.166	0.039	1.485	-0.052	0.034	1.595	-0.040	0.039
1.215	-0.160	0.041	1.315	-0.050	0.031	1.39	-0.056	0.032	1.435	-0.164	0.043	1.485	-0.050	0.034	1.595	-0.038	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.215	-0.158	0.043	1.315	-0.048	0.031	1.39	-0.054	0.033	1.435	-0.162	0.044	1.485	-0.048	0.035	1.595	-0.036	0.037
1.215	-0.156	0.042	1.315	-0.046	0.031	1.39	-0.052	0.032	1.435	-0.160	0.043	1.485	-0.046	0.035	1.595	-0.034	0.036
1.215	-0.154	0.041	1.315	-0.044	0.031	1.39	-0.050	0.031	1.435	-0.158	0.040	1.485	-0.044	0.035	1.595	-0.032	0.035
1.215	-0.152	0.040	1.315	-0.042	0.031	1.39	-0.048	0.031	1.435	-0.156	0.040	1.485	-0.042	0.034	1.595	-0.030	0.034
1.215	-0.150	0.038	1.315	-0.040	0.032	1.39	-0.046	0.031	1.435	-0.154	0.041	1.485	-0.040	0.034	1.595	-0.028	0.033
1.215	-0.148	0.040	1.315	-0.038	0.032	1.39	-0.044	0.031	1.435	-0.152	0.041	1.485	-0.038	0.035	1.595	-0.026	0.031
1.215	-0.146	0.043	1.315	-0.036	0.032	1.39	-0.042	0.031	1.435	-0.150	0.042	1.485	-0.036	0.036	1.595	-0.024	0.031
1.215	-0.144	0.043	1.315	-0.034	0.031	1.39	-0.040	0.031	1.435	-0.148	0.042	1.485	-0.034	0.035	1.595	-0.022	0.030
1.215	-0.142	0.040	1.315	-0.032	0.031	1.39	-0.038	0.031	1.435	-0.146	0.041	1.485	-0.032	0.034	1.595	-0.020	0.029
1.215	-0.140	0.038	1.315	-0.030	0.031	1.39	-0.036	0.032	1.435	-0.144	0.038	1.485	-0.030	0.034	1.595	-0.018	0.029
1.215	-0.138	0.038	1.315	-0.028	0.031	1.39	-0.034	0.032	1.435	-0.142	0.040	1.485	-0.028	0.033	1.595	-0.016	0.028
1.215	-0.136	0.039	1.315	-0.026	0.030	1.39	-0.032	0.032	1.435	-0.140	0.039	1.485	-0.026	0.032	1.595	-0.014	0.028
1.215	-0.134	0.039	1.315	-0.024	0.030	1.39	-0.030	0.032	1.435	-0.138	0.039	1.485	-0.024	0.033	1.595	-0.012	0.029
1.215	-0.132	0.039	1.315	-0.022	0.030	1.39	-0.028	0.032	1.435	-0.136	0.039	1.485	-0.022	0.034	1.595	-0.010	0.030
1.215	-0.130	0.038	1.315	-0.020	0.030	1.39	-0.026	0.031	1.435	-0.134	0.038	1.485	-0.020	0.032	1.595	-0.008	0.031
1.215	-0.128	0.038	1.315	-0.018	0.031	1.39	-0.024	0.031	1.435	-0.132	0.037	1.485	-0.018	0.032	1.595	-0.006	0.033
1.215	-0.126	0.038	1.315	-0.016	0.031	1.39	-0.022	0.031	1.435	-0.130	0.037	1.485	-0.016	0.034	1.595	-0.004	0.034
1.215	-0.124	0.036	1.315	-0.014	0.031	1.39	-0.020	0.031	1.435	-0.128	0.039	1.485	-0.014	0.035	1.595	-0.002	0.033
1.215	-0.122	0.035	1.315	-0.012	0.031	1.39	-0.018	0.031	1.435	-0.126	0.037	1.485	-0.012	0.038	1.595	0.000	0.031
1.215	-0.120	0.034	1.315	-0.010	0.031	1.39	-0.016	0.031	1.435	-0.124	0.034	1.485	-0.010	0.038	1.44	-0.234	0.046
1.215	-0.118	0.033	1.315	-0.008	0.031	1.39	-0.014	0.031	1.435	-0.122	0.034	1.485	-0.008	0.037	1.445	-0.234	0.048
1.215	-0.116	0.034	1.315	-0.006	0.030	1.39	-0.012	0.031	1.435	-0.120	0.038	1.485	-0.006	0.036	1.45	-0.234	0.052
1.215	-0.114	0.034	1.315	-0.004	0.030	1.39	-0.010	0.031	1.435	-0.118	0.039	1.485	-0.004	0.035	1.455	-0.234	0.051
1.015	-0.010	0.030	1.115	-0.096	0.035	1.205	-0.154	0.040	1.305	-0.202	0.044	1.39	-0.228	0.049	1.465	-0.234	0.049
1.025	-0.022	0.032	1.125	-0.104	0.036	1.215	-0.160	0.041	1.315	-0.206	0.047	1.395	-0.228	0.048	1.47	-0.232	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.035	-0.030	0.033	1.135	-0.110	0.037	1.225	-0.164	0.039	1.325	-0.210	0.049	1.4	-0.230	0.051	1.475	-0.232	0.048
1.045	-0.040	0.033	1.14	-0.118	0.040	1.235	-0.170	0.042	1.335	-0.212	0.047	1.405	-0.230	0.048	1.485	-0.230	0.049
1.055	-0.050	0.032	1.145	-0.118	0.040	1.245	-0.176	0.046	1.345	-0.216	0.047	1.41	-0.232	0.049	1.495	-0.228	0.046
1.065	-0.058	0.031	1.155	-0.124	0.042	1.255	-0.180	0.042	1.355	-0.218	0.053	1.415	-0.232	0.047	1.505	-0.224	0.042
1.075	-0.066	0.030	1.165	-0.130	0.038	1.265	-0.184	0.042	1.365	-0.222	0.045	1.42	-0.232	0.047	1.515	-0.220	0.041
1.085	-0.074	0.035	1.175	-0.136	0.036	1.275	-0.190	0.043	1.375	-0.224	0.045	1.425	-0.232	0.050	1.525	-0.214	0.043
1.095	-0.082	0.037	1.185	-0.142	0.046	1.285	-0.194	0.043	1.38	-0.226	0.049	1.43	-0.234	0.047	1.535	-0.206	0.041
1.105	-0.090	0.037	1.195	-0.148	0.046	1.295	-0.198	0.044	1.385	-0.226	0.048	1.435	-0.234	0.046	1.545	-0.198	0.043
1.555	-0.186	0.044	1.565	-0.170	0.047	1.575	-0.148	0.055	1.585	-0.118	0.044	1.595	-0.048	0.041	1.5	0	0.036
1	0	0.031	1.1	0	0.039	1.2	0	0.030	1.3	0	0.029	1.4	0	0.030	1.51	0	0.036
1.01	0	0.032	1.11	0	0.037	1.21	0	0.030	1.31	0	0.029	1.41	0	0.030	1.52	0	0.036
1.02	0	0.034	1.12	0	0.035	1.22	0	0.030	1.32	0	0.029	1.42	0	0.031	1.53	0	0.035
1.03	0	0.036	1.13	0	0.034	1.23	0	0.030	1.33	0	0.029	1.43	0	0.031	1.54	0	0.033
1.04	0	0.038	1.14	0	0.032	1.24	0	0.030	1.34	0	0.029	1.44	0	0.032	1.55	0	0.031
1.05	0	0.040	1.15	0	0.031	1.25	0	0.030	1.35	0	0.029	1.45	0	0.033	1.56	0	0.030
1.06	0	0.041	1.16	0	0.031	1.26	0	0.029	1.36	0	0.029	1.46	0	0.033	1.57	0	0.029
1.07	0	0.042	1.17	0	0.030	1.27	0	0.029	1.37	0	0.029	1.47	0	0.034	1.58	0	0.030
1.08	0	0.042	1.18	0	0.030	1.28	0	0.029	1.38	0	0.030	1.48	0	0.035	1.59	0	0.031
1.09	0	0.040	1.19	0	0.030	1.29	0	0.029	1.39	0	0.030	1.49	0	0.035	1.6	0	0.034

Table B.4 Main channel streambed bathymetry.

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.01	0.01	0.050	0.93	0.47	0.040	1.86	0.04	0.062	1.25	0.26	0.047	1.665	0.345	0.049	2.08	0.43	0.045
0.01	0.02	0.053	0.93	0.48	0.039	1.86	0.05	0.062	1.25	0.265	0.047	1.665	0.35	0.050	2.08	0.435	0.050
0.01	0.03	0.055	0.93	0.49	0.039	1.86	0.06	0.062	1.25	0.27	0.047	1.665	0.355	0.050	2.08	0.44	0.052
0.01	0.04	0.054	0.93	0.5	0.039	1.86	0.07	0.064	1.25	0.275	0.051	1.665	0.36	0.049	2.08	0.445	0.054
0.01	0.05	0.050	0.93	0.51	0.038	1.86	0.08	0.068	1.25	0.28	0.053	1.665	0.365	0.048	2.08	0.45	0.054
0.01	0.06	0.046	0.93	0.52	0.037	1.86	0.09	0.072	1.25	0.285	0.055	1.665	0.37	0.047	2.08	0.455	0.053
0.01	0.07	0.042	0.93	0.53	0.036	1.86	0.1	0.074	1.25	0.29	0.055	1.665	0.375	0.044	2.08	0.46	0.053
0.01	0.08	0.040	0.93	0.54	0.037	1.86	0.11	0.073	1.25	0.295	0.054	1.665	0.38	0.040	2.08	0.465	0.051
0.01	0.09	0.040	0.93	0.55	0.039	1.86	0.12	0.072	1.25	0.3	0.051	1.665	0.385	0.037	2.08	0.47	0.047
0.01	0.1	0.041	0.93	0.56	0.041	1.86	0.13	0.071	1.25	0.305	0.048	1.665	0.39	0.038	2.08	0.475	0.039
0.01	0.11	0.045	0.93	0.57	0.041	1.86	0.14	0.070	1.25	0.31	0.049	1.665	0.395	0.041	2.08	0.48	0.036
0.01	0.12	0.047	0.93	0.58	0.041	1.86	0.15	0.067	1.25	0.315	0.053	1.665	0.4	0.045	2.08	0.485	0.042
0.01	0.13	0.048	0.93	0.59	0.042	1.86	0.16	0.065	1.25	0.32	0.056	1.665	0.405	0.046	2.08	0.49	0.050
0.01	0.14	0.046	0.93	0.6	0.043	1.86	0.17	0.062	1.25	0.325	0.056	1.665	0.41	0.047	2.08	0.495	0.057
0.01	0.15	0.044	0.93	0.61	0.042	1.86	0.18	0.059	1.25	0.33	0.053	1.665	0.415	0.046	2.085	0.005	0.068
0.01	0.16	0.045	0.93	0.62	0.039	1.86	0.19	0.055	1.25	0.335	0.048	1.665	0.42	0.043	2.085	0.01	0.078
0.01	0.17	0.049	0.93	0.63	0.038	1.86	0.2	0.053	1.25	0.34	0.044	1.665	0.425	0.040	2.085	0.015	0.084
0.01	0.18	0.052	0.93	0.64	0.038	1.86	0.21	0.051	1.25	0.345	0.044	1.665	0.43	0.038	2.085	0.02	0.085
0.01	0.19	0.051	0.93	0.65	0.039	1.86	0.22	0.052	1.25	0.35	0.046	1.665	0.435	0.038	2.085	0.025	0.083
0.01	0.2	0.047	0.93	0.66	0.040	1.86	0.23	0.056	1.25	0.355	0.048	1.665	0.44	0.040	2.085	0.03	0.077
0.01	0.21	0.044	0.93	0.67	0.042	1.86	0.24	0.060	1.25	0.36	0.050	1.665	0.445	0.046	2.085	0.035	0.065
0.01	0.22	0.042	0.93	0.68	0.043	1.86	0.25	0.060	1.25	0.365	0.051	1.665	0.45	0.050	2.085	0.04	0.054
0.01	0.23	0.041	0.93	0.69	0.044	1.86	0.26	0.056	1.25	0.37	0.049	1.665	0.455	0.052	2.085	0.045	0.045
0.01	0.24	0.039	0.93	0.7	0.043	1.86	0.27	0.052	1.25	0.375	0.047	1.665	0.46	0.052	2.085	0.05	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.01	0.25	0.039	0.93	0.71	0.041	1.86	0.28	0.051	1.25	0.38	0.052	1.665	0.465	0.052	2.085	0.055	0.041
0.01	0.26	0.041	0.93	0.72	0.040	1.86	0.29	0.050	1.25	0.385	0.059	1.665	0.47	0.052	2.085	0.06	0.043
0.01	0.27	0.043	0.93	0.73	0.040	1.86	0.3	0.050	1.25	0.39	0.063	1.665	0.475	0.050	2.085	0.065	0.043
0.01	0.28	0.045	0.93	0.74	0.041	1.86	0.31	0.049	1.25	0.395	0.063	1.665	0.48	0.046	2.085	0.07	0.041
0.01	0.29	0.045	0.93	0.75	0.042	1.86	0.32	0.048	1.25	0.4	0.061	1.665	0.485	0.046	2.085	0.075	0.041
0.01	0.3	0.044	0.93	0.76	0.042	1.86	0.33	0.047	1.25	0.405	0.058	1.665	0.49	0.048	2.085	0.08	0.045
0.01	0.31	0.044	0.93	0.77	0.042	1.86	0.34	0.047	1.25	0.41	0.054	1.665	0.495	0.050	2.085	0.085	0.051
0.01	0.32	0.044	0.93	0.78	0.043	1.86	0.35	0.046	1.25	0.415	0.047	1.67	0.005	0.051	2.085	0.09	0.056
0.01	0.33	0.044	0.93	0.79	0.043	1.86	0.36	0.046	1.25	0.42	0.040	1.67	0.01	0.051	2.085	0.095	0.057
0.01	0.34	0.045	0.93	0.8	0.042	1.86	0.37	0.046	1.25	0.425	0.034	1.67	0.015	0.051	2.085	0.1	0.054
0.01	0.35	0.046	0.93	0.81	0.042	1.86	0.38	0.047	1.25	0.43	0.033	1.67	0.02	0.049	2.085	0.105	0.050
0.01	0.36	0.047	0.93	0.82	0.043	1.86	0.39	0.048	1.25	0.435	0.034	1.67	0.025	0.046	2.085	0.11	0.045
0.01	0.37	0.047	0.93	0.83	0.047	1.86	0.4	0.048	1.25	0.44	0.037	1.67	0.03	0.045	2.085	0.115	0.044
0.01	0.38	0.045	0.93	0.84	0.051	1.86	0.41	0.050	1.25	0.445	0.039	1.67	0.035	0.044	2.085	0.12	0.044
0.01	0.39	0.043	0.93	0.85	0.054	1.86	0.42	0.051	1.25	0.45	0.039	1.67	0.04	0.048	2.085	0.125	0.046
0.01	0.4	0.042	0.93	0.86	0.054	1.86	0.43	0.051	1.25	0.455	0.038	1.67	0.045	0.055	2.085	0.13	0.052
0.01	0.41	0.041	0.93	0.87	0.052	1.86	0.44	0.053	1.25	0.46	0.037	1.67	0.05	0.059	2.085	0.135	0.057
0.01	0.42	0.041	0.93	0.88	0.051	1.86	0.45	0.055	1.25	0.465	0.037	1.67	0.055	0.061	2.085	0.14	0.060
0.01	0.43	0.042	0.93	0.89	0.052	1.86	0.46	0.054	1.25	0.47	0.038	1.67	0.06	0.063	2.085	0.145	0.061
0.01	0.44	0.043	0.94	0.01	0.041	1.86	0.47	0.050	1.25	0.475	0.040	1.67	0.065	0.066	2.085	0.15	0.060
0.01	0.45	0.043	0.94	0.02	0.046	1.86	0.48	0.049	1.25	0.48	0.043	1.67	0.07	0.068	2.085	0.155	0.058
0.01	0.46	0.044	0.94	0.03	0.051	1.86	0.49	0.050	1.25	0.485	0.043	1.67	0.075	0.068	2.085	0.16	0.054
0.01	0.47	0.044	0.94	0.04	0.055	1.86	0.5	0.052	1.25	0.49	0.040	1.67	0.08	0.071	2.085	0.165	0.050
0.01	0.48	0.043	0.94	0.05	0.056	1.86	0.51	0.053	1.25	0.495	0.036	1.67	0.085	0.075	2.085	0.17	0.046
0.01	0.49	0.043	0.94	0.06	0.054	1.86	0.52	0.054	1.255	0.005	0.032	1.67	0.09	0.079	2.085	0.175	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.01	0.5	0.046	0.94	0.07	0.050	1.86	0.53	0.056	1.255	0.01	0.032	1.67	0.095	0.080	2.085	0.18	0.040
0.01	0.51	0.049	0.94	0.08	0.045	1.86	0.54	0.058	1.255	0.015	0.032	1.67	0.1	0.079	2.085	0.185	0.041
0.01	0.52	0.051	0.94	0.09	0.042	1.86	0.55	0.060	1.255	0.02	0.033	1.67	0.105	0.075	2.085	0.19	0.043
0.01	0.53	0.049	0.94	0.1	0.041	1.86	0.56	0.058	1.255	0.025	0.033	1.67	0.11	0.070	2.085	0.195	0.044
0.01	0.54	0.045	0.94	0.11	0.041	1.86	0.57	0.054	1.255	0.03	0.033	1.67	0.115	0.067	2.085	0.2	0.045
0.01	0.55	0.042	0.94	0.12	0.042	1.86	0.58	0.048	1.255	0.035	0.033	1.67	0.12	0.068	2.085	0.205	0.045
0.01	0.56	0.041	0.94	0.13	0.043	1.86	0.59	0.044	1.255	0.04	0.033	1.67	0.125	0.068	2.085	0.21	0.042
0.01	0.57	0.043	0.94	0.14	0.045	1.86	0.6	0.043	1.255	0.045	0.033	1.67	0.13	0.067	2.085	0.215	0.038
0.01	0.58	0.046	0.94	0.15	0.045	1.86	0.61	0.043	1.255	0.05	0.034	1.67	0.135	0.069	2.085	0.22	0.037
0.01	0.59	0.050	0.94	0.16	0.043	1.86	0.62	0.045	1.255	0.055	0.036	1.67	0.14	0.074	2.085	0.225	0.042
0.01	0.6	0.054	0.94	0.17	0.041	1.86	0.63	0.047	1.255	0.06	0.037	1.67	0.145	0.079	2.085	0.23	0.050
0.01	0.61	0.056	0.94	0.18	0.041	1.86	0.64	0.050	1.255	0.065	0.037	1.67	0.15	0.078	2.085	0.235	0.058
0.01	0.62	0.056	0.94	0.19	0.043	1.86	0.65	0.053	1.255	0.07	0.038	1.67	0.155	0.073	2.085	0.24	0.063
0.01	0.63	0.055	0.94	0.2	0.046	1.86	0.66	0.055	1.255	0.075	0.038	1.67	0.16	0.068	2.085	0.245	0.065
0.01	0.64	0.052	0.94	0.21	0.047	1.86	0.67	0.055	1.255	0.08	0.037	1.67	0.165	0.069	2.085	0.25	0.065
0.01	0.65	0.049	0.94	0.22	0.046	1.86	0.68	0.054	1.255	0.085	0.036	1.67	0.17	0.072	2.085	0.255	0.065
0.01	0.66	0.045	0.94	0.23	0.044	1.86	0.69	0.051	1.255	0.09	0.038	1.67	0.175	0.075	2.085	0.26	0.064
0.01	0.67	0.043	0.94	0.24	0.044	1.86	0.7	0.048	1.255	0.095	0.042	1.67	0.18	0.075	2.085	0.265	0.062
0.01	0.68	0.043	0.94	0.25	0.046	1.86	0.71	0.048	1.255	0.1	0.044	1.67	0.185	0.074	2.085	0.27	0.059
0.01	0.69	0.044	0.94	0.26	0.048	1.86	0.72	0.050	1.255	0.105	0.044	1.67	0.19	0.070	2.085	0.275	0.056
0.01	0.7	0.046	0.94	0.27	0.048	1.86	0.73	0.055	1.255	0.11	0.043	1.67	0.195	0.067	2.085	0.28	0.051
0.01	0.71	0.049	0.94	0.28	0.046	1.86	0.74	0.059	1.255	0.115	0.039	1.67	0.2	0.066	2.085	0.285	0.047
0.01	0.72	0.050	0.94	0.29	0.044	1.86	0.75	0.058	1.255	0.12	0.039	1.67	0.205	0.069	2.085	0.29	0.045
0.01	0.73	0.050	0.94	0.3	0.042	1.86	0.76	0.055	1.255	0.125	0.040	1.67	0.21	0.070	2.085	0.295	0.047
0.01	0.74	0.050	0.94	0.31	0.043	1.86	0.77	0.050	1.255	0.13	0.040	1.67	0.215	0.070	2.085	0.3	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.01	0.75	0.051	0.94	0.32	0.044	1.86	0.78	0.048	1.255	0.135	0.039	1.67	0.22	0.066	2.085	0.305	0.051
0.01	0.76	0.053	0.94	0.33	0.045	1.86	0.79	0.048	1.255	0.14	0.042	1.67	0.225	0.064	2.085	0.31	0.051
0.01	0.77	0.054	0.94	0.34	0.045	1.86	0.8	0.050	1.255	0.145	0.047	1.67	0.23	0.064	2.085	0.315	0.048
0.01	0.78	0.053	0.94	0.35	0.044	1.86	0.81	0.051	1.255	0.15	0.049	1.67	0.235	0.062	2.085	0.32	0.045
0.01	0.79	0.052	0.94	0.36	0.045	1.86	0.82	0.052	1.255	0.155	0.049	1.67	0.24	0.058	2.085	0.325	0.040
0.01	0.8	0.050	0.94	0.37	0.047	1.86	0.83	0.054	1.255	0.16	0.047	1.67	0.245	0.057	2.085	0.33	0.037
0.01	0.81	0.048	0.94	0.38	0.049	1.86	0.84	0.054	1.255	0.165	0.043	1.67	0.25	0.060	2.085	0.335	0.038
0.01	0.82	0.046	0.94	0.39	0.050	1.86	0.85	0.053	1.255	0.17	0.038	1.67	0.255	0.063	2.085	0.34	0.044
0.01	0.83	0.043	0.94	0.4	0.049	1.86	0.86	0.050	1.255	0.175	0.034	1.67	0.26	0.063	2.085	0.345	0.047
0.01	0.84	0.041	0.94	0.41	0.049	1.86	0.87	0.048	1.255	0.18	0.032	1.67	0.265	0.060	2.085	0.35	0.048
0.01	0.85	0.040	0.94	0.42	0.049	1.86	0.88	0.049	1.255	0.185	0.031	1.67	0.27	0.054	2.085	0.355	0.047
0.01	0.86	0.039	0.94	0.43	0.048	1.86	0.89	0.050	1.255	0.19	0.031	1.67	0.275	0.049	2.085	0.36	0.045
0.01	0.87	0.039	0.94	0.44	0.045	1.87	0.01	0.054	1.255	0.195	0.031	1.67	0.28	0.045	2.085	0.365	0.042
0.01	0.88	0.037	0.94	0.45	0.042	1.87	0.02	0.059	1.255	0.2	0.030	1.67	0.285	0.041	2.085	0.37	0.041
0.01	0.89	0.035	0.94	0.46	0.040	1.87	0.03	0.063	1.255	0.205	0.031	1.67	0.29	0.040	2.085	0.375	0.044
0.02	0.01	0.048	0.94	0.47	0.039	1.87	0.04	0.064	1.255	0.21	0.033	1.67	0.295	0.039	2.085	0.38	0.045
0.02	0.02	0.051	0.94	0.48	0.038	1.87	0.05	0.065	1.255	0.215	0.037	1.67	0.3	0.041	2.085	0.385	0.043
0.02	0.03	0.054	0.94	0.49	0.038	1.87	0.06	0.065	1.255	0.22	0.041	1.67	0.305	0.044	2.085	0.39	0.038
0.02	0.04	0.053	0.94	0.5	0.037	1.87	0.07	0.066	1.255	0.225	0.043	1.67	0.31	0.048	2.085	0.395	0.036
0.02	0.05	0.049	0.94	0.51	0.036	1.87	0.08	0.069	1.255	0.23	0.043	1.67	0.315	0.049	2.085	0.4	0.036
0.02	0.06	0.044	0.94	0.52	0.036	1.87	0.09	0.072	1.255	0.235	0.041	1.67	0.32	0.046	2.085	0.405	0.037
0.02	0.07	0.040	0.94	0.53	0.036	1.87	0.1	0.073	1.255	0.24	0.039	1.67	0.325	0.042	2.085	0.41	0.038
0.02	0.08	0.039	0.94	0.54	0.037	1.87	0.11	0.072	1.255	0.245	0.037	1.67	0.33	0.041	2.085	0.415	0.038
0.02	0.09	0.040	0.94	0.55	0.040	1.87	0.12	0.072	1.255	0.25	0.039	1.67	0.335	0.043	2.085	0.42	0.039
0.02	0.1	0.042	0.94	0.56	0.041	1.87	0.13	0.070	1.255	0.255	0.046	1.67	0.34	0.046	2.085	0.425	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.02	0.11	0.047	0.94	0.57	0.041	1.87	0.14	0.067	1.255	0.26	0.050	1.67	0.345	0.049	2.085	0.43	0.043
0.02	0.12	0.050	0.94	0.58	0.041	1.87	0.15	0.064	1.255	0.265	0.049	1.67	0.35	0.051	2.085	0.435	0.047
0.02	0.13	0.050	0.94	0.59	0.041	1.87	0.16	0.061	1.255	0.27	0.048	1.67	0.355	0.050	2.085	0.44	0.050
0.02	0.14	0.049	0.94	0.6	0.042	1.87	0.17	0.059	1.255	0.275	0.050	1.67	0.36	0.050	2.085	0.445	0.051
0.02	0.15	0.047	0.94	0.61	0.041	1.87	0.18	0.057	1.255	0.28	0.052	1.67	0.365	0.048	2.085	0.45	0.052
0.02	0.16	0.049	0.94	0.62	0.039	1.87	0.19	0.057	1.255	0.285	0.053	1.67	0.37	0.046	2.085	0.455	0.052
0.02	0.17	0.054	0.94	0.63	0.038	1.87	0.2	0.056	1.255	0.29	0.053	1.67	0.375	0.043	2.085	0.46	0.052
0.02	0.18	0.056	0.94	0.64	0.039	1.87	0.21	0.055	1.255	0.295	0.052	1.67	0.38	0.039	2.085	0.465	0.052
0.02	0.19	0.055	0.94	0.65	0.041	1.87	0.22	0.055	1.255	0.3	0.051	1.67	0.385	0.038	2.085	0.47	0.049
0.02	0.2	0.051	0.94	0.66	0.042	1.87	0.23	0.059	1.255	0.305	0.051	1.67	0.39	0.040	2.085	0.475	0.042
0.02	0.21	0.048	0.94	0.67	0.043	1.87	0.24	0.062	1.255	0.31	0.051	1.67	0.395	0.043	2.085	0.48	0.038
0.02	0.22	0.045	0.94	0.68	0.044	1.87	0.25	0.061	1.255	0.315	0.052	1.67	0.4	0.044	2.085	0.485	0.042
0.02	0.23	0.043	0.94	0.69	0.043	1.87	0.26	0.056	1.255	0.32	0.054	1.67	0.405	0.043	2.085	0.49	0.050
0.02	0.24	0.041	0.94	0.7	0.042	1.87	0.27	0.052	1.255	0.325	0.053	1.67	0.41	0.043	2.085	0.495	0.056
0.02	0.25	0.040	0.94	0.71	0.040	1.87	0.28	0.050	1.255	0.33	0.051	1.67	0.415	0.042	2.09	0.005	0.062
0.02	0.26	0.041	0.94	0.72	0.039	1.87	0.29	0.049	1.255	0.335	0.048	1.67	0.42	0.042	2.09	0.01	0.070
0.02	0.27	0.043	0.94	0.73	0.041	1.87	0.3	0.049	1.255	0.34	0.048	1.67	0.425	0.041	2.09	0.015	0.076
0.02	0.28	0.043	0.94	0.74	0.044	1.87	0.31	0.049	1.255	0.345	0.051	1.67	0.43	0.041	2.09	0.02	0.078
0.02	0.29	0.042	0.94	0.75	0.046	1.87	0.32	0.048	1.255	0.35	0.054	1.67	0.435	0.040	2.09	0.025	0.074
0.02	0.3	0.041	0.94	0.76	0.046	1.87	0.33	0.047	1.255	0.355	0.054	1.67	0.44	0.041	2.09	0.03	0.066
0.02	0.31	0.041	0.94	0.77	0.046	1.87	0.34	0.047	1.255	0.36	0.053	1.67	0.445	0.046	2.09	0.035	0.054
0.02	0.32	0.043	0.94	0.78	0.047	1.87	0.35	0.046	1.255	0.365	0.050	1.67	0.45	0.049	2.09	0.04	0.046
0.02	0.33	0.043	0.94	0.79	0.047	1.87	0.36	0.045	1.255	0.37	0.047	1.67	0.455	0.051	2.09	0.045	0.041
0.02	0.34	0.043	0.94	0.8	0.045	1.87	0.37	0.045	1.255	0.375	0.044	1.67	0.46	0.052	2.09	0.05	0.040
0.02	0.35	0.044	0.94	0.81	0.043	1.87	0.38	0.046	1.255	0.38	0.046	1.67	0.465	0.052	2.09	0.055	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.02	0.36	0.045	0.94	0.82	0.043	1.87	0.39	0.048	1.255	0.385	0.054	1.67	0.47	0.051	2.09	0.06	0.044
0.02	0.37	0.044	0.94	0.83	0.046	1.87	0.4	0.050	1.255	0.39	0.060	1.67	0.475	0.048	2.09	0.065	0.044
0.02	0.38	0.043	0.94	0.84	0.049	1.87	0.41	0.052	1.255	0.395	0.061	1.67	0.48	0.043	2.09	0.07	0.041
0.02	0.39	0.041	0.94	0.85	0.052	1.87	0.42	0.054	1.255	0.4	0.059	1.67	0.485	0.040	2.09	0.075	0.039
0.02	0.4	0.039	0.94	0.86	0.052	1.87	0.43	0.055	1.255	0.405	0.055	1.67	0.49	0.042	2.09	0.08	0.043
0.02	0.41	0.038	0.94	0.87	0.050	1.87	0.44	0.057	1.255	0.41	0.049	1.67	0.495	0.045	2.09	0.085	0.052
0.02	0.42	0.039	0.94	0.88	0.047	1.87	0.45	0.059	1.255	0.415	0.042	1.675	0.005	0.050	2.09	0.09	0.059
0.02	0.43	0.041	0.94	0.89	0.048	1.87	0.46	0.058	1.255	0.42	0.038	1.675	0.01	0.050	2.09	0.095	0.060
0.02	0.44	0.042	0.95	0.01	0.043	1.87	0.47	0.055	1.255	0.425	0.035	1.675	0.015	0.050	2.09	0.1	0.057
0.02	0.45	0.043	0.95	0.02	0.046	1.87	0.48	0.052	1.255	0.43	0.034	1.675	0.02	0.048	2.09	0.105	0.051
0.02	0.46	0.044	0.95	0.03	0.049	1.87	0.49	0.050	1.255	0.435	0.036	1.675	0.025	0.046	2.09	0.11	0.045
0.02	0.47	0.043	0.95	0.04	0.050	1.87	0.5	0.051	1.255	0.44	0.040	1.675	0.03	0.046	2.09	0.115	0.043
0.02	0.48	0.043	0.95	0.05	0.049	1.87	0.51	0.052	1.255	0.445	0.042	1.675	0.035	0.047	2.09	0.12	0.043
0.02	0.49	0.043	0.95	0.06	0.047	1.87	0.52	0.053	1.255	0.45	0.043	1.675	0.04	0.049	2.09	0.125	0.044
0.02	0.5	0.046	0.95	0.07	0.045	1.87	0.53	0.054	1.255	0.455	0.041	1.675	0.045	0.056	2.09	0.13	0.046
0.02	0.51	0.049	0.95	0.08	0.042	1.87	0.54	0.055	1.255	0.46	0.039	1.675	0.05	0.061	2.09	0.135	0.052
0.02	0.52	0.050	0.95	0.09	0.041	1.87	0.55	0.057	1.255	0.465	0.037	1.675	0.055	0.062	2.09	0.14	0.057
0.02	0.53	0.048	0.95	0.1	0.040	1.87	0.56	0.057	1.255	0.47	0.038	1.675	0.06	0.062	2.09	0.145	0.059
0.02	0.54	0.046	0.95	0.11	0.039	1.87	0.57	0.054	1.255	0.475	0.042	1.675	0.065	0.065	2.09	0.15	0.057
0.02	0.55	0.044	0.95	0.12	0.039	1.87	0.58	0.048	1.255	0.48	0.045	1.675	0.07	0.067	2.09	0.155	0.053
0.02	0.56	0.043	0.95	0.13	0.040	1.87	0.59	0.044	1.255	0.485	0.046	1.675	0.075	0.069	2.09	0.16	0.051
0.02	0.57	0.042	0.95	0.14	0.042	1.87	0.6	0.041	1.255	0.49	0.043	1.675	0.08	0.076	2.09	0.165	0.048
0.02	0.58	0.042	0.95	0.15	0.044	1.87	0.61	0.041	1.255	0.495	0.038	1.675	0.085	0.083	2.09	0.17	0.044
0.02	0.59	0.044	0.95	0.16	0.043	1.87	0.62	0.043	1.26	0.005	0.032	1.675	0.09	0.086	2.09	0.175	0.040
0.02	0.6	0.047	0.95	0.17	0.042	1.87	0.63	0.046	1.26	0.01	0.032	1.675	0.095	0.087	2.09	0.18	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.02	0.61	0.050	0.95	0.18	0.042	1.87	0.64	0.050	1.26	0.015	0.033	1.675	0.1	0.086	2.09	0.185	0.040
0.02	0.62	0.052	0.95	0.19	0.044	1.87	0.65	0.052	1.26	0.02	0.033	1.675	0.105	0.083	2.09	0.19	0.043
0.02	0.63	0.053	0.95	0.2	0.045	1.87	0.66	0.054	1.26	0.025	0.033	1.675	0.11	0.077	2.09	0.195	0.044
0.02	0.64	0.054	0.95	0.21	0.045	1.87	0.67	0.055	1.26	0.03	0.033	1.675	0.115	0.071	2.09	0.2	0.045
0.02	0.65	0.052	0.95	0.22	0.044	1.87	0.68	0.054	1.26	0.035	0.034	1.675	0.12	0.068	2.09	0.205	0.045
0.02	0.66	0.049	0.95	0.23	0.044	1.87	0.69	0.050	1.26	0.04	0.034	1.675	0.125	0.067	2.09	0.21	0.043
0.02	0.67	0.047	0.95	0.24	0.044	1.87	0.7	0.048	1.26	0.045	0.034	1.675	0.13	0.068	2.09	0.215	0.040
0.02	0.68	0.045	0.95	0.25	0.046	1.87	0.71	0.048	1.26	0.05	0.035	1.675	0.135	0.071	2.09	0.22	0.037
0.02	0.69	0.046	0.95	0.26	0.047	1.87	0.72	0.051	1.26	0.055	0.036	1.675	0.14	0.077	2.09	0.225	0.039
0.02	0.7	0.047	0.95	0.27	0.047	1.87	0.73	0.053	1.26	0.06	0.037	1.675	0.145	0.081	2.09	0.23	0.044
0.02	0.71	0.049	0.95	0.28	0.045	1.87	0.74	0.055	1.26	0.065	0.036	1.675	0.15	0.081	2.09	0.235	0.050
0.02	0.72	0.049	0.95	0.29	0.043	1.87	0.75	0.054	1.26	0.07	0.036	1.675	0.155	0.077	2.09	0.24	0.057
0.02	0.73	0.048	0.95	0.3	0.043	1.87	0.76	0.050	1.26	0.075	0.036	1.675	0.16	0.070	2.09	0.245	0.060
0.02	0.74	0.047	0.95	0.31	0.045	1.87	0.77	0.047	1.26	0.08	0.035	1.675	0.165	0.067	2.09	0.25	0.060
0.02	0.75	0.047	0.95	0.32	0.047	1.87	0.78	0.047	1.26	0.085	0.035	1.675	0.17	0.070	2.09	0.255	0.059
0.02	0.76	0.047	0.95	0.33	0.049	1.87	0.79	0.049	1.26	0.09	0.036	1.675	0.175	0.074	2.09	0.26	0.058
0.02	0.77	0.048	0.95	0.34	0.048	1.87	0.8	0.054	1.26	0.095	0.038	1.675	0.18	0.076	2.09	0.265	0.055
0.02	0.78	0.049	0.95	0.35	0.046	1.87	0.81	0.056	1.26	0.1	0.040	1.675	0.185	0.076	2.09	0.27	0.054
0.02	0.79	0.049	0.95	0.36	0.046	1.87	0.82	0.056	1.26	0.105	0.040	1.675	0.19	0.073	2.09	0.275	0.052
0.02	0.8	0.048	0.95	0.37	0.048	1.87	0.83	0.055	1.26	0.11	0.040	1.675	0.195	0.068	2.09	0.28	0.049
0.02	0.81	0.046	0.95	0.38	0.049	1.87	0.84	0.054	1.26	0.115	0.040	1.675	0.2	0.067	2.09	0.285	0.044
0.02	0.82	0.044	0.95	0.39	0.049	1.87	0.85	0.051	1.26	0.12	0.039	1.675	0.205	0.069	2.09	0.29	0.043
0.02	0.83	0.042	0.95	0.4	0.048	1.87	0.86	0.049	1.26	0.125	0.039	1.675	0.21	0.071	2.09	0.295	0.045
0.02	0.84	0.041	0.95	0.41	0.048	1.87	0.87	0.047	1.26	0.13	0.040	1.675	0.215	0.070	2.09	0.3	0.048
0.02	0.85	0.040	0.95	0.42	0.049	1.87	0.88	0.047	1.26	0.135	0.041	1.675	0.22	0.067	2.09	0.305	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.02	0.86	0.040	0.95	0.43	0.048	1.87	0.89	0.049	1.26	0.14	0.043	1.675	0.225	0.064	2.09	0.31	0.048
0.02	0.87	0.039	0.95	0.44	0.045	1.88	0.01	0.052	1.26	0.145	0.047	1.675	0.23	0.063	2.09	0.315	0.045
0.02	0.88	0.039	0.95	0.45	0.042	1.88	0.02	0.057	1.26	0.15	0.049	1.675	0.235	0.061	2.09	0.32	0.040
0.02	0.89	0.038	0.95	0.46	0.040	1.88	0.03	0.062	1.26	0.155	0.049	1.675	0.24	0.056	2.09	0.325	0.037
0.03	0.01	0.046	0.95	0.47	0.038	1.88	0.04	0.065	1.26	0.16	0.046	1.675	0.245	0.055	2.09	0.33	0.036
0.03	0.02	0.049	0.95	0.48	0.036	1.88	0.05	0.067	1.26	0.165	0.042	1.675	0.25	0.058	2.09	0.335	0.038
0.03	0.03	0.051	0.95	0.49	0.036	1.88	0.06	0.067	1.26	0.17	0.037	1.675	0.255	0.060	2.09	0.34	0.041
0.03	0.04	0.050	0.95	0.5	0.035	1.88	0.07	0.067	1.26	0.175	0.033	1.675	0.26	0.059	2.09	0.345	0.045
0.03	0.05	0.046	0.95	0.51	0.035	1.88	0.08	0.067	1.26	0.18	0.031	1.675	0.265	0.056	2.09	0.35	0.046
0.03	0.06	0.041	0.95	0.52	0.035	1.88	0.09	0.068	1.26	0.185	0.031	1.675	0.27	0.054	2.09	0.355	0.045
0.03	0.07	0.038	0.95	0.53	0.036	1.88	0.1	0.070	1.26	0.19	0.031	1.675	0.275	0.053	2.09	0.36	0.042
0.03	0.08	0.037	0.95	0.54	0.037	1.88	0.11	0.071	1.26	0.195	0.030	1.675	0.28	0.051	2.09	0.365	0.042
0.03	0.09	0.038	0.95	0.55	0.039	1.88	0.12	0.071	1.26	0.2	0.030	1.675	0.285	0.044	2.09	0.37	0.044
0.03	0.1	0.041	0.95	0.56	0.041	1.88	0.13	0.069	1.26	0.205	0.031	1.675	0.29	0.041	2.09	0.375	0.047
0.03	0.11	0.046	0.95	0.57	0.040	1.88	0.14	0.064	1.26	0.21	0.033	1.675	0.295	0.040	2.09	0.38	0.048
0.03	0.12	0.049	0.95	0.58	0.040	1.88	0.15	0.060	1.26	0.215	0.037	1.675	0.3	0.042	2.09	0.385	0.045
0.03	0.13	0.050	0.95	0.59	0.040	1.88	0.16	0.057	1.26	0.22	0.042	1.675	0.305	0.045	2.09	0.39	0.040
0.03	0.14	0.048	0.95	0.6	0.041	1.88	0.17	0.056	1.26	0.225	0.045	1.675	0.31	0.048	2.09	0.395	0.036
0.03	0.15	0.048	0.95	0.61	0.041	1.88	0.18	0.056	1.26	0.23	0.045	1.675	0.315	0.047	2.09	0.4	0.035
0.03	0.16	0.051	0.95	0.62	0.040	1.88	0.19	0.058	1.26	0.235	0.043	1.675	0.32	0.044	2.09	0.405	0.037
0.03	0.17	0.055	0.95	0.63	0.041	1.88	0.2	0.059	1.26	0.24	0.040	1.675	0.325	0.041	2.09	0.41	0.040
0.03	0.18	0.058	0.95	0.64	0.043	1.88	0.21	0.058	1.26	0.245	0.038	1.675	0.33	0.040	2.09	0.415	0.041
0.03	0.19	0.056	0.95	0.65	0.045	1.88	0.22	0.058	1.26	0.25	0.040	1.675	0.335	0.042	2.09	0.42	0.043
0.03	0.2	0.052	0.95	0.66	0.045	1.88	0.23	0.060	1.26	0.255	0.046	1.675	0.34	0.045	2.09	0.425	0.044
0.03	0.21	0.049	0.95	0.67	0.044	1.88	0.24	0.062	1.26	0.26	0.049	1.675	0.345	0.048	2.09	0.43	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.03	0.22	0.047	0.95	0.68	0.043	1.88	0.25	0.061	1.26	0.265	0.049	1.675	0.35	0.050	2.09	0.435	0.047
0.03	0.23	0.045	0.95	0.69	0.042	1.88	0.26	0.056	1.26	0.27	0.047	1.675	0.355	0.050	2.09	0.44	0.047
0.03	0.24	0.042	0.95	0.7	0.040	1.88	0.27	0.051	1.26	0.275	0.049	1.675	0.36	0.050	2.09	0.445	0.047
0.03	0.25	0.041	0.95	0.71	0.039	1.88	0.28	0.049	1.26	0.28	0.049	1.675	0.365	0.048	2.09	0.45	0.048
0.03	0.26	0.041	0.95	0.72	0.039	1.88	0.29	0.048	1.26	0.285	0.048	1.675	0.37	0.045	2.09	0.455	0.050
0.03	0.27	0.042	0.95	0.73	0.042	1.88	0.3	0.048	1.26	0.29	0.047	1.675	0.375	0.041	2.09	0.46	0.051
0.03	0.28	0.043	0.95	0.74	0.046	1.88	0.31	0.047	1.26	0.295	0.049	1.675	0.38	0.038	2.09	0.465	0.052
0.03	0.29	0.041	0.95	0.75	0.048	1.88	0.32	0.046	1.26	0.3	0.053	1.675	0.385	0.038	2.09	0.47	0.051
0.03	0.3	0.040	0.95	0.76	0.049	1.88	0.33	0.046	1.26	0.305	0.055	1.675	0.39	0.042	2.09	0.475	0.046
0.03	0.31	0.040	0.95	0.77	0.049	1.88	0.34	0.047	1.26	0.31	0.054	1.675	0.395	0.044	2.09	0.48	0.042
0.03	0.32	0.041	0.95	0.78	0.049	1.88	0.35	0.046	1.26	0.315	0.053	1.675	0.4	0.044	2.09	0.485	0.044
0.03	0.33	0.041	0.95	0.79	0.048	1.88	0.36	0.045	1.26	0.32	0.051	1.675	0.405	0.042	2.09	0.49	0.049
0.03	0.34	0.041	0.95	0.8	0.046	1.88	0.37	0.045	1.26	0.325	0.050	1.675	0.41	0.041	2.09	0.495	0.053
0.03	0.35	0.042	0.95	0.81	0.043	1.88	0.38	0.046	1.26	0.33	0.049	1.675	0.415	0.041	2.095	0.005	0.057
0.03	0.36	0.042	0.95	0.82	0.043	1.88	0.39	0.048	1.26	0.335	0.048	1.675	0.42	0.043	2.095	0.01	0.063
0.03	0.37	0.042	0.95	0.83	0.045	1.88	0.4	0.051	1.26	0.34	0.052	1.675	0.425	0.045	2.095	0.015	0.067
0.03	0.38	0.041	0.95	0.84	0.047	1.88	0.41	0.053	1.26	0.345	0.056	1.675	0.43	0.045	2.095	0.02	0.069
0.03	0.39	0.039	0.95	0.85	0.049	1.88	0.42	0.055	1.26	0.35	0.058	1.675	0.435	0.044	2.095	0.025	0.065
0.03	0.4	0.038	0.95	0.86	0.049	1.88	0.43	0.058	1.26	0.355	0.058	1.675	0.44	0.043	2.095	0.03	0.058
0.03	0.41	0.037	0.95	0.87	0.047	1.88	0.44	0.060	1.26	0.36	0.056	1.675	0.445	0.044	2.095	0.035	0.051
0.03	0.42	0.038	0.95	0.88	0.044	1.88	0.45	0.062	1.26	0.365	0.052	1.675	0.45	0.048	2.095	0.04	0.045
0.03	0.43	0.040	0.95	0.89	0.044	1.88	0.46	0.061	1.26	0.37	0.048	1.675	0.455	0.050	2.095	0.045	0.043
0.03	0.44	0.042	0.96	0.01	0.043	1.88	0.47	0.059	1.26	0.375	0.043	1.675	0.46	0.052	2.095	0.05	0.042
0.03	0.45	0.043	0.96	0.02	0.045	1.88	0.48	0.055	1.26	0.38	0.041	1.675	0.465	0.052	2.095	0.055	0.044
0.03	0.46	0.043	0.96	0.03	0.045	1.88	0.49	0.052	1.26	0.385	0.047	1.675	0.47	0.051	2.095	0.06	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.03	0.47	0.043	0.96	0.04	0.044	1.88	0.5	0.051	1.26	0.39	0.053	1.675	0.475	0.045	2.095	0.065	0.046
0.03	0.48	0.042	0.96	0.05	0.043	1.88	0.51	0.052	1.26	0.395	0.055	1.675	0.48	0.039	2.095	0.07	0.043
0.03	0.49	0.043	0.96	0.06	0.042	1.88	0.52	0.053	1.26	0.4	0.055	1.675	0.485	0.035	2.095	0.075	0.039
0.03	0.5	0.046	0.96	0.07	0.041	1.88	0.53	0.053	1.26	0.405	0.051	1.675	0.49	0.036	2.095	0.08	0.041
0.03	0.51	0.048	0.96	0.08	0.040	1.88	0.54	0.053	1.26	0.41	0.045	1.675	0.495	0.040	2.095	0.085	0.048
0.03	0.52	0.047	0.96	0.09	0.040	1.88	0.55	0.055	1.26	0.415	0.040	1.68	0.005	0.048	2.095	0.09	0.056
0.03	0.53	0.046	0.96	0.1	0.039	1.88	0.56	0.056	1.26	0.42	0.039	1.68	0.01	0.049	2.095	0.095	0.058
0.03	0.54	0.045	0.96	0.11	0.039	1.88	0.57	0.055	1.26	0.425	0.037	1.68	0.015	0.049	2.095	0.1	0.053
0.03	0.55	0.044	0.96	0.12	0.038	1.88	0.58	0.050	1.26	0.43	0.036	1.68	0.02	0.048	2.095	0.105	0.047
0.03	0.56	0.043	0.96	0.13	0.039	1.88	0.59	0.046	1.26	0.435	0.038	1.68	0.025	0.048	2.095	0.11	0.042
0.03	0.57	0.041	0.96	0.14	0.040	1.88	0.6	0.043	1.26	0.44	0.042	1.68	0.03	0.049	2.095	0.115	0.041
0.03	0.58	0.040	0.96	0.15	0.041	1.88	0.61	0.042	1.26	0.445	0.046	1.68	0.035	0.050	2.095	0.12	0.041
0.03	0.59	0.040	0.96	0.16	0.041	1.88	0.62	0.044	1.26	0.45	0.047	1.68	0.04	0.051	2.095	0.125	0.042
0.03	0.6	0.041	0.96	0.17	0.041	1.88	0.63	0.047	1.26	0.455	0.046	1.68	0.045	0.056	2.095	0.13	0.044
0.03	0.61	0.044	0.96	0.18	0.042	1.88	0.64	0.050	1.26	0.46	0.043	1.68	0.05	0.061	2.095	0.135	0.049
0.03	0.62	0.047	0.96	0.19	0.043	1.88	0.65	0.052	1.26	0.465	0.039	1.68	0.055	0.063	2.095	0.14	0.055
0.03	0.63	0.050	0.96	0.2	0.044	1.88	0.66	0.054	1.26	0.47	0.040	1.68	0.06	0.063	2.095	0.145	0.057
0.03	0.64	0.053	0.96	0.21	0.044	1.88	0.67	0.055	1.26	0.475	0.044	1.68	0.065	0.063	2.095	0.15	0.054
0.03	0.65	0.054	0.96	0.22	0.043	1.88	0.68	0.054	1.26	0.48	0.047	1.68	0.07	0.064	2.095	0.155	0.051
0.03	0.66	0.052	0.96	0.23	0.042	1.88	0.69	0.049	1.26	0.485	0.046	1.68	0.075	0.068	2.095	0.16	0.049
0.03	0.67	0.051	0.96	0.24	0.043	1.88	0.7	0.046	1.26	0.49	0.043	1.68	0.08	0.077	2.095	0.165	0.047
0.03	0.68	0.049	0.96	0.25	0.045	1.88	0.71	0.046	1.26	0.495	0.037	1.68	0.085	0.087	2.095	0.17	0.042
0.03	0.69	0.048	0.96	0.26	0.046	1.88	0.72	0.048	1.265	0.005	0.033	1.68	0.09	0.091	2.095	0.175	0.038
0.03	0.7	0.048	0.96	0.27	0.045	1.88	0.73	0.051	1.265	0.01	0.033	1.68	0.095	0.091	2.095	0.18	0.037
0.03	0.71	0.049	0.96	0.28	0.043	1.88	0.74	0.052	1.265	0.015	0.034	1.68	0.1	0.091	2.095	0.185	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.03	0.72	0.048	0.96	0.29	0.042	1.88	0.75	0.051	1.265	0.02	0.034	1.68	0.105	0.088	2.095	0.19	0.043
0.03	0.73	0.046	0.96	0.3	0.042	1.88	0.76	0.048	1.265	0.025	0.033	1.68	0.11	0.083	2.095	0.195	0.044
0.03	0.74	0.044	0.96	0.31	0.045	1.88	0.77	0.047	1.265	0.03	0.033	1.68	0.115	0.076	2.095	0.2	0.045
0.03	0.75	0.043	0.96	0.32	0.048	1.88	0.78	0.048	1.265	0.035	0.034	1.68	0.12	0.070	2.095	0.205	0.044
0.03	0.76	0.043	0.96	0.33	0.050	1.88	0.79	0.051	1.265	0.04	0.034	1.68	0.125	0.067	2.095	0.21	0.043
0.03	0.77	0.044	0.96	0.34	0.050	1.88	0.8	0.055	1.265	0.045	0.035	1.68	0.13	0.067	2.095	0.215	0.040
0.03	0.78	0.045	0.96	0.35	0.049	1.88	0.81	0.059	1.265	0.05	0.035	1.68	0.135	0.070	2.095	0.22	0.037
0.03	0.79	0.047	0.96	0.36	0.048	1.88	0.82	0.059	1.265	0.055	0.036	1.68	0.14	0.076	2.095	0.225	0.036
0.03	0.8	0.046	0.96	0.37	0.049	1.88	0.83	0.056	1.265	0.06	0.035	1.68	0.145	0.080	2.095	0.23	0.038
0.03	0.81	0.044	0.96	0.38	0.048	1.88	0.84	0.053	1.265	0.065	0.034	1.68	0.15	0.081	2.095	0.235	0.042
0.03	0.82	0.043	0.96	0.39	0.046	1.88	0.85	0.050	1.265	0.07	0.034	1.68	0.155	0.077	2.095	0.24	0.048
0.03	0.83	0.042	0.96	0.4	0.045	1.88	0.86	0.047	1.265	0.075	0.034	1.68	0.16	0.069	2.095	0.245	0.051
0.03	0.84	0.041	0.96	0.41	0.046	1.88	0.87	0.046	1.265	0.08	0.033	1.68	0.165	0.064	2.095	0.25	0.051
0.03	0.85	0.040	0.96	0.42	0.048	1.88	0.88	0.046	1.265	0.085	0.033	1.68	0.17	0.067	2.095	0.255	0.049
0.03	0.86	0.040	0.96	0.43	0.047	1.88	0.89	0.048	1.265	0.09	0.033	1.68	0.175	0.073	2.095	0.26	0.049
0.03	0.87	0.040	0.96	0.44	0.044	1.89	0.01	0.052	1.265	0.095	0.035	1.68	0.18	0.076	2.095	0.265	0.050
0.03	0.88	0.041	0.96	0.45	0.042	1.89	0.02	0.056	1.265	0.1	0.036	1.68	0.185	0.076	2.095	0.27	0.050
0.03	0.89	0.042	0.96	0.46	0.039	1.89	0.03	0.060	1.265	0.105	0.037	1.68	0.19	0.072	2.095	0.275	0.050
0.04	0.01	0.046	0.96	0.47	0.037	1.89	0.04	0.063	1.265	0.11	0.039	1.68	0.195	0.067	2.095	0.28	0.048
0.04	0.02	0.046	0.96	0.48	0.035	1.89	0.05	0.066	1.265	0.115	0.042	1.68	0.2	0.066	2.095	0.285	0.043
0.04	0.03	0.046	0.96	0.49	0.034	1.89	0.06	0.067	1.265	0.12	0.042	1.68	0.205	0.068	2.095	0.29	0.041
0.04	0.04	0.045	0.96	0.5	0.034	1.89	0.07	0.065	1.265	0.125	0.042	1.68	0.21	0.071	2.095	0.295	0.042
0.04	0.05	0.041	0.96	0.51	0.034	1.89	0.08	0.063	1.265	0.13	0.043	1.68	0.215	0.070	2.095	0.3	0.044
0.04	0.06	0.038	0.96	0.52	0.035	1.89	0.09	0.063	1.265	0.135	0.045	1.68	0.22	0.066	2.095	0.305	0.044
0.04	0.07	0.036	0.96	0.53	0.036	1.89	0.1	0.065	1.265	0.14	0.049	1.68	0.225	0.061	2.095	0.31	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.04	0.08	0.035	0.96	0.54	0.037	1.89	0.11	0.068	1.265	0.145	0.052	1.68	0.23	0.060	2.095	0.315	0.038
0.04	0.09	0.037	0.96	0.55	0.039	1.89	0.12	0.070	1.265	0.15	0.053	1.68	0.235	0.057	2.095	0.32	0.036
0.04	0.1	0.039	0.96	0.56	0.040	1.89	0.13	0.068	1.265	0.155	0.051	1.68	0.24	0.049	2.095	0.325	0.035
0.04	0.11	0.042	0.96	0.57	0.040	1.89	0.14	0.062	1.265	0.16	0.047	1.68	0.245	0.047	2.095	0.33	0.036
0.04	0.12	0.045	0.96	0.58	0.039	1.89	0.15	0.056	1.265	0.165	0.042	1.68	0.25	0.051	2.095	0.335	0.038
0.04	0.13	0.046	0.96	0.59	0.040	1.89	0.16	0.054	1.265	0.17	0.037	1.68	0.255	0.053	2.095	0.34	0.040
0.04	0.14	0.045	0.96	0.6	0.041	1.89	0.17	0.054	1.265	0.175	0.033	1.68	0.26	0.053	2.095	0.345	0.042
0.04	0.15	0.046	0.96	0.61	0.042	1.89	0.18	0.056	1.265	0.18	0.031	1.68	0.265	0.054	2.095	0.35	0.043
0.04	0.16	0.049	0.96	0.62	0.042	1.89	0.19	0.057	1.265	0.185	0.030	1.68	0.27	0.056	2.095	0.355	0.041
0.04	0.17	0.053	0.96	0.63	0.044	1.89	0.2	0.059	1.265	0.19	0.030	1.68	0.275	0.058	2.095	0.36	0.041
0.04	0.18	0.055	0.96	0.64	0.046	1.89	0.21	0.059	1.265	0.195	0.030	1.68	0.28	0.057	2.095	0.365	0.043
0.04	0.19	0.054	0.96	0.65	0.047	1.89	0.22	0.058	1.265	0.2	0.031	1.68	0.285	0.053	2.095	0.37	0.047
0.04	0.2	0.052	0.96	0.66	0.046	1.89	0.23	0.058	1.265	0.205	0.032	1.68	0.29	0.048	2.095	0.375	0.049
0.04	0.21	0.050	0.96	0.67	0.044	1.89	0.24	0.059	1.265	0.21	0.034	1.68	0.295	0.045	2.095	0.38	0.049
0.04	0.22	0.048	0.96	0.68	0.043	1.89	0.25	0.058	1.265	0.215	0.037	1.68	0.3	0.045	2.095	0.385	0.046
0.04	0.23	0.046	0.96	0.69	0.041	1.89	0.26	0.056	1.265	0.22	0.041	1.68	0.305	0.047	2.095	0.39	0.041
0.04	0.24	0.043	0.96	0.7	0.039	1.89	0.27	0.052	1.265	0.225	0.044	1.68	0.31	0.049	2.095	0.395	0.037
0.04	0.25	0.041	0.96	0.71	0.038	1.89	0.28	0.049	1.265	0.23	0.044	1.68	0.315	0.049	2.095	0.4	0.037
0.04	0.26	0.040	0.96	0.72	0.039	1.89	0.29	0.048	1.265	0.235	0.043	1.68	0.32	0.047	2.095	0.405	0.040
0.04	0.27	0.042	0.96	0.73	0.043	1.89	0.3	0.047	1.265	0.24	0.040	1.68	0.325	0.044	2.095	0.41	0.042
0.04	0.28	0.043	0.96	0.74	0.046	1.89	0.31	0.046	1.265	0.245	0.037	1.68	0.33	0.041	2.095	0.415	0.044
0.04	0.29	0.044	0.96	0.75	0.048	1.89	0.32	0.044	1.265	0.25	0.037	1.68	0.335	0.041	2.095	0.42	0.045
0.04	0.3	0.043	0.96	0.76	0.049	1.89	0.33	0.044	1.265	0.255	0.042	1.68	0.34	0.042	2.095	0.425	0.048
0.04	0.31	0.042	0.96	0.77	0.048	1.89	0.34	0.046	1.265	0.26	0.045	1.68	0.345	0.045	2.095	0.43	0.049
0.04	0.32	0.041	0.96	0.78	0.048	1.89	0.35	0.046	1.265	0.265	0.045	1.68	0.35	0.048	2.095	0.435	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.04	0.33	0.041	0.96	0.79	0.047	1.89	0.36	0.044	1.265	0.27	0.045	1.68	0.355	0.049	2.095	0.44	0.047
0.04	0.34	0.040	0.96	0.8	0.045	1.89	0.37	0.045	1.265	0.275	0.047	1.68	0.36	0.049	2.095	0.445	0.044
0.04	0.35	0.039	0.96	0.81	0.043	1.89	0.38	0.046	1.265	0.28	0.047	1.68	0.365	0.047	2.095	0.45	0.044
0.04	0.36	0.039	0.96	0.82	0.042	1.89	0.39	0.048	1.265	0.285	0.045	1.68	0.37	0.043	2.095	0.455	0.047
0.04	0.37	0.039	0.96	0.83	0.043	1.89	0.4	0.051	1.265	0.29	0.046	1.68	0.375	0.040	2.095	0.46	0.052
0.04	0.38	0.038	0.96	0.84	0.044	1.89	0.41	0.053	1.265	0.295	0.050	1.68	0.38	0.038	2.095	0.465	0.056
0.04	0.39	0.037	0.96	0.85	0.046	1.89	0.42	0.055	1.265	0.3	0.055	1.68	0.385	0.040	2.095	0.47	0.057
0.04	0.4	0.036	0.96	0.86	0.046	1.89	0.43	0.059	1.265	0.305	0.057	1.68	0.39	0.044	2.095	0.475	0.055
0.04	0.41	0.037	0.96	0.87	0.044	1.89	0.44	0.062	1.265	0.31	0.057	1.68	0.395	0.046	2.095	0.48	0.052
0.04	0.42	0.039	0.96	0.88	0.042	1.89	0.45	0.063	1.265	0.315	0.054	1.68	0.4	0.047	2.095	0.485	0.051
0.04	0.43	0.041	0.96	0.89	0.042	1.89	0.46	0.064	1.265	0.32	0.051	1.68	0.405	0.045	2.095	0.49	0.050
0.04	0.44	0.043	0.97	0.01	0.043	1.89	0.47	0.063	1.265	0.325	0.048	1.68	0.41	0.042	2.095	0.495	0.050
0.04	0.45	0.043	0.97	0.02	0.043	1.89	0.48	0.059	1.265	0.33	0.047	1.68	0.415	0.042	2.1	0.005	0.052
0.04	0.46	0.043	0.97	0.03	0.042	1.89	0.49	0.054	1.265	0.335	0.050	1.68	0.42	0.045	2.1	0.01	0.058
0.04	0.47	0.042	0.97	0.04	0.040	1.89	0.5	0.052	1.265	0.34	0.054	1.68	0.425	0.047	2.1	0.015	0.062
0.04	0.48	0.043	0.97	0.05	0.039	1.89	0.51	0.052	1.265	0.345	0.058	1.68	0.43	0.048	2.1	0.02	0.065
0.04	0.49	0.044	0.97	0.06	0.039	1.89	0.52	0.053	1.265	0.35	0.059	1.68	0.435	0.047	2.1	0.025	0.064
0.04	0.5	0.046	0.97	0.07	0.039	1.89	0.53	0.053	1.265	0.355	0.060	1.68	0.44	0.045	2.1	0.03	0.060
0.04	0.51	0.046	0.97	0.08	0.040	1.89	0.54	0.054	1.265	0.36	0.059	1.68	0.445	0.044	2.1	0.035	0.056
0.04	0.52	0.044	0.97	0.09	0.039	1.89	0.55	0.055	1.265	0.365	0.055	1.68	0.45	0.046	2.1	0.04	0.053
0.04	0.53	0.042	0.97	0.1	0.040	1.89	0.56	0.057	1.265	0.37	0.048	1.68	0.455	0.049	2.1	0.045	0.050
0.04	0.54	0.042	0.97	0.11	0.040	1.89	0.57	0.057	1.265	0.375	0.042	1.68	0.46	0.051	2.1	0.05	0.048
0.04	0.55	0.043	0.97	0.12	0.040	1.89	0.58	0.054	1.265	0.38	0.040	1.68	0.465	0.052	2.1	0.055	0.047
0.04	0.56	0.042	0.97	0.13	0.040	1.89	0.59	0.049	1.265	0.385	0.042	1.68	0.47	0.049	2.1	0.06	0.047
0.04	0.57	0.040	0.97	0.14	0.039	1.89	0.6	0.047	1.265	0.39	0.045	1.68	0.475	0.043	2.1	0.065	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.04	0.58	0.039	0.97	0.15	0.040	1.89	0.61	0.045	1.265	0.395	0.047	1.68	0.48	0.038	2.1	0.07	0.044
0.04	0.59	0.038	0.97	0.16	0.040	1.89	0.62	0.045	1.265	0.4	0.047	1.68	0.485	0.036	2.1	0.075	0.040
0.04	0.6	0.038	0.97	0.17	0.040	1.89	0.63	0.047	1.265	0.405	0.047	1.68	0.49	0.036	2.1	0.08	0.039
0.04	0.61	0.040	0.97	0.18	0.040	1.89	0.64	0.050	1.265	0.41	0.045	1.68	0.495	0.039	2.1	0.085	0.042
0.04	0.62	0.043	0.97	0.19	0.041	1.89	0.65	0.053	1.265	0.415	0.043	1.685	0.005	0.046	2.1	0.09	0.049
0.04	0.63	0.047	0.97	0.2	0.042	1.89	0.66	0.055	1.265	0.42	0.042	1.685	0.01	0.046	2.1	0.095	0.052
0.04	0.64	0.051	0.97	0.21	0.042	1.89	0.67	0.056	1.265	0.425	0.040	1.685	0.015	0.048	2.1	0.1	0.047
0.04	0.65	0.054	0.97	0.22	0.042	1.89	0.68	0.054	1.265	0.43	0.038	1.685	0.02	0.050	2.1	0.105	0.041
0.04	0.66	0.055	0.97	0.23	0.042	1.89	0.69	0.050	1.265	0.435	0.039	1.685	0.025	0.052	2.1	0.11	0.038
0.04	0.67	0.054	0.97	0.24	0.043	1.89	0.7	0.045	1.265	0.44	0.042	1.685	0.03	0.053	2.1	0.115	0.038
0.04	0.68	0.053	0.97	0.25	0.044	1.89	0.71	0.044	1.265	0.445	0.047	1.685	0.035	0.052	2.1	0.12	0.039
0.04	0.69	0.051	0.97	0.26	0.045	1.89	0.72	0.045	1.265	0.45	0.050	1.685	0.04	0.052	2.1	0.125	0.041
0.04	0.7	0.050	0.97	0.27	0.044	1.89	0.73	0.047	1.265	0.455	0.050	1.685	0.045	0.055	2.1	0.13	0.046
0.04	0.71	0.048	0.97	0.28	0.042	1.89	0.74	0.049	1.265	0.46	0.048	1.685	0.05	0.061	2.1	0.135	0.050
0.04	0.72	0.047	0.97	0.29	0.041	1.89	0.75	0.049	1.265	0.465	0.044	1.685	0.055	0.064	2.1	0.14	0.055
0.04	0.73	0.044	0.97	0.3	0.041	1.89	0.76	0.048	1.265	0.47	0.042	1.685	0.06	0.064	2.1	0.145	0.058
0.04	0.74	0.042	0.97	0.31	0.043	1.89	0.77	0.049	1.265	0.475	0.044	1.685	0.065	0.061	2.1	0.15	0.056
0.04	0.75	0.042	0.97	0.32	0.047	1.89	0.78	0.051	1.265	0.48	0.046	1.685	0.07	0.061	2.1	0.155	0.051
0.04	0.76	0.042	0.97	0.33	0.049	1.89	0.79	0.053	1.265	0.485	0.045	1.685	0.075	0.064	2.1	0.16	0.048
0.04	0.77	0.043	0.97	0.34	0.051	1.89	0.8	0.054	1.265	0.49	0.042	1.685	0.08	0.073	2.1	0.165	0.045
0.04	0.78	0.044	0.97	0.35	0.052	1.89	0.81	0.057	1.265	0.495	0.037	1.685	0.085	0.086	2.1	0.17	0.040
0.04	0.79	0.045	0.97	0.36	0.052	1.89	0.82	0.057	1.27	0.005	0.033	1.685	0.09	0.093	2.1	0.175	0.038
0.04	0.8	0.044	0.97	0.37	0.051	1.89	0.83	0.054	1.27	0.01	0.034	1.685	0.095	0.094	2.1	0.18	0.038
0.04	0.81	0.043	0.97	0.38	0.047	1.89	0.84	0.050	1.27	0.015	0.033	1.685	0.1	0.094	2.1	0.185	0.040
0.04	0.82	0.043	0.97	0.39	0.043	1.89	0.85	0.047	1.27	0.02	0.033	1.685	0.105	0.092	2.1	0.19	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.04	0.83	0.042	0.97	0.4	0.042	1.89	0.86	0.045	1.27	0.025	0.033	1.685	0.11	0.087	2.1	0.195	0.044
0.04	0.84	0.041	0.97	0.41	0.044	1.89	0.87	0.045	1.27	0.03	0.033	1.685	0.115	0.080	2.1	0.2	0.045
0.04	0.85	0.040	0.97	0.42	0.046	1.89	0.88	0.046	1.27	0.035	0.034	1.685	0.12	0.071	2.1	0.205	0.044
0.04	0.86	0.040	0.97	0.43	0.045	1.89	0.89	0.048	1.27	0.04	0.034	1.685	0.125	0.066	2.1	0.21	0.043
0.04	0.87	0.041	0.97	0.44	0.044	1.9	0.01	0.054	1.27	0.045	0.035	1.685	0.13	0.065	2.1	0.215	0.040
0.04	0.88	0.043	0.97	0.45	0.042	1.9	0.02	0.056	1.27	0.05	0.035	1.685	0.135	0.067	2.1	0.22	0.036
0.04	0.89	0.046	0.97	0.46	0.040	1.9	0.03	0.059	1.27	0.055	0.035	1.685	0.14	0.073	2.1	0.225	0.034
0.05	0.01	0.045	0.97	0.47	0.037	1.9	0.04	0.061	1.27	0.06	0.034	1.685	0.145	0.078	2.1	0.23	0.034
0.05	0.02	0.044	0.97	0.48	0.035	1.9	0.05	0.063	1.27	0.065	0.033	1.685	0.15	0.078	2.1	0.235	0.037
0.05	0.03	0.042	0.97	0.49	0.033	1.9	0.06	0.064	1.27	0.07	0.032	1.685	0.155	0.075	2.1	0.24	0.041
0.05	0.04	0.040	0.97	0.5	0.033	1.9	0.07	0.063	1.27	0.075	0.032	1.685	0.16	0.067	2.1	0.245	0.044
0.05	0.05	0.038	0.97	0.51	0.034	1.9	0.08	0.059	1.27	0.08	0.032	1.685	0.165	0.061	2.1	0.25	0.044
0.05	0.06	0.036	0.97	0.52	0.035	1.9	0.09	0.058	1.27	0.085	0.032	1.685	0.17	0.064	2.1	0.255	0.043
0.05	0.07	0.035	0.97	0.53	0.036	1.9	0.1	0.061	1.27	0.09	0.033	1.685	0.175	0.071	2.1	0.26	0.045
0.05	0.08	0.035	0.97	0.54	0.038	1.9	0.11	0.065	1.27	0.095	0.034	1.685	0.18	0.074	2.1	0.265	0.047
0.05	0.09	0.036	0.97	0.55	0.040	1.9	0.12	0.067	1.27	0.1	0.035	1.685	0.185	0.073	2.1	0.27	0.049
0.05	0.1	0.038	0.97	0.56	0.040	1.9	0.13	0.065	1.27	0.105	0.036	1.685	0.19	0.069	2.1	0.275	0.049
0.05	0.11	0.040	0.97	0.57	0.040	1.9	0.14	0.061	1.27	0.11	0.038	1.685	0.195	0.063	2.1	0.28	0.047
0.05	0.12	0.042	0.97	0.58	0.040	1.9	0.15	0.056	1.27	0.115	0.042	1.685	0.2	0.063	2.1	0.285	0.044
0.05	0.13	0.042	0.97	0.59	0.041	1.9	0.16	0.053	1.27	0.12	0.044	1.685	0.205	0.067	2.1	0.29	0.042
0.05	0.14	0.042	0.97	0.6	0.043	1.9	0.17	0.054	1.27	0.125	0.043	1.685	0.21	0.070	2.1	0.295	0.041
0.05	0.15	0.043	0.97	0.61	0.043	1.9	0.18	0.056	1.27	0.13	0.046	1.685	0.215	0.068	2.1	0.3	0.040
0.05	0.16	0.045	0.97	0.62	0.044	1.9	0.19	0.058	1.27	0.135	0.050	1.685	0.22	0.062	2.1	0.305	0.038
0.05	0.17	0.047	0.97	0.63	0.046	1.9	0.2	0.060	1.27	0.14	0.054	1.685	0.225	0.055	2.1	0.31	0.037
0.05	0.18	0.050	0.97	0.64	0.047	1.9	0.21	0.060	1.27	0.145	0.056	1.685	0.23	0.055	2.1	0.315	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.05	0.19	0.051	0.97	0.65	0.047	1.9	0.22	0.058	1.27	0.15	0.056	1.685	0.235	0.052	2.1	0.32	0.033
0.05	0.2	0.051	0.97	0.66	0.045	1.9	0.23	0.055	1.27	0.155	0.054	1.685	0.24	0.046	2.1	0.325	0.033
0.05	0.21	0.051	0.97	0.67	0.043	1.9	0.24	0.054	1.27	0.16	0.049	1.685	0.245	0.044	2.1	0.33	0.035
0.05	0.22	0.050	0.97	0.68	0.041	1.9	0.25	0.055	1.27	0.165	0.043	1.685	0.25	0.047	2.1	0.335	0.037
0.05	0.23	0.048	0.97	0.69	0.039	1.9	0.26	0.054	1.27	0.17	0.037	1.685	0.255	0.048	2.1	0.34	0.038
0.05	0.24	0.044	0.97	0.7	0.039	1.9	0.27	0.052	1.27	0.175	0.034	1.685	0.26	0.049	2.1	0.345	0.038
0.05	0.25	0.041	0.97	0.71	0.039	1.9	0.28	0.050	1.27	0.18	0.032	1.685	0.265	0.052	2.1	0.35	0.039
0.05	0.26	0.040	0.97	0.72	0.041	1.9	0.29	0.048	1.27	0.185	0.031	1.685	0.27	0.057	2.1	0.355	0.040
0.05	0.27	0.041	0.97	0.73	0.043	1.9	0.3	0.047	1.27	0.19	0.031	1.685	0.275	0.060	2.1	0.36	0.042
0.05	0.28	0.044	0.97	0.74	0.045	1.9	0.31	0.044	1.27	0.195	0.031	1.685	0.28	0.060	2.1	0.365	0.045
0.05	0.29	0.046	0.97	0.75	0.046	1.9	0.32	0.041	1.27	0.2	0.031	1.685	0.285	0.058	2.1	0.37	0.048
0.05	0.3	0.047	0.97	0.76	0.046	1.9	0.33	0.041	1.27	0.205	0.033	1.685	0.29	0.053	2.1	0.375	0.050
0.05	0.31	0.045	0.97	0.77	0.046	1.9	0.34	0.043	1.27	0.21	0.035	1.685	0.295	0.048	2.1	0.38	0.049
0.05	0.32	0.043	0.97	0.78	0.045	1.9	0.35	0.044	1.27	0.215	0.038	1.685	0.3	0.048	2.1	0.385	0.046
0.05	0.33	0.041	0.97	0.79	0.045	1.9	0.36	0.044	1.27	0.22	0.040	1.685	0.305	0.051	2.1	0.39	0.041
0.05	0.34	0.039	0.97	0.8	0.044	1.9	0.37	0.044	1.27	0.225	0.042	1.685	0.31	0.054	2.1	0.395	0.039
0.05	0.35	0.038	0.97	0.81	0.043	1.9	0.38	0.046	1.27	0.23	0.043	1.685	0.315	0.054	2.1	0.4	0.040
0.05	0.36	0.036	0.97	0.82	0.042	1.9	0.39	0.047	1.27	0.235	0.041	1.685	0.32	0.052	2.1	0.405	0.042
0.05	0.37	0.036	0.97	0.83	0.041	1.9	0.4	0.049	1.27	0.24	0.039	1.685	0.325	0.048	2.1	0.41	0.043
0.05	0.38	0.036	0.97	0.84	0.041	1.9	0.41	0.052	1.27	0.245	0.036	1.685	0.33	0.042	2.1	0.415	0.044
0.05	0.39	0.036	0.97	0.85	0.042	1.9	0.42	0.054	1.27	0.25	0.036	1.685	0.335	0.039	2.1	0.42	0.046
0.05	0.4	0.036	0.97	0.86	0.042	1.9	0.43	0.058	1.27	0.255	0.039	1.685	0.34	0.038	2.1	0.425	0.050
0.05	0.41	0.037	0.97	0.87	0.041	1.9	0.44	0.061	1.27	0.26	0.040	1.685	0.345	0.040	2.1	0.43	0.051
0.05	0.42	0.040	0.97	0.88	0.041	1.9	0.45	0.063	1.27	0.265	0.040	1.685	0.35	0.043	2.1	0.435	0.050
0.05	0.43	0.043	0.97	0.89	0.042	1.9	0.46	0.066	1.27	0.27	0.040	1.685	0.355	0.046	2.1	0.44	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.05	0.44	0.044	0.98	0.01	0.041	1.9	0.47	0.066	1.27	0.275	0.043	1.685	0.36	0.046	2.1	0.445	0.044
0.05	0.45	0.044	0.98	0.02	0.040	1.9	0.48	0.064	1.27	0.28	0.044	1.685	0.365	0.045	2.1	0.45	0.044
0.05	0.46	0.043	0.98	0.03	0.039	1.9	0.49	0.058	1.27	0.285	0.043	1.685	0.37	0.042	2.1	0.455	0.047
0.05	0.47	0.043	0.98	0.04	0.038	1.9	0.5	0.054	1.27	0.29	0.047	1.685	0.375	0.040	2.1	0.46	0.055
0.05	0.48	0.045	0.98	0.05	0.037	1.9	0.51	0.052	1.27	0.295	0.052	1.685	0.38	0.041	2.1	0.465	0.061
0.05	0.49	0.047	0.98	0.06	0.037	1.9	0.52	0.052	1.27	0.3	0.057	1.685	0.385	0.044	2.1	0.47	0.063
0.05	0.5	0.047	0.98	0.07	0.038	1.9	0.53	0.055	1.27	0.305	0.058	1.685	0.39	0.047	2.1	0.475	0.062
0.05	0.51	0.045	0.98	0.08	0.039	1.9	0.54	0.057	1.27	0.31	0.058	1.685	0.395	0.049	2.1	0.48	0.060
0.05	0.52	0.041	0.98	0.09	0.039	1.9	0.55	0.059	1.27	0.315	0.056	1.685	0.4	0.050	2.1	0.485	0.058
0.05	0.53	0.038	0.98	0.1	0.041	1.9	0.56	0.059	1.27	0.32	0.052	1.685	0.405	0.050	2.1	0.49	0.054
0.05	0.54	0.038	0.98	0.11	0.042	1.9	0.57	0.058	1.27	0.325	0.048	1.685	0.41	0.047	2.1	0.495	0.049
0.05	0.55	0.039	0.98	0.12	0.043	1.9	0.58	0.055	1.27	0.33	0.047	1.685	0.415	0.045	2.105	0.005	0.045
0.05	0.56	0.039	0.98	0.13	0.042	1.9	0.59	0.052	1.27	0.335	0.051	1.685	0.42	0.047	2.105	0.01	0.055
0.05	0.57	0.039	0.98	0.14	0.041	1.9	0.6	0.050	1.27	0.34	0.055	1.685	0.425	0.049	2.105	0.015	0.064
0.05	0.58	0.040	0.98	0.15	0.041	1.9	0.61	0.049	1.27	0.345	0.058	1.685	0.43	0.049	2.105	0.02	0.069
0.05	0.59	0.039	0.98	0.16	0.040	1.9	0.62	0.047	1.27	0.35	0.060	1.685	0.435	0.049	2.105	0.025	0.070
0.05	0.6	0.039	0.98	0.17	0.040	1.9	0.63	0.047	1.27	0.355	0.061	1.685	0.44	0.047	2.105	0.03	0.068
0.05	0.61	0.039	0.98	0.18	0.039	1.9	0.64	0.049	1.27	0.36	0.061	1.685	0.445	0.045	2.105	0.035	0.066
0.05	0.62	0.040	0.98	0.19	0.039	1.9	0.65	0.051	1.27	0.365	0.057	1.685	0.45	0.045	2.105	0.04	0.064
0.05	0.63	0.044	0.98	0.2	0.039	1.9	0.66	0.053	1.27	0.37	0.049	1.685	0.455	0.046	2.105	0.045	0.061
0.05	0.64	0.050	0.98	0.21	0.040	1.9	0.67	0.054	1.27	0.375	0.042	1.685	0.46	0.049	2.105	0.05	0.056
0.05	0.65	0.055	0.98	0.22	0.041	1.9	0.68	0.054	1.27	0.38	0.039	1.685	0.465	0.050	2.105	0.055	0.050
0.05	0.66	0.057	0.98	0.23	0.042	1.9	0.69	0.051	1.27	0.385	0.041	1.685	0.47	0.048	2.105	0.06	0.048
0.05	0.67	0.057	0.98	0.24	0.044	1.9	0.7	0.047	1.27	0.39	0.042	1.685	0.475	0.045	2.105	0.065	0.046
0.05	0.68	0.055	0.98	0.25	0.045	1.9	0.71	0.045	1.27	0.395	0.042	1.685	0.48	0.043	2.105	0.07	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.05	0.69	0.053	0.98	0.26	0.044	1.9	0.72	0.044	1.27	0.4	0.041	1.685	0.485	0.042	2.105	0.075	0.042
0.05	0.7	0.052	0.98	0.27	0.044	1.9	0.73	0.045	1.27	0.405	0.043	1.685	0.49	0.043	2.105	0.08	0.040
0.05	0.71	0.049	0.98	0.28	0.043	1.9	0.74	0.047	1.27	0.41	0.044	1.685	0.495	0.044	2.105	0.085	0.040
0.05	0.72	0.046	0.98	0.29	0.041	1.9	0.75	0.048	1.27	0.415	0.044	1.69	0.005	0.046	2.105	0.09	0.043
0.05	0.73	0.043	0.98	0.3	0.040	1.9	0.76	0.049	1.27	0.42	0.043	1.69	0.01	0.048	2.105	0.095	0.045
0.05	0.74	0.041	0.98	0.31	0.041	1.9	0.77	0.052	1.27	0.425	0.042	1.69	0.015	0.051	2.105	0.1	0.042
0.05	0.75	0.042	0.98	0.32	0.044	1.9	0.78	0.054	1.27	0.43	0.040	1.69	0.02	0.057	2.105	0.105	0.038
0.05	0.76	0.044	0.98	0.33	0.047	1.9	0.79	0.055	1.27	0.435	0.038	1.69	0.025	0.061	2.105	0.11	0.036
0.05	0.77	0.044	0.98	0.34	0.050	1.9	0.8	0.054	1.27	0.44	0.040	1.69	0.03	0.060	2.105	0.115	0.036
0.05	0.78	0.044	0.98	0.35	0.053	1.9	0.81	0.053	1.27	0.445	0.046	1.69	0.035	0.055	2.105	0.12	0.039
0.05	0.79	0.043	0.98	0.36	0.054	1.9	0.82	0.053	1.27	0.45	0.051	1.69	0.04	0.053	2.105	0.125	0.043
0.05	0.8	0.042	0.98	0.37	0.052	1.9	0.83	0.051	1.27	0.455	0.052	1.69	0.045	0.055	2.105	0.13	0.048
0.05	0.81	0.042	0.98	0.38	0.048	1.9	0.84	0.047	1.27	0.46	0.051	1.69	0.05	0.060	2.105	0.135	0.052
0.05	0.82	0.042	0.98	0.39	0.044	1.9	0.85	0.044	1.27	0.465	0.049	1.69	0.055	0.063	2.105	0.14	0.056
0.05	0.83	0.043	0.98	0.4	0.043	1.9	0.86	0.042	1.27	0.47	0.046	1.69	0.06	0.064	2.105	0.145	0.059
0.05	0.84	0.042	0.98	0.41	0.044	1.9	0.87	0.044	1.27	0.475	0.045	1.69	0.065	0.061	2.105	0.15	0.059
0.05	0.85	0.040	0.98	0.42	0.045	1.9	0.88	0.047	1.27	0.48	0.045	1.69	0.07	0.058	2.105	0.155	0.054
0.05	0.86	0.040	0.98	0.43	0.046	1.9	0.89	0.049	1.27	0.485	0.043	1.69	0.075	0.058	2.105	0.16	0.048
0.05	0.87	0.041	0.98	0.44	0.045	1.91	0.01	0.058	1.27	0.49	0.041	1.69	0.08	0.065	2.105	0.165	0.042
0.05	0.88	0.044	0.98	0.45	0.044	1.91	0.02	0.060	1.27	0.495	0.039	1.69	0.085	0.080	2.105	0.17	0.038
0.05	0.89	0.048	0.98	0.46	0.041	1.91	0.03	0.061	1.275	0.005	0.033	1.69	0.09	0.092	2.105	0.175	0.038
0.06	0.01	0.045	0.98	0.47	0.038	1.91	0.04	0.060	1.275	0.01	0.033	1.69	0.095	0.097	2.105	0.18	0.040
0.06	0.02	0.044	0.98	0.48	0.035	1.91	0.05	0.061	1.275	0.015	0.033	1.69	0.1	0.097	2.105	0.185	0.041
0.06	0.03	0.042	0.98	0.49	0.033	1.91	0.06	0.062	1.275	0.02	0.033	1.69	0.105	0.094	2.105	0.19	0.042
0.06	0.04	0.040	0.98	0.5	0.033	1.91	0.07	0.061	1.275	0.025	0.033	1.69	0.11	0.089	2.105	0.195	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.06	0.05	0.038	0.98	0.51	0.034	1.91	0.08	0.059	1.275	0.03	0.033	1.69	0.115	0.081	2.105	0.2	0.044
0.06	0.06	0.037	0.98	0.52	0.035	1.91	0.09	0.058	1.275	0.035	0.034	1.69	0.12	0.070	2.105	0.205	0.044
0.06	0.07	0.035	0.98	0.53	0.036	1.91	0.1	0.060	1.275	0.04	0.034	1.69	0.125	0.064	2.105	0.21	0.042
0.06	0.08	0.036	0.98	0.54	0.038	1.91	0.11	0.062	1.275	0.045	0.035	1.69	0.13	0.062	2.105	0.215	0.039
0.06	0.09	0.037	0.98	0.55	0.040	1.91	0.12	0.063	1.275	0.05	0.035	1.69	0.135	0.062	2.105	0.22	0.035
0.06	0.1	0.038	0.98	0.56	0.041	1.91	0.13	0.063	1.275	0.055	0.035	1.69	0.14	0.067	2.105	0.225	0.032
0.06	0.11	0.040	0.98	0.57	0.041	1.91	0.14	0.061	1.275	0.06	0.034	1.69	0.145	0.071	2.105	0.23	0.032
0.06	0.12	0.041	0.98	0.58	0.041	1.91	0.15	0.058	1.275	0.065	0.032	1.69	0.15	0.072	2.105	0.235	0.035
0.06	0.13	0.042	0.98	0.59	0.042	1.91	0.16	0.056	1.275	0.07	0.032	1.69	0.155	0.068	2.105	0.24	0.039
0.06	0.14	0.042	0.98	0.6	0.043	1.91	0.17	0.056	1.275	0.075	0.032	1.69	0.16	0.063	2.105	0.245	0.041
0.06	0.15	0.041	0.98	0.61	0.045	1.91	0.18	0.059	1.275	0.08	0.033	1.69	0.165	0.060	2.105	0.25	0.042
0.06	0.16	0.041	0.98	0.62	0.045	1.91	0.19	0.061	1.275	0.085	0.034	1.69	0.17	0.061	2.105	0.255	0.042
0.06	0.17	0.043	0.98	0.63	0.046	1.91	0.2	0.060	1.275	0.09	0.036	1.69	0.175	0.066	2.105	0.26	0.043
0.06	0.18	0.046	0.98	0.64	0.047	1.91	0.21	0.059	1.275	0.095	0.037	1.69	0.18	0.068	2.105	0.265	0.046
0.06	0.19	0.049	0.98	0.65	0.045	1.91	0.22	0.057	1.275	0.1	0.037	1.69	0.185	0.067	2.105	0.27	0.047
0.06	0.2	0.052	0.98	0.66	0.042	1.91	0.23	0.053	1.275	0.105	0.037	1.69	0.19	0.062	2.105	0.275	0.046
0.06	0.21	0.053	0.98	0.67	0.040	1.91	0.24	0.051	1.275	0.11	0.039	1.69	0.195	0.059	2.105	0.28	0.045
0.06	0.22	0.052	0.98	0.68	0.039	1.91	0.25	0.052	1.275	0.115	0.041	1.69	0.2	0.059	2.105	0.285	0.044
0.06	0.23	0.049	0.98	0.69	0.039	1.91	0.26	0.053	1.275	0.12	0.043	1.69	0.205	0.062	2.105	0.29	0.043
0.06	0.24	0.046	0.98	0.7	0.040	1.91	0.27	0.054	1.275	0.125	0.043	1.69	0.21	0.064	2.105	0.295	0.042
0.06	0.25	0.043	0.98	0.71	0.042	1.91	0.28	0.052	1.275	0.13	0.047	1.69	0.215	0.063	2.105	0.3	0.040
0.06	0.26	0.041	0.98	0.72	0.043	1.91	0.29	0.050	1.275	0.135	0.053	1.69	0.22	0.056	2.105	0.305	0.036
0.06	0.27	0.042	0.98	0.73	0.044	1.91	0.3	0.046	1.275	0.14	0.056	1.69	0.225	0.051	2.105	0.31	0.034
0.06	0.28	0.045	0.98	0.74	0.044	1.91	0.31	0.042	1.275	0.145	0.057	1.69	0.23	0.051	2.105	0.315	0.033
0.06	0.29	0.049	0.98	0.75	0.043	1.91	0.32	0.039	1.275	0.15	0.056	1.69	0.235	0.050	2.105	0.32	0.032

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.06	0.3	0.051	0.98	0.76	0.043	1.91	0.33	0.039	1.275	0.155	0.054	1.69	0.24	0.048	2.105	0.325	0.033
0.06	0.31	0.049	0.98	0.77	0.042	1.91	0.34	0.040	1.275	0.16	0.049	1.69	0.245	0.047	2.105	0.33	0.034
0.06	0.32	0.046	0.98	0.78	0.042	1.91	0.35	0.042	1.275	0.165	0.043	1.69	0.25	0.049	2.105	0.335	0.035
0.06	0.33	0.043	0.98	0.79	0.042	1.91	0.36	0.043	1.275	0.17	0.038	1.69	0.255	0.049	2.105	0.34	0.036
0.06	0.34	0.040	0.98	0.8	0.043	1.91	0.37	0.043	1.275	0.175	0.035	1.69	0.26	0.048	2.105	0.345	0.037
0.06	0.35	0.037	0.98	0.81	0.042	1.91	0.38	0.044	1.275	0.18	0.034	1.69	0.265	0.050	2.105	0.35	0.039
0.06	0.36	0.035	0.98	0.82	0.041	1.91	0.39	0.045	1.275	0.185	0.033	1.69	0.27	0.055	2.105	0.355	0.042
0.06	0.37	0.034	0.98	0.83	0.041	1.91	0.4	0.047	1.275	0.19	0.033	1.69	0.275	0.058	2.105	0.36	0.044
0.06	0.38	0.035	0.98	0.84	0.040	1.91	0.41	0.050	1.275	0.195	0.032	1.69	0.28	0.058	2.105	0.365	0.045
0.06	0.39	0.036	0.98	0.85	0.040	1.91	0.42	0.052	1.275	0.2	0.032	1.69	0.285	0.056	2.105	0.37	0.047
0.06	0.4	0.037	0.98	0.86	0.039	1.91	0.43	0.055	1.275	0.205	0.034	1.69	0.29	0.051	2.105	0.375	0.048
0.06	0.41	0.039	0.98	0.87	0.039	1.91	0.44	0.059	1.275	0.21	0.037	1.69	0.295	0.046	2.105	0.38	0.047
0.06	0.42	0.041	0.98	0.88	0.040	1.91	0.45	0.063	1.275	0.215	0.040	1.69	0.3	0.047	2.105	0.385	0.044
0.06	0.43	0.044	0.98	0.89	0.042	1.91	0.46	0.067	1.275	0.22	0.040	1.69	0.305	0.054	2.105	0.39	0.042
0.06	0.44	0.046	0.99	0.01	0.039	1.91	0.47	0.069	1.275	0.225	0.039	1.69	0.31	0.059	2.105	0.395	0.040
0.06	0.45	0.045	0.99	0.02	0.038	1.91	0.48	0.067	1.275	0.23	0.039	1.69	0.315	0.058	2.105	0.4	0.042
0.06	0.46	0.044	0.99	0.03	0.037	1.91	0.49	0.062	1.275	0.235	0.038	1.69	0.32	0.056	2.105	0.405	0.043
0.06	0.47	0.045	0.99	0.04	0.037	1.91	0.5	0.057	1.275	0.24	0.036	1.69	0.325	0.050	2.105	0.41	0.044
0.06	0.48	0.047	0.99	0.05	0.037	1.91	0.51	0.053	1.275	0.245	0.036	1.69	0.33	0.043	2.105	0.415	0.044
0.06	0.49	0.048	0.99	0.06	0.037	1.91	0.52	0.053	1.275	0.25	0.036	1.69	0.335	0.038	2.105	0.42	0.046
0.06	0.5	0.047	0.99	0.07	0.037	1.91	0.53	0.056	1.275	0.255	0.038	1.69	0.34	0.036	2.105	0.425	0.049
0.06	0.51	0.044	0.99	0.08	0.038	1.91	0.54	0.061	1.275	0.26	0.040	1.69	0.345	0.036	2.105	0.43	0.051
0.06	0.52	0.040	0.99	0.09	0.039	1.91	0.55	0.063	1.275	0.265	0.039	1.69	0.35	0.037	2.105	0.435	0.050
0.06	0.53	0.036	0.99	0.1	0.042	1.91	0.56	0.061	1.275	0.27	0.038	1.69	0.355	0.040	2.105	0.44	0.048
0.06	0.54	0.035	0.99	0.11	0.044	1.91	0.57	0.058	1.275	0.275	0.039	1.69	0.36	0.042	2.105	0.445	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.06	0.55	0.036	0.99	0.12	0.046	1.91	0.58	0.055	1.275	0.28	0.041	1.69	0.365	0.043	2.105	0.45	0.049
0.06	0.56	0.037	0.99	0.13	0.045	1.91	0.59	0.053	1.275	0.285	0.043	1.69	0.37	0.043	2.105	0.455	0.053
0.06	0.57	0.039	0.99	0.14	0.045	1.91	0.6	0.052	1.275	0.29	0.048	1.69	0.375	0.044	2.105	0.46	0.060
0.06	0.58	0.040	0.99	0.15	0.043	1.91	0.61	0.051	1.275	0.295	0.053	1.69	0.38	0.046	2.105	0.465	0.065
0.06	0.59	0.041	0.99	0.16	0.042	1.91	0.62	0.049	1.275	0.3	0.057	1.69	0.385	0.049	2.105	0.47	0.066
0.06	0.6	0.041	0.99	0.17	0.039	1.91	0.63	0.047	1.275	0.305	0.058	1.69	0.39	0.051	2.105	0.475	0.065
0.06	0.61	0.041	0.99	0.18	0.038	1.91	0.64	0.047	1.275	0.31	0.058	1.69	0.395	0.052	2.105	0.48	0.064
0.06	0.62	0.041	0.99	0.19	0.037	1.91	0.65	0.049	1.275	0.315	0.056	1.69	0.4	0.053	2.105	0.485	0.062
0.06	0.63	0.044	0.99	0.2	0.037	1.91	0.66	0.051	1.275	0.32	0.053	1.69	0.405	0.053	2.105	0.49	0.059
0.06	0.64	0.050	0.99	0.21	0.038	1.91	0.67	0.053	1.275	0.325	0.048	1.69	0.41	0.051	2.105	0.495	0.055
0.06	0.65	0.056	0.99	0.22	0.039	1.91	0.68	0.054	1.275	0.33	0.047	1.69	0.415	0.048	2.11	0.005	0.041
0.06	0.66	0.058	0.99	0.23	0.042	1.91	0.69	0.052	1.275	0.335	0.051	1.69	0.42	0.048	2.11	0.01	0.053
0.06	0.67	0.058	0.99	0.24	0.045	1.91	0.7	0.049	1.275	0.34	0.055	1.69	0.425	0.050	2.11	0.015	0.067
0.06	0.68	0.056	0.99	0.25	0.045	1.91	0.71	0.047	1.275	0.345	0.058	1.69	0.43	0.051	2.11	0.02	0.075
0.06	0.69	0.055	0.99	0.26	0.045	1.91	0.72	0.046	1.275	0.35	0.059	1.69	0.435	0.050	2.11	0.025	0.077
0.06	0.7	0.053	0.99	0.27	0.045	1.91	0.73	0.047	1.275	0.355	0.061	1.69	0.44	0.049	2.11	0.03	0.077
0.06	0.71	0.051	0.99	0.28	0.044	1.91	0.74	0.048	1.275	0.36	0.061	1.69	0.445	0.047	2.11	0.035	0.076
0.06	0.72	0.047	0.99	0.29	0.043	1.91	0.75	0.049	1.275	0.365	0.057	1.69	0.45	0.046	2.11	0.04	0.074
0.06	0.73	0.043	0.99	0.3	0.042	1.91	0.76	0.050	1.275	0.37	0.048	1.69	0.455	0.046	2.11	0.045	0.071
0.06	0.74	0.043	0.99	0.31	0.042	1.91	0.77	0.053	1.275	0.375	0.040	1.69	0.46	0.046	2.11	0.05	0.065
0.06	0.75	0.045	0.99	0.32	0.042	1.91	0.78	0.055	1.275	0.38	0.038	1.69	0.465	0.046	2.11	0.055	0.056
0.06	0.76	0.047	0.99	0.33	0.045	1.91	0.79	0.055	1.275	0.385	0.039	1.69	0.47	0.047	2.11	0.06	0.049
0.06	0.77	0.047	0.99	0.34	0.048	1.91	0.8	0.053	1.275	0.39	0.041	1.69	0.475	0.048	2.11	0.065	0.047
0.06	0.78	0.045	0.99	0.35	0.051	1.91	0.81	0.051	1.275	0.395	0.041	1.69	0.48	0.049	2.11	0.07	0.047
0.06	0.79	0.042	0.99	0.36	0.053	1.91	0.82	0.050	1.275	0.4	0.041	1.69	0.485	0.050	2.11	0.075	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.06	0.8	0.040	0.99	0.37	0.052	1.91	0.83	0.048	1.275	0.405	0.041	1.69	0.49	0.051	2.11	0.08	0.044
0.06	0.81	0.041	0.99	0.38	0.049	1.91	0.84	0.045	1.275	0.41	0.042	1.69	0.495	0.051	2.11	0.085	0.041
0.06	0.82	0.041	0.99	0.39	0.047	1.91	0.85	0.042	1.275	0.415	0.043	1.695	0.005	0.048	2.11	0.09	0.040
0.06	0.83	0.042	0.99	0.4	0.047	1.91	0.86	0.041	1.275	0.42	0.042	1.695	0.01	0.053	2.11	0.095	0.040
0.06	0.84	0.041	0.99	0.41	0.048	1.91	0.87	0.044	1.275	0.425	0.041	1.695	0.015	0.060	2.11	0.1	0.039
0.06	0.85	0.040	0.99	0.42	0.048	1.91	0.88	0.047	1.275	0.43	0.040	1.695	0.02	0.068	2.11	0.105	0.038
0.06	0.86	0.039	0.99	0.43	0.048	1.91	0.89	0.050	1.275	0.435	0.038	1.695	0.025	0.071	2.11	0.11	0.037
0.06	0.87	0.040	0.99	0.44	0.047	1.92	0.01	0.063	1.275	0.44	0.039	1.695	0.03	0.067	2.11	0.115	0.037
0.06	0.88	0.044	0.99	0.45	0.046	1.92	0.02	0.065	1.275	0.445	0.044	1.695	0.035	0.059	2.11	0.12	0.040
0.06	0.89	0.048	0.99	0.46	0.044	1.92	0.03	0.065	1.275	0.45	0.049	1.695	0.04	0.056	2.11	0.125	0.045
0.07	0.01	0.045	0.99	0.47	0.040	1.92	0.04	0.062	1.275	0.455	0.052	1.695	0.045	0.058	2.11	0.13	0.049
0.07	0.02	0.046	0.99	0.48	0.036	1.92	0.05	0.061	1.275	0.46	0.053	1.695	0.05	0.061	2.11	0.135	0.053
0.07	0.03	0.045	0.99	0.49	0.034	1.92	0.06	0.062	1.275	0.465	0.051	1.695	0.055	0.063	2.11	0.14	0.056
0.07	0.04	0.044	0.99	0.5	0.033	1.92	0.07	0.062	1.275	0.47	0.049	1.695	0.06	0.062	2.11	0.145	0.059
0.07	0.05	0.043	0.99	0.51	0.034	1.92	0.08	0.062	1.275	0.475	0.046	1.695	0.065	0.060	2.11	0.15	0.059
0.07	0.06	0.040	0.99	0.52	0.035	1.92	0.09	0.063	1.275	0.48	0.044	1.695	0.07	0.056	2.11	0.155	0.054
0.07	0.07	0.037	0.99	0.53	0.036	1.92	0.1	0.063	1.275	0.485	0.042	1.695	0.075	0.054	2.11	0.16	0.044
0.07	0.08	0.036	0.99	0.54	0.038	1.92	0.11	0.063	1.275	0.49	0.041	1.695	0.08	0.058	2.11	0.165	0.038
0.07	0.09	0.037	0.99	0.55	0.039	1.92	0.12	0.062	1.275	0.495	0.042	1.695	0.085	0.072	2.11	0.17	0.036
0.07	0.1	0.038	0.99	0.56	0.041	1.92	0.13	0.062	1.28	0.005	0.033	1.695	0.09	0.088	2.11	0.175	0.038
0.07	0.11	0.041	0.99	0.57	0.042	1.92	0.14	0.061	1.28	0.01	0.032	1.695	0.095	0.097	2.11	0.18	0.040
0.07	0.12	0.043	0.99	0.58	0.042	1.92	0.15	0.061	1.28	0.015	0.033	1.695	0.1	0.098	2.11	0.185	0.041
0.07	0.13	0.045	0.99	0.59	0.042	1.92	0.16	0.060	1.28	0.02	0.033	1.695	0.105	0.096	2.11	0.19	0.041
0.07	0.14	0.044	0.99	0.6	0.043	1.92	0.17	0.061	1.28	0.025	0.033	1.695	0.11	0.090	2.11	0.195	0.041
0.07	0.15	0.042	0.99	0.61	0.045	1.92	0.18	0.064	1.28	0.03	0.034	1.695	0.115	0.080	2.11	0.2	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.07	0.16	0.041	0.99	0.62	0.047	1.92	0.19	0.064	1.28	0.035	0.034	1.695	0.12	0.068	2.11	0.205	0.041
0.07	0.17	0.042	0.99	0.63	0.046	1.92	0.2	0.061	1.28	0.04	0.034	1.695	0.125	0.059	2.11	0.21	0.039
0.07	0.18	0.045	0.99	0.64	0.045	1.92	0.21	0.058	1.28	0.045	0.034	1.695	0.13	0.056	2.11	0.215	0.037
0.07	0.19	0.049	0.99	0.65	0.042	1.92	0.22	0.056	1.28	0.05	0.034	1.695	0.135	0.055	2.11	0.22	0.034
0.07	0.2	0.053	0.99	0.66	0.039	1.92	0.23	0.052	1.28	0.055	0.034	1.695	0.14	0.056	2.11	0.225	0.032
0.07	0.21	0.054	0.99	0.67	0.038	1.92	0.24	0.049	1.28	0.06	0.033	1.695	0.145	0.059	2.11	0.23	0.032
0.07	0.22	0.053	0.99	0.68	0.038	1.92	0.25	0.049	1.28	0.065	0.032	1.695	0.15	0.061	2.11	0.235	0.035
0.07	0.23	0.051	0.99	0.69	0.039	1.92	0.26	0.052	1.28	0.07	0.032	1.695	0.155	0.060	2.11	0.24	0.039
0.07	0.24	0.048	0.99	0.7	0.041	1.92	0.27	0.054	1.28	0.075	0.033	1.695	0.16	0.059	2.11	0.245	0.042
0.07	0.25	0.047	0.99	0.71	0.044	1.92	0.28	0.053	1.28	0.08	0.036	1.695	0.165	0.059	2.11	0.25	0.043
0.07	0.26	0.045	0.99	0.72	0.045	1.92	0.29	0.051	1.28	0.085	0.040	1.695	0.17	0.060	2.11	0.255	0.043
0.07	0.27	0.044	0.99	0.73	0.045	1.92	0.3	0.046	1.28	0.09	0.041	1.695	0.175	0.059	2.11	0.26	0.042
0.07	0.28	0.046	0.99	0.74	0.044	1.92	0.31	0.042	1.28	0.095	0.042	1.695	0.18	0.059	2.11	0.265	0.042
0.07	0.29	0.050	0.99	0.75	0.043	1.92	0.32	0.039	1.28	0.1	0.040	1.695	0.185	0.059	2.11	0.27	0.042
0.07	0.3	0.053	0.99	0.76	0.041	1.92	0.33	0.037	1.28	0.105	0.038	1.695	0.19	0.059	2.11	0.275	0.041
0.07	0.31	0.053	0.99	0.77	0.040	1.92	0.34	0.038	1.28	0.11	0.038	1.695	0.195	0.058	2.11	0.28	0.042
0.07	0.32	0.049	0.99	0.78	0.039	1.92	0.35	0.039	1.28	0.115	0.041	1.695	0.2	0.057	2.11	0.285	0.044
0.07	0.33	0.044	0.99	0.79	0.040	1.92	0.36	0.041	1.28	0.12	0.043	1.695	0.205	0.055	2.11	0.29	0.045
0.07	0.34	0.040	0.99	0.8	0.041	1.92	0.37	0.042	1.28	0.125	0.045	1.695	0.21	0.055	2.11	0.295	0.045
0.07	0.35	0.037	0.99	0.81	0.042	1.92	0.38	0.042	1.28	0.13	0.047	1.695	0.215	0.056	2.11	0.3	0.041
0.07	0.36	0.035	0.99	0.82	0.042	1.92	0.39	0.043	1.28	0.135	0.052	1.695	0.22	0.052	2.11	0.305	0.037
0.07	0.37	0.034	0.99	0.83	0.041	1.92	0.4	0.045	1.28	0.14	0.054	1.695	0.225	0.049	2.11	0.31	0.033
0.07	0.38	0.035	0.99	0.84	0.040	1.92	0.41	0.048	1.28	0.145	0.055	1.695	0.23	0.051	2.11	0.315	0.032
0.07	0.39	0.037	0.99	0.85	0.039	1.92	0.42	0.050	1.28	0.15	0.054	1.695	0.235	0.051	2.11	0.32	0.032
0.07	0.4	0.039	0.99	0.86	0.037	1.92	0.43	0.052	1.28	0.155	0.052	1.695	0.24	0.050	2.11	0.325	0.033

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.07	0.41	0.042	0.99	0.87	0.037	1.92	0.44	0.056	1.28	0.16	0.047	1.695	0.245	0.051	2.11	0.33	0.034
0.07	0.42	0.044	0.99	0.88	0.039	1.92	0.45	0.060	1.28	0.165	0.042	1.695	0.25	0.052	2.11	0.335	0.035
0.07	0.43	0.046	0.99	0.89	0.042	1.92	0.46	0.065	1.28	0.17	0.039	1.695	0.255	0.052	2.11	0.34	0.036
0.07	0.44	0.046	1	0.01	0.037	1.92	0.47	0.068	1.28	0.175	0.038	1.695	0.26	0.050	2.11	0.345	0.037
0.07	0.45	0.046	1	0.02	0.036	1.92	0.48	0.067	1.28	0.18	0.037	1.695	0.265	0.048	2.11	0.35	0.041
0.07	0.46	0.045	1	0.03	0.036	1.92	0.49	0.064	1.28	0.185	0.037	1.695	0.27	0.051	2.11	0.355	0.044
0.07	0.47	0.046	1	0.04	0.036	1.92	0.5	0.059	1.28	0.19	0.036	1.695	0.275	0.053	2.11	0.36	0.045
0.07	0.48	0.048	1	0.05	0.036	1.92	0.51	0.056	1.28	0.195	0.034	1.695	0.28	0.053	2.11	0.365	0.045
0.07	0.49	0.048	1	0.06	0.037	1.92	0.52	0.055	1.28	0.2	0.034	1.695	0.285	0.050	2.11	0.37	0.044
0.07	0.5	0.047	1	0.07	0.037	1.92	0.53	0.058	1.28	0.205	0.035	1.695	0.29	0.045	2.11	0.375	0.043
0.07	0.51	0.043	1	0.08	0.037	1.92	0.54	0.061	1.28	0.21	0.038	1.695	0.295	0.042	2.11	0.38	0.043
0.07	0.52	0.038	1	0.09	0.039	1.92	0.55	0.062	1.28	0.215	0.040	1.695	0.3	0.045	2.11	0.385	0.042
0.07	0.53	0.035	1	0.1	0.041	1.92	0.56	0.060	1.28	0.22	0.040	1.695	0.305	0.054	2.11	0.39	0.042
0.07	0.54	0.034	1	0.11	0.044	1.92	0.57	0.057	1.28	0.225	0.038	1.695	0.31	0.059	2.11	0.395	0.043
0.07	0.55	0.034	1	0.12	0.047	1.92	0.58	0.056	1.28	0.23	0.036	1.695	0.315	0.059	2.11	0.4	0.045
0.07	0.56	0.035	1	0.13	0.048	1.92	0.59	0.054	1.28	0.235	0.035	1.695	0.32	0.056	2.11	0.405	0.047
0.07	0.57	0.038	1	0.14	0.048	1.92	0.6	0.052	1.28	0.24	0.034	1.695	0.325	0.051	2.11	0.41	0.048
0.07	0.58	0.040	1	0.15	0.046	1.92	0.61	0.051	1.28	0.245	0.035	1.695	0.33	0.046	2.11	0.415	0.048
0.07	0.59	0.042	1	0.16	0.042	1.92	0.62	0.050	1.28	0.25	0.036	1.695	0.335	0.041	2.11	0.42	0.048
0.07	0.6	0.043	1	0.17	0.039	1.92	0.63	0.048	1.28	0.255	0.039	1.695	0.34	0.039	2.11	0.425	0.048
0.07	0.61	0.045	1	0.18	0.036	1.92	0.64	0.048	1.28	0.26	0.040	1.695	0.345	0.036	2.11	0.43	0.049
0.07	0.62	0.045	1	0.19	0.036	1.92	0.65	0.049	1.28	0.265	0.041	1.695	0.35	0.035	2.11	0.435	0.049
0.07	0.63	0.046	1	0.2	0.036	1.92	0.66	0.052	1.28	0.27	0.040	1.695	0.355	0.036	2.11	0.44	0.052
0.07	0.64	0.051	1	0.21	0.037	1.92	0.67	0.055	1.28	0.275	0.038	1.695	0.36	0.040	2.11	0.445	0.054
0.07	0.65	0.056	1	0.22	0.039	1.92	0.68	0.056	1.28	0.28	0.039	1.695	0.365	0.044	2.11	0.45	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.07	0.66	0.058	1	0.23	0.042	1.92	0.69	0.056	1.28	0.285	0.042	1.695	0.37	0.047	2.11	0.455	0.059
0.07	0.67	0.057	1	0.24	0.044	1.92	0.7	0.053	1.28	0.29	0.048	1.695	0.375	0.049	2.11	0.46	0.064
0.07	0.68	0.055	1	0.25	0.045	1.92	0.71	0.050	1.28	0.295	0.053	1.695	0.38	0.051	2.11	0.465	0.067
0.07	0.69	0.054	1	0.26	0.045	1.92	0.72	0.049	1.28	0.3	0.056	1.695	0.385	0.052	2.11	0.47	0.067
0.07	0.7	0.053	1	0.27	0.046	1.92	0.73	0.050	1.28	0.305	0.057	1.695	0.39	0.053	2.11	0.475	0.066
0.07	0.71	0.051	1	0.28	0.046	1.92	0.74	0.051	1.28	0.31	0.057	1.695	0.395	0.053	2.11	0.48	0.065
0.07	0.72	0.047	1	0.29	0.046	1.92	0.75	0.050	1.28	0.315	0.055	1.695	0.4	0.054	2.11	0.485	0.064
0.07	0.73	0.045	1	0.3	0.045	1.92	0.76	0.050	1.28	0.32	0.051	1.695	0.405	0.054	2.11	0.49	0.063
0.07	0.74	0.045	1	0.31	0.044	1.92	0.77	0.053	1.28	0.325	0.047	1.695	0.41	0.052	2.11	0.495	0.061
0.07	0.75	0.048	1	0.32	0.043	1.92	0.78	0.055	1.28	0.33	0.046	1.695	0.415	0.049	2.115	0.005	0.039
0.07	0.76	0.050	1	0.33	0.044	1.92	0.79	0.055	1.28	0.335	0.051	1.695	0.42	0.049	2.115	0.01	0.054
0.07	0.77	0.049	1	0.34	0.046	1.92	0.8	0.052	1.28	0.34	0.054	1.695	0.425	0.051	2.115	0.015	0.069
0.07	0.78	0.045	1	0.35	0.048	1.92	0.81	0.050	1.28	0.345	0.056	1.695	0.43	0.051	2.115	0.02	0.078
0.07	0.79	0.042	1	0.36	0.050	1.92	0.82	0.049	1.28	0.35	0.057	1.695	0.435	0.051	2.115	0.025	0.081
0.07	0.8	0.041	1	0.37	0.049	1.92	0.83	0.048	1.28	0.355	0.059	1.695	0.44	0.050	2.115	0.03	0.082
0.07	0.81	0.041	1	0.38	0.048	1.92	0.84	0.045	1.28	0.36	0.060	1.695	0.445	0.049	2.115	0.035	0.081
0.07	0.82	0.041	1	0.39	0.049	1.92	0.85	0.043	1.28	0.365	0.057	1.695	0.45	0.048	2.115	0.04	0.080
0.07	0.83	0.040	1	0.4	0.051	1.92	0.86	0.043	1.28	0.37	0.048	1.695	0.455	0.047	2.115	0.045	0.077
0.07	0.84	0.039	1	0.41	0.053	1.92	0.87	0.045	1.28	0.375	0.040	1.695	0.46	0.045	2.115	0.05	0.070
0.07	0.85	0.038	1	0.42	0.053	1.92	0.88	0.048	1.28	0.38	0.037	1.695	0.465	0.044	2.115	0.055	0.059
0.07	0.86	0.038	1	0.43	0.051	1.92	0.89	0.049	1.28	0.385	0.038	1.695	0.47	0.046	2.115	0.06	0.052
0.07	0.87	0.039	1	0.44	0.049	1.93	0.01	0.067	1.28	0.39	0.042	1.695	0.475	0.050	2.115	0.065	0.050
0.07	0.88	0.041	1	0.45	0.048	1.93	0.02	0.070	1.28	0.395	0.046	1.695	0.48	0.053	2.115	0.07	0.050
0.07	0.89	0.045	1	0.46	0.045	1.93	0.03	0.069	1.28	0.4	0.047	1.695	0.485	0.055	2.115	0.075	0.049
0.08	0.01	0.044	1	0.47	0.041	1.93	0.04	0.066	1.28	0.405	0.045	1.695	0.49	0.056	2.115	0.08	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.08	0.02	0.048	1	0.48	0.037	1.93	0.05	0.064	1.28	0.41	0.043	1.695	0.495	0.056	2.115	0.085	0.045
0.08	0.03	0.051	1	0.49	0.035	1.93	0.06	0.063	1.28	0.415	0.041	1.7	0.005	0.051	2.115	0.09	0.041
0.08	0.04	0.052	1	0.5	0.034	1.93	0.07	0.064	1.28	0.42	0.040	1.7	0.01	0.060	2.115	0.095	0.038
0.08	0.05	0.052	1	0.51	0.034	1.93	0.08	0.066	1.28	0.425	0.039	1.7	0.015	0.069	2.115	0.1	0.038
0.08	0.06	0.047	1	0.52	0.035	1.93	0.09	0.068	1.28	0.43	0.039	1.7	0.02	0.077	2.115	0.105	0.039
0.08	0.07	0.042	1	0.53	0.037	1.93	0.1	0.068	1.28	0.435	0.039	1.7	0.025	0.080	2.115	0.11	0.039
0.08	0.08	0.039	1	0.54	0.039	1.93	0.11	0.066	1.28	0.44	0.040	1.7	0.03	0.072	2.115	0.115	0.039
0.08	0.09	0.038	1	0.55	0.040	1.93	0.12	0.063	1.28	0.445	0.042	1.7	0.035	0.062	2.115	0.12	0.041
0.08	0.1	0.039	1	0.56	0.042	1.93	0.13	0.062	1.28	0.45	0.046	1.7	0.04	0.059	2.115	0.125	0.045
0.08	0.11	0.042	1	0.57	0.043	1.93	0.14	0.062	1.28	0.455	0.050	1.7	0.045	0.060	2.115	0.13	0.049
0.08	0.12	0.045	1	0.58	0.043	1.93	0.15	0.063	1.28	0.46	0.052	1.7	0.05	0.063	2.115	0.135	0.052
0.08	0.13	0.047	1	0.59	0.042	1.93	0.16	0.064	1.28	0.465	0.052	1.7	0.055	0.063	2.115	0.14	0.056
0.08	0.14	0.047	1	0.6	0.042	1.93	0.17	0.065	1.28	0.47	0.049	1.7	0.06	0.061	2.115	0.145	0.058
0.08	0.15	0.045	1	0.61	0.045	1.93	0.18	0.066	1.28	0.475	0.047	1.7	0.065	0.057	2.115	0.15	0.057
0.08	0.16	0.043	1	0.62	0.047	1.93	0.19	0.065	1.28	0.48	0.045	1.7	0.07	0.054	2.115	0.155	0.051
0.08	0.17	0.044	1	0.63	0.047	1.93	0.2	0.061	1.28	0.485	0.043	1.7	0.075	0.053	2.115	0.16	0.041
0.08	0.18	0.046	1	0.64	0.044	1.93	0.21	0.058	1.28	0.49	0.044	1.7	0.08	0.057	2.115	0.165	0.035
0.08	0.19	0.050	1	0.65	0.041	1.93	0.22	0.055	1.28	0.495	0.046	1.7	0.085	0.067	2.115	0.17	0.034
0.08	0.2	0.053	1	0.66	0.038	1.93	0.23	0.052	1.285	0.005	0.032	1.7	0.09	0.083	2.115	0.175	0.036
0.08	0.21	0.054	1	0.67	0.038	1.93	0.24	0.049	1.285	0.01	0.032	1.7	0.095	0.094	2.115	0.18	0.039
0.08	0.22	0.053	1	0.68	0.038	1.93	0.25	0.049	1.285	0.015	0.032	1.7	0.1	0.098	2.115	0.185	0.040
0.08	0.23	0.051	1	0.69	0.040	1.93	0.26	0.051	1.285	0.02	0.033	1.7	0.105	0.096	2.115	0.19	0.038
0.08	0.24	0.050	1	0.7	0.042	1.93	0.27	0.054	1.285	0.025	0.034	1.7	0.11	0.089	2.115	0.195	0.037
0.08	0.25	0.050	1	0.71	0.044	1.93	0.28	0.054	1.285	0.03	0.034	1.7	0.115	0.078	2.115	0.2	0.037
0.08	0.26	0.049	1	0.72	0.045	1.93	0.29	0.051	1.285	0.035	0.035	1.7	0.12	0.063	2.115	0.205	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.08	0.27	0.048	1	0.73	0.046	1.93	0.3	0.046	1.285	0.04	0.034	1.7	0.125	0.054	2.115	0.21	0.036
0.08	0.28	0.047	1	0.74	0.045	1.93	0.31	0.042	1.285	0.045	0.034	1.7	0.13	0.050	2.115	0.215	0.035
0.08	0.29	0.049	1	0.75	0.044	1.93	0.32	0.039	1.285	0.05	0.034	1.7	0.135	0.049	2.115	0.22	0.034
0.08	0.3	0.052	1	0.76	0.042	1.93	0.33	0.037	1.285	0.055	0.034	1.7	0.14	0.049	2.115	0.225	0.033
0.08	0.31	0.053	1	0.77	0.040	1.93	0.34	0.037	1.285	0.06	0.034	1.7	0.145	0.050	2.115	0.23	0.033
0.08	0.32	0.050	1	0.78	0.039	1.93	0.35	0.038	1.285	0.065	0.033	1.7	0.15	0.051	2.115	0.235	0.035
0.08	0.33	0.046	1	0.79	0.039	1.93	0.36	0.040	1.285	0.07	0.033	1.7	0.155	0.053	2.115	0.24	0.039
0.08	0.34	0.042	1	0.8	0.041	1.93	0.37	0.042	1.285	0.075	0.036	1.7	0.16	0.057	2.115	0.245	0.043
0.08	0.35	0.038	1	0.81	0.042	1.93	0.38	0.043	1.285	0.08	0.040	1.7	0.165	0.059	2.115	0.25	0.044
0.08	0.36	0.036	1	0.82	0.043	1.93	0.39	0.043	1.285	0.085	0.044	1.7	0.17	0.057	2.115	0.255	0.044
0.08	0.37	0.036	1	0.83	0.043	1.93	0.4	0.044	1.285	0.09	0.045	1.7	0.175	0.053	2.115	0.26	0.041
0.08	0.38	0.037	1	0.84	0.041	1.93	0.41	0.046	1.285	0.095	0.044	1.7	0.18	0.052	2.115	0.265	0.038
0.08	0.39	0.040	1	0.85	0.038	1.93	0.42	0.048	1.285	0.1	0.042	1.7	0.185	0.055	2.115	0.27	0.037
0.08	0.4	0.043	1	0.86	0.036	1.93	0.43	0.050	1.285	0.105	0.039	1.7	0.19	0.058	2.115	0.275	0.038
0.08	0.41	0.046	1	0.87	0.036	1.93	0.44	0.053	1.285	0.11	0.037	1.7	0.195	0.057	2.115	0.28	0.041
0.08	0.42	0.047	1	0.88	0.039	1.93	0.45	0.056	1.285	0.115	0.041	1.7	0.2	0.053	2.115	0.285	0.045
0.08	0.43	0.047	1	0.89	0.043	1.93	0.46	0.060	1.285	0.12	0.045	1.7	0.205	0.050	2.115	0.29	0.047
0.08	0.44	0.047	1.01	0.01	0.036	1.93	0.47	0.062	1.285	0.125	0.047	1.7	0.21	0.052	2.115	0.295	0.046
0.08	0.45	0.047	1.01	0.02	0.035	1.93	0.48	0.063	1.285	0.13	0.048	1.7	0.215	0.054	2.115	0.3	0.042
0.08	0.46	0.047	1.01	0.03	0.035	1.93	0.49	0.062	1.285	0.135	0.048	1.7	0.22	0.052	2.115	0.305	0.037
0.08	0.47	0.047	1.01	0.04	0.035	1.93	0.5	0.060	1.285	0.14	0.050	1.7	0.225	0.050	2.115	0.31	0.034
0.08	0.48	0.048	1.01	0.05	0.035	1.93	0.51	0.059	1.285	0.145	0.051	1.7	0.23	0.052	2.115	0.315	0.032
0.08	0.49	0.047	1.01	0.06	0.036	1.93	0.52	0.059	1.285	0.15	0.051	1.7	0.235	0.052	2.115	0.32	0.033
0.08	0.5	0.044	1.01	0.07	0.036	1.93	0.53	0.059	1.285	0.155	0.048	1.7	0.24	0.051	2.115	0.325	0.034
0.08	0.51	0.041	1.01	0.08	0.037	1.93	0.54	0.059	1.285	0.16	0.044	1.7	0.245	0.051	2.115	0.33	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.08	0.52	0.037	1.01	0.09	0.038	1.93	0.55	0.059	1.285	0.165	0.041	1.7	0.25	0.052	2.115	0.335	0.037
0.08	0.53	0.035	1.01	0.1	0.040	1.93	0.56	0.059	1.285	0.17	0.040	1.7	0.255	0.053	2.115	0.34	0.037
0.08	0.54	0.034	1.01	0.11	0.043	1.93	0.57	0.058	1.285	0.175	0.040	1.7	0.26	0.052	2.115	0.345	0.038
0.08	0.55	0.033	1.01	0.12	0.046	1.93	0.58	0.057	1.285	0.18	0.039	1.7	0.265	0.050	2.115	0.35	0.042
0.08	0.56	0.035	1.01	0.13	0.049	1.93	0.59	0.055	1.285	0.185	0.039	1.7	0.27	0.049	2.115	0.355	0.044
0.08	0.57	0.037	1.01	0.14	0.049	1.93	0.6	0.051	1.285	0.19	0.039	1.7	0.275	0.049	2.115	0.36	0.046
0.08	0.58	0.040	1.01	0.15	0.046	1.93	0.61	0.049	1.285	0.195	0.038	1.7	0.28	0.047	2.115	0.365	0.045
0.08	0.59	0.042	1.01	0.16	0.042	1.93	0.62	0.049	1.285	0.2	0.036	1.7	0.285	0.044	2.115	0.37	0.043
0.08	0.6	0.045	1.01	0.17	0.038	1.93	0.63	0.049	1.285	0.205	0.035	1.7	0.29	0.040	2.115	0.375	0.041
0.08	0.61	0.048	1.01	0.18	0.035	1.93	0.64	0.050	1.285	0.21	0.037	1.7	0.295	0.039	2.115	0.38	0.041
0.08	0.62	0.050	1.01	0.19	0.035	1.93	0.65	0.052	1.285	0.215	0.039	1.7	0.3	0.044	2.115	0.385	0.040
0.08	0.63	0.050	1.01	0.2	0.036	1.93	0.66	0.056	1.285	0.22	0.039	1.7	0.305	0.051	2.115	0.39	0.041
0.08	0.64	0.052	1.01	0.21	0.037	1.93	0.67	0.060	1.285	0.225	0.037	1.7	0.31	0.054	2.115	0.395	0.044
0.08	0.65	0.055	1.01	0.22	0.039	1.93	0.68	0.061	1.285	0.23	0.035	1.7	0.315	0.054	2.115	0.4	0.048
0.08	0.66	0.055	1.01	0.23	0.041	1.93	0.69	0.060	1.285	0.235	0.033	1.7	0.32	0.054	2.115	0.405	0.050
0.08	0.67	0.054	1.01	0.24	0.043	1.93	0.7	0.057	1.285	0.24	0.033	1.7	0.325	0.052	2.115	0.41	0.051
0.08	0.68	0.052	1.01	0.25	0.043	1.93	0.71	0.055	1.285	0.245	0.034	1.7	0.33	0.049	2.115	0.415	0.051
0.08	0.69	0.052	1.01	0.26	0.044	1.93	0.72	0.053	1.285	0.25	0.036	1.7	0.335	0.045	2.115	0.42	0.050
0.08	0.7	0.051	1.01	0.27	0.045	1.93	0.73	0.053	1.285	0.255	0.038	1.7	0.34	0.041	2.115	0.425	0.047
0.08	0.71	0.049	1.01	0.28	0.046	1.93	0.74	0.052	1.285	0.26	0.040	1.7	0.345	0.037	2.115	0.43	0.045
0.08	0.72	0.046	1.01	0.29	0.047	1.93	0.75	0.050	1.285	0.265	0.041	1.7	0.35	0.034	2.115	0.435	0.048
0.08	0.73	0.044	1.01	0.3	0.047	1.93	0.76	0.049	1.285	0.27	0.041	1.7	0.355	0.035	2.115	0.44	0.053
0.08	0.74	0.045	1.01	0.31	0.047	1.93	0.77	0.051	1.285	0.275	0.040	1.7	0.36	0.041	2.115	0.445	0.059
0.08	0.75	0.048	1.01	0.32	0.046	1.93	0.78	0.054	1.285	0.28	0.039	1.7	0.365	0.047	2.115	0.45	0.061
0.08	0.76	0.049	1.01	0.33	0.046	1.93	0.79	0.054	1.285	0.285	0.040	1.7	0.37	0.051	2.115	0.455	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.08	0.77	0.048	1.01	0.34	0.046	1.93	0.8	0.051	1.285	0.29	0.046	1.7	0.375	0.053	2.115	0.46	0.066
0.08	0.78	0.045	1.01	0.35	0.047	1.93	0.81	0.049	1.285	0.295	0.051	1.7	0.38	0.053	2.115	0.465	0.068
0.08	0.79	0.042	1.01	0.36	0.047	1.93	0.82	0.049	1.285	0.3	0.055	1.7	0.385	0.053	2.115	0.47	0.069
0.08	0.8	0.042	1.01	0.37	0.047	1.93	0.83	0.049	1.285	0.305	0.056	1.7	0.39	0.054	2.115	0.475	0.068
0.08	0.81	0.042	1.01	0.38	0.047	1.93	0.84	0.047	1.285	0.31	0.055	1.7	0.395	0.054	2.115	0.48	0.067
0.08	0.82	0.041	1.01	0.39	0.049	1.93	0.85	0.046	1.285	0.315	0.052	1.7	0.4	0.055	2.115	0.485	0.066
0.08	0.83	0.039	1.01	0.4	0.053	1.93	0.86	0.047	1.285	0.32	0.048	1.7	0.405	0.055	2.115	0.49	0.065
0.08	0.84	0.037	1.01	0.41	0.056	1.93	0.87	0.048	1.285	0.325	0.047	1.7	0.41	0.052	2.115	0.495	0.064
0.08	0.85	0.036	1.01	0.42	0.056	1.93	0.88	0.048	1.285	0.33	0.047	1.7	0.415	0.048	2.12	0.005	0.039
0.08	0.86	0.036	1.01	0.43	0.054	1.93	0.89	0.048	1.285	0.335	0.049	1.7	0.42	0.047	2.12	0.01	0.052
0.08	0.87	0.037	1.01	0.44	0.052	1.94	0.01	0.070	1.285	0.34	0.051	1.7	0.425	0.050	2.12	0.015	0.067
0.08	0.88	0.038	1.01	0.45	0.050	1.94	0.02	0.073	1.285	0.345	0.051	1.7	0.43	0.051	2.12	0.02	0.076
0.08	0.89	0.041	1.01	0.46	0.047	1.94	0.03	0.073	1.285	0.35	0.051	1.7	0.435	0.051	2.12	0.025	0.081
0.09	0.01	0.043	1.01	0.47	0.042	1.94	0.04	0.071	1.285	0.355	0.053	1.7	0.44	0.051	2.12	0.03	0.083
0.09	0.02	0.050	1.01	0.48	0.039	1.94	0.05	0.068	1.285	0.36	0.055	1.7	0.445	0.050	2.12	0.035	0.083
0.09	0.03	0.056	1.01	0.49	0.037	1.94	0.06	0.065	1.285	0.365	0.054	1.7	0.45	0.050	2.12	0.04	0.082
0.09	0.04	0.060	1.01	0.5	0.036	1.94	0.07	0.066	1.285	0.37	0.048	1.7	0.455	0.048	2.12	0.045	0.078
0.09	0.05	0.061	1.01	0.51	0.036	1.94	0.08	0.069	1.285	0.375	0.042	1.7	0.46	0.044	2.12	0.05	0.068
0.09	0.06	0.056	1.01	0.52	0.037	1.94	0.09	0.071	1.285	0.38	0.039	1.7	0.465	0.042	2.12	0.055	0.057
0.09	0.07	0.049	1.01	0.53	0.039	1.94	0.1	0.072	1.285	0.385	0.040	1.7	0.47	0.046	2.12	0.06	0.052
0.09	0.08	0.043	1.01	0.54	0.041	1.94	0.11	0.069	1.285	0.39	0.044	1.7	0.475	0.051	2.12	0.065	0.051
0.09	0.09	0.040	1.01	0.55	0.043	1.94	0.12	0.065	1.285	0.395	0.049	1.7	0.48	0.055	2.12	0.07	0.052
0.09	0.1	0.040	1.01	0.56	0.044	1.94	0.13	0.063	1.285	0.4	0.052	1.7	0.485	0.057	2.12	0.075	0.052
0.09	0.11	0.043	1.01	0.57	0.044	1.94	0.14	0.063	1.285	0.405	0.051	1.7	0.49	0.058	2.12	0.08	0.051
0.09	0.12	0.047	1.01	0.58	0.043	1.94	0.15	0.065	1.285	0.41	0.048	1.7	0.495	0.059	2.12	0.085	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.09	0.13	0.050	1.01	0.59	0.041	1.94	0.16	0.065	1.285	0.415	0.043	1.705	0.005	0.052	2.12	0.09	0.042
0.09	0.14	0.050	1.01	0.6	0.041	1.94	0.17	0.065	1.285	0.42	0.039	1.705	0.01	0.062	2.12	0.095	0.038
0.09	0.15	0.048	1.01	0.61	0.043	1.94	0.18	0.065	1.285	0.425	0.037	1.705	0.015	0.073	2.12	0.1	0.037
0.09	0.16	0.046	1.01	0.62	0.046	1.94	0.19	0.064	1.285	0.43	0.037	1.705	0.02	0.082	2.12	0.105	0.039
0.09	0.17	0.046	1.01	0.63	0.047	1.94	0.2	0.060	1.285	0.435	0.039	1.705	0.025	0.086	2.12	0.11	0.040
0.09	0.18	0.048	1.01	0.64	0.045	1.94	0.21	0.057	1.285	0.44	0.040	1.705	0.03	0.078	2.12	0.115	0.040
0.09	0.19	0.049	1.01	0.65	0.042	1.94	0.22	0.055	1.285	0.445	0.041	1.705	0.035	0.065	2.12	0.12	0.041
0.09	0.2	0.051	1.01	0.66	0.040	1.94	0.23	0.054	1.285	0.45	0.043	1.705	0.04	0.058	2.12	0.125	0.044
0.09	0.21	0.051	1.01	0.67	0.040	1.94	0.24	0.053	1.285	0.455	0.048	1.705	0.045	0.058	2.12	0.13	0.048
0.09	0.22	0.051	1.01	0.68	0.040	1.94	0.25	0.051	1.285	0.46	0.051	1.705	0.05	0.061	2.12	0.135	0.051
0.09	0.23	0.049	1.01	0.69	0.041	1.94	0.26	0.052	1.285	0.465	0.050	1.705	0.055	0.061	2.12	0.14	0.054
0.09	0.24	0.049	1.01	0.7	0.042	1.94	0.27	0.054	1.285	0.47	0.048	1.705	0.06	0.059	2.12	0.145	0.054
0.09	0.25	0.050	1.01	0.71	0.044	1.94	0.28	0.054	1.285	0.475	0.046	1.705	0.065	0.056	2.12	0.15	0.052
0.09	0.26	0.051	1.01	0.72	0.045	1.94	0.29	0.050	1.285	0.48	0.045	1.705	0.07	0.055	2.12	0.155	0.046
0.09	0.27	0.050	1.01	0.73	0.047	1.94	0.3	0.045	1.285	0.485	0.046	1.705	0.075	0.057	2.12	0.16	0.039
0.09	0.28	0.049	1.01	0.74	0.047	1.94	0.31	0.041	1.285	0.49	0.048	1.705	0.08	0.060	2.12	0.165	0.034
0.09	0.29	0.050	1.01	0.75	0.047	1.94	0.32	0.039	1.285	0.495	0.049	1.705	0.085	0.066	2.12	0.17	0.033
0.09	0.3	0.052	1.01	0.76	0.045	1.94	0.33	0.038	1.29	0.005	0.032	1.705	0.09	0.078	2.12	0.175	0.035
0.09	0.31	0.052	1.01	0.77	0.041	1.94	0.34	0.038	1.29	0.01	0.032	1.705	0.095	0.090	2.12	0.18	0.037
0.09	0.32	0.049	1.01	0.78	0.039	1.94	0.35	0.038	1.29	0.015	0.032	1.705	0.1	0.096	2.12	0.185	0.038
0.09	0.33	0.047	1.01	0.79	0.039	1.94	0.36	0.039	1.29	0.02	0.033	1.705	0.105	0.095	2.12	0.19	0.036
0.09	0.34	0.044	1.01	0.8	0.041	1.94	0.37	0.041	1.29	0.025	0.034	1.705	0.11	0.087	2.12	0.195	0.034
0.09	0.35	0.041	1.01	0.81	0.044	1.94	0.38	0.043	1.29	0.03	0.035	1.705	0.115	0.074	2.12	0.2	0.034
0.09	0.36	0.038	1.01	0.82	0.045	1.94	0.39	0.045	1.29	0.035	0.035	1.705	0.12	0.060	2.12	0.205	0.035
0.09	0.37	0.037	1.01	0.83	0.044	1.94	0.4	0.046	1.29	0.04	0.035	1.705	0.125	0.051	2.12	0.21	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.09	0.38	0.039	1.01	0.84	0.042	1.94	0.41	0.047	1.29	0.045	0.034	1.705	0.13	0.048	2.12	0.215	0.036
0.09	0.39	0.042	1.01	0.85	0.038	1.94	0.42	0.047	1.29	0.05	0.034	1.705	0.135	0.047	2.12	0.22	0.036
0.09	0.4	0.046	1.01	0.86	0.036	1.94	0.43	0.048	1.29	0.055	0.034	1.705	0.14	0.047	2.12	0.225	0.035
0.09	0.41	0.048	1.01	0.87	0.036	1.94	0.44	0.050	1.29	0.06	0.034	1.705	0.145	0.046	2.12	0.23	0.035
0.09	0.42	0.048	1.01	0.88	0.039	1.94	0.45	0.052	1.29	0.065	0.033	1.705	0.15	0.048	2.12	0.235	0.036
0.09	0.43	0.048	1.01	0.89	0.043	1.94	0.46	0.054	1.29	0.07	0.034	1.705	0.155	0.054	2.12	0.24	0.040
0.09	0.44	0.049	1.02	0.01	0.034	1.94	0.47	0.055	1.29	0.075	0.038	1.705	0.16	0.058	2.12	0.245	0.043
0.09	0.45	0.049	1.02	0.02	0.034	1.94	0.48	0.056	1.29	0.08	0.043	1.705	0.165	0.058	2.12	0.25	0.045
0.09	0.46	0.048	1.02	0.03	0.034	1.94	0.49	0.057	1.29	0.085	0.045	1.705	0.17	0.053	2.12	0.255	0.045
0.09	0.47	0.047	1.02	0.04	0.034	1.94	0.5	0.060	1.29	0.09	0.045	1.705	0.175	0.049	2.12	0.26	0.043
0.09	0.48	0.046	1.02	0.05	0.035	1.94	0.51	0.061	1.29	0.095	0.044	1.705	0.18	0.049	2.12	0.265	0.039
0.09	0.49	0.045	1.02	0.06	0.035	1.94	0.52	0.061	1.29	0.1	0.041	1.705	0.185	0.053	2.12	0.27	0.037
0.09	0.5	0.042	1.02	0.07	0.036	1.94	0.53	0.060	1.29	0.105	0.038	1.705	0.19	0.055	2.12	0.275	0.038
0.09	0.51	0.039	1.02	0.08	0.037	1.94	0.54	0.059	1.29	0.11	0.036	1.705	0.195	0.054	2.12	0.28	0.042
0.09	0.52	0.037	1.02	0.09	0.037	1.94	0.55	0.059	1.29	0.115	0.039	1.705	0.2	0.051	2.12	0.285	0.045
0.09	0.53	0.035	1.02	0.1	0.038	1.94	0.56	0.059	1.29	0.12	0.044	1.705	0.205	0.050	2.12	0.29	0.047
0.09	0.54	0.034	1.02	0.11	0.040	1.94	0.57	0.059	1.29	0.125	0.048	1.705	0.21	0.054	2.12	0.295	0.045
0.09	0.55	0.034	1.02	0.12	0.043	1.94	0.58	0.057	1.29	0.13	0.048	1.705	0.215	0.057	2.12	0.3	0.041
0.09	0.56	0.035	1.02	0.13	0.046	1.94	0.59	0.055	1.29	0.135	0.046	1.705	0.22	0.057	2.12	0.305	0.037
0.09	0.57	0.036	1.02	0.14	0.046	1.94	0.6	0.052	1.29	0.14	0.045	1.705	0.225	0.055	2.12	0.31	0.034
0.09	0.58	0.039	1.02	0.15	0.043	1.94	0.61	0.050	1.29	0.145	0.047	1.705	0.23	0.055	2.12	0.315	0.033
0.09	0.59	0.042	1.02	0.16	0.039	1.94	0.62	0.049	1.29	0.15	0.049	1.705	0.235	0.054	2.12	0.32	0.034
0.09	0.6	0.046	1.02	0.17	0.036	1.94	0.63	0.050	1.29	0.155	0.049	1.705	0.24	0.051	2.12	0.325	0.037
0.09	0.61	0.050	1.02	0.18	0.035	1.94	0.64	0.053	1.29	0.16	0.045	1.705	0.245	0.050	2.12	0.33	0.039
0.09	0.62	0.052	1.02	0.19	0.035	1.94	0.65	0.057	1.29	0.165	0.041	1.705	0.25	0.050	2.12	0.335	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.09	0.63	0.052	1.02	0.2	0.036	1.94	0.66	0.062	1.29	0.17	0.040	1.705	0.255	0.053	2.12	0.34	0.039
0.09	0.64	0.052	1.02	0.21	0.037	1.94	0.67	0.065	1.29	0.175	0.039	1.705	0.26	0.055	2.12	0.345	0.038
0.09	0.65	0.052	1.02	0.22	0.039	1.94	0.68	0.065	1.29	0.18	0.039	1.705	0.265	0.054	2.12	0.35	0.040
0.09	0.66	0.050	1.02	0.23	0.040	1.94	0.69	0.063	1.29	0.185	0.039	1.705	0.27	0.051	2.12	0.355	0.042
0.09	0.67	0.048	1.02	0.24	0.041	1.94	0.7	0.060	1.29	0.19	0.040	1.705	0.275	0.047	2.12	0.36	0.044
0.09	0.68	0.047	1.02	0.25	0.041	1.94	0.71	0.059	1.29	0.195	0.039	1.705	0.28	0.044	2.12	0.365	0.044
0.09	0.69	0.049	1.02	0.26	0.042	1.94	0.72	0.058	1.29	0.2	0.039	1.705	0.285	0.042	2.12	0.37	0.043
0.09	0.7	0.049	1.02	0.27	0.043	1.94	0.73	0.055	1.29	0.205	0.037	1.705	0.29	0.039	2.12	0.375	0.041
0.09	0.71	0.047	1.02	0.28	0.044	1.94	0.74	0.051	1.29	0.21	0.037	1.705	0.295	0.041	2.12	0.38	0.042
0.09	0.72	0.044	1.02	0.29	0.045	1.94	0.75	0.048	1.29	0.215	0.037	1.705	0.3	0.045	2.12	0.385	0.042
0.09	0.73	0.041	1.02	0.3	0.047	1.94	0.76	0.047	1.29	0.22	0.037	1.705	0.305	0.046	2.12	0.39	0.041
0.09	0.74	0.042	1.02	0.31	0.048	1.94	0.77	0.049	1.29	0.225	0.035	1.705	0.31	0.045	2.12	0.395	0.043
0.09	0.75	0.045	1.02	0.32	0.048	1.94	0.78	0.051	1.29	0.23	0.034	1.705	0.315	0.047	2.12	0.4	0.047
0.09	0.76	0.047	1.02	0.33	0.048	1.94	0.79	0.052	1.29	0.235	0.034	1.705	0.32	0.050	2.12	0.405	0.049
0.09	0.77	0.046	1.02	0.34	0.049	1.94	0.8	0.050	1.29	0.24	0.035	1.705	0.325	0.051	2.12	0.41	0.051
0.09	0.78	0.044	1.02	0.35	0.048	1.94	0.81	0.050	1.29	0.245	0.036	1.705	0.33	0.049	2.12	0.415	0.051
0.09	0.79	0.042	1.02	0.36	0.046	1.94	0.82	0.051	1.29	0.25	0.037	1.705	0.335	0.045	2.12	0.42	0.049
0.09	0.8	0.043	1.02	0.37	0.046	1.94	0.83	0.051	1.29	0.255	0.038	1.705	0.34	0.040	2.12	0.425	0.044
0.09	0.81	0.043	1.02	0.38	0.046	1.94	0.84	0.050	1.29	0.26	0.039	1.705	0.345	0.036	2.12	0.43	0.040
0.09	0.82	0.041	1.02	0.39	0.048	1.94	0.85	0.049	1.29	0.265	0.041	1.705	0.35	0.034	2.12	0.435	0.044
0.09	0.83	0.038	1.02	0.4	0.052	1.94	0.86	0.050	1.29	0.27	0.041	1.705	0.355	0.036	2.12	0.44	0.052
0.09	0.84	0.035	1.02	0.41	0.055	1.94	0.87	0.051	1.29	0.275	0.040	1.705	0.36	0.044	2.12	0.445	0.058
0.09	0.85	0.034	1.02	0.42	0.056	1.94	0.88	0.050	1.29	0.28	0.039	1.705	0.365	0.051	2.12	0.45	0.061
0.09	0.86	0.034	1.02	0.43	0.055	1.94	0.89	0.047	1.29	0.285	0.039	1.705	0.37	0.054	2.12	0.455	0.062
0.09	0.87	0.036	1.02	0.44	0.054	1.95	0.01	0.073	1.29	0.29	0.043	1.705	0.375	0.055	2.12	0.46	0.064

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.09	0.88	0.037	1.02	0.45	0.052	1.95	0.02	0.076	1.29	0.295	0.048	1.705	0.38	0.055	2.12	0.465	0.068
0.09	0.89	0.038	1.02	0.46	0.049	1.95	0.03	0.078	1.29	0.3	0.052	1.705	0.385	0.055	2.12	0.47	0.070
0.1	0.01	0.042	1.02	0.47	0.045	1.95	0.04	0.077	1.29	0.305	0.052	1.705	0.39	0.055	2.12	0.475	0.070
0.1	0.02	0.051	1.02	0.48	0.043	1.95	0.05	0.074	1.29	0.31	0.051	1.705	0.395	0.055	2.12	0.48	0.069
0.1	0.03	0.060	1.02	0.49	0.041	1.95	0.06	0.068	1.29	0.315	0.048	1.705	0.4	0.056	2.12	0.485	0.068
0.1	0.04	0.066	1.02	0.5	0.040	1.95	0.07	0.067	1.29	0.32	0.046	1.705	0.405	0.054	2.12	0.49	0.067
0.1	0.05	0.067	1.02	0.51	0.039	1.95	0.08	0.069	1.29	0.325	0.047	1.705	0.41	0.050	2.12	0.495	0.066
0.1	0.06	0.063	1.02	0.52	0.040	1.95	0.09	0.071	1.29	0.33	0.049	1.705	0.415	0.044	2.125	0.005	0.041
0.1	0.07	0.054	1.02	0.53	0.042	1.95	0.1	0.071	1.29	0.335	0.050	1.705	0.42	0.043	2.125	0.01	0.051
0.1	0.08	0.047	1.02	0.54	0.045	1.95	0.11	0.070	1.29	0.34	0.050	1.705	0.425	0.046	2.125	0.015	0.061
0.1	0.09	0.042	1.02	0.55	0.046	1.95	0.12	0.067	1.29	0.345	0.049	1.705	0.43	0.049	2.125	0.02	0.071
0.1	0.1	0.040	1.02	0.56	0.046	1.95	0.13	0.064	1.29	0.35	0.047	1.705	0.435	0.050	2.125	0.025	0.077
0.1	0.11	0.043	1.02	0.57	0.045	1.95	0.14	0.063	1.29	0.355	0.046	1.705	0.44	0.050	2.125	0.03	0.080
0.1	0.12	0.048	1.02	0.58	0.043	1.95	0.15	0.064	1.29	0.36	0.049	1.705	0.445	0.050	2.125	0.035	0.081
0.1	0.13	0.051	1.02	0.59	0.041	1.95	0.16	0.063	1.29	0.365	0.050	1.705	0.45	0.049	2.125	0.04	0.079
0.1	0.14	0.051	1.02	0.6	0.041	1.95	0.17	0.061	1.29	0.37	0.048	1.705	0.455	0.047	2.125	0.045	0.072
0.1	0.15	0.049	1.02	0.61	0.042	1.95	0.18	0.060	1.29	0.375	0.046	1.705	0.46	0.044	2.125	0.05	0.061
0.1	0.16	0.048	1.02	0.62	0.045	1.95	0.19	0.059	1.29	0.38	0.044	1.705	0.465	0.043	2.125	0.055	0.052
0.1	0.17	0.048	1.02	0.63	0.046	1.95	0.2	0.057	1.29	0.385	0.042	1.705	0.47	0.047	2.125	0.06	0.050
0.1	0.18	0.048	1.02	0.64	0.046	1.95	0.21	0.057	1.29	0.39	0.044	1.705	0.475	0.052	2.125	0.065	0.051
0.1	0.19	0.047	1.02	0.65	0.045	1.95	0.22	0.056	1.29	0.395	0.049	1.705	0.48	0.056	2.125	0.07	0.052
0.1	0.2	0.047	1.02	0.66	0.044	1.95	0.23	0.056	1.29	0.4	0.052	1.705	0.485	0.058	2.125	0.075	0.053
0.1	0.21	0.047	1.02	0.67	0.043	1.95	0.24	0.056	1.29	0.405	0.053	1.705	0.49	0.060	2.125	0.08	0.053
0.1	0.22	0.048	1.02	0.68	0.043	1.95	0.25	0.055	1.29	0.41	0.052	1.705	0.495	0.061	2.125	0.085	0.050
0.1	0.23	0.048	1.02	0.69	0.043	1.95	0.26	0.054	1.29	0.415	0.048	1.71	0.005	0.052	2.125	0.09	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.1	0.24	0.048	1.02	0.7	0.043	1.95	0.27	0.053	1.29	0.42	0.042	1.71	0.01	0.063	2.125	0.095	0.038
0.1	0.25	0.050	1.02	0.71	0.044	1.95	0.28	0.052	1.29	0.425	0.038	1.71	0.015	0.073	2.125	0.1	0.036
0.1	0.26	0.050	1.02	0.72	0.045	1.95	0.29	0.048	1.29	0.43	0.037	1.71	0.02	0.083	2.125	0.105	0.037
0.1	0.27	0.050	1.02	0.73	0.046	1.95	0.3	0.044	1.29	0.435	0.038	1.71	0.025	0.088	2.125	0.11	0.039
0.1	0.28	0.050	1.02	0.74	0.048	1.95	0.31	0.041	1.29	0.44	0.038	1.71	0.03	0.081	2.125	0.115	0.040
0.1	0.29	0.051	1.02	0.75	0.048	1.95	0.32	0.041	1.29	0.445	0.038	1.71	0.035	0.066	2.125	0.12	0.042
0.1	0.3	0.053	1.02	0.76	0.046	1.95	0.33	0.041	1.29	0.45	0.040	1.71	0.04	0.055	2.125	0.125	0.045
0.1	0.31	0.052	1.02	0.77	0.044	1.95	0.34	0.040	1.29	0.455	0.045	1.71	0.045	0.053	2.125	0.13	0.048
0.1	0.32	0.050	1.02	0.78	0.041	1.95	0.35	0.039	1.29	0.46	0.049	1.71	0.05	0.056	2.125	0.135	0.050
0.1	0.33	0.048	1.02	0.79	0.040	1.95	0.36	0.040	1.29	0.465	0.050	1.71	0.055	0.058	2.125	0.14	0.049
0.1	0.34	0.045	1.02	0.8	0.041	1.95	0.37	0.041	1.29	0.47	0.048	1.71	0.06	0.057	2.125	0.145	0.048
0.1	0.35	0.043	1.02	0.81	0.044	1.95	0.38	0.043	1.29	0.475	0.045	1.71	0.065	0.057	2.125	0.15	0.046
0.1	0.36	0.040	1.02	0.82	0.045	1.95	0.39	0.046	1.29	0.48	0.046	1.71	0.07	0.061	2.125	0.155	0.043
0.1	0.37	0.038	1.02	0.83	0.044	1.95	0.4	0.047	1.29	0.485	0.048	1.71	0.075	0.066	2.125	0.16	0.039
0.1	0.38	0.040	1.02	0.84	0.042	1.95	0.41	0.047	1.29	0.49	0.050	1.71	0.08	0.068	2.125	0.165	0.036
0.1	0.39	0.043	1.02	0.85	0.038	1.95	0.42	0.046	1.29	0.495	0.051	1.71	0.085	0.070	2.125	0.17	0.034
0.1	0.4	0.046	1.02	0.86	0.036	1.95	0.43	0.046	1.295	0.005	0.032	1.71	0.09	0.075	2.125	0.175	0.034
0.1	0.41	0.047	1.02	0.87	0.036	1.95	0.44	0.047	1.295	0.01	0.032	1.71	0.095	0.085	2.125	0.18	0.035
0.1	0.42	0.047	1.02	0.88	0.039	1.95	0.45	0.049	1.295	0.015	0.032	1.71	0.1	0.092	2.125	0.185	0.035
0.1	0.43	0.047	1.02	0.89	0.043	1.95	0.46	0.051	1.295	0.02	0.033	1.71	0.105	0.090	2.125	0.19	0.034
0.1	0.44	0.048	1.03	0.01	0.033	1.95	0.47	0.051	1.295	0.025	0.034	1.71	0.11	0.081	2.125	0.195	0.033
0.1	0.45	0.049	1.03	0.02	0.033	1.95	0.48	0.051	1.295	0.03	0.035	1.71	0.115	0.067	2.125	0.2	0.034
0.1	0.46	0.048	1.03	0.03	0.033	1.95	0.49	0.053	1.295	0.035	0.035	1.71	0.12	0.057	2.125	0.205	0.036
0.1	0.47	0.046	1.03	0.04	0.034	1.95	0.5	0.057	1.295	0.04	0.034	1.71	0.125	0.051	2.125	0.21	0.038
0.1	0.48	0.044	1.03	0.05	0.034	1.95	0.51	0.060	1.295	0.045	0.034	1.71	0.13	0.052	2.125	0.215	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.1	0.49	0.043	1.03	0.06	0.035	1.95	0.52	0.061	1.295	0.05	0.034	1.71	0.135	0.053	2.125	0.22	0.039
0.1	0.5	0.040	1.03	0.07	0.036	1.95	0.53	0.060	1.295	0.055	0.033	1.71	0.14	0.050	2.125	0.225	0.038
0.1	0.51	0.038	1.03	0.08	0.037	1.95	0.54	0.060	1.295	0.06	0.033	1.71	0.145	0.048	2.125	0.23	0.037
0.1	0.52	0.036	1.03	0.09	0.037	1.95	0.55	0.061	1.295	0.065	0.032	1.71	0.15	0.051	2.125	0.235	0.038
0.1	0.53	0.036	1.03	0.1	0.037	1.95	0.56	0.060	1.295	0.07	0.034	1.71	0.155	0.058	2.125	0.24	0.042
0.1	0.54	0.036	1.03	0.11	0.038	1.95	0.57	0.058	1.295	0.075	0.038	1.71	0.16	0.061	2.125	0.245	0.046
0.1	0.55	0.036	1.03	0.12	0.040	1.95	0.58	0.056	1.295	0.08	0.043	1.71	0.165	0.059	2.125	0.25	0.048
0.1	0.56	0.036	1.03	0.13	0.041	1.95	0.59	0.055	1.295	0.085	0.045	1.71	0.17	0.054	2.125	0.255	0.049
0.1	0.57	0.036	1.03	0.14	0.041	1.95	0.6	0.054	1.295	0.09	0.045	1.71	0.175	0.049	2.125	0.26	0.048
0.1	0.58	0.038	1.03	0.15	0.040	1.95	0.61	0.053	1.295	0.095	0.043	1.71	0.18	0.049	2.125	0.265	0.045
0.1	0.59	0.042	1.03	0.16	0.037	1.95	0.62	0.052	1.295	0.1	0.039	1.71	0.185	0.050	2.125	0.27	0.042
0.1	0.6	0.046	1.03	0.17	0.035	1.95	0.63	0.053	1.295	0.105	0.036	1.71	0.19	0.048	2.125	0.275	0.041
0.1	0.61	0.049	1.03	0.18	0.035	1.95	0.64	0.056	1.295	0.11	0.034	1.71	0.195	0.048	2.125	0.28	0.043
0.1	0.62	0.052	1.03	0.19	0.035	1.95	0.65	0.059	1.295	0.115	0.036	1.71	0.2	0.050	2.125	0.285	0.045
0.1	0.63	0.053	1.03	0.2	0.036	1.95	0.66	0.064	1.295	0.12	0.041	1.71	0.205	0.054	2.125	0.29	0.045
0.1	0.64	0.052	1.03	0.21	0.037	1.95	0.67	0.067	1.295	0.125	0.047	1.71	0.21	0.058	2.125	0.295	0.042
0.1	0.65	0.049	1.03	0.22	0.039	1.95	0.68	0.066	1.295	0.13	0.047	1.71	0.215	0.062	2.125	0.3	0.038
0.1	0.66	0.045	1.03	0.23	0.040	1.95	0.69	0.064	1.295	0.135	0.044	1.71	0.22	0.063	2.125	0.305	0.036
0.1	0.67	0.042	1.03	0.24	0.040	1.95	0.7	0.062	1.295	0.14	0.041	1.71	0.225	0.060	2.125	0.31	0.035
0.1	0.68	0.043	1.03	0.25	0.040	1.95	0.71	0.061	1.295	0.145	0.045	1.71	0.23	0.057	2.125	0.315	0.033
0.1	0.69	0.045	1.03	0.26	0.039	1.95	0.72	0.060	1.295	0.15	0.050	1.71	0.235	0.054	2.125	0.32	0.034
0.1	0.7	0.046	1.03	0.27	0.040	1.95	0.73	0.056	1.295	0.155	0.052	1.71	0.24	0.050	2.125	0.325	0.038
0.1	0.71	0.045	1.03	0.28	0.041	1.95	0.74	0.051	1.295	0.16	0.049	1.71	0.245	0.049	2.125	0.33	0.040
0.1	0.72	0.041	1.03	0.29	0.043	1.95	0.75	0.047	1.295	0.165	0.045	1.71	0.25	0.050	2.125	0.335	0.040
0.1	0.73	0.039	1.03	0.3	0.045	1.95	0.76	0.046	1.295	0.17	0.040	1.71	0.255	0.053	2.125	0.34	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.1	0.74	0.039	1.03	0.31	0.047	1.95	0.77	0.047	1.295	0.175	0.038	1.71	0.26	0.056	2.125	0.345	0.036
0.1	0.75	0.041	1.03	0.32	0.048	1.95	0.78	0.048	1.295	0.18	0.038	1.71	0.265	0.057	2.125	0.35	0.037
0.1	0.76	0.043	1.03	0.33	0.050	1.95	0.79	0.050	1.295	0.185	0.038	1.71	0.27	0.054	2.125	0.355	0.040
0.1	0.77	0.043	1.03	0.34	0.051	1.95	0.8	0.050	1.295	0.19	0.039	1.71	0.275	0.048	2.125	0.36	0.043
0.1	0.78	0.042	1.03	0.35	0.049	1.95	0.81	0.052	1.295	0.195	0.040	1.71	0.28	0.045	2.125	0.365	0.044
0.1	0.79	0.042	1.03	0.36	0.047	1.95	0.82	0.053	1.295	0.2	0.041	1.71	0.285	0.045	2.125	0.37	0.044
0.1	0.8	0.042	1.03	0.37	0.046	1.95	0.83	0.053	1.295	0.205	0.041	1.71	0.29	0.044	2.125	0.375	0.043
0.1	0.81	0.042	1.03	0.38	0.046	1.95	0.84	0.053	1.295	0.21	0.039	1.71	0.295	0.045	2.125	0.38	0.042
0.1	0.82	0.040	1.03	0.39	0.046	1.95	0.85	0.052	1.295	0.215	0.037	1.71	0.3	0.047	2.125	0.385	0.042
0.1	0.83	0.037	1.03	0.4	0.049	1.95	0.86	0.052	1.295	0.22	0.035	1.71	0.305	0.045	2.125	0.39	0.041
0.1	0.84	0.035	1.03	0.41	0.052	1.95	0.87	0.052	1.295	0.225	0.034	1.71	0.31	0.042	2.125	0.395	0.040
0.1	0.85	0.034	1.03	0.42	0.055	1.95	0.88	0.051	1.295	0.23	0.034	1.71	0.315	0.043	2.125	0.4	0.043
0.1	0.86	0.035	1.03	0.43	0.054	1.95	0.89	0.047	1.295	0.235	0.036	1.71	0.32	0.046	2.125	0.405	0.046
0.1	0.87	0.036	1.03	0.44	0.053	1.96	0.01	0.075	1.295	0.24	0.037	1.71	0.325	0.047	2.125	0.41	0.047
0.1	0.88	0.038	1.03	0.45	0.051	1.96	0.02	0.079	1.295	0.245	0.037	1.71	0.33	0.044	2.125	0.415	0.047
0.1	0.89	0.039	1.03	0.46	0.049	1.96	0.03	0.081	1.295	0.25	0.038	1.71	0.335	0.040	2.125	0.42	0.044
0.11	0.01	0.040	1.03	0.47	0.047	1.96	0.04	0.080	1.295	0.255	0.039	1.71	0.34	0.037	2.125	0.425	0.040
0.11	0.02	0.051	1.03	0.48	0.046	1.96	0.05	0.077	1.295	0.26	0.040	1.71	0.345	0.035	2.125	0.43	0.038
0.11	0.03	0.061	1.03	0.49	0.046	1.96	0.06	0.071	1.295	0.265	0.040	1.71	0.35	0.035	2.125	0.435	0.041
0.11	0.04	0.068	1.03	0.5	0.045	1.96	0.07	0.068	1.295	0.27	0.040	1.71	0.355	0.039	2.125	0.44	0.048
0.11	0.05	0.069	1.03	0.51	0.043	1.96	0.08	0.069	1.295	0.275	0.040	1.71	0.36	0.046	2.125	0.445	0.054
0.11	0.06	0.065	1.03	0.52	0.043	1.96	0.09	0.071	1.295	0.28	0.043	1.71	0.365	0.053	2.125	0.45	0.057
0.11	0.07	0.056	1.03	0.53	0.045	1.96	0.1	0.070	1.295	0.285	0.044	1.71	0.37	0.056	2.125	0.455	0.058
0.11	0.08	0.048	1.03	0.54	0.048	1.96	0.11	0.068	1.295	0.29	0.045	1.71	0.375	0.056	2.125	0.46	0.060
0.11	0.09	0.042	1.03	0.55	0.049	1.96	0.12	0.066	1.295	0.295	0.046	1.71	0.38	0.056	2.125	0.465	0.065

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.11	0.1	0.040	1.03	0.56	0.048	1.96	0.13	0.064	1.295	0.3	0.047	1.71	0.385	0.055	2.125	0.47	0.070
0.11	0.11	0.042	1.03	0.57	0.046	1.96	0.14	0.062	1.295	0.305	0.047	1.71	0.39	0.056	2.125	0.475	0.071
0.11	0.12	0.047	1.03	0.58	0.044	1.96	0.15	0.061	1.295	0.31	0.046	1.71	0.395	0.056	2.125	0.48	0.071
0.11	0.13	0.049	1.03	0.59	0.042	1.96	0.16	0.060	1.295	0.315	0.045	1.71	0.4	0.055	2.125	0.485	0.070
0.11	0.14	0.049	1.03	0.6	0.041	1.96	0.17	0.057	1.295	0.32	0.047	1.71	0.405	0.052	2.125	0.49	0.068
0.11	0.15	0.047	1.03	0.61	0.043	1.96	0.18	0.054	1.295	0.325	0.049	1.71	0.41	0.046	2.125	0.495	0.067
0.11	0.16	0.047	1.03	0.62	0.045	1.96	0.19	0.053	1.295	0.33	0.052	1.71	0.415	0.041	2.13	0.005	0.044
0.11	0.17	0.048	1.03	0.63	0.047	1.96	0.2	0.054	1.295	0.335	0.052	1.71	0.42	0.038	2.13	0.01	0.053
0.11	0.18	0.048	1.03	0.64	0.048	1.96	0.21	0.056	1.295	0.34	0.052	1.71	0.425	0.039	2.13	0.015	0.060
0.11	0.19	0.045	1.03	0.65	0.049	1.96	0.22	0.056	1.295	0.345	0.051	1.71	0.43	0.043	2.13	0.02	0.066
0.11	0.2	0.043	1.03	0.66	0.049	1.96	0.23	0.057	1.295	0.35	0.048	1.71	0.435	0.047	2.13	0.025	0.071
0.11	0.21	0.044	1.03	0.67	0.047	1.96	0.24	0.057	1.295	0.355	0.047	1.71	0.44	0.048	2.13	0.03	0.074
0.11	0.22	0.045	1.03	0.68	0.045	1.96	0.25	0.057	1.295	0.36	0.049	1.71	0.445	0.048	2.13	0.035	0.073
0.11	0.23	0.046	1.03	0.69	0.044	1.96	0.26	0.055	1.295	0.365	0.051	1.71	0.45	0.047	2.13	0.04	0.069
0.11	0.24	0.047	1.03	0.7	0.044	1.96	0.27	0.053	1.295	0.37	0.051	1.71	0.455	0.045	2.13	0.045	0.061
0.11	0.25	0.048	1.03	0.71	0.044	1.96	0.28	0.050	1.295	0.375	0.050	1.71	0.46	0.043	2.13	0.05	0.051
0.11	0.26	0.049	1.03	0.72	0.044	1.96	0.29	0.047	1.295	0.38	0.048	1.71	0.465	0.044	2.13	0.055	0.047
0.11	0.27	0.049	1.03	0.73	0.045	1.96	0.3	0.045	1.295	0.385	0.045	1.71	0.47	0.048	2.13	0.06	0.048
0.11	0.28	0.049	1.03	0.74	0.046	1.96	0.31	0.043	1.295	0.39	0.042	1.71	0.475	0.053	2.13	0.065	0.051
0.11	0.29	0.051	1.03	0.75	0.047	1.96	0.32	0.042	1.295	0.395	0.045	1.71	0.48	0.056	2.13	0.07	0.052
0.11	0.3	0.053	1.03	0.76	0.048	1.96	0.33	0.043	1.295	0.4	0.048	1.71	0.485	0.059	2.13	0.075	0.053
0.11	0.31	0.053	1.03	0.77	0.046	1.96	0.34	0.042	1.295	0.405	0.050	1.71	0.49	0.061	2.13	0.08	0.054
0.11	0.32	0.051	1.03	0.78	0.042	1.96	0.35	0.041	1.295	0.41	0.050	1.71	0.495	0.061	2.13	0.085	0.052
0.11	0.33	0.048	1.03	0.79	0.040	1.96	0.36	0.041	1.295	0.415	0.048	1.715	0.005	0.052	2.13	0.09	0.047
0.11	0.34	0.046	1.03	0.8	0.040	1.96	0.37	0.042	1.295	0.42	0.045	1.715	0.01	0.062	2.13	0.095	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.11	0.35	0.043	1.03	0.81	0.042	1.96	0.38	0.043	1.295	0.425	0.043	1.715	0.015	0.072	2.13	0.1	0.036
0.11	0.36	0.041	1.03	0.82	0.043	1.96	0.39	0.046	1.295	0.43	0.040	1.715	0.02	0.082	2.13	0.105	0.036
0.11	0.37	0.040	1.03	0.83	0.042	1.96	0.4	0.047	1.295	0.435	0.038	1.715	0.025	0.088	2.13	0.11	0.037
0.11	0.38	0.041	1.03	0.84	0.040	1.96	0.41	0.047	1.295	0.44	0.036	1.715	0.03	0.083	2.13	0.115	0.040
0.11	0.39	0.043	1.03	0.85	0.037	1.96	0.42	0.046	1.295	0.445	0.035	1.715	0.035	0.068	2.13	0.12	0.044
0.11	0.4	0.045	1.03	0.86	0.036	1.96	0.43	0.045	1.295	0.45	0.036	1.715	0.04	0.055	2.13	0.125	0.048
0.11	0.41	0.044	1.03	0.87	0.036	1.96	0.44	0.045	1.295	0.455	0.042	1.715	0.045	0.051	2.13	0.13	0.050
0.11	0.42	0.044	1.03	0.88	0.039	1.96	0.45	0.048	1.295	0.46	0.047	1.715	0.05	0.054	2.13	0.135	0.049
0.11	0.43	0.045	1.03	0.89	0.042	1.96	0.46	0.051	1.295	0.465	0.048	1.715	0.055	0.055	2.13	0.14	0.046
0.11	0.44	0.047	1.04	0.01	0.032	1.96	0.47	0.051	1.295	0.47	0.046	1.715	0.06	0.055	2.13	0.145	0.042
0.11	0.45	0.048	1.04	0.02	0.033	1.96	0.48	0.049	1.295	0.475	0.044	1.715	0.065	0.056	2.13	0.15	0.040
0.11	0.46	0.046	1.04	0.03	0.033	1.96	0.49	0.050	1.295	0.48	0.045	1.715	0.07	0.063	2.13	0.155	0.040
0.11	0.47	0.044	1.04	0.04	0.033	1.96	0.5	0.053	1.295	0.485	0.048	1.715	0.075	0.072	2.13	0.16	0.039
0.11	0.48	0.042	1.04	0.05	0.034	1.96	0.51	0.055	1.295	0.49	0.050	1.715	0.08	0.075	2.13	0.165	0.038
0.11	0.49	0.041	1.04	0.06	0.035	1.96	0.52	0.057	1.295	0.495	0.051	1.715	0.085	0.074	2.13	0.17	0.036
0.11	0.5	0.039	1.04	0.07	0.037	1.96	0.53	0.059	1.3	0.005	0.032	1.715	0.09	0.074	2.13	0.175	0.035
0.11	0.51	0.037	1.04	0.08	0.038	1.96	0.54	0.060	1.3	0.01	0.033	1.715	0.095	0.079	2.13	0.18	0.034
0.11	0.52	0.036	1.04	0.09	0.037	1.96	0.55	0.061	1.3	0.015	0.033	1.715	0.1	0.085	2.13	0.185	0.033
0.11	0.53	0.037	1.04	0.1	0.037	1.96	0.56	0.059	1.3	0.02	0.033	1.715	0.105	0.082	2.13	0.19	0.033
0.11	0.54	0.037	1.04	0.11	0.037	1.96	0.57	0.056	1.3	0.025	0.034	1.715	0.11	0.072	2.13	0.195	0.033
0.11	0.55	0.037	1.04	0.12	0.037	1.96	0.58	0.055	1.3	0.03	0.034	1.715	0.115	0.061	2.13	0.2	0.034
0.11	0.56	0.037	1.04	0.13	0.037	1.96	0.59	0.057	1.3	0.035	0.034	1.715	0.12	0.054	2.13	0.205	0.037
0.11	0.57	0.037	1.04	0.14	0.037	1.96	0.6	0.058	1.3	0.04	0.034	1.715	0.125	0.051	2.13	0.21	0.040
0.11	0.58	0.038	1.04	0.15	0.037	1.96	0.61	0.057	1.3	0.045	0.035	1.715	0.13	0.055	2.13	0.215	0.041
0.11	0.59	0.041	1.04	0.16	0.036	1.96	0.62	0.056	1.3	0.05	0.034	1.715	0.135	0.058	2.13	0.22	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.11	0.6	0.044	1.04	0.17	0.035	1.96	0.63	0.055	1.3	0.055	0.033	1.715	0.14	0.057	2.13	0.225	0.038
0.11	0.61	0.048	1.04	0.18	0.035	1.96	0.64	0.057	1.3	0.06	0.032	1.715	0.145	0.053	2.13	0.23	0.038
0.11	0.62	0.050	1.04	0.19	0.035	1.96	0.65	0.059	1.3	0.065	0.032	1.715	0.15	0.054	2.13	0.235	0.040
0.11	0.63	0.051	1.04	0.2	0.036	1.96	0.66	0.063	1.3	0.07	0.033	1.715	0.155	0.061	2.13	0.24	0.045
0.11	0.64	0.050	1.04	0.21	0.037	1.96	0.67	0.065	1.3	0.075	0.037	1.715	0.16	0.064	2.13	0.245	0.048
0.11	0.65	0.047	1.04	0.22	0.039	1.96	0.68	0.065	1.3	0.08	0.042	1.715	0.165	0.062	2.13	0.25	0.051
0.11	0.66	0.043	1.04	0.23	0.040	1.96	0.69	0.063	1.3	0.085	0.044	1.715	0.17	0.058	2.13	0.255	0.053
0.11	0.67	0.040	1.04	0.24	0.041	1.96	0.7	0.061	1.3	0.09	0.044	1.715	0.175	0.052	2.13	0.26	0.054
0.11	0.68	0.041	1.04	0.25	0.040	1.96	0.71	0.060	1.3	0.095	0.041	1.715	0.18	0.050	2.13	0.265	0.053
0.11	0.69	0.043	1.04	0.26	0.039	1.96	0.72	0.058	1.3	0.1	0.037	1.715	0.185	0.048	2.13	0.27	0.050
0.11	0.7	0.043	1.04	0.27	0.038	1.96	0.73	0.054	1.3	0.105	0.034	1.715	0.19	0.044	2.13	0.275	0.046
0.11	0.71	0.042	1.04	0.28	0.039	1.96	0.74	0.050	1.3	0.11	0.033	1.715	0.195	0.046	2.13	0.28	0.045
0.11	0.72	0.039	1.04	0.29	0.041	1.96	0.75	0.048	1.3	0.115	0.034	1.715	0.2	0.051	2.13	0.285	0.044
0.11	0.73	0.037	1.04	0.3	0.044	1.96	0.76	0.047	1.3	0.12	0.038	1.715	0.205	0.057	2.13	0.29	0.043
0.11	0.74	0.037	1.04	0.31	0.047	1.96	0.77	0.046	1.3	0.125	0.042	1.715	0.21	0.063	2.13	0.295	0.039
0.11	0.75	0.039	1.04	0.32	0.049	1.96	0.78	0.046	1.3	0.13	0.044	1.715	0.215	0.066	2.13	0.3	0.035
0.11	0.76	0.040	1.04	0.33	0.051	1.96	0.79	0.048	1.3	0.135	0.042	1.715	0.22	0.066	2.13	0.305	0.035
0.11	0.77	0.041	1.04	0.34	0.051	1.96	0.8	0.052	1.3	0.14	0.042	1.715	0.225	0.061	2.13	0.31	0.034
0.11	0.78	0.040	1.04	0.35	0.050	1.96	0.81	0.054	1.3	0.145	0.047	1.715	0.23	0.055	2.13	0.315	0.033
0.11	0.79	0.040	1.04	0.36	0.049	1.96	0.82	0.055	1.3	0.15	0.052	1.715	0.235	0.051	2.13	0.32	0.034
0.11	0.8	0.040	1.04	0.37	0.048	1.96	0.83	0.055	1.3	0.155	0.054	1.715	0.24	0.049	2.13	0.325	0.036
0.11	0.81	0.039	1.04	0.38	0.047	1.96	0.84	0.054	1.3	0.16	0.052	1.715	0.245	0.049	2.13	0.33	0.038
0.11	0.82	0.039	1.04	0.39	0.046	1.96	0.85	0.052	1.3	0.165	0.049	1.715	0.25	0.051	2.13	0.335	0.036
0.11	0.83	0.037	1.04	0.4	0.046	1.96	0.86	0.051	1.3	0.17	0.043	1.715	0.255	0.054	2.13	0.34	0.034
0.11	0.84	0.035	1.04	0.41	0.049	1.96	0.87	0.051	1.3	0.175	0.037	1.715	0.26	0.056	2.13	0.345	0.033

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.11	0.85	0.035	1.04	0.42	0.051	1.96	0.88	0.050	1.3	0.18	0.036	1.715	0.265	0.058	2.13	0.35	0.035
0.11	0.86	0.037	1.04	0.43	0.052	1.96	0.89	0.047	1.3	0.185	0.037	1.715	0.27	0.058	2.13	0.355	0.041
0.11	0.87	0.039	1.04	0.44	0.051	1.97	0.01	0.076	1.3	0.19	0.039	1.715	0.275	0.054	2.13	0.36	0.045
0.11	0.88	0.041	1.04	0.45	0.049	1.97	0.02	0.078	1.3	0.195	0.042	1.715	0.28	0.050	2.13	0.365	0.047
0.11	0.89	0.042	1.04	0.46	0.047	1.97	0.03	0.079	1.3	0.2	0.045	1.715	0.285	0.050	2.13	0.37	0.046
0.12	0.01	0.040	1.04	0.47	0.047	1.97	0.04	0.078	1.3	0.205	0.046	1.715	0.29	0.050	2.13	0.375	0.043
0.12	0.02	0.050	1.04	0.48	0.049	1.97	0.05	0.076	1.3	0.21	0.046	1.715	0.295	0.049	2.13	0.38	0.041
0.12	0.03	0.060	1.04	0.49	0.049	1.97	0.06	0.073	1.3	0.215	0.043	1.715	0.3	0.048	2.13	0.385	0.040
0.12	0.04	0.067	1.04	0.5	0.048	1.97	0.07	0.072	1.3	0.22	0.037	1.715	0.305	0.044	2.13	0.39	0.039
0.12	0.05	0.068	1.04	0.51	0.046	1.97	0.08	0.073	1.3	0.225	0.034	1.715	0.31	0.041	2.13	0.395	0.039
0.12	0.06	0.063	1.04	0.52	0.045	1.97	0.09	0.073	1.3	0.23	0.035	1.715	0.315	0.043	2.13	0.4	0.041
0.12	0.07	0.055	1.04	0.53	0.046	1.97	0.1	0.071	1.3	0.235	0.037	1.715	0.32	0.045	2.13	0.405	0.043
0.12	0.08	0.047	1.04	0.54	0.048	1.97	0.11	0.068	1.3	0.24	0.039	1.715	0.325	0.046	2.13	0.41	0.044
0.12	0.09	0.043	1.04	0.55	0.049	1.97	0.12	0.064	1.3	0.245	0.039	1.715	0.33	0.044	2.13	0.415	0.042
0.12	0.1	0.042	1.04	0.56	0.049	1.97	0.13	0.061	1.3	0.25	0.039	1.715	0.335	0.040	2.13	0.42	0.039
0.12	0.11	0.042	1.04	0.57	0.047	1.97	0.14	0.059	1.3	0.255	0.041	1.715	0.34	0.037	2.13	0.425	0.037
0.12	0.12	0.044	1.04	0.58	0.045	1.97	0.15	0.058	1.3	0.26	0.043	1.715	0.345	0.036	2.13	0.43	0.038
0.12	0.13	0.046	1.04	0.59	0.044	1.97	0.16	0.057	1.3	0.265	0.042	1.715	0.35	0.038	2.13	0.435	0.041
0.12	0.14	0.045	1.04	0.6	0.043	1.97	0.17	0.054	1.3	0.27	0.039	1.715	0.355	0.041	2.13	0.44	0.045
0.12	0.15	0.043	1.04	0.61	0.044	1.97	0.18	0.050	1.3	0.275	0.039	1.715	0.36	0.047	2.13	0.445	0.048
0.12	0.16	0.044	1.04	0.62	0.046	1.97	0.19	0.048	1.3	0.28	0.043	1.715	0.365	0.053	2.13	0.45	0.051
0.12	0.17	0.046	1.04	0.63	0.048	1.97	0.2	0.051	1.3	0.285	0.047	1.715	0.37	0.056	2.13	0.455	0.052
0.12	0.18	0.046	1.04	0.64	0.050	1.97	0.21	0.053	1.3	0.29	0.048	1.715	0.375	0.056	2.13	0.46	0.054
0.12	0.19	0.044	1.04	0.65	0.052	1.97	0.22	0.055	1.3	0.295	0.047	1.715	0.38	0.056	2.13	0.465	0.058
0.12	0.2	0.041	1.04	0.66	0.052	1.97	0.23	0.055	1.3	0.3	0.044	1.715	0.385	0.056	2.13	0.47	0.064

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.12	0.21	0.041	1.04	0.67	0.050	1.97	0.24	0.055	1.3	0.305	0.043	1.715	0.39	0.056	2.13	0.475	0.067
0.12	0.22	0.042	1.04	0.68	0.048	1.97	0.25	0.055	1.3	0.31	0.041	1.715	0.395	0.055	2.13	0.48	0.068
0.12	0.23	0.044	1.04	0.69	0.046	1.97	0.26	0.054	1.3	0.315	0.043	1.715	0.4	0.052	2.13	0.485	0.067
0.12	0.24	0.045	1.04	0.7	0.046	1.97	0.27	0.052	1.3	0.32	0.047	1.715	0.405	0.047	2.13	0.49	0.065
0.12	0.25	0.047	1.04	0.71	0.045	1.97	0.28	0.049	1.3	0.325	0.051	1.715	0.41	0.042	2.13	0.495	0.062
0.12	0.26	0.047	1.04	0.72	0.045	1.97	0.29	0.048	1.3	0.33	0.053	1.715	0.415	0.039	2.135	0.005	0.047
0.12	0.27	0.046	1.04	0.73	0.045	1.97	0.3	0.047	1.3	0.335	0.053	1.715	0.42	0.037	2.135	0.01	0.056
0.12	0.28	0.047	1.04	0.74	0.045	1.97	0.31	0.045	1.3	0.34	0.053	1.715	0.425	0.039	2.135	0.015	0.062
0.12	0.29	0.049	1.04	0.75	0.047	1.97	0.32	0.044	1.3	0.345	0.052	1.715	0.43	0.043	2.135	0.02	0.065
0.12	0.3	0.052	1.04	0.76	0.048	1.97	0.33	0.043	1.3	0.35	0.050	1.715	0.435	0.044	2.135	0.025	0.066
0.12	0.31	0.054	1.04	0.77	0.046	1.97	0.34	0.043	1.3	0.355	0.050	1.715	0.44	0.045	2.135	0.03	0.065
0.12	0.32	0.052	1.04	0.78	0.043	1.97	0.35	0.042	1.3	0.36	0.052	1.715	0.445	0.045	2.135	0.035	0.061
0.12	0.33	0.048	1.04	0.79	0.040	1.97	0.36	0.042	1.3	0.365	0.052	1.715	0.45	0.048	2.135	0.04	0.056
0.12	0.34	0.045	1.04	0.8	0.039	1.97	0.37	0.043	1.3	0.37	0.052	1.715	0.455	0.047	2.135	0.045	0.051
0.12	0.35	0.042	1.04	0.81	0.040	1.97	0.38	0.044	1.3	0.375	0.052	1.715	0.46	0.046	2.135	0.05	0.046
0.12	0.36	0.040	1.04	0.82	0.040	1.97	0.39	0.045	1.3	0.38	0.050	1.715	0.465	0.046	2.135	0.055	0.043
0.12	0.37	0.041	1.04	0.83	0.039	1.97	0.4	0.046	1.3	0.385	0.046	1.715	0.47	0.048	2.135	0.06	0.046
0.12	0.38	0.042	1.04	0.84	0.038	1.97	0.41	0.047	1.3	0.39	0.040	1.715	0.475	0.052	2.135	0.065	0.049
0.12	0.39	0.044	1.04	0.85	0.036	1.97	0.42	0.046	1.3	0.395	0.039	1.715	0.48	0.056	2.135	0.07	0.051
0.12	0.4	0.044	1.04	0.86	0.035	1.97	0.43	0.045	1.3	0.4	0.042	1.715	0.485	0.059	2.135	0.075	0.052
0.12	0.41	0.043	1.04	0.87	0.036	1.97	0.44	0.045	1.3	0.405	0.044	1.715	0.49	0.060	2.135	0.08	0.053
0.12	0.42	0.042	1.04	0.88	0.037	1.97	0.45	0.048	1.3	0.41	0.045	1.715	0.495	0.059	2.135	0.085	0.052
0.12	0.43	0.043	1.04	0.89	0.040	1.97	0.46	0.051	1.3	0.415	0.046	1.72	0.005	0.054	2.135	0.09	0.048
0.12	0.44	0.045	1.05	0.01	0.032	1.97	0.47	0.052	1.3	0.42	0.047	1.72	0.01	0.063	2.135	0.095	0.043
0.12	0.45	0.046	1.05	0.02	0.032	1.97	0.48	0.050	1.3	0.425	0.047	1.72	0.015	0.072	2.135	0.1	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.12	0.46	0.044	1.05	0.03	0.033	1.97	0.49	0.048	1.3	0.43	0.046	1.72	0.02	0.081	2.135	0.105	0.038
0.12	0.47	0.042	1.05	0.04	0.033	1.97	0.5	0.049	1.3	0.435	0.041	1.72	0.025	0.086	2.135	0.11	0.039
0.12	0.48	0.040	1.05	0.05	0.034	1.97	0.51	0.050	1.3	0.44	0.036	1.72	0.03	0.082	2.135	0.115	0.042
0.12	0.49	0.039	1.05	0.06	0.035	1.97	0.52	0.052	1.3	0.445	0.034	1.72	0.035	0.069	2.135	0.12	0.046
0.12	0.5	0.038	1.05	0.07	0.036	1.97	0.53	0.054	1.3	0.45	0.034	1.72	0.04	0.056	2.135	0.125	0.049
0.12	0.51	0.037	1.05	0.08	0.038	1.97	0.54	0.057	1.3	0.455	0.038	1.72	0.045	0.052	2.135	0.13	0.050
0.12	0.52	0.037	1.05	0.09	0.037	1.97	0.55	0.057	1.3	0.46	0.043	1.72	0.05	0.053	2.135	0.135	0.048
0.12	0.53	0.037	1.05	0.1	0.037	1.97	0.56	0.056	1.3	0.465	0.045	1.72	0.055	0.053	2.135	0.14	0.044
0.12	0.54	0.037	1.05	0.11	0.036	1.97	0.57	0.055	1.3	0.47	0.044	1.72	0.06	0.053	2.135	0.145	0.038
0.12	0.55	0.037	1.05	0.12	0.036	1.97	0.58	0.056	1.3	0.475	0.042	1.72	0.065	0.055	2.135	0.15	0.036
0.12	0.56	0.037	1.05	0.13	0.035	1.97	0.59	0.059	1.3	0.48	0.044	1.72	0.07	0.063	2.135	0.155	0.036
0.12	0.57	0.038	1.05	0.14	0.035	1.97	0.6	0.061	1.3	0.485	0.047	1.72	0.075	0.072	2.135	0.16	0.038
0.12	0.58	0.038	1.05	0.15	0.036	1.97	0.61	0.061	1.3	0.49	0.049	1.72	0.08	0.076	2.135	0.165	0.039
0.12	0.59	0.040	1.05	0.16	0.036	1.97	0.62	0.058	1.3	0.495	0.049	1.72	0.085	0.075	2.135	0.17	0.037
0.12	0.6	0.043	1.05	0.17	0.035	1.97	0.63	0.056	1.305	0.005	0.033	1.72	0.09	0.074	2.135	0.175	0.035
0.12	0.61	0.046	1.05	0.18	0.035	1.97	0.64	0.057	1.305	0.01	0.033	1.72	0.095	0.074	2.135	0.18	0.035
0.12	0.62	0.048	1.05	0.19	0.035	1.97	0.65	0.059	1.305	0.015	0.033	1.72	0.1	0.075	2.135	0.185	0.034
0.12	0.63	0.049	1.05	0.2	0.036	1.97	0.66	0.062	1.305	0.02	0.033	1.72	0.105	0.071	2.135	0.19	0.033
0.12	0.64	0.047	1.05	0.21	0.037	1.97	0.67	0.065	1.305	0.025	0.033	1.72	0.11	0.063	2.135	0.195	0.033
0.12	0.65	0.045	1.05	0.22	0.038	1.97	0.68	0.065	1.305	0.03	0.034	1.72	0.115	0.056	2.135	0.2	0.034
0.12	0.66	0.042	1.05	0.23	0.040	1.97	0.69	0.062	1.305	0.035	0.034	1.72	0.12	0.051	2.135	0.205	0.036
0.12	0.67	0.040	1.05	0.24	0.041	1.97	0.7	0.058	1.305	0.04	0.035	1.72	0.125	0.052	2.135	0.21	0.038
0.12	0.68	0.040	1.05	0.25	0.042	1.97	0.71	0.055	1.305	0.045	0.035	1.72	0.13	0.057	2.135	0.215	0.039
0.12	0.69	0.041	1.05	0.26	0.040	1.97	0.72	0.053	1.305	0.05	0.035	1.72	0.135	0.061	2.135	0.22	0.039
0.12	0.7	0.041	1.05	0.27	0.039	1.97	0.73	0.052	1.305	0.055	0.034	1.72	0.14	0.061	2.135	0.225	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.12	0.71	0.040	1.05	0.28	0.039	1.97	0.74	0.050	1.305	0.06	0.033	1.72	0.145	0.059	2.135	0.23	0.037
0.12	0.72	0.039	1.05	0.29	0.040	1.97	0.75	0.049	1.305	0.065	0.033	1.72	0.15	0.059	2.135	0.235	0.041
0.12	0.73	0.037	1.05	0.3	0.043	1.97	0.76	0.049	1.305	0.07	0.034	1.72	0.155	0.063	2.135	0.24	0.046
0.12	0.74	0.037	1.05	0.31	0.047	1.97	0.77	0.048	1.305	0.075	0.036	1.72	0.16	0.066	2.135	0.245	0.049
0.12	0.75	0.038	1.05	0.32	0.049	1.97	0.78	0.046	1.305	0.08	0.040	1.72	0.165	0.066	2.135	0.25	0.052
0.12	0.76	0.040	1.05	0.33	0.050	1.97	0.79	0.049	1.305	0.085	0.042	1.72	0.17	0.063	2.135	0.255	0.054
0.12	0.77	0.040	1.05	0.34	0.051	1.97	0.8	0.053	1.305	0.09	0.042	1.72	0.175	0.056	2.135	0.26	0.056
0.12	0.78	0.039	1.05	0.35	0.051	1.97	0.81	0.056	1.305	0.095	0.039	1.72	0.18	0.051	2.135	0.265	0.058
0.12	0.79	0.039	1.05	0.36	0.051	1.97	0.82	0.056	1.305	0.1	0.036	1.72	0.185	0.048	2.135	0.27	0.057
0.12	0.8	0.038	1.05	0.37	0.050	1.97	0.83	0.054	1.305	0.105	0.033	1.72	0.19	0.043	2.135	0.275	0.053
0.12	0.81	0.037	1.05	0.38	0.049	1.97	0.84	0.052	1.305	0.11	0.033	1.72	0.195	0.044	2.135	0.28	0.048
0.12	0.82	0.036	1.05	0.39	0.047	1.97	0.85	0.050	1.305	0.115	0.034	1.72	0.2	0.052	2.135	0.285	0.045
0.12	0.83	0.036	1.05	0.4	0.045	1.97	0.86	0.050	1.305	0.12	0.036	1.72	0.205	0.059	2.135	0.29	0.041
0.12	0.84	0.036	1.05	0.41	0.045	1.97	0.87	0.049	1.305	0.125	0.037	1.72	0.21	0.064	2.135	0.295	0.037
0.12	0.85	0.038	1.05	0.42	0.048	1.97	0.88	0.049	1.305	0.13	0.040	1.72	0.215	0.067	2.135	0.3	0.034
0.12	0.86	0.040	1.05	0.43	0.050	1.97	0.89	0.049	1.305	0.135	0.042	1.72	0.22	0.065	2.135	0.305	0.033
0.12	0.87	0.043	1.05	0.44	0.049	1.98	0.01	0.074	1.305	0.14	0.045	1.72	0.225	0.058	2.135	0.31	0.033
0.12	0.88	0.046	1.05	0.45	0.047	1.98	0.02	0.075	1.305	0.145	0.051	1.72	0.23	0.050	2.135	0.315	0.032
0.12	0.89	0.047	1.05	0.46	0.046	1.98	0.03	0.074	1.305	0.15	0.054	1.72	0.235	0.046	2.135	0.32	0.033
0.13	0.01	0.042	1.05	0.47	0.047	1.98	0.04	0.073	1.305	0.155	0.054	1.72	0.24	0.045	2.135	0.325	0.034
0.13	0.02	0.051	1.05	0.48	0.049	1.98	0.05	0.072	1.305	0.16	0.052	1.72	0.245	0.047	2.135	0.33	0.034
0.13	0.03	0.059	1.05	0.49	0.050	1.98	0.06	0.074	1.305	0.165	0.050	1.72	0.25	0.051	2.135	0.335	0.033
0.13	0.04	0.063	1.05	0.5	0.049	1.98	0.07	0.076	1.305	0.17	0.044	1.72	0.255	0.054	2.135	0.34	0.032
0.13	0.05	0.063	1.05	0.51	0.047	1.98	0.08	0.077	1.305	0.175	0.038	1.72	0.26	0.057	2.135	0.345	0.034
0.13	0.06	0.057	1.05	0.52	0.046	1.98	0.09	0.077	1.305	0.18	0.037	1.72	0.265	0.059	2.135	0.35	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.13	0.07	0.051	1.05	0.53	0.046	1.98	0.1	0.073	1.305	0.185	0.041	1.72	0.27	0.060	2.135	0.355	0.045
0.13	0.08	0.047	1.05	0.54	0.047	1.98	0.11	0.068	1.305	0.19	0.044	1.72	0.275	0.059	2.135	0.36	0.049
0.13	0.09	0.046	1.05	0.55	0.048	1.98	0.12	0.063	1.305	0.195	0.047	1.72	0.28	0.055	2.135	0.365	0.049
0.13	0.1	0.045	1.05	0.56	0.048	1.98	0.13	0.059	1.305	0.2	0.049	1.72	0.285	0.053	2.135	0.37	0.046
0.13	0.11	0.043	1.05	0.57	0.047	1.98	0.14	0.057	1.305	0.205	0.050	1.72	0.29	0.053	2.135	0.375	0.042
0.13	0.12	0.042	1.05	0.58	0.046	1.98	0.15	0.057	1.305	0.21	0.050	1.72	0.295	0.049	2.135	0.38	0.039
0.13	0.13	0.042	1.05	0.59	0.045	1.98	0.16	0.057	1.305	0.215	0.047	1.72	0.3	0.046	2.135	0.385	0.038
0.13	0.14	0.041	1.05	0.6	0.046	1.98	0.17	0.054	1.305	0.22	0.039	1.72	0.305	0.042	2.135	0.39	0.039
0.13	0.15	0.040	1.05	0.61	0.047	1.98	0.18	0.050	1.305	0.225	0.036	1.72	0.31	0.040	2.135	0.395	0.042
0.13	0.16	0.041	1.05	0.62	0.048	1.98	0.19	0.047	1.305	0.23	0.037	1.72	0.315	0.043	2.135	0.4	0.044
0.13	0.17	0.043	1.05	0.63	0.049	1.98	0.2	0.047	1.305	0.235	0.038	1.72	0.32	0.046	2.135	0.405	0.045
0.13	0.18	0.044	1.05	0.64	0.051	1.98	0.21	0.050	1.305	0.24	0.040	1.72	0.325	0.047	2.135	0.41	0.043
0.13	0.19	0.044	1.05	0.65	0.053	1.98	0.22	0.053	1.305	0.245	0.040	1.72	0.33	0.046	2.135	0.415	0.040
0.13	0.2	0.042	1.05	0.66	0.054	1.98	0.23	0.053	1.305	0.25	0.039	1.72	0.335	0.043	2.135	0.42	0.036
0.13	0.21	0.040	1.05	0.67	0.052	1.98	0.24	0.051	1.305	0.255	0.041	1.72	0.34	0.040	2.135	0.425	0.036
0.13	0.22	0.040	1.05	0.68	0.050	1.98	0.25	0.050	1.305	0.26	0.043	1.72	0.345	0.038	2.135	0.43	0.039
0.13	0.23	0.041	1.05	0.69	0.048	1.98	0.26	0.050	1.305	0.265	0.043	1.72	0.35	0.039	2.135	0.435	0.042
0.13	0.24	0.044	1.05	0.7	0.047	1.98	0.27	0.049	1.305	0.27	0.040	1.72	0.355	0.041	2.135	0.44	0.042
0.13	0.25	0.046	1.05	0.71	0.048	1.98	0.28	0.048	1.305	0.275	0.039	1.72	0.36	0.045	2.135	0.445	0.041
0.13	0.26	0.046	1.05	0.72	0.048	1.98	0.29	0.048	1.305	0.28	0.042	1.72	0.365	0.051	2.135	0.45	0.042
0.13	0.27	0.044	1.05	0.73	0.047	1.98	0.3	0.048	1.305	0.285	0.048	1.72	0.37	0.055	2.135	0.455	0.045
0.13	0.28	0.044	1.05	0.74	0.046	1.98	0.31	0.047	1.305	0.29	0.050	1.72	0.375	0.056	2.135	0.46	0.046
0.13	0.29	0.046	1.05	0.75	0.046	1.98	0.32	0.045	1.305	0.295	0.050	1.72	0.38	0.056	2.135	0.465	0.048
0.13	0.3	0.050	1.05	0.76	0.046	1.98	0.33	0.043	1.305	0.3	0.046	1.72	0.385	0.055	2.135	0.47	0.051
0.13	0.31	0.052	1.05	0.77	0.045	1.98	0.34	0.042	1.305	0.305	0.042	1.72	0.39	0.054	2.135	0.475	0.055

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.13	0.32	0.051	1.05	0.78	0.042	1.98	0.35	0.043	1.305	0.31	0.039	1.72	0.395	0.052	2.135	0.48	0.057
0.13	0.33	0.047	1.05	0.79	0.040	1.98	0.36	0.043	1.305	0.315	0.041	1.72	0.4	0.048	2.135	0.485	0.057
0.13	0.34	0.043	1.05	0.8	0.038	1.98	0.37	0.043	1.305	0.32	0.046	1.72	0.405	0.043	2.135	0.49	0.056
0.13	0.35	0.040	1.05	0.81	0.037	1.98	0.38	0.044	1.305	0.325	0.050	1.72	0.41	0.041	2.135	0.495	0.053
0.13	0.36	0.039	1.05	0.82	0.037	1.98	0.39	0.045	1.305	0.33	0.051	1.72	0.415	0.039	2.14	0.005	0.049
0.13	0.37	0.040	1.05	0.83	0.037	1.98	0.4	0.045	1.305	0.335	0.051	1.72	0.42	0.040	2.14	0.01	0.058
0.13	0.38	0.043	1.05	0.84	0.036	1.98	0.41	0.046	1.305	0.34	0.050	1.72	0.425	0.043	2.14	0.015	0.064
0.13	0.39	0.044	1.05	0.85	0.035	1.98	0.42	0.046	1.305	0.345	0.051	1.72	0.43	0.046	2.14	0.02	0.067
0.13	0.4	0.044	1.05	0.86	0.034	1.98	0.43	0.045	1.305	0.35	0.052	1.72	0.435	0.046	2.14	0.025	0.066
0.13	0.41	0.043	1.05	0.87	0.035	1.98	0.44	0.045	1.305	0.355	0.052	1.72	0.44	0.045	2.14	0.03	0.061
0.13	0.42	0.042	1.05	0.88	0.036	1.98	0.45	0.047	1.305	0.36	0.052	1.72	0.445	0.046	2.14	0.035	0.053
0.13	0.43	0.043	1.05	0.89	0.037	1.98	0.46	0.050	1.305	0.365	0.051	1.72	0.45	0.050	2.14	0.04	0.049
0.13	0.44	0.045	1.06	0.01	0.032	1.98	0.47	0.052	1.305	0.37	0.050	1.72	0.455	0.052	2.14	0.045	0.047
0.13	0.45	0.045	1.06	0.02	0.032	1.98	0.48	0.050	1.305	0.375	0.050	1.72	0.46	0.050	2.14	0.05	0.046
0.13	0.46	0.042	1.06	0.03	0.033	1.98	0.49	0.047	1.305	0.38	0.048	1.72	0.465	0.049	2.14	0.055	0.044
0.13	0.47	0.040	1.06	0.04	0.033	1.98	0.5	0.046	1.305	0.385	0.043	1.72	0.47	0.048	2.14	0.06	0.044
0.13	0.48	0.038	1.06	0.05	0.033	1.98	0.51	0.047	1.305	0.39	0.038	1.72	0.475	0.050	2.14	0.065	0.046
0.13	0.49	0.037	1.06	0.06	0.035	1.98	0.52	0.049	1.305	0.395	0.038	1.72	0.48	0.054	2.14	0.07	0.049
0.13	0.5	0.037	1.06	0.07	0.036	1.98	0.53	0.051	1.305	0.4	0.039	1.72	0.485	0.056	2.14	0.075	0.050
0.13	0.51	0.037	1.06	0.08	0.037	1.98	0.54	0.052	1.305	0.405	0.040	1.72	0.49	0.056	2.14	0.08	0.052
0.13	0.52	0.036	1.06	0.09	0.037	1.98	0.55	0.052	1.305	0.41	0.041	1.72	0.495	0.053	2.14	0.085	0.052
0.13	0.53	0.036	1.06	0.1	0.037	1.98	0.56	0.052	1.305	0.415	0.044	1.725	0.005	0.054	2.14	0.09	0.050
0.13	0.54	0.036	1.06	0.11	0.036	1.98	0.57	0.054	1.305	0.42	0.048	1.725	0.01	0.063	2.14	0.095	0.048
0.13	0.55	0.036	1.06	0.12	0.036	1.98	0.58	0.057	1.305	0.425	0.050	1.725	0.015	0.072	2.14	0.1	0.045
0.13	0.56	0.036	1.06	0.13	0.035	1.98	0.59	0.060	1.305	0.43	0.050	1.725	0.02	0.081	2.14	0.105	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.13	0.57	0.037	1.06	0.14	0.035	1.98	0.6	0.063	1.305	0.435	0.047	1.725	0.025	0.085	2.14	0.11	0.042
0.13	0.58	0.038	1.06	0.15	0.035	1.98	0.61	0.063	1.305	0.44	0.042	1.725	0.03	0.082	2.14	0.115	0.044
0.13	0.59	0.040	1.06	0.16	0.036	1.98	0.62	0.060	1.305	0.445	0.037	1.725	0.035	0.070	2.14	0.12	0.048
0.13	0.6	0.042	1.06	0.17	0.036	1.98	0.63	0.057	1.305	0.45	0.035	1.725	0.04	0.056	2.14	0.125	0.049
0.13	0.61	0.045	1.06	0.18	0.036	1.98	0.64	0.057	1.305	0.455	0.037	1.725	0.045	0.051	2.14	0.13	0.049
0.13	0.62	0.046	1.06	0.19	0.035	1.98	0.65	0.061	1.305	0.46	0.040	1.725	0.05	0.052	2.14	0.135	0.046
0.13	0.63	0.046	1.06	0.2	0.035	1.98	0.66	0.065	1.305	0.465	0.042	1.725	0.055	0.052	2.14	0.14	0.041
0.13	0.64	0.044	1.06	0.21	0.037	1.98	0.67	0.067	1.305	0.47	0.042	1.725	0.06	0.051	2.14	0.145	0.036
0.13	0.65	0.042	1.06	0.22	0.038	1.98	0.68	0.066	1.305	0.475	0.043	1.725	0.065	0.053	2.14	0.15	0.033
0.13	0.66	0.041	1.06	0.23	0.040	1.98	0.69	0.062	1.305	0.48	0.044	1.725	0.07	0.061	2.14	0.155	0.033
0.13	0.67	0.040	1.06	0.24	0.043	1.98	0.7	0.056	1.305	0.485	0.045	1.725	0.075	0.071	2.14	0.16	0.036
0.13	0.68	0.041	1.06	0.25	0.044	1.98	0.71	0.052	1.305	0.49	0.045	1.725	0.08	0.076	2.14	0.165	0.038
0.13	0.69	0.040	1.06	0.26	0.043	1.98	0.72	0.049	1.305	0.495	0.044	1.725	0.085	0.076	2.14	0.17	0.037
0.13	0.7	0.039	1.06	0.27	0.041	1.98	0.73	0.049	1.31	0.005	0.034	1.725	0.09	0.074	2.14	0.175	0.035
0.13	0.71	0.040	1.06	0.28	0.040	1.98	0.74	0.049	1.31	0.01	0.033	1.725	0.095	0.071	2.14	0.18	0.036
0.13	0.72	0.039	1.06	0.29	0.040	1.98	0.75	0.050	1.31	0.015	0.033	1.725	0.1	0.066	2.14	0.185	0.036
0.13	0.73	0.039	1.06	0.3	0.042	1.98	0.76	0.051	1.31	0.02	0.032	1.725	0.105	0.061	2.14	0.19	0.034
0.13	0.74	0.038	1.06	0.31	0.046	1.98	0.77	0.049	1.31	0.025	0.032	1.725	0.11	0.055	2.14	0.195	0.033
0.13	0.75	0.039	1.06	0.32	0.049	1.98	0.78	0.048	1.31	0.03	0.033	1.725	0.115	0.051	2.14	0.2	0.033
0.13	0.76	0.040	1.06	0.33	0.051	1.98	0.79	0.050	1.31	0.035	0.034	1.725	0.12	0.051	2.14	0.205	0.034
0.13	0.77	0.040	1.06	0.34	0.052	1.98	0.8	0.054	1.31	0.04	0.035	1.725	0.125	0.055	2.14	0.21	0.036
0.13	0.78	0.039	1.06	0.35	0.053	1.98	0.81	0.056	1.31	0.045	0.035	1.725	0.13	0.059	2.14	0.215	0.037
0.13	0.79	0.038	1.06	0.36	0.053	1.98	0.82	0.054	1.31	0.05	0.035	1.725	0.135	0.062	2.14	0.22	0.037
0.13	0.8	0.037	1.06	0.37	0.051	1.98	0.83	0.050	1.31	0.055	0.035	1.725	0.14	0.063	2.14	0.225	0.036
0.13	0.81	0.036	1.06	0.38	0.049	1.98	0.84	0.047	1.31	0.06	0.035	1.725	0.145	0.062	2.14	0.23	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.13	0.82	0.035	1.06	0.39	0.048	1.98	0.85	0.046	1.31	0.065	0.034	1.725	0.15	0.062	2.14	0.235	0.042
0.13	0.83	0.036	1.06	0.4	0.046	1.98	0.86	0.047	1.31	0.07	0.034	1.725	0.155	0.065	2.14	0.24	0.047
0.13	0.84	0.037	1.06	0.41	0.045	1.98	0.87	0.049	1.31	0.075	0.035	1.725	0.16	0.068	2.14	0.245	0.050
0.13	0.85	0.040	1.06	0.42	0.046	1.98	0.88	0.050	1.31	0.08	0.037	1.725	0.165	0.069	2.14	0.25	0.053
0.13	0.86	0.043	1.06	0.43	0.048	1.98	0.89	0.052	1.31	0.085	0.039	1.725	0.17	0.067	2.14	0.255	0.055
0.13	0.87	0.045	1.06	0.44	0.048	1.99	0.01	0.072	1.31	0.09	0.039	1.725	0.175	0.060	2.14	0.26	0.057
0.13	0.88	0.049	1.06	0.45	0.047	1.99	0.02	0.071	1.31	0.095	0.038	1.725	0.18	0.052	2.14	0.265	0.059
0.13	0.89	0.052	1.06	0.46	0.046	1.99	0.03	0.069	1.31	0.1	0.035	1.725	0.185	0.046	2.14	0.27	0.060
0.14	0.01	0.045	1.06	0.47	0.046	1.99	0.04	0.068	1.31	0.105	0.033	1.725	0.19	0.041	2.14	0.275	0.059
0.14	0.02	0.052	1.06	0.48	0.047	1.99	0.05	0.069	1.31	0.11	0.033	1.725	0.195	0.041	2.14	0.28	0.053
0.14	0.03	0.058	1.06	0.49	0.048	1.99	0.06	0.074	1.31	0.115	0.034	1.725	0.2	0.049	2.14	0.285	0.047
0.14	0.04	0.060	1.06	0.5	0.048	1.99	0.07	0.078	1.31	0.12	0.034	1.725	0.205	0.056	2.14	0.29	0.041
0.14	0.05	0.057	1.06	0.51	0.046	1.99	0.08	0.080	1.31	0.125	0.035	1.725	0.21	0.062	2.14	0.295	0.037
0.14	0.06	0.051	1.06	0.52	0.045	1.99	0.09	0.079	1.31	0.13	0.037	1.725	0.215	0.064	2.14	0.3	0.034
0.14	0.07	0.048	1.06	0.53	0.045	1.99	0.1	0.074	1.31	0.135	0.041	1.725	0.22	0.060	2.14	0.305	0.033
0.14	0.08	0.048	1.06	0.54	0.045	1.99	0.11	0.068	1.31	0.14	0.048	1.725	0.225	0.052	2.14	0.31	0.032
0.14	0.09	0.050	1.06	0.55	0.044	1.99	0.12	0.062	1.31	0.145	0.053	1.725	0.23	0.044	2.14	0.315	0.033
0.14	0.1	0.049	1.06	0.56	0.045	1.99	0.13	0.059	1.31	0.15	0.054	1.725	0.235	0.040	2.14	0.32	0.033
0.14	0.11	0.045	1.06	0.57	0.045	1.99	0.14	0.058	1.31	0.155	0.053	1.725	0.24	0.039	2.14	0.325	0.033
0.14	0.12	0.042	1.06	0.58	0.045	1.99	0.15	0.059	1.31	0.16	0.051	1.725	0.245	0.041	2.14	0.33	0.033
0.14	0.13	0.040	1.06	0.59	0.046	1.99	0.16	0.060	1.31	0.165	0.049	1.725	0.25	0.048	2.14	0.335	0.033
0.14	0.14	0.039	1.06	0.6	0.048	1.99	0.17	0.058	1.31	0.17	0.045	1.725	0.255	0.053	2.14	0.34	0.034
0.14	0.15	0.039	1.06	0.61	0.050	1.99	0.18	0.053	1.31	0.175	0.042	1.725	0.26	0.056	2.14	0.345	0.037
0.14	0.16	0.041	1.06	0.62	0.051	1.99	0.19	0.048	1.31	0.18	0.043	1.725	0.265	0.058	2.14	0.35	0.044
0.14	0.17	0.043	1.06	0.63	0.051	1.99	0.2	0.046	1.31	0.185	0.046	1.725	0.27	0.060	2.14	0.355	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.14	0.18	0.045	1.06	0.64	0.052	1.99	0.21	0.048	1.31	0.19	0.049	1.725	0.275	0.059	2.14	0.36	0.051
0.14	0.19	0.045	1.06	0.65	0.053	1.99	0.22	0.050	1.31	0.195	0.051	1.725	0.28	0.056	2.14	0.365	0.049
0.14	0.2	0.044	1.06	0.66	0.054	1.99	0.23	0.050	1.31	0.2	0.052	1.725	0.285	0.053	2.14	0.37	0.045
0.14	0.21	0.041	1.06	0.67	0.053	1.99	0.24	0.048	1.31	0.205	0.053	1.725	0.29	0.053	2.14	0.375	0.041
0.14	0.22	0.040	1.06	0.68	0.051	1.99	0.25	0.047	1.31	0.21	0.053	1.725	0.295	0.049	2.14	0.38	0.039
0.14	0.23	0.040	1.06	0.69	0.049	1.99	0.26	0.046	1.31	0.215	0.048	1.725	0.3	0.042	2.14	0.385	0.038
0.14	0.24	0.042	1.06	0.7	0.049	1.99	0.27	0.046	1.31	0.22	0.041	1.725	0.305	0.039	2.14	0.39	0.040
0.14	0.25	0.043	1.06	0.71	0.049	1.99	0.28	0.046	1.31	0.225	0.036	1.725	0.31	0.037	2.14	0.395	0.044
0.14	0.26	0.043	1.06	0.72	0.048	1.99	0.29	0.046	1.31	0.23	0.036	1.725	0.315	0.040	2.14	0.4	0.047
0.14	0.27	0.042	1.06	0.73	0.047	1.99	0.3	0.047	1.31	0.235	0.039	1.725	0.32	0.045	2.14	0.405	0.047
0.14	0.28	0.041	1.06	0.74	0.046	1.99	0.31	0.047	1.31	0.24	0.040	1.725	0.325	0.048	2.14	0.41	0.045
0.14	0.29	0.042	1.06	0.75	0.046	1.99	0.32	0.045	1.31	0.245	0.040	1.725	0.33	0.048	2.14	0.415	0.041
0.14	0.3	0.046	1.06	0.76	0.045	1.99	0.33	0.043	1.31	0.25	0.040	1.725	0.335	0.046	2.14	0.42	0.037
0.14	0.31	0.048	1.06	0.77	0.043	1.99	0.34	0.042	1.31	0.255	0.040	1.725	0.34	0.044	2.14	0.425	0.038
0.14	0.32	0.048	1.06	0.78	0.041	1.99	0.35	0.043	1.31	0.26	0.042	1.725	0.345	0.043	2.14	0.43	0.041
0.14	0.33	0.046	1.06	0.79	0.039	1.99	0.36	0.044	1.31	0.265	0.042	1.725	0.35	0.041	2.14	0.435	0.044
0.14	0.34	0.041	1.06	0.8	0.037	1.99	0.37	0.044	1.31	0.27	0.040	1.725	0.355	0.041	2.14	0.44	0.043
0.14	0.35	0.038	1.06	0.81	0.036	1.99	0.38	0.045	1.31	0.275	0.040	1.725	0.36	0.042	2.14	0.445	0.039
0.14	0.36	0.037	1.06	0.82	0.035	1.99	0.39	0.045	1.31	0.28	0.043	1.725	0.365	0.046	2.14	0.45	0.037
0.14	0.37	0.039	1.06	0.83	0.035	1.99	0.4	0.045	1.31	0.285	0.047	1.725	0.37	0.050	2.14	0.455	0.038
0.14	0.38	0.042	1.06	0.84	0.035	1.99	0.41	0.045	1.31	0.29	0.050	1.725	0.375	0.052	2.14	0.46	0.040
0.14	0.39	0.044	1.06	0.85	0.035	1.99	0.42	0.045	1.31	0.295	0.050	1.725	0.38	0.052	2.14	0.465	0.041
0.14	0.4	0.045	1.06	0.86	0.034	1.99	0.43	0.044	1.31	0.3	0.048	1.725	0.385	0.051	2.14	0.47	0.041
0.14	0.41	0.044	1.06	0.87	0.034	1.99	0.44	0.044	1.31	0.305	0.044	1.725	0.39	0.050	2.14	0.475	0.043
0.14	0.42	0.043	1.06	0.88	0.035	1.99	0.45	0.045	1.31	0.31	0.041	1.725	0.395	0.049	2.14	0.48	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.14	0.43	0.044	1.06	0.89	0.036	1.99	0.46	0.048	1.31	0.315	0.041	1.725	0.4	0.046	2.14	0.485	0.045
0.14	0.44	0.045	1.07	0.01	0.032	1.99	0.47	0.049	1.31	0.32	0.043	1.725	0.405	0.044	2.14	0.49	0.047
0.14	0.45	0.043	1.07	0.02	0.032	1.99	0.48	0.048	1.31	0.325	0.046	1.725	0.41	0.042	2.14	0.495	0.046
0.14	0.46	0.041	1.07	0.03	0.033	1.99	0.49	0.047	1.31	0.33	0.047	1.725	0.415	0.042	2.145	0.005	0.050
0.14	0.47	0.038	1.07	0.04	0.033	1.99	0.5	0.046	1.31	0.335	0.046	1.725	0.42	0.044	2.145	0.01	0.059
0.14	0.48	0.037	1.07	0.05	0.033	1.99	0.51	0.047	1.31	0.34	0.046	1.725	0.425	0.048	2.145	0.015	0.065
0.14	0.49	0.037	1.07	0.06	0.034	1.99	0.52	0.048	1.31	0.345	0.049	1.725	0.43	0.049	2.145	0.02	0.068
0.14	0.5	0.037	1.07	0.07	0.035	1.99	0.53	0.049	1.31	0.35	0.053	1.725	0.435	0.048	2.145	0.025	0.066
0.14	0.51	0.037	1.07	0.08	0.036	1.99	0.54	0.048	1.31	0.355	0.053	1.725	0.44	0.046	2.145	0.03	0.060
0.14	0.52	0.036	1.07	0.09	0.037	1.99	0.55	0.048	1.31	0.36	0.051	1.725	0.445	0.047	2.145	0.035	0.051
0.14	0.53	0.035	1.07	0.1	0.038	1.99	0.56	0.050	1.31	0.365	0.049	1.725	0.45	0.053	2.145	0.04	0.047
0.14	0.54	0.034	1.07	0.11	0.038	1.99	0.57	0.055	1.31	0.37	0.046	1.725	0.455	0.056	2.145	0.045	0.047
0.14	0.55	0.034	1.07	0.12	0.037	1.99	0.58	0.059	1.31	0.375	0.044	1.725	0.46	0.055	2.145	0.05	0.047
0.14	0.56	0.035	1.07	0.13	0.037	1.99	0.59	0.061	1.31	0.38	0.042	1.725	0.465	0.052	2.145	0.055	0.045
0.14	0.57	0.036	1.07	0.14	0.036	1.99	0.6	0.062	1.31	0.385	0.039	1.725	0.47	0.051	2.145	0.06	0.043
0.14	0.58	0.037	1.07	0.15	0.036	1.99	0.61	0.062	1.31	0.39	0.037	1.725	0.475	0.050	2.145	0.065	0.044
0.14	0.59	0.039	1.07	0.16	0.036	1.99	0.62	0.060	1.31	0.395	0.040	1.725	0.48	0.051	2.145	0.07	0.048
0.14	0.6	0.040	1.07	0.17	0.037	1.99	0.63	0.057	1.31	0.4	0.042	1.725	0.485	0.052	2.145	0.075	0.052
0.14	0.61	0.042	1.07	0.18	0.036	1.99	0.64	0.057	1.31	0.405	0.042	1.725	0.49	0.050	2.145	0.08	0.053
0.14	0.62	0.043	1.07	0.19	0.035	1.99	0.65	0.062	1.31	0.41	0.041	1.725	0.495	0.046	2.145	0.085	0.054
0.14	0.63	0.043	1.07	0.2	0.035	1.99	0.66	0.066	1.31	0.415	0.044	1.73	0.005	0.053	2.145	0.09	0.053
0.14	0.64	0.042	1.07	0.21	0.036	1.99	0.67	0.068	1.31	0.42	0.048	1.73	0.01	0.062	2.145	0.095	0.051
0.14	0.65	0.041	1.07	0.22	0.038	1.99	0.68	0.067	1.31	0.425	0.051	1.73	0.015	0.072	2.145	0.1	0.049
0.14	0.66	0.040	1.07	0.23	0.042	1.99	0.69	0.061	1.31	0.43	0.052	1.73	0.02	0.080	2.145	0.105	0.045
0.14	0.67	0.041	1.07	0.24	0.045	1.99	0.7	0.054	1.31	0.435	0.051	1.73	0.025	0.084	2.145	0.11	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.14	0.68	0.041	1.07	0.25	0.047	1.99	0.71	0.049	1.31	0.44	0.047	1.73	0.03	0.081	2.145	0.115	0.045
0.14	0.69	0.040	1.07	0.26	0.047	1.99	0.72	0.047	1.31	0.445	0.041	1.73	0.035	0.068	2.145	0.12	0.048
0.14	0.7	0.039	1.07	0.27	0.045	1.99	0.73	0.047	1.31	0.45	0.038	1.73	0.04	0.055	2.145	0.125	0.048
0.14	0.71	0.039	1.07	0.28	0.042	1.99	0.74	0.049	1.31	0.455	0.038	1.73	0.045	0.050	2.145	0.13	0.047
0.14	0.72	0.040	1.07	0.29	0.041	1.99	0.75	0.052	1.31	0.46	0.040	1.73	0.05	0.053	2.145	0.135	0.044
0.14	0.73	0.040	1.07	0.3	0.043	1.99	0.76	0.053	1.31	0.465	0.042	1.73	0.055	0.053	2.145	0.14	0.039
0.14	0.74	0.040	1.07	0.31	0.046	1.99	0.77	0.052	1.31	0.47	0.047	1.73	0.06	0.052	2.145	0.145	0.034
0.14	0.75	0.040	1.07	0.32	0.050	1.99	0.78	0.051	1.31	0.475	0.049	1.73	0.065	0.052	2.145	0.15	0.031
0.14	0.76	0.040	1.07	0.33	0.052	1.99	0.79	0.053	1.31	0.48	0.048	1.73	0.07	0.060	2.145	0.155	0.031
0.14	0.77	0.040	1.07	0.34	0.054	1.99	0.8	0.055	1.31	0.485	0.044	1.73	0.075	0.069	2.145	0.16	0.034
0.14	0.78	0.040	1.07	0.35	0.055	1.99	0.81	0.055	1.31	0.49	0.041	1.73	0.08	0.074	2.145	0.165	0.036
0.14	0.79	0.038	1.07	0.36	0.054	1.99	0.82	0.052	1.31	0.495	0.039	1.73	0.085	0.075	2.145	0.17	0.036
0.14	0.8	0.037	1.07	0.37	0.051	1.99	0.83	0.046	1.315	0.005	0.035	1.73	0.09	0.073	2.145	0.175	0.035
0.14	0.81	0.036	1.07	0.38	0.050	1.99	0.84	0.043	1.315	0.01	0.034	1.73	0.095	0.070	2.145	0.18	0.036
0.14	0.82	0.036	1.07	0.39	0.051	1.99	0.85	0.042	1.315	0.015	0.033	1.73	0.1	0.063	2.145	0.185	0.037
0.14	0.83	0.036	1.07	0.4	0.049	1.99	0.86	0.044	1.315	0.02	0.033	1.73	0.105	0.054	2.145	0.19	0.036
0.14	0.84	0.038	1.07	0.41	0.047	1.99	0.87	0.048	1.315	0.025	0.032	1.73	0.11	0.049	2.145	0.195	0.033
0.14	0.85	0.040	1.07	0.42	0.046	1.99	0.88	0.052	1.315	0.03	0.032	1.73	0.115	0.048	2.145	0.2	0.032
0.14	0.86	0.043	1.07	0.43	0.048	1.99	0.89	0.055	1.315	0.035	0.033	1.73	0.12	0.053	2.145	0.205	0.033
0.14	0.87	0.045	1.07	0.44	0.049	2	0.01	0.072	1.315	0.04	0.034	1.73	0.125	0.058	2.145	0.21	0.035
0.14	0.88	0.049	1.07	0.45	0.049	2	0.02	0.070	1.315	0.045	0.035	1.73	0.13	0.062	2.145	0.215	0.036
0.14	0.89	0.053	1.07	0.46	0.047	2	0.03	0.067	1.315	0.05	0.035	1.73	0.135	0.063	2.145	0.22	0.036
0.15	0.01	0.048	1.07	0.47	0.045	2	0.04	0.065	1.315	0.055	0.035	1.73	0.14	0.063	2.145	0.225	0.037
0.15	0.02	0.053	1.07	0.48	0.045	2	0.05	0.067	1.315	0.06	0.035	1.73	0.145	0.063	2.145	0.23	0.038
0.15	0.03	0.056	1.07	0.49	0.046	2	0.06	0.072	1.315	0.065	0.035	1.73	0.15	0.063	2.145	0.235	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.15	0.04	0.056	1.07	0.5	0.047	2	0.07	0.077	1.315	0.07	0.034	1.73	0.155	0.066	2.145	0.24	0.047
0.15	0.05	0.052	1.07	0.51	0.046	2	0.08	0.079	1.315	0.075	0.035	1.73	0.16	0.070	2.145	0.245	0.050
0.15	0.06	0.048	1.07	0.52	0.045	2	0.09	0.078	1.315	0.08	0.036	1.73	0.165	0.072	2.145	0.25	0.053
0.15	0.07	0.047	1.07	0.53	0.044	2	0.1	0.073	1.315	0.085	0.037	1.73	0.17	0.071	2.145	0.255	0.055
0.15	0.08	0.048	1.07	0.54	0.043	2	0.11	0.067	1.315	0.09	0.038	1.73	0.175	0.064	2.145	0.26	0.058
0.15	0.09	0.050	1.07	0.55	0.041	2	0.12	0.062	1.315	0.095	0.038	1.73	0.18	0.053	2.145	0.265	0.060
0.15	0.1	0.049	1.07	0.56	0.041	2	0.13	0.060	1.315	0.1	0.037	1.73	0.185	0.048	2.145	0.27	0.062
0.15	0.11	0.046	1.07	0.57	0.042	2	0.14	0.061	1.315	0.105	0.036	1.73	0.19	0.045	2.145	0.275	0.060
0.15	0.12	0.042	1.07	0.58	0.043	2	0.15	0.064	1.315	0.11	0.035	1.73	0.195	0.042	2.145	0.28	0.055
0.15	0.13	0.039	1.07	0.59	0.045	2	0.16	0.065	1.315	0.115	0.035	1.73	0.2	0.045	2.145	0.285	0.048
0.15	0.14	0.038	1.07	0.6	0.048	2	0.17	0.062	1.315	0.12	0.035	1.73	0.205	0.052	2.145	0.29	0.041
0.15	0.15	0.039	1.07	0.61	0.050	2	0.18	0.056	1.315	0.125	0.035	1.73	0.21	0.057	2.145	0.295	0.037
0.15	0.16	0.042	1.07	0.62	0.052	2	0.19	0.050	1.315	0.13	0.035	1.73	0.215	0.058	2.145	0.3	0.034
0.15	0.17	0.045	1.07	0.63	0.052	2	0.2	0.046	1.315	0.135	0.039	1.73	0.22	0.054	2.145	0.305	0.034
0.15	0.18	0.047	1.07	0.64	0.051	2	0.21	0.046	1.315	0.14	0.048	1.73	0.225	0.047	2.145	0.31	0.034
0.15	0.19	0.047	1.07	0.65	0.052	2	0.22	0.047	1.315	0.145	0.053	1.73	0.23	0.039	2.145	0.315	0.034
0.15	0.2	0.045	1.07	0.66	0.052	2	0.23	0.047	1.315	0.15	0.054	1.73	0.235	0.036	2.145	0.32	0.034
0.15	0.21	0.043	1.07	0.67	0.052	2	0.24	0.046	1.315	0.155	0.052	1.73	0.24	0.034	2.145	0.325	0.033
0.15	0.22	0.041	1.07	0.68	0.050	2	0.25	0.045	1.315	0.16	0.049	1.73	0.245	0.037	2.145	0.33	0.034
0.15	0.23	0.040	1.07	0.69	0.049	2	0.26	0.044	1.315	0.165	0.046	1.73	0.25	0.045	2.145	0.335	0.035
0.15	0.24	0.040	1.07	0.7	0.049	2	0.27	0.044	1.315	0.17	0.044	1.73	0.255	0.051	2.145	0.34	0.036
0.15	0.25	0.041	1.07	0.71	0.048	2	0.28	0.043	1.315	0.175	0.046	1.73	0.26	0.054	2.145	0.345	0.039
0.15	0.26	0.041	1.07	0.72	0.047	2	0.29	0.044	1.315	0.18	0.048	1.73	0.265	0.056	2.145	0.35	0.045
0.15	0.27	0.040	1.07	0.73	0.047	2	0.3	0.045	1.315	0.185	0.051	1.73	0.27	0.056	2.145	0.355	0.049
0.15	0.28	0.039	1.07	0.74	0.047	2	0.31	0.045	1.315	0.19	0.052	1.73	0.275	0.055	2.145	0.36	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.15	0.29	0.040	1.07	0.75	0.047	2	0.32	0.044	1.315	0.195	0.053	1.73	0.28	0.051	2.145	0.365	0.047
0.15	0.3	0.042	1.07	0.76	0.046	2	0.33	0.043	1.315	0.2	0.054	1.73	0.285	0.048	2.145	0.37	0.044
0.15	0.31	0.044	1.07	0.77	0.043	2	0.34	0.043	1.315	0.205	0.054	1.73	0.29	0.047	2.145	0.375	0.042
0.15	0.32	0.045	1.07	0.78	0.040	2	0.35	0.044	1.315	0.21	0.054	1.73	0.295	0.044	2.145	0.38	0.041
0.15	0.33	0.043	1.07	0.79	0.038	2	0.36	0.046	1.315	0.215	0.048	1.73	0.3	0.039	2.145	0.385	0.041
0.15	0.34	0.040	1.07	0.8	0.036	2	0.37	0.046	1.315	0.22	0.040	1.73	0.305	0.036	2.145	0.39	0.043
0.15	0.35	0.037	1.07	0.81	0.035	2	0.38	0.046	1.315	0.225	0.035	1.73	0.31	0.034	2.145	0.395	0.046
0.15	0.36	0.036	1.07	0.82	0.034	2	0.39	0.046	1.315	0.23	0.036	1.73	0.315	0.037	2.145	0.4	0.047
0.15	0.37	0.038	1.07	0.83	0.035	2	0.4	0.045	1.315	0.235	0.039	1.73	0.32	0.042	2.145	0.405	0.048
0.15	0.38	0.040	1.07	0.84	0.035	2	0.41	0.044	1.315	0.24	0.040	1.73	0.325	0.046	2.145	0.41	0.046
0.15	0.39	0.043	1.07	0.85	0.035	2	0.42	0.044	1.315	0.245	0.041	1.73	0.33	0.047	2.145	0.415	0.044
0.15	0.4	0.044	1.07	0.86	0.034	2	0.43	0.044	1.315	0.25	0.040	1.73	0.335	0.046	2.145	0.42	0.040
0.15	0.41	0.043	1.07	0.87	0.034	2	0.44	0.043	1.315	0.255	0.040	1.73	0.34	0.047	2.145	0.425	0.040
0.15	0.42	0.043	1.07	0.88	0.034	2	0.45	0.044	1.315	0.26	0.041	1.73	0.345	0.048	2.145	0.43	0.042
0.15	0.43	0.044	1.07	0.89	0.035	2	0.46	0.045	1.315	0.265	0.042	1.73	0.35	0.047	2.145	0.435	0.045
0.15	0.44	0.044	1.08	0.01	0.032	2	0.47	0.047	1.315	0.27	0.043	1.73	0.355	0.042	2.145	0.44	0.044
0.15	0.45	0.042	1.08	0.02	0.032	2	0.48	0.047	1.315	0.275	0.043	1.73	0.36	0.039	2.145	0.445	0.040
0.15	0.46	0.039	1.08	0.03	0.032	2	0.49	0.047	1.315	0.28	0.043	1.73	0.365	0.041	2.145	0.45	0.036
0.15	0.47	0.038	1.08	0.04	0.033	2	0.5	0.048	1.315	0.285	0.045	1.73	0.37	0.044	2.145	0.455	0.035
0.15	0.48	0.038	1.08	0.05	0.033	2	0.51	0.048	1.315	0.29	0.047	1.73	0.375	0.046	2.145	0.46	0.036
0.15	0.49	0.038	1.08	0.06	0.034	2	0.52	0.048	1.315	0.295	0.049	1.73	0.38	0.046	2.145	0.465	0.038
0.15	0.5	0.038	1.08	0.07	0.035	2	0.53	0.047	1.315	0.3	0.048	1.73	0.385	0.047	2.145	0.47	0.037
0.15	0.51	0.037	1.08	0.08	0.036	2	0.54	0.046	1.315	0.305	0.045	1.73	0.39	0.048	2.145	0.475	0.036
0.15	0.52	0.035	1.08	0.09	0.038	2	0.55	0.047	1.315	0.31	0.042	1.73	0.395	0.047	2.145	0.48	0.038
0.15	0.53	0.034	1.08	0.1	0.039	2	0.56	0.052	1.315	0.315	0.042	1.73	0.4	0.047	2.145	0.485	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.15	0.54	0.033	1.08	0.11	0.039	2	0.57	0.057	1.315	0.32	0.044	1.73	0.405	0.046	2.145	0.49	0.043
0.15	0.55	0.033	1.08	0.12	0.039	2	0.58	0.061	1.315	0.325	0.047	1.73	0.41	0.046	2.145	0.495	0.045
0.15	0.56	0.033	1.08	0.13	0.038	2	0.59	0.062	1.315	0.33	0.047	1.73	0.415	0.046	2.15	0.005	0.052
0.15	0.57	0.034	1.08	0.14	0.037	2	0.6	0.060	1.315	0.335	0.046	1.73	0.42	0.047	2.15	0.01	0.059
0.15	0.58	0.035	1.08	0.15	0.037	2	0.61	0.058	1.315	0.34	0.045	1.73	0.425	0.049	2.15	0.015	0.065
0.15	0.59	0.037	1.08	0.16	0.037	2	0.62	0.056	1.315	0.345	0.047	1.73	0.43	0.048	2.15	0.02	0.067
0.15	0.6	0.039	1.08	0.17	0.037	2	0.63	0.055	1.315	0.35	0.052	1.73	0.435	0.046	2.15	0.025	0.065
0.15	0.61	0.040	1.08	0.18	0.036	2	0.64	0.057	1.315	0.355	0.053	1.73	0.44	0.044	2.15	0.03	0.059
0.15	0.62	0.042	1.08	0.19	0.035	2	0.65	0.061	1.315	0.36	0.050	1.73	0.445	0.046	2.15	0.035	0.051
0.15	0.63	0.042	1.08	0.2	0.034	2	0.66	0.065	1.315	0.365	0.047	1.73	0.45	0.053	2.15	0.04	0.047
0.15	0.64	0.042	1.08	0.21	0.036	2	0.67	0.066	1.315	0.37	0.043	1.73	0.455	0.056	2.15	0.045	0.047
0.15	0.65	0.041	1.08	0.22	0.038	2	0.68	0.063	1.315	0.375	0.041	1.73	0.46	0.056	2.15	0.05	0.047
0.15	0.66	0.041	1.08	0.23	0.043	2	0.69	0.058	1.315	0.38	0.039	1.73	0.465	0.054	2.15	0.055	0.045
0.15	0.67	0.042	1.08	0.24	0.047	2	0.7	0.051	1.315	0.385	0.039	1.73	0.47	0.052	2.15	0.06	0.043
0.15	0.68	0.041	1.08	0.25	0.050	2	0.71	0.048	1.315	0.39	0.041	1.73	0.475	0.051	2.15	0.065	0.044
0.15	0.69	0.040	1.08	0.26	0.050	2	0.72	0.047	1.315	0.395	0.045	1.73	0.48	0.051	2.15	0.07	0.049
0.15	0.7	0.039	1.08	0.27	0.048	2	0.73	0.048	1.315	0.4	0.048	1.73	0.485	0.050	2.15	0.075	0.054
0.15	0.71	0.040	1.08	0.28	0.045	2	0.74	0.051	1.315	0.405	0.048	1.73	0.49	0.047	2.15	0.08	0.056
0.15	0.72	0.041	1.08	0.29	0.044	2	0.75	0.055	1.315	0.41	0.046	1.73	0.495	0.044	2.15	0.085	0.056
0.15	0.73	0.042	1.08	0.3	0.045	2	0.76	0.056	1.315	0.415	0.046	1.735	0.005	0.052	2.15	0.09	0.055
0.15	0.74	0.042	1.08	0.31	0.047	2	0.77	0.054	1.315	0.42	0.048	1.735	0.01	0.061	2.15	0.095	0.053
0.15	0.75	0.042	1.08	0.32	0.050	2	0.78	0.053	1.315	0.425	0.050	1.735	0.015	0.071	2.15	0.1	0.050
0.15	0.76	0.042	1.08	0.33	0.052	2	0.79	0.055	1.315	0.43	0.052	1.735	0.02	0.080	2.15	0.105	0.046
0.15	0.77	0.042	1.08	0.34	0.055	2	0.8	0.057	1.315	0.435	0.053	1.735	0.025	0.083	2.15	0.11	0.044
0.15	0.78	0.041	1.08	0.35	0.056	2	0.81	0.056	1.315	0.44	0.050	1.735	0.03	0.079	2.15	0.115	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.15	0.79	0.039	1.08	0.36	0.055	2	0.82	0.052	1.315	0.445	0.044	1.735	0.035	0.068	2.15	0.12	0.046
0.15	0.8	0.038	1.08	0.37	0.052	2	0.83	0.046	1.315	0.45	0.041	1.735	0.04	0.057	2.15	0.125	0.046
0.15	0.81	0.038	1.08	0.38	0.052	2	0.84	0.043	1.315	0.455	0.041	1.735	0.045	0.056	2.15	0.13	0.044
0.15	0.82	0.038	1.08	0.39	0.053	2	0.85	0.042	1.315	0.46	0.042	1.735	0.05	0.059	2.15	0.135	0.042
0.15	0.83	0.038	1.08	0.4	0.052	2	0.86	0.044	1.315	0.465	0.044	1.735	0.055	0.060	2.15	0.14	0.037
0.15	0.84	0.038	1.08	0.41	0.049	2	0.87	0.048	1.315	0.47	0.049	1.735	0.06	0.058	2.15	0.145	0.033
0.15	0.85	0.040	1.08	0.42	0.048	2	0.88	0.052	1.315	0.475	0.054	1.735	0.065	0.055	2.15	0.15	0.031
0.15	0.86	0.041	1.08	0.43	0.050	2	0.89	0.056	1.315	0.48	0.054	1.735	0.07	0.058	2.15	0.155	0.031
0.15	0.87	0.044	1.08	0.44	0.053	2.01	0.01	0.075	1.315	0.485	0.049	1.735	0.075	0.064	2.15	0.16	0.033
0.15	0.88	0.047	1.08	0.45	0.053	2.01	0.02	0.071	1.315	0.49	0.042	1.735	0.08	0.069	2.15	0.165	0.035
0.15	0.89	0.051	1.08	0.46	0.050	2.01	0.03	0.067	1.315	0.495	0.038	1.735	0.085	0.072	2.15	0.17	0.036
0.16	0.01	0.052	1.08	0.47	0.047	2.01	0.04	0.063	1.32	0.005	0.036	1.735	0.09	0.072	2.15	0.175	0.036
0.16	0.02	0.054	1.08	0.48	0.045	2.01	0.05	0.064	1.32	0.01	0.035	1.735	0.095	0.070	2.15	0.18	0.037
0.16	0.03	0.055	1.08	0.49	0.047	2.01	0.06	0.068	1.32	0.015	0.035	1.735	0.1	0.063	2.15	0.185	0.037
0.16	0.04	0.052	1.08	0.5	0.048	2.01	0.07	0.072	1.32	0.02	0.034	1.735	0.105	0.052	2.15	0.19	0.036
0.16	0.05	0.049	1.08	0.51	0.048	2.01	0.08	0.075	1.32	0.025	0.033	1.735	0.11	0.046	2.15	0.195	0.034
0.16	0.06	0.047	1.08	0.52	0.048	2.01	0.09	0.075	1.32	0.03	0.032	1.735	0.115	0.048	2.15	0.2	0.033
0.16	0.07	0.047	1.08	0.53	0.046	2.01	0.1	0.072	1.32	0.035	0.032	1.735	0.12	0.055	2.15	0.205	0.033
0.16	0.08	0.047	1.08	0.54	0.042	2.01	0.11	0.068	1.32	0.04	0.034	1.735	0.125	0.061	2.15	0.21	0.035
0.16	0.09	0.047	1.08	0.55	0.040	2.01	0.12	0.065	1.32	0.045	0.035	1.735	0.13	0.063	2.15	0.215	0.036
0.16	0.1	0.047	1.08	0.56	0.040	2.01	0.13	0.065	1.32	0.05	0.035	1.735	0.135	0.063	2.15	0.22	0.037
0.16	0.11	0.046	1.08	0.57	0.041	2.01	0.14	0.067	1.32	0.055	0.034	1.735	0.14	0.063	2.15	0.225	0.038
0.16	0.12	0.043	1.08	0.58	0.042	2.01	0.15	0.068	1.32	0.06	0.034	1.735	0.145	0.063	2.15	0.23	0.040
0.16	0.13	0.040	1.08	0.59	0.044	2.01	0.16	0.067	1.32	0.065	0.034	1.735	0.15	0.063	2.15	0.235	0.043
0.16	0.14	0.040	1.08	0.6	0.047	2.01	0.17	0.062	1.32	0.07	0.034	1.735	0.155	0.066	2.15	0.24	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.16	0.15	0.042	1.08	0.61	0.050	2.01	0.18	0.055	1.32	0.075	0.035	1.735	0.16	0.071	2.15	0.245	0.050
0.16	0.16	0.045	1.08	0.62	0.051	2.01	0.19	0.049	1.32	0.08	0.036	1.735	0.165	0.073	2.15	0.25	0.053
0.16	0.17	0.048	1.08	0.63	0.051	2.01	0.2	0.046	1.32	0.085	0.037	1.735	0.17	0.072	2.15	0.255	0.056
0.16	0.18	0.049	1.08	0.64	0.050	2.01	0.21	0.045	1.32	0.09	0.038	1.735	0.175	0.067	2.15	0.26	0.058
0.16	0.19	0.048	1.08	0.65	0.049	2.01	0.22	0.046	1.32	0.095	0.038	1.735	0.18	0.058	2.15	0.265	0.060
0.16	0.2	0.046	1.08	0.66	0.050	2.01	0.23	0.047	1.32	0.1	0.039	1.735	0.185	0.053	2.15	0.27	0.061
0.16	0.21	0.044	1.08	0.67	0.050	2.01	0.24	0.046	1.32	0.105	0.040	1.735	0.19	0.050	2.15	0.275	0.059
0.16	0.22	0.042	1.08	0.68	0.049	2.01	0.25	0.045	1.32	0.11	0.039	1.735	0.195	0.045	2.15	0.28	0.053
0.16	0.23	0.041	1.08	0.69	0.048	2.01	0.26	0.043	1.32	0.115	0.038	1.735	0.2	0.044	2.15	0.285	0.046
0.16	0.24	0.040	1.08	0.7	0.048	2.01	0.27	0.043	1.32	0.12	0.037	1.735	0.205	0.050	2.15	0.29	0.040
0.16	0.25	0.040	1.08	0.71	0.047	2.01	0.28	0.042	1.32	0.125	0.037	1.735	0.21	0.055	2.15	0.295	0.036
0.16	0.26	0.040	1.08	0.72	0.046	2.01	0.29	0.042	1.32	0.13	0.037	1.735	0.215	0.055	2.15	0.3	0.036
0.16	0.27	0.039	1.08	0.73	0.046	2.01	0.3	0.043	1.32	0.135	0.039	1.735	0.22	0.050	2.15	0.305	0.037
0.16	0.28	0.038	1.08	0.74	0.047	2.01	0.31	0.042	1.32	0.14	0.046	1.735	0.225	0.043	2.15	0.31	0.038
0.16	0.29	0.038	1.08	0.75	0.048	2.01	0.32	0.042	1.32	0.145	0.050	1.735	0.23	0.039	2.15	0.315	0.037
0.16	0.3	0.039	1.08	0.76	0.047	2.01	0.33	0.042	1.32	0.15	0.051	1.735	0.235	0.037	2.15	0.32	0.036
0.16	0.31	0.041	1.08	0.77	0.045	2.01	0.34	0.043	1.32	0.155	0.049	1.735	0.24	0.036	2.15	0.325	0.035
0.16	0.32	0.041	1.08	0.78	0.041	2.01	0.35	0.045	1.32	0.16	0.047	1.735	0.245	0.038	2.15	0.33	0.035
0.16	0.33	0.040	1.08	0.79	0.038	2.01	0.36	0.048	1.32	0.165	0.044	1.735	0.25	0.046	2.15	0.335	0.036
0.16	0.34	0.038	1.08	0.8	0.036	2.01	0.37	0.048	1.32	0.17	0.045	1.735	0.255	0.052	2.15	0.34	0.037
0.16	0.35	0.036	1.08	0.81	0.035	2.01	0.38	0.047	1.32	0.175	0.048	1.735	0.26	0.052	2.15	0.345	0.039
0.16	0.36	0.036	1.08	0.82	0.035	2.01	0.39	0.045	1.32	0.18	0.052	1.735	0.265	0.051	2.15	0.35	0.042
0.16	0.37	0.037	1.08	0.83	0.035	2.01	0.4	0.043	1.32	0.185	0.053	1.735	0.27	0.050	2.15	0.355	0.044
0.16	0.38	0.039	1.08	0.84	0.036	2.01	0.41	0.043	1.32	0.19	0.054	1.735	0.275	0.049	2.15	0.36	0.044
0.16	0.39	0.040	1.08	0.85	0.035	2.01	0.42	0.044	1.32	0.195	0.054	1.735	0.28	0.046	2.15	0.365	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.16	0.4	0.041	1.08	0.86	0.034	2.01	0.43	0.044	1.32	0.2	0.055	1.735	0.285	0.042	2.15	0.37	0.044
0.16	0.41	0.042	1.08	0.87	0.033	2.01	0.44	0.044	1.32	0.205	0.055	1.735	0.29	0.040	2.15	0.375	0.044
0.16	0.42	0.042	1.08	0.88	0.034	2.01	0.45	0.044	1.32	0.21	0.053	1.735	0.295	0.038	2.15	0.38	0.043
0.16	0.43	0.042	1.08	0.89	0.035	2.01	0.46	0.045	1.32	0.215	0.047	1.735	0.3	0.036	2.15	0.385	0.043
0.16	0.44	0.041	1.09	0.01	0.032	2.01	0.47	0.046	1.32	0.22	0.039	1.735	0.305	0.034	2.15	0.39	0.044
0.16	0.45	0.040	1.09	0.02	0.032	2.01	0.48	0.048	1.32	0.225	0.036	1.735	0.31	0.033	2.15	0.395	0.045
0.16	0.46	0.039	1.09	0.03	0.032	2.01	0.49	0.050	1.32	0.23	0.037	1.735	0.315	0.035	2.15	0.4	0.046
0.16	0.47	0.039	1.09	0.04	0.033	2.01	0.5	0.050	1.32	0.235	0.039	1.735	0.32	0.037	2.15	0.405	0.046
0.16	0.48	0.040	1.09	0.05	0.033	2.01	0.51	0.050	1.32	0.24	0.041	1.735	0.325	0.041	2.15	0.41	0.046
0.16	0.49	0.041	1.09	0.06	0.034	2.01	0.52	0.048	1.32	0.245	0.041	1.735	0.33	0.042	2.15	0.415	0.044
0.16	0.5	0.040	1.09	0.07	0.035	2.01	0.53	0.046	1.32	0.25	0.041	1.735	0.335	0.044	2.15	0.42	0.041
0.16	0.51	0.037	1.09	0.08	0.036	2.01	0.54	0.047	1.32	0.255	0.041	1.735	0.34	0.048	2.15	0.425	0.041
0.16	0.52	0.035	1.09	0.09	0.038	2.01	0.55	0.050	1.32	0.26	0.041	1.735	0.345	0.052	2.15	0.43	0.043
0.16	0.53	0.033	1.09	0.1	0.039	2.01	0.56	0.055	1.32	0.265	0.043	1.735	0.35	0.051	2.15	0.435	0.045
0.16	0.54	0.033	1.09	0.11	0.040	2.01	0.57	0.061	1.32	0.27	0.046	1.735	0.355	0.044	2.15	0.44	0.044
0.16	0.55	0.032	1.09	0.12	0.040	2.01	0.58	0.063	1.32	0.275	0.046	1.735	0.36	0.038	2.15	0.445	0.039
0.16	0.56	0.033	1.09	0.13	0.040	2.01	0.59	0.062	1.32	0.28	0.044	1.735	0.365	0.038	2.15	0.45	0.035
0.16	0.57	0.034	1.09	0.14	0.039	2.01	0.6	0.058	1.32	0.285	0.043	1.735	0.37	0.041	2.15	0.455	0.034
0.16	0.58	0.035	1.09	0.15	0.039	2.01	0.61	0.055	1.32	0.29	0.043	1.735	0.375	0.043	2.15	0.46	0.036
0.16	0.59	0.036	1.09	0.16	0.038	2.01	0.62	0.054	1.32	0.295	0.044	1.735	0.38	0.044	2.15	0.465	0.038
0.16	0.6	0.038	1.09	0.17	0.037	2.01	0.63	0.055	1.32	0.3	0.045	1.735	0.385	0.046	2.15	0.47	0.037
0.16	0.61	0.040	1.09	0.18	0.036	2.01	0.64	0.058	1.32	0.305	0.044	1.735	0.39	0.047	2.15	0.475	0.037
0.16	0.62	0.042	1.09	0.19	0.035	2.01	0.65	0.061	1.32	0.31	0.043	1.735	0.395	0.048	2.15	0.48	0.039
0.16	0.63	0.043	1.09	0.2	0.034	2.01	0.66	0.061	1.32	0.315	0.043	1.735	0.4	0.048	2.15	0.485	0.042
0.16	0.64	0.044	1.09	0.21	0.035	2.01	0.67	0.060	1.32	0.32	0.047	1.735	0.405	0.049	2.15	0.49	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.16	0.65	0.044	1.09	0.22	0.038	2.01	0.68	0.057	1.32	0.325	0.050	1.735	0.41	0.049	2.15	0.495	0.046
0.16	0.66	0.043	1.09	0.23	0.043	2.01	0.69	0.053	1.32	0.33	0.050	1.735	0.415	0.049	2.155	0.005	0.057
0.16	0.67	0.043	1.09	0.24	0.049	2.01	0.7	0.049	1.32	0.335	0.048	1.735	0.42	0.049	2.155	0.01	0.061
0.16	0.68	0.042	1.09	0.25	0.053	2.01	0.71	0.048	1.32	0.34	0.046	1.735	0.425	0.048	2.155	0.015	0.064
0.16	0.69	0.041	1.09	0.26	0.054	2.01	0.72	0.050	1.32	0.345	0.046	1.735	0.43	0.045	2.155	0.02	0.065
0.16	0.7	0.041	1.09	0.27	0.052	2.01	0.73	0.051	1.32	0.35	0.049	1.735	0.435	0.042	2.155	0.025	0.063
0.16	0.71	0.041	1.09	0.28	0.049	2.01	0.74	0.053	1.32	0.355	0.050	1.735	0.44	0.040	2.155	0.03	0.058
0.16	0.72	0.042	1.09	0.29	0.047	2.01	0.75	0.055	1.32	0.36	0.048	1.735	0.445	0.042	2.155	0.035	0.051
0.16	0.73	0.043	1.09	0.3	0.048	2.01	0.76	0.056	1.32	0.365	0.044	1.735	0.45	0.048	2.155	0.04	0.046
0.16	0.74	0.044	1.09	0.31	0.050	2.01	0.77	0.055	1.32	0.37	0.042	1.735	0.455	0.051	2.155	0.045	0.045
0.16	0.75	0.045	1.09	0.32	0.051	2.01	0.78	0.054	1.32	0.375	0.040	1.735	0.46	0.052	2.155	0.05	0.045
0.16	0.76	0.045	1.09	0.33	0.052	2.01	0.79	0.055	1.32	0.38	0.040	1.735	0.465	0.052	2.155	0.055	0.043
0.16	0.77	0.044	1.09	0.34	0.053	2.01	0.8	0.057	1.32	0.385	0.041	1.735	0.47	0.052	2.155	0.06	0.042
0.16	0.78	0.043	1.09	0.35	0.054	2.01	0.81	0.057	1.32	0.39	0.045	1.735	0.475	0.051	2.155	0.065	0.044
0.16	0.79	0.042	1.09	0.36	0.053	2.01	0.82	0.055	1.32	0.395	0.050	1.735	0.48	0.050	2.155	0.07	0.050
0.16	0.8	0.041	1.09	0.37	0.052	2.01	0.83	0.051	1.32	0.4	0.052	1.735	0.485	0.049	2.155	0.075	0.055
0.16	0.81	0.040	1.09	0.38	0.051	2.01	0.84	0.049	1.32	0.405	0.052	1.735	0.49	0.047	2.155	0.08	0.056
0.16	0.82	0.039	1.09	0.39	0.052	2.01	0.85	0.047	1.32	0.41	0.049	1.735	0.495	0.046	2.155	0.085	0.056
0.16	0.83	0.040	1.09	0.4	0.051	2.01	0.86	0.048	1.32	0.415	0.047	1.74	0.005	0.050	2.155	0.09	0.055
0.16	0.84	0.040	1.09	0.41	0.050	2.01	0.87	0.048	1.32	0.42	0.046	1.74	0.01	0.060	2.155	0.095	0.052
0.16	0.85	0.041	1.09	0.42	0.051	2.01	0.88	0.050	1.32	0.425	0.048	1.74	0.015	0.071	2.155	0.1	0.049
0.16	0.86	0.041	1.09	0.43	0.054	2.01	0.89	0.053	1.32	0.43	0.051	1.74	0.02	0.079	2.155	0.105	0.046
0.16	0.87	0.042	1.09	0.44	0.057	2.02	0.01	0.078	1.32	0.435	0.053	1.74	0.025	0.080	2.155	0.11	0.044
0.16	0.88	0.045	1.09	0.45	0.057	2.02	0.02	0.076	1.32	0.44	0.051	1.74	0.03	0.075	2.155	0.115	0.045
0.16	0.89	0.049	1.09	0.46	0.053	2.02	0.03	0.070	1.32	0.445	0.046	1.74	0.035	0.066	2.155	0.12	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.17	0.01	0.055	1.09	0.47	0.048	2.02	0.04	0.065	1.32	0.45	0.043	1.74	0.04	0.060	2.155	0.125	0.045
0.17	0.02	0.056	1.09	0.48	0.045	2.02	0.05	0.064	1.32	0.455	0.043	1.74	0.045	0.063	2.155	0.13	0.042
0.17	0.03	0.055	1.09	0.49	0.047	2.02	0.06	0.066	1.32	0.46	0.044	1.74	0.05	0.067	2.155	0.135	0.040
0.17	0.04	0.053	1.09	0.5	0.049	2.02	0.07	0.068	1.32	0.465	0.044	1.74	0.055	0.068	2.155	0.14	0.037
0.17	0.05	0.049	1.09	0.51	0.052	2.02	0.08	0.071	1.32	0.47	0.046	1.74	0.06	0.066	2.155	0.145	0.034
0.17	0.06	0.048	1.09	0.52	0.053	2.02	0.09	0.074	1.32	0.475	0.053	1.74	0.065	0.061	2.155	0.15	0.033
0.17	0.07	0.048	1.09	0.53	0.050	2.02	0.1	0.074	1.32	0.48	0.056	1.74	0.07	0.057	2.155	0.155	0.035
0.17	0.08	0.046	1.09	0.54	0.044	2.02	0.11	0.073	1.32	0.485	0.052	1.74	0.075	0.058	2.155	0.16	0.037
0.17	0.09	0.045	1.09	0.55	0.040	2.02	0.12	0.073	1.32	0.49	0.044	1.74	0.08	0.062	2.155	0.165	0.038
0.17	0.1	0.044	1.09	0.56	0.039	2.02	0.13	0.073	1.32	0.495	0.038	1.74	0.085	0.067	2.155	0.17	0.040
0.17	0.11	0.044	1.09	0.57	0.040	2.02	0.14	0.072	1.325	0.005	0.036	1.74	0.09	0.071	2.155	0.175	0.041
0.17	0.12	0.043	1.09	0.58	0.042	2.02	0.15	0.070	1.325	0.01	0.036	1.74	0.095	0.070	2.155	0.18	0.040
0.17	0.13	0.042	1.09	0.59	0.044	2.02	0.16	0.066	1.325	0.015	0.037	1.74	0.1	0.063	2.155	0.185	0.038
0.17	0.14	0.042	1.09	0.6	0.046	2.02	0.17	0.059	1.325	0.02	0.035	1.74	0.105	0.053	2.155	0.19	0.036
0.17	0.15	0.045	1.09	0.61	0.048	2.02	0.18	0.052	1.325	0.025	0.034	1.74	0.11	0.046	2.155	0.195	0.034
0.17	0.16	0.048	1.09	0.62	0.049	2.02	0.19	0.047	1.325	0.03	0.033	1.74	0.115	0.049	2.155	0.2	0.034
0.17	0.17	0.051	1.09	0.63	0.049	2.02	0.2	0.044	1.325	0.035	0.032	1.74	0.12	0.057	2.155	0.205	0.035
0.17	0.18	0.052	1.09	0.64	0.048	2.02	0.21	0.043	1.325	0.04	0.033	1.74	0.125	0.062	2.155	0.21	0.036
0.17	0.19	0.050	1.09	0.65	0.049	2.02	0.22	0.045	1.325	0.045	0.034	1.74	0.13	0.063	2.155	0.215	0.038
0.17	0.2	0.047	1.09	0.66	0.050	2.02	0.23	0.047	1.325	0.05	0.034	1.74	0.135	0.064	2.155	0.22	0.040
0.17	0.21	0.045	1.09	0.67	0.050	2.02	0.24	0.048	1.325	0.055	0.034	1.74	0.14	0.064	2.155	0.225	0.042
0.17	0.22	0.044	1.09	0.68	0.049	2.02	0.25	0.047	1.325	0.06	0.034	1.74	0.145	0.063	2.155	0.23	0.043
0.17	0.23	0.043	1.09	0.69	0.048	2.02	0.26	0.044	1.325	0.065	0.034	1.74	0.15	0.063	2.155	0.235	0.043
0.17	0.24	0.041	1.09	0.7	0.047	2.02	0.27	0.042	1.325	0.07	0.035	1.74	0.155	0.065	2.155	0.24	0.045
0.17	0.25	0.040	1.09	0.71	0.047	2.02	0.28	0.041	1.325	0.075	0.036	1.74	0.16	0.070	2.155	0.245	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.17	0.26	0.040	1.09	0.72	0.047	2.02	0.29	0.041	1.325	0.08	0.037	1.74	0.165	0.073	2.155	0.25	0.052
0.17	0.27	0.040	1.09	0.73	0.048	2.02	0.3	0.042	1.325	0.085	0.037	1.74	0.17	0.072	2.155	0.255	0.055
0.17	0.28	0.038	1.09	0.74	0.048	2.02	0.31	0.042	1.325	0.09	0.038	1.74	0.175	0.066	2.155	0.26	0.057
0.17	0.29	0.037	1.09	0.75	0.048	2.02	0.32	0.042	1.325	0.095	0.038	1.74	0.18	0.060	2.155	0.265	0.058
0.17	0.3	0.038	1.09	0.76	0.048	2.02	0.33	0.042	1.325	0.1	0.040	1.74	0.185	0.057	2.155	0.27	0.057
0.17	0.31	0.038	1.09	0.77	0.046	2.02	0.34	0.043	1.325	0.105	0.041	1.74	0.19	0.054	2.155	0.275	0.053
0.17	0.32	0.038	1.09	0.78	0.044	2.02	0.35	0.046	1.325	0.11	0.040	1.74	0.195	0.049	2.155	0.28	0.047
0.17	0.33	0.038	1.09	0.79	0.041	2.02	0.36	0.049	1.325	0.115	0.040	1.74	0.2	0.047	2.155	0.285	0.042
0.17	0.34	0.036	1.09	0.8	0.038	2.02	0.37	0.049	1.325	0.12	0.040	1.74	0.205	0.052	2.155	0.29	0.039
0.17	0.35	0.036	1.09	0.81	0.037	2.02	0.38	0.048	1.325	0.125	0.040	1.74	0.21	0.056	2.155	0.295	0.036
0.17	0.36	0.036	1.09	0.82	0.036	2.02	0.39	0.045	1.325	0.13	0.041	1.74	0.215	0.057	2.155	0.3	0.036
0.17	0.37	0.037	1.09	0.83	0.036	2.02	0.4	0.043	1.325	0.135	0.043	1.74	0.22	0.052	2.155	0.305	0.040
0.17	0.38	0.038	1.09	0.84	0.035	2.02	0.41	0.043	1.325	0.14	0.044	1.74	0.225	0.045	2.155	0.31	0.042
0.17	0.39	0.038	1.09	0.85	0.035	2.02	0.42	0.044	1.325	0.145	0.045	1.74	0.23	0.042	2.155	0.315	0.042
0.17	0.4	0.039	1.09	0.86	0.034	2.02	0.43	0.045	1.325	0.15	0.045	1.74	0.235	0.040	2.155	0.32	0.040
0.17	0.41	0.039	1.09	0.87	0.034	2.02	0.44	0.045	1.325	0.155	0.045	1.74	0.24	0.040	2.155	0.325	0.036
0.17	0.42	0.039	1.09	0.88	0.035	2.02	0.45	0.046	1.325	0.16	0.046	1.74	0.245	0.044	2.155	0.33	0.036
0.17	0.43	0.039	1.09	0.89	0.037	2.02	0.46	0.046	1.325	0.165	0.046	1.74	0.25	0.051	2.155	0.335	0.037
0.17	0.44	0.039	1.1	0.01	0.033	2.02	0.47	0.047	1.325	0.17	0.047	1.74	0.255	0.056	2.155	0.34	0.037
0.17	0.45	0.039	1.1	0.02	0.032	2.02	0.48	0.049	1.325	0.175	0.050	1.74	0.26	0.055	2.155	0.345	0.037
0.17	0.46	0.040	1.1	0.03	0.032	2.02	0.49	0.051	1.325	0.18	0.053	1.74	0.265	0.052	2.155	0.35	0.037
0.17	0.47	0.041	1.1	0.04	0.032	2.02	0.5	0.052	1.325	0.185	0.054	1.74	0.27	0.049	2.155	0.355	0.039
0.17	0.48	0.042	1.1	0.05	0.033	2.02	0.51	0.051	1.325	0.19	0.055	1.74	0.275	0.046	2.155	0.36	0.041
0.17	0.49	0.042	1.1	0.06	0.034	2.02	0.52	0.049	1.325	0.195	0.055	1.74	0.28	0.042	2.155	0.365	0.043
0.17	0.5	0.041	1.1	0.07	0.035	2.02	0.53	0.049	1.325	0.2	0.055	1.74	0.285	0.040	2.155	0.37	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.17	0.51	0.038	1.1	0.08	0.036	2.02	0.54	0.051	1.325	0.205	0.053	1.74	0.29	0.038	2.155	0.375	0.045
0.17	0.52	0.035	1.1	0.09	0.037	2.02	0.55	0.056	1.325	0.21	0.050	1.74	0.295	0.037	2.155	0.38	0.044
0.17	0.53	0.033	1.1	0.1	0.039	2.02	0.56	0.060	1.325	0.215	0.046	1.74	0.3	0.036	2.155	0.385	0.044
0.17	0.54	0.032	1.1	0.11	0.040	2.02	0.57	0.064	1.325	0.22	0.040	1.74	0.305	0.034	2.155	0.39	0.044
0.17	0.55	0.032	1.1	0.12	0.041	2.02	0.58	0.064	1.325	0.225	0.038	1.74	0.31	0.034	2.155	0.395	0.045
0.17	0.56	0.033	1.1	0.13	0.041	2.02	0.59	0.062	1.325	0.23	0.039	1.74	0.315	0.035	2.155	0.4	0.045
0.17	0.57	0.034	1.1	0.14	0.041	2.02	0.6	0.058	1.325	0.235	0.040	1.74	0.32	0.035	2.155	0.405	0.045
0.17	0.58	0.035	1.1	0.15	0.041	2.02	0.61	0.056	1.325	0.24	0.041	1.74	0.325	0.036	2.155	0.41	0.044
0.17	0.59	0.036	1.1	0.16	0.040	2.02	0.62	0.056	1.325	0.245	0.041	1.74	0.33	0.037	2.155	0.415	0.042
0.17	0.6	0.038	1.1	0.17	0.039	2.02	0.63	0.057	1.325	0.25	0.041	1.74	0.335	0.041	2.155	0.42	0.040
0.17	0.61	0.041	1.1	0.18	0.037	2.02	0.64	0.060	1.325	0.255	0.041	1.74	0.34	0.048	2.155	0.425	0.041
0.17	0.62	0.043	1.1	0.19	0.035	2.02	0.65	0.061	1.325	0.26	0.042	1.74	0.345	0.053	2.155	0.43	0.044
0.17	0.63	0.046	1.1	0.2	0.034	2.02	0.66	0.059	1.325	0.265	0.044	1.74	0.35	0.050	2.155	0.435	0.046
0.17	0.64	0.048	1.1	0.21	0.035	2.02	0.67	0.055	1.325	0.27	0.047	1.74	0.355	0.042	2.155	0.44	0.044
0.17	0.65	0.048	1.1	0.22	0.037	2.02	0.68	0.052	1.325	0.275	0.047	1.74	0.36	0.037	2.155	0.445	0.038
0.17	0.66	0.047	1.1	0.23	0.043	2.02	0.69	0.049	1.325	0.28	0.045	1.74	0.365	0.037	2.155	0.45	0.035
0.17	0.67	0.045	1.1	0.24	0.050	2.02	0.7	0.049	1.325	0.285	0.042	1.74	0.37	0.041	2.155	0.455	0.035
0.17	0.68	0.044	1.1	0.25	0.056	2.02	0.71	0.052	1.325	0.29	0.039	1.74	0.375	0.044	2.155	0.46	0.037
0.17	0.69	0.044	1.1	0.26	0.059	2.02	0.72	0.055	1.325	0.295	0.039	1.74	0.38	0.047	2.155	0.465	0.039
0.17	0.7	0.044	1.1	0.27	0.058	2.02	0.73	0.055	1.325	0.3	0.040	1.74	0.385	0.048	2.155	0.47	0.039
0.17	0.71	0.043	1.1	0.28	0.054	2.02	0.74	0.054	1.325	0.305	0.040	1.74	0.39	0.049	2.155	0.475	0.040
0.17	0.72	0.043	1.1	0.29	0.050	2.02	0.75	0.053	1.325	0.31	0.041	1.74	0.395	0.049	2.155	0.48	0.042
0.17	0.73	0.044	1.1	0.3	0.050	2.02	0.76	0.052	1.325	0.315	0.043	1.74	0.4	0.050	2.155	0.485	0.045
0.17	0.74	0.045	1.1	0.31	0.052	2.02	0.77	0.052	1.325	0.32	0.048	1.74	0.405	0.050	2.155	0.49	0.046
0.17	0.75	0.046	1.1	0.32	0.052	2.02	0.78	0.052	1.325	0.325	0.052	1.74	0.41	0.051	2.155	0.495	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.17	0.76	0.046	1.1	0.33	0.051	2.02	0.79	0.055	1.325	0.33	0.053	1.74	0.415	0.051	2.16	0.005	0.066
0.17	0.77	0.045	1.1	0.34	0.051	2.02	0.8	0.058	1.325	0.335	0.051	1.74	0.42	0.051	2.16	0.01	0.066
0.17	0.78	0.045	1.1	0.35	0.051	2.02	0.81	0.060	1.325	0.34	0.048	1.74	0.425	0.048	2.16	0.015	0.064
0.17	0.79	0.045	1.1	0.36	0.051	2.02	0.82	0.059	1.325	0.345	0.045	1.74	0.43	0.043	2.16	0.02	0.063
0.17	0.8	0.043	1.1	0.37	0.050	2.02	0.83	0.059	1.325	0.35	0.044	1.74	0.435	0.038	2.16	0.025	0.061
0.17	0.81	0.042	1.1	0.38	0.048	2.02	0.84	0.058	1.325	0.355	0.045	1.74	0.44	0.036	2.16	0.03	0.058
0.17	0.82	0.041	1.1	0.39	0.048	2.02	0.85	0.055	1.325	0.36	0.044	1.74	0.445	0.037	2.16	0.035	0.052
0.17	0.83	0.041	1.1	0.4	0.049	2.02	0.86	0.051	1.325	0.365	0.042	1.74	0.45	0.040	2.16	0.04	0.046
0.17	0.84	0.042	1.1	0.41	0.049	2.02	0.87	0.049	1.325	0.37	0.041	1.74	0.455	0.044	2.16	0.045	0.043
0.17	0.85	0.043	1.1	0.42	0.052	2.02	0.88	0.047	1.325	0.375	0.040	1.74	0.46	0.047	2.16	0.05	0.042
0.17	0.86	0.043	1.1	0.43	0.056	2.02	0.89	0.049	1.325	0.38	0.042	1.74	0.465	0.051	2.16	0.055	0.041
0.17	0.87	0.043	1.1	0.44	0.058	2.03	0.01	0.080	1.325	0.385	0.045	1.74	0.47	0.054	2.16	0.06	0.042
0.17	0.88	0.045	1.1	0.45	0.057	2.03	0.02	0.079	1.325	0.39	0.048	1.74	0.475	0.054	2.16	0.065	0.044
0.17	0.89	0.047	1.1	0.46	0.053	2.03	0.03	0.075	1.325	0.395	0.052	1.74	0.48	0.052	2.16	0.07	0.048
0.18	0.01	0.060	1.1	0.47	0.048	2.03	0.04	0.069	1.325	0.4	0.053	1.74	0.485	0.050	2.16	0.075	0.052
0.18	0.02	0.060	1.1	0.48	0.045	2.03	0.05	0.066	1.325	0.405	0.053	1.74	0.49	0.048	2.16	0.08	0.054
0.18	0.03	0.058	1.1	0.49	0.046	2.03	0.06	0.066	1.325	0.41	0.050	1.74	0.495	0.049	2.16	0.085	0.054
0.18	0.04	0.057	1.1	0.5	0.050	2.03	0.07	0.067	1.325	0.415	0.046	1.745	0.005	0.048	2.16	0.09	0.052
0.18	0.05	0.054	1.1	0.51	0.054	2.03	0.08	0.070	1.325	0.42	0.043	1.745	0.01	0.058	2.16	0.095	0.049
0.18	0.06	0.052	1.1	0.52	0.055	2.03	0.09	0.073	1.325	0.425	0.045	1.745	0.015	0.068	2.16	0.1	0.047
0.18	0.07	0.050	1.1	0.53	0.051	2.03	0.1	0.075	1.325	0.43	0.048	1.745	0.02	0.075	2.16	0.105	0.045
0.18	0.08	0.047	1.1	0.54	0.046	2.03	0.11	0.076	1.325	0.435	0.050	1.745	0.025	0.073	2.16	0.11	0.045
0.18	0.09	0.044	1.1	0.55	0.041	2.03	0.12	0.077	1.325	0.44	0.049	1.745	0.03	0.067	2.16	0.115	0.046
0.18	0.1	0.042	1.1	0.56	0.039	2.03	0.13	0.077	1.325	0.445	0.046	1.745	0.035	0.062	2.16	0.12	0.049
0.18	0.11	0.042	1.1	0.57	0.040	2.03	0.14	0.076	1.325	0.45	0.045	1.745	0.04	0.063	2.16	0.125	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.18	0.12	0.042	1.1	0.58	0.041	2.03	0.15	0.071	1.325	0.455	0.045	1.745	0.045	0.069	2.16	0.13	0.042
0.18	0.13	0.042	1.1	0.59	0.043	2.03	0.16	0.064	1.325	0.46	0.044	1.745	0.05	0.073	2.16	0.135	0.040
0.18	0.14	0.043	1.1	0.6	0.045	2.03	0.17	0.055	1.325	0.465	0.041	1.745	0.055	0.073	2.16	0.14	0.037
0.18	0.15	0.045	1.1	0.61	0.047	2.03	0.18	0.049	1.325	0.47	0.040	1.745	0.06	0.070	2.16	0.145	0.036
0.18	0.16	0.048	1.1	0.62	0.047	2.03	0.19	0.044	1.325	0.475	0.047	1.745	0.065	0.065	2.16	0.15	0.038
0.18	0.17	0.051	1.1	0.63	0.047	2.03	0.2	0.042	1.325	0.48	0.052	1.745	0.07	0.059	2.16	0.155	0.043
0.18	0.18	0.051	1.1	0.64	0.048	2.03	0.21	0.042	1.325	0.485	0.049	1.745	0.075	0.057	2.16	0.16	0.046
0.18	0.19	0.050	1.1	0.65	0.050	2.03	0.22	0.044	1.325	0.49	0.044	1.745	0.08	0.060	2.16	0.165	0.046
0.18	0.2	0.047	1.1	0.66	0.051	2.03	0.23	0.046	1.325	0.495	0.039	1.745	0.085	0.065	2.16	0.17	0.047
0.18	0.21	0.046	1.1	0.67	0.051	2.03	0.24	0.048	1.33	0.005	0.037	1.745	0.09	0.068	2.16	0.175	0.048
0.18	0.22	0.045	1.1	0.68	0.050	2.03	0.25	0.048	1.33	0.01	0.037	1.745	0.095	0.068	2.16	0.18	0.047
0.18	0.23	0.044	1.1	0.69	0.048	2.03	0.26	0.045	1.33	0.015	0.037	1.745	0.1	0.065	2.16	0.185	0.043
0.18	0.24	0.043	1.1	0.7	0.047	2.03	0.27	0.043	1.33	0.02	0.036	1.745	0.105	0.058	2.16	0.19	0.039
0.18	0.25	0.042	1.1	0.71	0.047	2.03	0.28	0.041	1.33	0.025	0.034	1.745	0.11	0.053	2.16	0.195	0.039
0.18	0.26	0.042	1.1	0.72	0.049	2.03	0.29	0.041	1.33	0.03	0.033	1.745	0.115	0.056	2.16	0.2	0.038
0.18	0.27	0.041	1.1	0.73	0.050	2.03	0.3	0.041	1.33	0.035	0.033	1.745	0.12	0.061	2.16	0.205	0.038
0.18	0.28	0.040	1.1	0.74	0.050	2.03	0.31	0.042	1.33	0.04	0.033	1.745	0.125	0.062	2.16	0.21	0.038
0.18	0.29	0.038	1.1	0.75	0.049	2.03	0.32	0.042	1.33	0.045	0.034	1.745	0.13	0.063	2.16	0.215	0.039
0.18	0.3	0.037	1.1	0.76	0.049	2.03	0.33	0.043	1.33	0.05	0.034	1.745	0.135	0.064	2.16	0.22	0.043
0.18	0.31	0.038	1.1	0.77	0.050	2.03	0.34	0.044	1.33	0.055	0.034	1.745	0.14	0.064	2.16	0.225	0.045
0.18	0.32	0.039	1.1	0.78	0.050	2.03	0.35	0.046	1.33	0.06	0.034	1.745	0.145	0.064	2.16	0.23	0.046
0.18	0.33	0.037	1.1	0.79	0.048	2.03	0.36	0.048	1.33	0.065	0.035	1.745	0.15	0.063	2.16	0.235	0.045
0.18	0.34	0.036	1.1	0.8	0.045	2.03	0.37	0.049	1.33	0.07	0.036	1.745	0.155	0.062	2.16	0.24	0.044
0.18	0.35	0.035	1.1	0.81	0.042	2.03	0.38	0.048	1.33	0.075	0.037	1.745	0.16	0.067	2.16	0.245	0.044
0.18	0.36	0.035	1.1	0.82	0.039	2.03	0.39	0.045	1.33	0.08	0.037	1.745	0.165	0.070	2.16	0.25	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.18	0.37	0.037	1.1	0.83	0.037	2.03	0.4	0.043	1.33	0.085	0.038	1.745	0.17	0.068	2.16	0.255	0.051
0.18	0.38	0.038	1.1	0.84	0.035	2.03	0.41	0.043	1.33	0.09	0.038	1.745	0.175	0.062	2.16	0.26	0.054
0.18	0.39	0.038	1.1	0.85	0.034	2.03	0.42	0.044	1.33	0.095	0.038	1.745	0.18	0.057	2.16	0.265	0.054
0.18	0.4	0.037	1.1	0.86	0.034	2.03	0.43	0.045	1.33	0.1	0.038	1.745	0.185	0.056	2.16	0.27	0.050
0.18	0.41	0.037	1.1	0.87	0.035	2.03	0.44	0.047	1.33	0.105	0.040	1.745	0.19	0.055	2.16	0.275	0.044
0.18	0.42	0.036	1.1	0.88	0.036	2.03	0.45	0.048	1.33	0.11	0.041	1.745	0.195	0.051	2.16	0.28	0.040
0.18	0.43	0.037	1.1	0.89	0.039	2.03	0.46	0.048	1.33	0.115	0.041	1.745	0.2	0.051	2.16	0.285	0.038
0.18	0.44	0.038	1.11	0.01	0.033	2.03	0.47	0.048	1.33	0.12	0.042	1.745	0.205	0.057	2.16	0.29	0.038
0.18	0.45	0.039	1.11	0.02	0.032	2.03	0.48	0.048	1.33	0.125	0.042	1.745	0.21	0.060	2.16	0.295	0.036
0.18	0.46	0.041	1.11	0.03	0.032	2.03	0.49	0.050	1.33	0.13	0.043	1.745	0.215	0.060	2.16	0.3	0.036
0.18	0.47	0.043	1.11	0.04	0.033	2.03	0.5	0.051	1.33	0.135	0.044	1.745	0.22	0.058	2.16	0.305	0.040
0.18	0.48	0.044	1.11	0.05	0.033	2.03	0.51	0.051	1.33	0.14	0.043	1.745	0.225	0.054	2.16	0.31	0.044
0.18	0.49	0.043	1.11	0.06	0.035	2.03	0.52	0.050	1.33	0.145	0.041	1.745	0.23	0.047	2.16	0.315	0.045
0.18	0.5	0.041	1.11	0.07	0.036	2.03	0.53	0.053	1.33	0.15	0.042	1.745	0.235	0.043	2.16	0.32	0.043
0.18	0.51	0.038	1.11	0.08	0.036	2.03	0.54	0.057	1.33	0.155	0.045	1.745	0.24	0.042	2.16	0.325	0.038
0.18	0.52	0.036	1.11	0.09	0.037	2.03	0.55	0.062	1.33	0.16	0.048	1.745	0.245	0.046	2.16	0.33	0.035
0.18	0.53	0.034	1.11	0.1	0.039	2.03	0.56	0.064	1.33	0.165	0.049	1.745	0.25	0.055	2.16	0.335	0.035
0.18	0.54	0.033	1.11	0.11	0.040	2.03	0.57	0.065	1.33	0.17	0.047	1.745	0.255	0.060	2.16	0.34	0.035
0.18	0.55	0.033	1.11	0.12	0.042	2.03	0.58	0.064	1.33	0.175	0.048	1.745	0.26	0.060	2.16	0.345	0.035
0.18	0.56	0.034	1.11	0.13	0.043	2.03	0.59	0.062	1.33	0.18	0.051	1.745	0.265	0.057	2.16	0.35	0.036
0.18	0.57	0.035	1.11	0.14	0.043	2.03	0.6	0.059	1.33	0.185	0.054	1.745	0.27	0.052	2.16	0.355	0.038
0.18	0.58	0.036	1.11	0.15	0.043	2.03	0.61	0.059	1.33	0.19	0.055	1.745	0.275	0.046	2.16	0.36	0.042
0.18	0.59	0.037	1.11	0.16	0.043	2.03	0.62	0.061	1.33	0.195	0.054	1.745	0.28	0.041	2.16	0.365	0.044
0.18	0.6	0.038	1.11	0.17	0.041	2.03	0.63	0.062	1.33	0.2	0.051	1.745	0.285	0.039	2.16	0.37	0.045
0.18	0.61	0.040	1.11	0.18	0.039	2.03	0.64	0.063	1.33	0.205	0.049	1.745	0.29	0.039	2.16	0.375	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.18	0.62	0.043	1.11	0.19	0.037	2.03	0.65	0.061	1.33	0.21	0.047	1.745	0.295	0.039	2.16	0.38	0.043
0.18	0.63	0.047	1.11	0.2	0.035	2.03	0.66	0.057	1.33	0.215	0.046	1.745	0.3	0.038	2.16	0.385	0.043
0.18	0.64	0.050	1.11	0.21	0.035	2.03	0.67	0.053	1.33	0.22	0.044	1.745	0.305	0.037	2.16	0.39	0.044
0.18	0.65	0.051	1.11	0.22	0.038	2.03	0.68	0.050	1.33	0.225	0.042	1.745	0.31	0.038	2.16	0.395	0.044
0.18	0.66	0.050	1.11	0.23	0.042	2.03	0.69	0.050	1.33	0.23	0.040	1.745	0.315	0.039	2.16	0.4	0.043
0.18	0.67	0.048	1.11	0.24	0.049	2.03	0.7	0.052	1.33	0.235	0.040	1.745	0.32	0.037	2.16	0.405	0.043
0.18	0.68	0.046	1.11	0.25	0.058	2.03	0.71	0.056	1.33	0.24	0.040	1.745	0.325	0.035	2.16	0.41	0.042
0.18	0.69	0.046	1.11	0.26	0.062	2.03	0.72	0.059	1.33	0.245	0.041	1.745	0.33	0.036	2.16	0.415	0.041
0.18	0.7	0.046	1.11	0.27	0.062	2.03	0.73	0.057	1.33	0.25	0.041	1.745	0.335	0.041	2.16	0.42	0.040
0.18	0.71	0.046	1.11	0.28	0.057	2.03	0.74	0.054	1.33	0.255	0.041	1.745	0.34	0.049	2.16	0.425	0.042
0.18	0.72	0.046	1.11	0.29	0.053	2.03	0.75	0.051	1.33	0.26	0.041	1.745	0.345	0.052	2.16	0.43	0.045
0.18	0.73	0.046	1.11	0.3	0.052	2.03	0.76	0.050	1.33	0.265	0.042	1.745	0.35	0.046	2.16	0.435	0.045
0.18	0.74	0.046	1.11	0.31	0.052	2.03	0.77	0.049	1.33	0.27	0.044	1.745	0.355	0.041	2.16	0.44	0.043
0.18	0.75	0.047	1.11	0.32	0.052	2.03	0.78	0.051	1.33	0.275	0.044	1.745	0.36	0.037	2.16	0.445	0.038
0.18	0.76	0.046	1.11	0.33	0.050	2.03	0.79	0.055	1.33	0.28	0.043	1.745	0.365	0.038	2.16	0.45	0.036
0.18	0.77	0.046	1.11	0.34	0.049	2.03	0.8	0.058	1.33	0.285	0.041	1.745	0.37	0.042	2.16	0.455	0.037
0.18	0.78	0.046	1.11	0.35	0.048	2.03	0.81	0.060	1.33	0.29	0.038	1.745	0.375	0.047	2.16	0.46	0.038
0.18	0.79	0.046	1.11	0.36	0.048	2.03	0.82	0.063	1.33	0.295	0.035	1.745	0.38	0.050	2.16	0.465	0.039
0.18	0.8	0.045	1.11	0.37	0.047	2.03	0.83	0.065	1.33	0.3	0.036	1.745	0.385	0.051	2.16	0.47	0.039
0.18	0.81	0.043	1.11	0.38	0.045	2.03	0.84	0.065	1.33	0.305	0.037	1.745	0.39	0.051	2.16	0.475	0.041
0.18	0.82	0.042	1.11	0.39	0.045	2.03	0.85	0.060	1.33	0.31	0.038	1.745	0.395	0.051	2.16	0.48	0.044
0.18	0.83	0.042	1.11	0.4	0.046	2.03	0.86	0.053	1.33	0.315	0.040	1.745	0.4	0.051	2.16	0.485	0.046
0.18	0.84	0.044	1.11	0.41	0.047	2.03	0.87	0.047	1.33	0.32	0.043	1.745	0.405	0.051	2.16	0.49	0.047
0.18	0.85	0.045	1.11	0.42	0.050	2.03	0.88	0.045	1.33	0.325	0.048	1.745	0.41	0.051	2.16	0.495	0.047
0.18	0.86	0.045	1.11	0.43	0.054	2.03	0.89	0.046	1.33	0.33	0.052	1.745	0.415	0.051	2.165	0.005	0.075

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.18	0.87	0.045	1.11	0.44	0.056	2.04	0.01	0.080	1.33	0.335	0.052	1.745	0.42	0.051	2.165	0.01	0.073
0.18	0.88	0.046	1.11	0.45	0.055	2.04	0.02	0.080	1.33	0.34	0.048	1.745	0.425	0.049	2.165	0.015	0.068
0.18	0.89	0.046	1.11	0.46	0.051	2.04	0.03	0.077	1.33	0.345	0.043	1.745	0.43	0.044	2.165	0.02	0.064
0.19	0.01	0.064	1.11	0.47	0.047	2.04	0.04	0.073	1.33	0.35	0.039	1.745	0.435	0.037	2.165	0.025	0.062
0.19	0.02	0.063	1.11	0.48	0.044	2.04	0.05	0.070	1.33	0.355	0.040	1.745	0.44	0.033	2.165	0.03	0.060
0.19	0.03	0.063	1.11	0.49	0.046	2.04	0.06	0.068	1.33	0.36	0.041	1.745	0.445	0.032	2.165	0.035	0.056
0.19	0.04	0.062	1.11	0.5	0.050	2.04	0.07	0.068	1.33	0.365	0.041	1.745	0.45	0.034	2.165	0.04	0.049
0.19	0.05	0.060	1.11	0.51	0.053	2.04	0.08	0.069	1.33	0.37	0.041	1.745	0.455	0.039	2.165	0.045	0.042
0.19	0.06	0.056	1.11	0.52	0.054	2.04	0.09	0.071	1.33	0.375	0.042	1.745	0.46	0.047	2.165	0.05	0.040
0.19	0.07	0.053	1.11	0.53	0.051	2.04	0.1	0.073	1.33	0.38	0.044	1.745	0.465	0.054	2.165	0.055	0.041
0.19	0.08	0.049	1.11	0.54	0.047	2.04	0.11	0.075	1.33	0.385	0.047	1.745	0.47	0.057	2.165	0.06	0.043
0.19	0.09	0.046	1.11	0.55	0.043	2.04	0.12	0.076	1.33	0.39	0.050	1.745	0.475	0.058	2.165	0.065	0.044
0.19	0.1	0.043	1.11	0.56	0.041	2.04	0.13	0.078	1.33	0.395	0.052	1.745	0.48	0.056	2.165	0.07	0.046
0.19	0.11	0.042	1.11	0.57	0.040	2.04	0.14	0.077	1.33	0.4	0.053	1.745	0.485	0.054	2.165	0.075	0.050
0.19	0.12	0.042	1.11	0.58	0.041	2.04	0.15	0.071	1.33	0.405	0.051	1.745	0.49	0.052	2.165	0.08	0.052
0.19	0.13	0.042	1.11	0.59	0.043	2.04	0.16	0.062	1.33	0.41	0.049	1.745	0.495	0.050	2.165	0.085	0.051
0.19	0.14	0.043	1.11	0.6	0.045	2.04	0.17	0.053	1.33	0.415	0.046	1.75	0.005	0.047	2.165	0.09	0.048
0.19	0.15	0.044	1.11	0.61	0.046	2.04	0.18	0.046	1.33	0.42	0.044	1.75	0.01	0.056	2.165	0.095	0.045
0.19	0.16	0.046	1.11	0.62	0.047	2.04	0.19	0.041	1.33	0.425	0.044	1.75	0.015	0.062	2.165	0.1	0.044
0.19	0.17	0.047	1.11	0.63	0.048	2.04	0.2	0.039	1.33	0.43	0.043	1.75	0.02	0.066	2.165	0.105	0.044
0.19	0.18	0.047	1.11	0.64	0.049	2.04	0.21	0.040	1.33	0.435	0.043	1.75	0.025	0.065	2.165	0.11	0.046
0.19	0.19	0.046	1.11	0.65	0.051	2.04	0.22	0.042	1.33	0.44	0.043	1.75	0.03	0.060	2.165	0.115	0.050
0.19	0.2	0.045	1.11	0.66	0.052	2.04	0.23	0.045	1.33	0.445	0.043	1.75	0.035	0.059	2.165	0.12	0.053
0.19	0.21	0.045	1.11	0.67	0.052	2.04	0.24	0.048	1.33	0.45	0.044	1.75	0.04	0.063	2.165	0.125	0.053
0.19	0.22	0.045	1.11	0.68	0.051	2.04	0.25	0.049	1.33	0.455	0.044	1.75	0.045	0.070	2.165	0.13	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.19	0.23	0.045	1.11	0.69	0.049	2.04	0.26	0.047	1.33	0.46	0.042	1.75	0.05	0.073	2.165	0.135	0.043
0.19	0.24	0.043	1.11	0.7	0.048	2.04	0.27	0.045	1.33	0.465	0.038	1.75	0.055	0.072	2.165	0.14	0.039
0.19	0.25	0.042	1.11	0.71	0.049	2.04	0.28	0.043	1.33	0.47	0.036	1.75	0.06	0.068	2.165	0.145	0.038
0.19	0.26	0.042	1.11	0.72	0.051	2.04	0.29	0.042	1.33	0.475	0.041	1.75	0.065	0.063	2.165	0.15	0.043
0.19	0.27	0.042	1.11	0.73	0.052	2.04	0.3	0.042	1.33	0.48	0.045	1.75	0.07	0.060	2.165	0.155	0.050
0.19	0.28	0.040	1.11	0.74	0.051	2.04	0.31	0.041	1.33	0.485	0.045	1.75	0.075	0.058	2.165	0.16	0.053
0.19	0.29	0.038	1.11	0.75	0.050	2.04	0.32	0.042	1.33	0.49	0.044	1.75	0.08	0.060	2.165	0.165	0.053
0.19	0.3	0.038	1.11	0.76	0.051	2.04	0.33	0.043	1.33	0.495	0.041	1.75	0.085	0.062	2.165	0.17	0.052
0.19	0.31	0.039	1.11	0.77	0.054	2.04	0.34	0.044	1.335	0.005	0.038	1.75	0.09	0.063	2.165	0.175	0.053
0.19	0.32	0.039	1.11	0.78	0.057	2.04	0.35	0.045	1.335	0.01	0.037	1.75	0.095	0.063	2.165	0.18	0.053
0.19	0.33	0.038	1.11	0.79	0.057	2.04	0.36	0.047	1.335	0.015	0.036	1.75	0.1	0.062	2.165	0.185	0.051
0.19	0.34	0.036	1.11	0.8	0.054	2.04	0.37	0.048	1.335	0.02	0.035	1.75	0.105	0.061	2.165	0.19	0.048
0.19	0.35	0.035	1.11	0.81	0.049	2.04	0.38	0.048	1.335	0.025	0.034	1.75	0.11	0.061	2.165	0.195	0.047
0.19	0.36	0.035	1.11	0.82	0.044	2.04	0.39	0.046	1.335	0.03	0.034	1.75	0.115	0.065	2.165	0.2	0.045
0.19	0.37	0.036	1.11	0.83	0.039	2.04	0.4	0.043	1.335	0.035	0.034	1.75	0.12	0.067	2.165	0.205	0.042
0.19	0.38	0.037	1.11	0.84	0.036	2.04	0.41	0.042	1.335	0.04	0.034	1.75	0.125	0.064	2.165	0.21	0.039
0.19	0.39	0.037	1.11	0.85	0.035	2.04	0.42	0.042	1.335	0.045	0.034	1.75	0.13	0.063	2.165	0.215	0.039
0.19	0.4	0.036	1.11	0.86	0.036	2.04	0.43	0.044	1.335	0.05	0.034	1.75	0.135	0.063	2.165	0.22	0.044
0.19	0.41	0.035	1.11	0.87	0.037	2.04	0.44	0.047	1.335	0.055	0.034	1.75	0.14	0.064	2.165	0.225	0.048
0.19	0.42	0.035	1.11	0.88	0.039	2.04	0.45	0.048	1.335	0.06	0.035	1.75	0.145	0.063	2.165	0.23	0.049
0.19	0.43	0.035	1.11	0.89	0.041	2.04	0.46	0.049	1.335	0.065	0.036	1.75	0.15	0.062	2.165	0.235	0.047
0.19	0.44	0.037	1.12	0.01	0.033	2.04	0.47	0.048	1.335	0.07	0.037	1.75	0.155	0.061	2.165	0.24	0.044
0.19	0.45	0.039	1.12	0.02	0.033	2.04	0.48	0.047	1.335	0.075	0.038	1.75	0.16	0.064	2.165	0.245	0.041
0.19	0.46	0.041	1.12	0.03	0.033	2.04	0.49	0.047	1.335	0.08	0.038	1.75	0.165	0.066	2.165	0.25	0.041
0.19	0.47	0.042	1.12	0.04	0.033	2.04	0.5	0.048	1.335	0.085	0.038	1.75	0.17	0.064	2.165	0.255	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.19	0.48	0.043	1.12	0.05	0.034	2.04	0.51	0.050	1.335	0.09	0.038	1.75	0.175	0.060	2.165	0.26	0.047
0.19	0.49	0.042	1.12	0.06	0.035	2.04	0.52	0.052	1.335	0.095	0.039	1.75	0.18	0.056	2.165	0.265	0.048
0.19	0.5	0.040	1.12	0.07	0.036	2.04	0.53	0.056	1.335	0.1	0.039	1.75	0.185	0.054	2.165	0.27	0.045
0.19	0.51	0.038	1.12	0.08	0.037	2.04	0.54	0.061	1.335	0.105	0.039	1.75	0.19	0.052	2.165	0.275	0.039
0.19	0.52	0.036	1.12	0.09	0.038	2.04	0.55	0.064	1.335	0.11	0.040	1.75	0.195	0.050	2.165	0.28	0.036
0.19	0.53	0.035	1.12	0.1	0.040	2.04	0.56	0.066	1.335	0.115	0.041	1.75	0.2	0.054	2.165	0.285	0.036
0.19	0.54	0.034	1.12	0.11	0.041	2.04	0.57	0.065	1.335	0.12	0.043	1.75	0.205	0.060	2.165	0.29	0.037
0.19	0.55	0.035	1.12	0.12	0.043	2.04	0.58	0.063	1.335	0.125	0.045	1.75	0.21	0.062	2.165	0.295	0.037
0.19	0.56	0.036	1.12	0.13	0.044	2.04	0.59	0.061	1.335	0.13	0.046	1.75	0.215	0.062	2.165	0.3	0.036
0.19	0.57	0.036	1.12	0.14	0.044	2.04	0.6	0.060	1.335	0.135	0.046	1.75	0.22	0.061	2.165	0.305	0.038
0.19	0.58	0.037	1.12	0.15	0.045	2.04	0.61	0.062	1.335	0.14	0.044	1.75	0.225	0.059	2.165	0.31	0.042
0.19	0.59	0.038	1.12	0.16	0.044	2.04	0.62	0.065	1.335	0.145	0.042	1.75	0.23	0.053	2.165	0.315	0.044
0.19	0.6	0.038	1.12	0.17	0.043	2.04	0.63	0.066	1.335	0.15	0.043	1.75	0.235	0.046	2.165	0.32	0.042
0.19	0.61	0.039	1.12	0.18	0.041	2.04	0.64	0.065	1.335	0.155	0.047	1.75	0.24	0.043	2.165	0.325	0.038
0.19	0.62	0.042	1.12	0.19	0.038	2.04	0.65	0.060	1.335	0.16	0.050	1.75	0.245	0.046	2.165	0.33	0.035
0.19	0.63	0.046	1.12	0.2	0.037	2.04	0.66	0.055	1.335	0.165	0.050	1.75	0.25	0.055	2.165	0.335	0.034
0.19	0.64	0.050	1.12	0.21	0.037	2.04	0.67	0.052	1.335	0.17	0.049	1.75	0.255	0.061	2.165	0.34	0.034
0.19	0.65	0.051	1.12	0.22	0.038	2.04	0.68	0.051	1.335	0.175	0.047	1.75	0.26	0.063	2.165	0.345	0.035
0.19	0.66	0.050	1.12	0.23	0.042	2.04	0.69	0.052	1.335	0.18	0.048	1.75	0.265	0.062	2.165	0.35	0.037
0.19	0.67	0.048	1.12	0.24	0.048	2.04	0.7	0.055	1.335	0.185	0.050	1.75	0.27	0.057	2.165	0.355	0.040
0.19	0.68	0.048	1.12	0.25	0.056	2.04	0.71	0.060	1.335	0.19	0.050	1.75	0.275	0.048	2.165	0.36	0.043
0.19	0.69	0.047	1.12	0.26	0.061	2.04	0.72	0.061	1.335	0.195	0.048	1.75	0.28	0.041	2.165	0.365	0.044
0.19	0.7	0.048	1.12	0.27	0.060	2.04	0.73	0.059	1.335	0.2	0.045	1.75	0.285	0.039	2.165	0.37	0.044
0.19	0.71	0.048	1.12	0.28	0.057	2.04	0.74	0.055	1.335	0.205	0.044	1.75	0.29	0.040	2.165	0.375	0.043
0.19	0.72	0.048	1.12	0.29	0.054	2.04	0.75	0.052	1.335	0.21	0.046	1.75	0.295	0.041	2.165	0.38	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.19	0.73	0.048	1.12	0.3	0.053	2.04	0.76	0.050	1.335	0.215	0.047	1.75	0.3	0.041	2.165	0.385	0.042
0.19	0.74	0.047	1.12	0.31	0.052	2.04	0.77	0.048	1.335	0.22	0.046	1.75	0.305	0.041	2.165	0.39	0.043
0.19	0.75	0.046	1.12	0.32	0.050	2.04	0.78	0.050	1.335	0.225	0.044	1.75	0.31	0.044	2.165	0.395	0.043
0.19	0.76	0.046	1.12	0.33	0.049	2.04	0.79	0.054	1.335	0.23	0.040	1.75	0.315	0.045	2.165	0.4	0.043
0.19	0.77	0.045	1.12	0.34	0.048	2.04	0.8	0.057	1.335	0.235	0.038	1.75	0.32	0.043	2.165	0.405	0.042
0.19	0.78	0.046	1.12	0.35	0.049	2.04	0.81	0.059	1.335	0.24	0.039	1.75	0.325	0.039	2.165	0.41	0.041
0.19	0.79	0.046	1.12	0.36	0.048	2.04	0.82	0.064	1.335	0.245	0.040	1.75	0.33	0.039	2.165	0.415	0.039
0.19	0.8	0.046	1.12	0.37	0.046	2.04	0.83	0.066	1.335	0.25	0.040	1.75	0.335	0.044	2.165	0.42	0.039
0.19	0.81	0.045	1.12	0.38	0.044	2.04	0.84	0.065	1.335	0.255	0.040	1.75	0.34	0.050	2.165	0.425	0.042
0.19	0.82	0.044	1.12	0.39	0.044	2.04	0.85	0.058	1.335	0.26	0.039	1.75	0.345	0.051	2.165	0.43	0.045
0.19	0.83	0.045	1.12	0.4	0.044	2.04	0.86	0.050	1.335	0.265	0.039	1.75	0.35	0.047	2.165	0.435	0.045
0.19	0.84	0.047	1.12	0.41	0.046	2.04	0.87	0.045	1.335	0.27	0.039	1.75	0.355	0.044	2.165	0.44	0.041
0.19	0.85	0.048	1.12	0.42	0.048	2.04	0.88	0.044	1.335	0.275	0.039	1.75	0.36	0.043	2.165	0.445	0.037
0.19	0.86	0.049	1.12	0.43	0.050	2.04	0.89	0.045	1.335	0.28	0.040	1.75	0.365	0.042	2.165	0.45	0.036
0.19	0.87	0.048	1.12	0.44	0.051	2.05	0.01	0.080	1.335	0.285	0.038	1.75	0.37	0.045	2.165	0.455	0.038
0.19	0.88	0.046	1.12	0.45	0.051	2.05	0.02	0.080	1.335	0.29	0.037	1.75	0.375	0.048	2.165	0.46	0.040
0.19	0.89	0.045	1.12	0.46	0.048	2.05	0.03	0.078	1.335	0.295	0.036	1.75	0.38	0.051	2.165	0.465	0.039
0.2	0.01	0.067	1.12	0.47	0.045	2.05	0.04	0.075	1.335	0.3	0.036	1.75	0.385	0.051	2.165	0.47	0.037
0.2	0.02	0.067	1.12	0.48	0.043	2.05	0.05	0.072	1.335	0.305	0.037	1.75	0.39	0.051	2.165	0.475	0.039
0.2	0.03	0.067	1.12	0.49	0.045	2.05	0.06	0.070	1.335	0.31	0.037	1.75	0.395	0.051	2.165	0.48	0.043
0.2	0.04	0.066	1.12	0.5	0.049	2.05	0.07	0.068	1.335	0.315	0.037	1.75	0.4	0.051	2.165	0.485	0.046
0.2	0.05	0.062	1.12	0.51	0.051	2.05	0.08	0.066	1.335	0.32	0.037	1.75	0.405	0.051	2.165	0.49	0.048
0.2	0.06	0.058	1.12	0.52	0.052	2.05	0.09	0.066	1.335	0.325	0.041	1.75	0.41	0.050	2.165	0.495	0.048
0.2	0.07	0.055	1.12	0.53	0.050	2.05	0.1	0.068	1.335	0.33	0.047	1.75	0.415	0.050	2.17	0.005	0.079
0.2	0.08	0.052	1.12	0.54	0.047	2.05	0.11	0.070	1.335	0.335	0.049	1.75	0.42	0.049	2.17	0.01	0.076

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.2	0.09	0.048	1.12	0.55	0.045	2.05	0.12	0.073	1.335	0.34	0.046	1.75	0.425	0.046	2.17	0.015	0.071
0.2	0.1	0.045	1.12	0.56	0.042	2.05	0.13	0.075	1.335	0.345	0.040	1.75	0.43	0.042	2.17	0.02	0.065
0.2	0.11	0.043	1.12	0.57	0.041	2.05	0.14	0.075	1.335	0.35	0.038	1.75	0.435	0.037	2.17	0.025	0.064
0.2	0.12	0.042	1.12	0.58	0.041	2.05	0.15	0.071	1.335	0.355	0.039	1.75	0.44	0.033	2.17	0.03	0.064
0.2	0.13	0.043	1.12	0.59	0.043	2.05	0.16	0.062	1.335	0.36	0.040	1.75	0.445	0.031	2.17	0.035	0.061
0.2	0.14	0.044	1.12	0.6	0.044	2.05	0.17	0.053	1.335	0.365	0.042	1.75	0.45	0.033	2.17	0.04	0.054
0.2	0.15	0.044	1.12	0.61	0.046	2.05	0.18	0.045	1.335	0.37	0.042	1.75	0.455	0.039	2.17	0.045	0.044
0.2	0.16	0.043	1.12	0.62	0.048	2.05	0.19	0.040	1.335	0.375	0.043	1.75	0.46	0.049	2.17	0.05	0.040
0.2	0.17	0.042	1.12	0.63	0.050	2.05	0.2	0.038	1.335	0.38	0.046	1.75	0.465	0.057	2.17	0.055	0.043
0.2	0.18	0.041	1.12	0.64	0.051	2.05	0.21	0.038	1.335	0.385	0.049	1.75	0.47	0.060	2.17	0.06	0.047
0.2	0.19	0.041	1.12	0.65	0.051	2.05	0.22	0.041	1.335	0.39	0.051	1.75	0.475	0.060	2.17	0.065	0.050
0.2	0.2	0.042	1.12	0.66	0.051	2.05	0.23	0.045	1.335	0.395	0.051	1.75	0.48	0.059	2.17	0.07	0.051
0.2	0.21	0.043	1.12	0.67	0.051	2.05	0.24	0.049	1.335	0.4	0.051	1.75	0.485	0.058	2.17	0.075	0.052
0.2	0.22	0.045	1.12	0.68	0.051	2.05	0.25	0.051	1.335	0.405	0.049	1.75	0.49	0.056	2.17	0.08	0.052
0.2	0.23	0.045	1.12	0.69	0.050	2.05	0.26	0.050	1.335	0.41	0.047	1.75	0.495	0.054	2.17	0.085	0.050
0.2	0.24	0.044	1.12	0.7	0.050	2.05	0.27	0.048	1.335	0.415	0.047	1.755	0.005	0.046	2.17	0.09	0.046
0.2	0.25	0.043	1.12	0.71	0.051	2.05	0.28	0.046	1.335	0.42	0.048	1.755	0.01	0.053	2.17	0.095	0.042
0.2	0.26	0.042	1.12	0.72	0.053	2.05	0.29	0.045	1.335	0.425	0.047	1.755	0.015	0.058	2.17	0.1	0.041
0.2	0.27	0.042	1.12	0.73	0.054	2.05	0.3	0.043	1.335	0.43	0.042	1.755	0.02	0.061	2.17	0.105	0.043
0.2	0.28	0.040	1.12	0.74	0.052	2.05	0.31	0.041	1.335	0.435	0.037	1.755	0.025	0.061	2.17	0.11	0.047
0.2	0.29	0.038	1.12	0.75	0.051	2.05	0.32	0.041	1.335	0.44	0.036	1.755	0.03	0.058	2.17	0.115	0.051
0.2	0.3	0.037	1.12	0.76	0.052	2.05	0.33	0.042	1.335	0.445	0.037	1.755	0.035	0.054	2.17	0.12	0.055
0.2	0.31	0.038	1.12	0.77	0.057	2.05	0.34	0.043	1.335	0.45	0.038	1.755	0.04	0.057	2.17	0.125	0.057
0.2	0.32	0.038	1.12	0.78	0.062	2.05	0.35	0.045	1.335	0.455	0.038	1.755	0.045	0.062	2.17	0.13	0.055
0.2	0.33	0.037	1.12	0.79	0.063	2.05	0.36	0.047	1.335	0.46	0.038	1.755	0.05	0.063	2.17	0.135	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.2	0.34	0.035	1.12	0.8	0.061	2.05	0.37	0.049	1.335	0.465	0.037	1.755	0.055	0.061	2.17	0.14	0.041
0.2	0.35	0.034	1.12	0.81	0.055	2.05	0.38	0.048	1.335	0.47	0.037	1.755	0.06	0.060	2.17	0.145	0.040
0.2	0.36	0.034	1.12	0.82	0.048	2.05	0.39	0.046	1.335	0.475	0.040	1.755	0.065	0.059	2.17	0.15	0.046
0.2	0.37	0.035	1.12	0.83	0.042	2.05	0.4	0.044	1.335	0.48	0.043	1.755	0.07	0.059	2.17	0.155	0.053
0.2	0.38	0.035	1.12	0.84	0.039	2.05	0.41	0.042	1.335	0.485	0.044	1.755	0.075	0.058	2.17	0.16	0.055
0.2	0.39	0.035	1.12	0.85	0.038	2.05	0.42	0.042	1.335	0.49	0.044	1.755	0.08	0.057	2.17	0.165	0.056
0.2	0.4	0.035	1.12	0.86	0.039	2.05	0.43	0.043	1.335	0.495	0.042	1.755	0.085	0.058	2.17	0.17	0.055
0.2	0.41	0.034	1.12	0.87	0.040	2.05	0.44	0.046	1.34	0.005	0.038	1.755	0.09	0.059	2.17	0.175	0.055
0.2	0.42	0.034	1.12	0.88	0.042	2.05	0.45	0.047	1.34	0.01	0.037	1.755	0.095	0.059	2.17	0.18	0.056
0.2	0.43	0.035	1.12	0.89	0.044	2.05	0.46	0.048	1.34	0.015	0.036	1.755	0.1	0.059	2.17	0.185	0.056
0.2	0.44	0.037	1.13	0.01	0.033	2.05	0.47	0.047	1.34	0.02	0.035	1.755	0.105	0.061	2.17	0.19	0.055
0.2	0.45	0.039	1.13	0.02	0.033	2.05	0.48	0.046	1.34	0.025	0.034	1.755	0.11	0.065	2.17	0.195	0.054
0.2	0.46	0.041	1.13	0.03	0.033	2.05	0.49	0.046	1.34	0.03	0.034	1.755	0.115	0.070	2.17	0.2	0.051
0.2	0.47	0.041	1.13	0.04	0.033	2.05	0.5	0.047	1.34	0.035	0.034	1.755	0.12	0.071	2.17	0.205	0.045
0.2	0.48	0.041	1.13	0.05	0.034	2.05	0.51	0.050	1.34	0.04	0.034	1.755	0.125	0.069	2.17	0.21	0.040
0.2	0.49	0.039	1.13	0.06	0.036	2.05	0.52	0.054	1.34	0.045	0.034	1.755	0.13	0.064	2.17	0.215	0.040
0.2	0.5	0.038	1.13	0.07	0.037	2.05	0.53	0.058	1.34	0.05	0.034	1.755	0.135	0.062	2.17	0.22	0.045
0.2	0.51	0.037	1.13	0.08	0.038	2.05	0.54	0.061	1.34	0.055	0.035	1.755	0.14	0.061	2.17	0.225	0.050
0.2	0.52	0.036	1.13	0.09	0.039	2.05	0.55	0.063	1.34	0.06	0.036	1.755	0.145	0.060	2.17	0.23	0.052
0.2	0.53	0.036	1.13	0.1	0.041	2.05	0.56	0.064	1.34	0.065	0.037	1.755	0.15	0.060	2.17	0.235	0.050
0.2	0.54	0.036	1.13	0.11	0.042	2.05	0.57	0.063	1.34	0.07	0.037	1.755	0.155	0.062	2.17	0.24	0.046
0.2	0.55	0.037	1.13	0.12	0.044	2.05	0.58	0.061	1.34	0.075	0.038	1.755	0.16	0.064	2.17	0.245	0.042
0.2	0.56	0.037	1.13	0.13	0.045	2.05	0.59	0.060	1.34	0.08	0.038	1.755	0.165	0.066	2.17	0.25	0.040
0.2	0.57	0.038	1.13	0.14	0.045	2.05	0.6	0.060	1.34	0.085	0.039	1.755	0.17	0.066	2.17	0.255	0.042
0.2	0.58	0.038	1.13	0.15	0.045	2.05	0.61	0.064	1.34	0.09	0.040	1.755	0.175	0.063	2.17	0.26	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.2	0.59	0.038	1.13	0.16	0.045	2.05	0.62	0.067	1.34	0.095	0.040	1.755	0.18	0.059	2.17	0.265	0.046
0.2	0.6	0.038	1.13	0.17	0.044	2.05	0.63	0.068	1.34	0.1	0.040	1.755	0.185	0.053	2.17	0.27	0.044
0.2	0.61	0.038	1.13	0.18	0.042	2.05	0.64	0.065	1.34	0.105	0.040	1.755	0.19	0.049	2.17	0.275	0.040
0.2	0.62	0.040	1.13	0.19	0.040	2.05	0.65	0.060	1.34	0.11	0.041	1.755	0.195	0.049	2.17	0.28	0.037
0.2	0.63	0.043	1.13	0.2	0.039	2.05	0.66	0.056	1.34	0.115	0.043	1.755	0.2	0.055	2.17	0.285	0.036
0.2	0.64	0.047	1.13	0.21	0.040	2.05	0.67	0.054	1.34	0.12	0.046	1.755	0.205	0.061	2.17	0.29	0.037
0.2	0.65	0.048	1.13	0.22	0.041	2.05	0.68	0.053	1.34	0.125	0.048	1.755	0.21	0.063	2.17	0.295	0.037
0.2	0.66	0.047	1.13	0.23	0.042	2.05	0.69	0.053	1.34	0.13	0.049	1.755	0.215	0.063	2.17	0.3	0.036
0.2	0.67	0.047	1.13	0.24	0.046	2.05	0.7	0.056	1.34	0.135	0.049	1.755	0.22	0.062	2.17	0.305	0.036
0.2	0.68	0.047	1.13	0.25	0.051	2.05	0.71	0.060	1.34	0.14	0.048	1.755	0.225	0.061	2.17	0.31	0.038
0.2	0.69	0.048	1.13	0.26	0.055	2.05	0.72	0.061	1.34	0.145	0.047	1.755	0.23	0.056	2.17	0.315	0.040
0.2	0.7	0.047	1.13	0.27	0.056	2.05	0.73	0.060	1.34	0.15	0.046	1.755	0.235	0.050	2.17	0.32	0.039
0.2	0.71	0.047	1.13	0.28	0.054	2.05	0.74	0.058	1.34	0.155	0.048	1.755	0.24	0.045	2.17	0.325	0.037
0.2	0.72	0.048	1.13	0.29	0.053	2.05	0.75	0.056	1.34	0.16	0.049	1.755	0.245	0.046	2.17	0.33	0.036
0.2	0.73	0.048	1.13	0.3	0.053	2.05	0.76	0.054	1.34	0.165	0.049	1.755	0.25	0.052	2.17	0.335	0.037
0.2	0.74	0.047	1.13	0.31	0.051	2.05	0.77	0.051	1.34	0.17	0.047	1.755	0.255	0.059	2.17	0.34	0.036
0.2	0.75	0.047	1.13	0.32	0.049	2.05	0.78	0.050	1.34	0.175	0.045	1.755	0.26	0.063	2.17	0.345	0.036
0.2	0.76	0.046	1.13	0.33	0.048	2.05	0.79	0.053	1.34	0.18	0.044	1.755	0.265	0.062	2.17	0.35	0.038
0.2	0.77	0.046	1.13	0.34	0.048	2.05	0.8	0.055	1.34	0.185	0.043	1.755	0.27	0.058	2.17	0.355	0.040
0.2	0.78	0.046	1.13	0.35	0.051	2.05	0.81	0.058	1.34	0.19	0.043	1.755	0.275	0.049	2.17	0.36	0.042
0.2	0.79	0.046	1.13	0.36	0.051	2.05	0.82	0.061	1.34	0.195	0.044	1.755	0.28	0.040	2.17	0.365	0.041
0.2	0.8	0.047	1.13	0.37	0.048	2.05	0.83	0.063	1.34	0.2	0.044	1.755	0.285	0.039	2.17	0.37	0.040
0.2	0.81	0.046	1.13	0.38	0.046	2.05	0.84	0.059	1.34	0.205	0.044	1.755	0.29	0.043	2.17	0.375	0.040
0.2	0.82	0.046	1.13	0.39	0.045	2.05	0.85	0.052	1.34	0.21	0.046	1.755	0.295	0.048	2.17	0.38	0.040
0.2	0.83	0.048	1.13	0.4	0.045	2.05	0.86	0.046	1.34	0.215	0.047	1.755	0.3	0.047	2.17	0.385	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.2	0.84	0.051	1.13	0.41	0.046	2.05	0.87	0.043	1.34	0.22	0.047	1.755	0.305	0.046	2.17	0.39	0.042
0.2	0.85	0.052	1.13	0.42	0.048	2.05	0.88	0.044	1.34	0.225	0.044	1.755	0.31	0.049	2.17	0.395	0.042
0.2	0.86	0.052	1.13	0.43	0.049	2.05	0.89	0.047	1.34	0.23	0.040	1.755	0.315	0.050	2.17	0.4	0.042
0.2	0.87	0.050	1.13	0.44	0.049	2.06	0.01	0.080	1.34	0.235	0.036	1.755	0.32	0.047	2.17	0.405	0.041
0.2	0.88	0.047	1.13	0.45	0.048	2.06	0.02	0.080	1.34	0.24	0.036	1.755	0.325	0.043	2.17	0.41	0.039
0.2	0.89	0.044	1.13	0.46	0.046	2.06	0.03	0.078	1.34	0.245	0.038	1.755	0.33	0.042	2.17	0.415	0.038
0.21	0.01	0.071	1.13	0.47	0.043	2.06	0.04	0.074	1.34	0.25	0.038	1.755	0.335	0.047	2.17	0.42	0.040
0.21	0.02	0.070	1.13	0.48	0.042	2.06	0.05	0.071	1.34	0.255	0.037	1.755	0.34	0.050	2.17	0.425	0.043
0.21	0.03	0.069	1.13	0.49	0.044	2.06	0.06	0.068	1.34	0.26	0.036	1.755	0.345	0.050	2.17	0.43	0.044
0.21	0.04	0.066	1.13	0.5	0.047	2.06	0.07	0.065	1.34	0.265	0.036	1.755	0.35	0.049	2.17	0.435	0.043
0.21	0.05	0.062	1.13	0.51	0.049	2.06	0.08	0.062	1.34	0.27	0.038	1.755	0.355	0.048	2.17	0.44	0.039
0.21	0.06	0.058	1.13	0.52	0.049	2.06	0.09	0.060	1.34	0.275	0.040	1.755	0.36	0.048	2.17	0.445	0.037
0.21	0.07	0.056	1.13	0.53	0.049	2.06	0.1	0.061	1.34	0.28	0.039	1.755	0.365	0.046	2.17	0.45	0.038
0.21	0.08	0.053	1.13	0.54	0.047	2.06	0.11	0.063	1.34	0.285	0.038	1.755	0.37	0.046	2.17	0.455	0.041
0.21	0.09	0.050	1.13	0.55	0.045	2.06	0.12	0.066	1.34	0.29	0.038	1.755	0.375	0.048	2.17	0.46	0.042
0.21	0.1	0.047	1.13	0.56	0.044	2.06	0.13	0.070	1.34	0.295	0.039	1.755	0.38	0.050	2.17	0.465	0.039
0.21	0.11	0.044	1.13	0.57	0.043	2.06	0.14	0.071	1.34	0.3	0.040	1.755	0.385	0.050	2.17	0.47	0.035
0.21	0.12	0.043	1.13	0.58	0.042	2.06	0.15	0.067	1.34	0.305	0.040	1.755	0.39	0.050	2.17	0.475	0.036
0.21	0.13	0.043	1.13	0.59	0.043	2.06	0.16	0.060	1.34	0.31	0.038	1.755	0.395	0.049	2.17	0.48	0.042
0.21	0.14	0.043	1.13	0.6	0.044	2.06	0.17	0.052	1.34	0.315	0.037	1.755	0.4	0.049	2.17	0.485	0.046
0.21	0.15	0.043	1.13	0.61	0.046	2.06	0.18	0.045	1.34	0.32	0.036	1.755	0.405	0.048	2.17	0.49	0.048
0.21	0.16	0.040	1.13	0.62	0.049	2.06	0.19	0.040	1.34	0.325	0.037	1.755	0.41	0.047	2.17	0.495	0.048
0.21	0.17	0.038	1.13	0.63	0.051	2.06	0.2	0.038	1.34	0.33	0.040	1.755	0.415	0.045	2.175	0.005	0.081
0.21	0.18	0.037	1.13	0.64	0.051	2.06	0.21	0.038	1.34	0.335	0.042	1.755	0.42	0.043	2.175	0.01	0.078
0.21	0.19	0.037	1.13	0.65	0.051	2.06	0.22	0.042	1.34	0.34	0.040	1.755	0.425	0.043	2.175	0.015	0.072

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.21	0.2	0.039	1.13	0.66	0.051	2.06	0.23	0.048	1.34	0.345	0.037	1.755	0.43	0.041	2.175	0.02	0.066
0.21	0.21	0.042	1.13	0.67	0.051	2.06	0.24	0.052	1.34	0.35	0.038	1.755	0.435	0.038	2.175	0.025	0.066
0.21	0.22	0.044	1.13	0.68	0.052	2.06	0.25	0.055	1.34	0.355	0.040	1.755	0.44	0.034	2.175	0.03	0.067
0.21	0.23	0.044	1.13	0.69	0.052	2.06	0.26	0.054	1.34	0.36	0.042	1.755	0.445	0.033	2.175	0.035	0.067
0.21	0.24	0.043	1.13	0.7	0.052	2.06	0.27	0.053	1.34	0.365	0.043	1.755	0.45	0.035	2.175	0.04	0.061
0.21	0.25	0.043	1.13	0.71	0.052	2.06	0.28	0.050	1.34	0.37	0.043	1.755	0.455	0.041	2.175	0.045	0.049
0.21	0.26	0.043	1.13	0.72	0.054	2.06	0.29	0.047	1.34	0.375	0.044	1.755	0.46	0.050	2.175	0.05	0.043
0.21	0.27	0.042	1.13	0.73	0.055	2.06	0.3	0.044	1.34	0.38	0.046	1.755	0.465	0.056	2.175	0.055	0.046
0.21	0.28	0.040	1.13	0.74	0.054	2.06	0.31	0.042	1.34	0.385	0.048	1.755	0.47	0.060	2.175	0.06	0.051
0.21	0.29	0.038	1.13	0.75	0.053	2.06	0.32	0.041	1.34	0.39	0.049	1.755	0.475	0.061	2.175	0.065	0.055
0.21	0.3	0.037	1.13	0.76	0.054	2.06	0.33	0.042	1.34	0.395	0.049	1.755	0.48	0.060	2.175	0.07	0.057
0.21	0.31	0.037	1.13	0.77	0.057	2.06	0.34	0.043	1.34	0.4	0.048	1.755	0.485	0.060	2.175	0.075	0.057
0.21	0.32	0.037	1.13	0.78	0.062	2.06	0.35	0.045	1.34	0.405	0.047	1.755	0.49	0.059	2.175	0.08	0.055
0.21	0.33	0.036	1.13	0.79	0.064	2.06	0.36	0.047	1.34	0.41	0.047	1.755	0.495	0.057	2.175	0.085	0.052
0.21	0.34	0.035	1.13	0.8	0.062	2.06	0.37	0.048	1.34	0.415	0.050	1.76	0.005	0.045	2.175	0.09	0.047
0.21	0.35	0.034	1.13	0.81	0.057	2.06	0.38	0.047	1.34	0.42	0.052	1.76	0.01	0.052	2.175	0.095	0.043
0.21	0.36	0.034	1.13	0.82	0.051	2.06	0.39	0.045	1.34	0.425	0.050	1.76	0.015	0.057	2.175	0.1	0.040
0.21	0.37	0.034	1.13	0.83	0.045	2.06	0.4	0.044	1.34	0.43	0.044	1.76	0.02	0.061	2.175	0.105	0.043
0.21	0.38	0.034	1.13	0.84	0.042	2.06	0.41	0.044	1.34	0.435	0.035	1.76	0.025	0.065	2.175	0.11	0.046
0.21	0.39	0.034	1.13	0.85	0.041	2.06	0.42	0.044	1.34	0.44	0.031	1.76	0.03	0.063	2.175	0.115	0.050
0.21	0.4	0.034	1.13	0.86	0.042	2.06	0.43	0.044	1.34	0.445	0.031	1.76	0.035	0.054	2.175	0.12	0.054
0.21	0.41	0.034	1.13	0.87	0.043	2.06	0.44	0.046	1.34	0.45	0.032	1.76	0.04	0.049	2.175	0.125	0.057
0.21	0.42	0.034	1.13	0.88	0.044	2.06	0.45	0.047	1.34	0.455	0.033	1.76	0.045	0.049	2.175	0.13	0.057
0.21	0.43	0.034	1.13	0.89	0.045	2.06	0.46	0.046	1.34	0.46	0.034	1.76	0.05	0.049	2.175	0.135	0.052
0.21	0.44	0.036	1.14	0.01	0.032	2.06	0.47	0.045	1.34	0.465	0.036	1.76	0.055	0.050	2.175	0.14	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.21	0.45	0.039	1.14	0.02	0.033	2.06	0.48	0.045	1.34	0.47	0.039	1.76	0.06	0.053	2.175	0.145	0.042
0.21	0.46	0.040	1.14	0.03	0.033	2.06	0.49	0.046	1.34	0.475	0.042	1.76	0.065	0.057	2.175	0.15	0.048
0.21	0.47	0.039	1.14	0.04	0.033	2.06	0.5	0.048	1.34	0.48	0.043	1.76	0.07	0.057	2.175	0.155	0.054
0.21	0.48	0.039	1.14	0.05	0.034	2.06	0.51	0.051	1.34	0.485	0.044	1.76	0.075	0.056	2.175	0.16	0.056
0.21	0.49	0.038	1.14	0.06	0.036	2.06	0.52	0.055	1.34	0.49	0.043	1.76	0.08	0.055	2.175	0.165	0.056
0.21	0.5	0.037	1.14	0.07	0.037	2.06	0.53	0.057	1.34	0.495	0.041	1.76	0.085	0.055	2.175	0.17	0.056
0.21	0.51	0.036	1.14	0.08	0.039	2.06	0.54	0.059	1.345	0.005	0.038	1.76	0.09	0.057	2.175	0.175	0.056
0.21	0.52	0.036	1.14	0.09	0.040	2.06	0.55	0.060	1.345	0.01	0.038	1.76	0.095	0.057	2.175	0.18	0.056
0.21	0.53	0.038	1.14	0.1	0.041	2.06	0.56	0.060	1.345	0.015	0.037	1.76	0.1	0.058	2.175	0.185	0.057
0.21	0.54	0.039	1.14	0.11	0.042	2.06	0.57	0.060	1.345	0.02	0.035	1.76	0.105	0.060	2.175	0.19	0.058
0.21	0.55	0.039	1.14	0.12	0.043	2.06	0.58	0.059	1.345	0.025	0.035	1.76	0.11	0.067	2.175	0.195	0.057
0.21	0.56	0.038	1.14	0.13	0.044	2.06	0.59	0.059	1.345	0.03	0.035	1.76	0.115	0.072	2.175	0.2	0.053
0.21	0.57	0.038	1.14	0.14	0.045	2.06	0.6	0.059	1.345	0.035	0.035	1.76	0.12	0.073	2.175	0.205	0.046
0.21	0.58	0.038	1.14	0.15	0.045	2.06	0.61	0.062	1.345	0.04	0.035	1.76	0.125	0.071	2.175	0.21	0.040
0.21	0.59	0.038	1.14	0.16	0.044	2.06	0.62	0.065	1.345	0.045	0.034	1.76	0.13	0.066	2.175	0.215	0.040
0.21	0.6	0.037	1.14	0.17	0.043	2.06	0.63	0.066	1.345	0.05	0.034	1.76	0.135	0.061	2.175	0.22	0.045
0.21	0.61	0.037	1.14	0.18	0.041	2.06	0.64	0.065	1.345	0.055	0.035	1.76	0.14	0.056	2.175	0.225	0.051
0.21	0.62	0.038	1.14	0.19	0.040	2.06	0.65	0.062	1.345	0.06	0.036	1.76	0.145	0.054	2.175	0.23	0.054
0.21	0.63	0.040	1.14	0.2	0.040	2.06	0.66	0.059	1.345	0.065	0.036	1.76	0.15	0.057	2.175	0.235	0.052
0.21	0.64	0.044	1.14	0.21	0.042	2.06	0.67	0.057	1.345	0.07	0.036	1.76	0.155	0.064	2.175	0.24	0.049
0.21	0.65	0.045	1.14	0.22	0.043	2.06	0.68	0.054	1.345	0.075	0.037	1.76	0.16	0.068	2.175	0.245	0.044
0.21	0.66	0.044	1.14	0.23	0.043	2.06	0.69	0.053	1.345	0.08	0.039	1.76	0.165	0.069	2.175	0.25	0.041
0.21	0.67	0.044	1.14	0.24	0.044	2.06	0.7	0.055	1.345	0.085	0.041	1.76	0.17	0.068	2.175	0.255	0.041
0.21	0.68	0.045	1.14	0.25	0.047	2.06	0.71	0.058	1.345	0.09	0.042	1.76	0.175	0.067	2.175	0.26	0.044
0.21	0.69	0.045	1.14	0.26	0.049	2.06	0.72	0.059	1.345	0.095	0.042	1.76	0.18	0.063	2.175	0.265	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.21	0.7	0.045	1.14	0.27	0.051	2.06	0.73	0.060	1.345	0.1	0.042	1.76	0.185	0.056	2.175	0.27	0.045
0.21	0.71	0.045	1.14	0.28	0.051	2.06	0.74	0.062	1.345	0.105	0.041	1.76	0.19	0.048	2.175	0.275	0.042
0.21	0.72	0.046	1.14	0.29	0.051	2.06	0.75	0.063	1.345	0.11	0.041	1.76	0.195	0.048	2.175	0.28	0.040
0.21	0.73	0.047	1.14	0.3	0.050	2.06	0.76	0.061	1.345	0.115	0.043	1.76	0.2	0.056	2.175	0.285	0.039
0.21	0.74	0.048	1.14	0.31	0.049	2.06	0.77	0.057	1.345	0.12	0.047	1.76	0.205	0.062	2.175	0.29	0.039
0.21	0.75	0.048	1.14	0.32	0.047	2.06	0.78	0.054	1.345	0.125	0.049	1.76	0.21	0.063	2.175	0.295	0.037
0.21	0.76	0.046	1.14	0.33	0.046	2.06	0.79	0.054	1.345	0.13	0.051	1.76	0.215	0.063	2.175	0.3	0.035
0.21	0.77	0.045	1.14	0.34	0.048	2.06	0.8	0.056	1.345	0.135	0.051	1.76	0.22	0.062	2.175	0.305	0.034
0.21	0.78	0.045	1.14	0.35	0.050	2.06	0.81	0.057	1.345	0.14	0.051	1.76	0.225	0.061	2.175	0.31	0.035
0.21	0.79	0.046	1.14	0.36	0.052	2.06	0.82	0.058	1.345	0.145	0.050	1.76	0.23	0.058	2.175	0.315	0.036
0.21	0.8	0.047	1.14	0.37	0.052	2.06	0.83	0.056	1.345	0.15	0.048	1.76	0.235	0.052	2.175	0.32	0.036
0.21	0.81	0.047	1.14	0.38	0.050	2.06	0.84	0.051	1.345	0.155	0.047	1.76	0.24	0.048	2.175	0.325	0.037
0.21	0.82	0.047	1.14	0.39	0.048	2.06	0.85	0.046	1.345	0.16	0.046	1.76	0.245	0.050	2.175	0.33	0.040
0.21	0.83	0.049	1.14	0.4	0.047	2.06	0.86	0.042	1.345	0.165	0.045	1.76	0.25	0.053	2.175	0.335	0.042
0.21	0.84	0.052	1.14	0.41	0.048	2.06	0.87	0.042	1.345	0.17	0.044	1.76	0.255	0.056	2.175	0.34	0.041
0.21	0.85	0.053	1.14	0.42	0.050	2.06	0.88	0.044	1.345	0.175	0.042	1.76	0.26	0.058	2.175	0.345	0.038
0.21	0.86	0.051	1.14	0.43	0.050	2.06	0.89	0.047	1.345	0.18	0.039	1.76	0.265	0.058	2.175	0.35	0.037
0.21	0.87	0.049	1.14	0.44	0.049	2.07	0.01	0.079	1.345	0.185	0.038	1.76	0.27	0.053	2.175	0.355	0.038
0.21	0.88	0.046	1.14	0.45	0.047	2.07	0.02	0.079	1.345	0.19	0.040	1.76	0.275	0.045	2.175	0.36	0.038
0.21	0.89	0.044	1.14	0.46	0.044	2.07	0.03	0.077	1.345	0.195	0.043	1.76	0.28	0.039	2.175	0.365	0.036
0.22	0.01	0.075	1.14	0.47	0.042	2.07	0.04	0.071	1.345	0.2	0.045	1.76	0.285	0.041	2.175	0.37	0.035
0.22	0.02	0.074	1.14	0.48	0.041	2.07	0.05	0.067	1.345	0.205	0.045	1.76	0.29	0.050	2.175	0.375	0.036
0.22	0.03	0.071	1.14	0.49	0.043	2.07	0.06	0.063	1.345	0.21	0.046	1.76	0.295	0.054	2.175	0.38	0.038
0.22	0.04	0.067	1.14	0.5	0.045	2.07	0.07	0.059	1.345	0.215	0.047	1.76	0.3	0.053	2.175	0.385	0.041
0.22	0.05	0.062	1.14	0.51	0.047	2.07	0.08	0.056	1.345	0.22	0.046	1.76	0.305	0.050	2.175	0.39	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.22	0.06	0.059	1.14	0.52	0.047	2.07	0.09	0.054	1.345	0.225	0.043	1.76	0.31	0.051	2.175	0.395	0.042
0.22	0.07	0.056	1.14	0.53	0.047	2.07	0.1	0.053	1.345	0.23	0.038	1.76	0.315	0.052	2.175	0.4	0.041
0.22	0.08	0.054	1.14	0.54	0.046	2.07	0.11	0.054	1.345	0.235	0.034	1.76	0.32	0.050	2.175	0.405	0.039
0.22	0.09	0.052	1.14	0.55	0.045	2.07	0.12	0.057	1.345	0.24	0.034	1.76	0.325	0.045	2.175	0.41	0.037
0.22	0.1	0.050	1.14	0.56	0.045	2.07	0.13	0.062	1.345	0.245	0.034	1.76	0.33	0.044	2.175	0.415	0.037
0.22	0.11	0.046	1.14	0.57	0.045	2.07	0.14	0.065	1.345	0.25	0.034	1.76	0.335	0.047	2.175	0.42	0.040
0.22	0.12	0.044	1.14	0.58	0.043	2.07	0.15	0.063	1.345	0.255	0.034	1.76	0.34	0.049	2.175	0.425	0.043
0.22	0.13	0.042	1.14	0.59	0.042	2.07	0.16	0.058	1.345	0.26	0.034	1.76	0.345	0.049	2.175	0.43	0.044
0.22	0.14	0.042	1.14	0.6	0.042	2.07	0.17	0.051	1.345	0.265	0.035	1.76	0.35	0.049	2.175	0.435	0.041
0.22	0.15	0.041	1.14	0.61	0.045	2.07	0.18	0.045	1.345	0.27	0.039	1.76	0.355	0.050	2.175	0.44	0.037
0.22	0.16	0.038	1.14	0.62	0.048	2.07	0.19	0.041	1.345	0.275	0.043	1.76	0.36	0.050	2.175	0.445	0.036
0.22	0.17	0.036	1.14	0.63	0.051	2.07	0.2	0.039	1.345	0.28	0.042	1.76	0.365	0.048	2.175	0.45	0.039
0.22	0.18	0.035	1.14	0.64	0.050	2.07	0.21	0.040	1.345	0.285	0.040	1.76	0.37	0.045	2.175	0.455	0.042
0.22	0.19	0.035	1.14	0.65	0.050	2.07	0.22	0.043	1.345	0.29	0.040	1.76	0.375	0.046	2.175	0.46	0.042
0.22	0.2	0.037	1.14	0.66	0.051	2.07	0.23	0.050	1.345	0.295	0.043	1.76	0.38	0.047	2.175	0.465	0.039
0.22	0.21	0.040	1.14	0.67	0.052	2.07	0.24	0.056	1.345	0.3	0.045	1.76	0.385	0.048	2.175	0.47	0.035
0.22	0.22	0.042	1.14	0.68	0.054	2.07	0.25	0.058	1.345	0.305	0.045	1.76	0.39	0.046	2.175	0.475	0.036
0.22	0.23	0.043	1.14	0.69	0.054	2.07	0.26	0.058	1.345	0.31	0.041	1.76	0.395	0.044	2.175	0.48	0.040
0.22	0.24	0.042	1.14	0.7	0.053	2.07	0.27	0.056	1.345	0.315	0.038	1.76	0.4	0.043	2.175	0.485	0.045
0.22	0.25	0.042	1.14	0.71	0.052	2.07	0.28	0.053	1.345	0.32	0.038	1.76	0.405	0.042	2.175	0.49	0.047
0.22	0.26	0.042	1.14	0.72	0.053	2.07	0.29	0.050	1.345	0.325	0.039	1.76	0.41	0.042	2.175	0.495	0.048
0.22	0.27	0.042	1.14	0.73	0.055	2.07	0.3	0.046	1.345	0.33	0.039	1.76	0.415	0.040	2.18	0.005	0.080
0.22	0.28	0.041	1.14	0.74	0.056	2.07	0.31	0.044	1.345	0.335	0.037	1.76	0.42	0.040	2.18	0.01	0.077
0.22	0.29	0.038	1.14	0.75	0.056	2.07	0.32	0.042	1.345	0.34	0.036	1.76	0.425	0.043	2.18	0.015	0.072
0.22	0.3	0.037	1.14	0.76	0.056	2.07	0.33	0.042	1.345	0.345	0.037	1.76	0.43	0.045	2.18	0.02	0.067

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.22	0.31	0.037	1.14	0.77	0.056	2.07	0.34	0.043	1.345	0.35	0.040	1.76	0.435	0.043	2.18	0.025	0.066
0.22	0.32	0.036	1.14	0.78	0.058	2.07	0.35	0.045	1.345	0.355	0.042	1.76	0.44	0.040	2.18	0.03	0.069
0.22	0.33	0.035	1.14	0.79	0.060	2.07	0.36	0.046	1.345	0.36	0.043	1.76	0.445	0.037	2.18	0.035	0.070
0.22	0.34	0.034	1.14	0.8	0.059	2.07	0.37	0.046	1.345	0.365	0.042	1.76	0.45	0.037	2.18	0.04	0.067
0.22	0.35	0.034	1.14	0.81	0.055	2.07	0.38	0.045	1.345	0.37	0.041	1.76	0.455	0.040	2.18	0.045	0.056
0.22	0.36	0.034	1.14	0.82	0.051	2.07	0.39	0.043	1.345	0.375	0.042	1.76	0.46	0.047	2.18	0.05	0.047
0.22	0.37	0.035	1.14	0.83	0.047	2.07	0.4	0.043	1.345	0.38	0.044	1.76	0.465	0.053	2.18	0.055	0.049
0.22	0.38	0.035	1.14	0.84	0.045	2.07	0.41	0.044	1.345	0.385	0.045	1.76	0.47	0.058	2.18	0.06	0.054
0.22	0.39	0.035	1.14	0.85	0.045	2.07	0.42	0.044	1.345	0.39	0.045	1.76	0.475	0.060	2.18	0.065	0.059
0.22	0.4	0.035	1.14	0.86	0.045	2.07	0.43	0.046	1.345	0.395	0.044	1.76	0.48	0.060	2.18	0.07	0.062
0.22	0.41	0.035	1.14	0.87	0.045	2.07	0.44	0.048	1.345	0.4	0.044	1.76	0.485	0.060	2.18	0.075	0.062
0.22	0.42	0.034	1.14	0.88	0.044	2.07	0.45	0.048	1.345	0.405	0.045	1.76	0.49	0.060	2.18	0.08	0.060
0.22	0.43	0.035	1.14	0.89	0.044	2.07	0.46	0.047	1.345	0.41	0.049	1.76	0.495	0.059	2.18	0.085	0.055
0.22	0.44	0.036	1.15	0.01	0.032	2.07	0.47	0.045	1.345	0.415	0.053	1.765	0.005	0.047	2.18	0.09	0.050
0.22	0.45	0.037	1.15	0.02	0.032	2.07	0.48	0.045	1.345	0.42	0.055	1.765	0.01	0.053	2.18	0.095	0.045
0.22	0.46	0.038	1.15	0.03	0.033	2.07	0.49	0.047	1.345	0.425	0.052	1.765	0.015	0.060	2.18	0.1	0.041
0.22	0.47	0.038	1.15	0.04	0.033	2.07	0.5	0.051	1.345	0.43	0.044	1.765	0.02	0.067	2.18	0.105	0.042
0.22	0.48	0.037	1.15	0.05	0.034	2.07	0.51	0.053	1.345	0.435	0.035	1.765	0.025	0.072	2.18	0.11	0.045
0.22	0.49	0.037	1.15	0.06	0.035	2.07	0.52	0.056	1.345	0.44	0.030	1.765	0.03	0.071	2.18	0.115	0.048
0.22	0.5	0.036	1.15	0.07	0.037	2.07	0.53	0.056	1.345	0.445	0.029	1.765	0.035	0.060	2.18	0.12	0.052
0.22	0.51	0.036	1.15	0.08	0.038	2.07	0.54	0.056	1.345	0.45	0.030	1.765	0.04	0.050	2.18	0.125	0.055
0.22	0.52	0.037	1.15	0.09	0.039	2.07	0.55	0.056	1.345	0.455	0.031	1.765	0.045	0.045	2.18	0.13	0.056
0.22	0.53	0.038	1.15	0.1	0.040	2.07	0.56	0.057	1.345	0.46	0.033	1.765	0.05	0.045	2.18	0.135	0.052
0.22	0.54	0.040	1.15	0.11	0.041	2.07	0.57	0.057	1.345	0.465	0.036	1.765	0.055	0.050	2.18	0.14	0.044
0.22	0.55	0.040	1.15	0.12	0.042	2.07	0.58	0.058	1.345	0.47	0.039	1.765	0.06	0.056	2.18	0.145	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.22	0.56	0.038	1.15	0.13	0.043	2.07	0.59	0.058	1.345	0.475	0.041	1.765	0.065	0.059	2.18	0.15	0.050
0.22	0.57	0.037	1.15	0.14	0.045	2.07	0.6	0.058	1.345	0.48	0.042	1.765	0.07	0.059	2.18	0.155	0.054
0.22	0.58	0.037	1.15	0.15	0.044	2.07	0.61	0.060	1.345	0.485	0.041	1.765	0.075	0.058	2.18	0.16	0.055
0.22	0.59	0.037	1.15	0.16	0.043	2.07	0.62	0.062	1.345	0.49	0.040	1.765	0.08	0.056	2.18	0.165	0.055
0.22	0.6	0.036	1.15	0.17	0.041	2.07	0.63	0.063	1.345	0.495	0.037	1.765	0.085	0.057	2.18	0.17	0.055
0.22	0.61	0.036	1.15	0.18	0.041	2.07	0.64	0.064	1.35	0.005	0.039	1.765	0.09	0.060	2.18	0.175	0.055
0.22	0.62	0.037	1.15	0.19	0.041	2.07	0.65	0.064	1.35	0.01	0.038	1.765	0.095	0.062	2.18	0.18	0.056
0.22	0.63	0.038	1.15	0.2	0.042	2.07	0.66	0.063	1.35	0.015	0.038	1.765	0.1	0.062	2.18	0.185	0.057
0.22	0.64	0.040	1.15	0.21	0.044	2.07	0.67	0.061	1.35	0.02	0.036	1.765	0.105	0.063	2.18	0.19	0.057
0.22	0.65	0.041	1.15	0.22	0.045	2.07	0.68	0.058	1.35	0.025	0.035	1.765	0.11	0.066	2.18	0.195	0.055
0.22	0.66	0.040	1.15	0.23	0.044	2.07	0.69	0.056	1.35	0.03	0.035	1.765	0.115	0.071	2.18	0.2	0.050
0.22	0.67	0.040	1.15	0.24	0.043	2.07	0.7	0.057	1.35	0.035	0.035	1.765	0.12	0.072	2.18	0.205	0.044
0.22	0.68	0.041	1.15	0.25	0.044	2.07	0.71	0.058	1.35	0.04	0.035	1.765	0.125	0.070	2.18	0.21	0.041
0.22	0.69	0.041	1.15	0.26	0.045	2.07	0.72	0.059	1.35	0.045	0.036	1.765	0.13	0.066	2.18	0.215	0.042
0.22	0.7	0.041	1.15	0.27	0.047	2.07	0.73	0.062	1.35	0.05	0.035	1.765	0.135	0.060	2.18	0.22	0.045
0.22	0.71	0.041	1.15	0.28	0.050	2.07	0.74	0.066	1.35	0.055	0.035	1.765	0.14	0.053	2.18	0.225	0.051
0.22	0.72	0.043	1.15	0.29	0.051	2.07	0.75	0.067	1.35	0.06	0.035	1.765	0.145	0.051	2.18	0.23	0.054
0.22	0.73	0.045	1.15	0.3	0.049	2.07	0.76	0.066	1.35	0.065	0.035	1.765	0.15	0.056	2.18	0.235	0.054
0.22	0.74	0.047	1.15	0.31	0.047	2.07	0.77	0.062	1.35	0.07	0.035	1.765	0.155	0.065	2.18	0.24	0.051
0.22	0.75	0.047	1.15	0.32	0.046	2.07	0.78	0.058	1.35	0.075	0.036	1.765	0.16	0.069	2.18	0.245	0.047
0.22	0.76	0.045	1.15	0.33	0.045	2.07	0.79	0.057	1.35	0.08	0.039	1.765	0.165	0.070	2.18	0.25	0.043
0.22	0.77	0.043	1.15	0.34	0.045	2.07	0.8	0.057	1.35	0.085	0.041	1.765	0.17	0.069	2.18	0.255	0.040
0.22	0.78	0.044	1.15	0.35	0.047	2.07	0.81	0.056	1.35	0.09	0.043	1.765	0.175	0.068	2.18	0.26	0.042
0.22	0.79	0.046	1.15	0.36	0.051	2.07	0.82	0.054	1.35	0.095	0.043	1.765	0.18	0.066	2.18	0.265	0.045
0.22	0.8	0.047	1.15	0.37	0.053	2.07	0.83	0.051	1.35	0.1	0.043	1.765	0.185	0.059	2.18	0.27	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.22	0.81	0.047	1.15	0.38	0.053	2.07	0.84	0.047	1.35	0.105	0.042	1.765	0.19	0.050	2.18	0.275	0.045
0.22	0.82	0.046	1.15	0.39	0.052	2.07	0.85	0.044	1.35	0.11	0.042	1.765	0.195	0.048	2.18	0.28	0.043
0.22	0.83	0.047	1.15	0.4	0.050	2.07	0.86	0.042	1.35	0.115	0.043	1.765	0.2	0.054	2.18	0.285	0.043
0.22	0.84	0.050	1.15	0.41	0.050	2.07	0.87	0.042	1.35	0.12	0.046	1.765	0.205	0.061	2.18	0.29	0.042
0.22	0.85	0.050	1.15	0.42	0.051	2.07	0.88	0.043	1.35	0.125	0.049	1.765	0.21	0.063	2.18	0.295	0.040
0.22	0.86	0.048	1.15	0.43	0.051	2.07	0.89	0.045	1.35	0.13	0.051	1.765	0.215	0.063	2.18	0.3	0.037
0.22	0.87	0.046	1.15	0.44	0.050	2.08	0.01	0.077	1.35	0.135	0.052	1.765	0.22	0.063	2.18	0.305	0.034
0.22	0.88	0.044	1.15	0.45	0.048	2.08	0.02	0.077	1.35	0.14	0.052	1.765	0.225	0.061	2.18	0.31	0.033
0.22	0.89	0.043	1.15	0.46	0.045	2.08	0.03	0.074	1.35	0.145	0.051	1.765	0.23	0.058	2.18	0.315	0.034
0.23	0.01	0.077	1.15	0.47	0.043	2.08	0.04	0.067	1.35	0.15	0.049	1.765	0.235	0.054	2.18	0.32	0.036
0.23	0.02	0.075	1.15	0.48	0.042	2.08	0.05	0.061	1.35	0.155	0.045	1.765	0.24	0.053	2.18	0.325	0.040
0.23	0.03	0.072	1.15	0.49	0.043	2.08	0.06	0.056	1.35	0.16	0.041	1.765	0.245	0.055	2.18	0.33	0.043
0.23	0.04	0.068	1.15	0.5	0.045	2.08	0.07	0.053	1.35	0.165	0.042	1.765	0.25	0.055	2.18	0.335	0.045
0.23	0.05	0.065	1.15	0.51	0.045	2.08	0.08	0.051	1.35	0.17	0.043	1.765	0.255	0.054	2.18	0.34	0.044
0.23	0.06	0.061	1.15	0.52	0.045	2.08	0.09	0.050	1.35	0.175	0.042	1.765	0.26	0.053	2.18	0.345	0.040
0.23	0.07	0.058	1.15	0.53	0.045	2.08	0.1	0.049	1.35	0.18	0.039	1.765	0.265	0.050	2.18	0.35	0.036
0.23	0.08	0.055	1.15	0.54	0.044	2.08	0.11	0.048	1.35	0.185	0.036	1.765	0.27	0.045	2.18	0.355	0.035
0.23	0.09	0.054	1.15	0.55	0.045	2.08	0.12	0.051	1.35	0.19	0.037	1.765	0.275	0.041	2.18	0.36	0.034
0.23	0.1	0.052	1.15	0.56	0.046	2.08	0.13	0.055	1.35	0.195	0.041	1.765	0.28	0.040	2.18	0.365	0.033
0.23	0.11	0.049	1.15	0.57	0.046	2.08	0.14	0.059	1.35	0.2	0.044	1.765	0.285	0.046	2.18	0.37	0.032
0.23	0.12	0.045	1.15	0.58	0.044	2.08	0.15	0.059	1.35	0.205	0.045	1.765	0.29	0.055	2.18	0.375	0.033
0.23	0.13	0.042	1.15	0.59	0.042	2.08	0.16	0.055	1.35	0.21	0.046	1.765	0.295	0.059	2.18	0.38	0.036
0.23	0.14	0.041	1.15	0.6	0.042	2.08	0.17	0.050	1.35	0.215	0.046	1.765	0.3	0.056	2.18	0.385	0.040
0.23	0.15	0.039	1.15	0.61	0.045	2.08	0.18	0.045	1.35	0.22	0.045	1.765	0.305	0.052	2.18	0.39	0.041
0.23	0.16	0.038	1.15	0.62	0.047	2.08	0.19	0.042	1.35	0.225	0.042	1.765	0.31	0.052	2.18	0.395	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.23	0.17	0.036	1.15	0.63	0.049	2.08	0.2	0.041	1.35	0.23	0.037	1.765	0.315	0.053	2.18	0.4	0.039
0.23	0.18	0.035	1.15	0.64	0.049	2.08	0.21	0.041	1.35	0.235	0.034	1.765	0.32	0.051	2.18	0.405	0.037
0.23	0.19	0.035	1.15	0.65	0.048	2.08	0.22	0.044	1.35	0.24	0.034	1.765	0.325	0.047	2.18	0.41	0.036
0.23	0.2	0.037	1.15	0.66	0.050	2.08	0.23	0.050	1.35	0.245	0.034	1.765	0.33	0.044	2.18	0.415	0.037
0.23	0.21	0.039	1.15	0.67	0.053	2.08	0.24	0.056	1.35	0.25	0.033	1.765	0.335	0.047	2.18	0.42	0.040
0.23	0.22	0.040	1.15	0.68	0.055	2.08	0.25	0.059	1.35	0.255	0.033	1.765	0.34	0.048	2.18	0.425	0.043
0.23	0.23	0.040	1.15	0.69	0.056	2.08	0.26	0.059	1.35	0.26	0.033	1.765	0.345	0.048	2.18	0.43	0.042
0.23	0.24	0.040	1.15	0.7	0.055	2.08	0.27	0.057	1.35	0.265	0.036	1.765	0.35	0.049	2.18	0.435	0.040
0.23	0.25	0.040	1.15	0.71	0.052	2.08	0.28	0.053	1.35	0.27	0.040	1.765	0.355	0.050	2.18	0.44	0.037
0.23	0.26	0.040	1.15	0.72	0.051	2.08	0.29	0.049	1.35	0.275	0.043	1.765	0.36	0.049	2.18	0.445	0.036
0.23	0.27	0.041	1.15	0.73	0.054	2.08	0.3	0.047	1.35	0.28	0.042	1.765	0.365	0.046	2.18	0.45	0.038
0.23	0.28	0.040	1.15	0.74	0.057	2.08	0.31	0.044	1.35	0.285	0.041	1.765	0.37	0.043	2.18	0.455	0.041
0.23	0.29	0.039	1.15	0.75	0.058	2.08	0.32	0.043	1.35	0.29	0.043	1.765	0.375	0.043	2.18	0.46	0.042
0.23	0.3	0.038	1.15	0.76	0.056	2.08	0.33	0.042	1.35	0.295	0.047	1.765	0.38	0.045	2.18	0.465	0.039
0.23	0.31	0.037	1.15	0.77	0.054	2.08	0.34	0.043	1.35	0.3	0.049	1.765	0.385	0.045	2.18	0.47	0.036
0.23	0.32	0.036	1.15	0.78	0.053	2.08	0.35	0.044	1.35	0.305	0.048	1.765	0.39	0.044	2.18	0.475	0.037
0.23	0.33	0.035	1.15	0.79	0.054	2.08	0.36	0.045	1.35	0.31	0.044	1.765	0.395	0.041	2.18	0.48	0.039
0.23	0.34	0.034	1.15	0.8	0.054	2.08	0.37	0.044	1.35	0.315	0.040	1.765	0.4	0.040	2.18	0.485	0.044
0.23	0.35	0.034	1.15	0.81	0.052	2.08	0.38	0.043	1.35	0.32	0.040	1.765	0.405	0.040	2.18	0.49	0.046
0.23	0.36	0.035	1.15	0.82	0.050	2.08	0.39	0.042	1.35	0.325	0.042	1.765	0.41	0.041	2.18	0.495	0.047
0.23	0.37	0.037	1.15	0.83	0.049	2.08	0.4	0.042	1.35	0.33	0.042	1.765	0.415	0.039	2.185	0.005	0.074
0.23	0.38	0.038	1.15	0.84	0.049	2.08	0.41	0.043	1.35	0.335	0.038	1.765	0.42	0.040	2.185	0.01	0.073
0.23	0.39	0.038	1.15	0.85	0.049	2.08	0.42	0.044	1.35	0.34	0.038	1.765	0.425	0.046	2.185	0.015	0.069
0.23	0.4	0.037	1.15	0.86	0.049	2.08	0.43	0.047	1.35	0.345	0.040	1.765	0.43	0.050	2.185	0.02	0.065
0.23	0.41	0.036	1.15	0.87	0.048	2.08	0.44	0.049	1.35	0.35	0.042	1.765	0.435	0.050	2.185	0.025	0.066

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.23	0.42	0.035	1.15	0.88	0.047	2.08	0.45	0.050	1.35	0.355	0.043	1.765	0.44	0.047	2.185	0.03	0.068
0.23	0.43	0.035	1.15	0.89	0.044	2.08	0.46	0.049	1.35	0.36	0.043	1.765	0.445	0.043	2.185	0.035	0.071
0.23	0.44	0.035	1.16	0.01	0.032	2.08	0.47	0.048	1.35	0.365	0.040	1.765	0.45	0.039	2.185	0.04	0.070
0.23	0.45	0.037	1.16	0.02	0.032	2.08	0.48	0.047	1.35	0.37	0.038	1.765	0.455	0.040	2.185	0.045	0.062
0.23	0.46	0.037	1.16	0.03	0.033	2.08	0.49	0.050	1.35	0.375	0.039	1.765	0.46	0.044	2.185	0.05	0.052
0.23	0.47	0.037	1.16	0.04	0.033	2.08	0.5	0.053	1.35	0.38	0.042	1.765	0.465	0.048	2.185	0.055	0.051
0.23	0.48	0.037	1.16	0.05	0.034	2.08	0.51	0.055	1.35	0.385	0.043	1.765	0.47	0.053	2.185	0.06	0.056
0.23	0.49	0.037	1.16	0.06	0.035	2.08	0.52	0.056	1.35	0.39	0.042	1.765	0.475	0.057	2.185	0.065	0.061
0.23	0.5	0.036	1.16	0.07	0.036	2.08	0.53	0.056	1.35	0.395	0.040	1.765	0.48	0.059	2.185	0.07	0.065
0.23	0.51	0.036	1.16	0.08	0.038	2.08	0.54	0.055	1.35	0.4	0.041	1.765	0.485	0.060	2.185	0.075	0.065
0.23	0.52	0.036	1.16	0.09	0.038	2.08	0.55	0.054	1.35	0.405	0.045	1.765	0.49	0.060	2.185	0.08	0.063
0.23	0.53	0.038	1.16	0.1	0.039	2.08	0.56	0.054	1.35	0.41	0.050	1.765	0.495	0.060	2.185	0.085	0.057
0.23	0.54	0.039	1.16	0.11	0.040	2.08	0.57	0.056	1.35	0.415	0.054	1.77	0.005	0.051	2.185	0.09	0.051
0.23	0.55	0.039	1.16	0.12	0.041	2.08	0.58	0.057	1.35	0.42	0.055	1.77	0.01	0.058	2.185	0.095	0.046
0.23	0.56	0.038	1.16	0.13	0.043	2.08	0.59	0.058	1.35	0.425	0.051	1.77	0.015	0.065	2.185	0.1	0.043
0.23	0.57	0.036	1.16	0.14	0.044	2.08	0.6	0.058	1.35	0.43	0.043	1.77	0.02	0.072	2.185	0.105	0.042
0.23	0.58	0.035	1.16	0.15	0.043	2.08	0.61	0.058	1.35	0.435	0.035	1.77	0.025	0.077	2.185	0.11	0.043
0.23	0.59	0.035	1.16	0.16	0.041	2.08	0.62	0.059	1.35	0.44	0.031	1.77	0.03	0.076	2.185	0.115	0.046
0.23	0.6	0.036	1.16	0.17	0.040	2.08	0.63	0.061	1.35	0.445	0.030	1.77	0.035	0.067	2.185	0.12	0.049
0.23	0.61	0.036	1.16	0.18	0.041	2.08	0.64	0.064	1.35	0.45	0.030	1.77	0.04	0.058	2.185	0.125	0.052
0.23	0.62	0.037	1.16	0.19	0.043	2.08	0.65	0.066	1.35	0.455	0.032	1.77	0.045	0.053	2.185	0.13	0.053
0.23	0.63	0.037	1.16	0.2	0.045	2.08	0.66	0.065	1.35	0.46	0.034	1.77	0.05	0.052	2.185	0.135	0.050
0.23	0.64	0.038	1.16	0.21	0.047	2.08	0.67	0.063	1.35	0.465	0.036	1.77	0.055	0.056	2.185	0.14	0.045
0.23	0.65	0.038	1.16	0.22	0.047	2.08	0.68	0.062	1.35	0.47	0.037	1.77	0.06	0.061	2.185	0.145	0.047
0.23	0.66	0.038	1.16	0.23	0.045	2.08	0.69	0.061	1.35	0.475	0.039	1.77	0.065	0.063	2.185	0.15	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.23	0.67	0.037	1.16	0.24	0.043	2.08	0.7	0.061	1.35	0.48	0.039	1.77	0.07	0.062	2.185	0.155	0.054
0.23	0.68	0.037	1.16	0.25	0.043	2.08	0.71	0.060	1.35	0.485	0.038	1.77	0.075	0.060	2.185	0.16	0.054
0.23	0.69	0.037	1.16	0.26	0.044	2.08	0.72	0.061	1.35	0.49	0.036	1.77	0.08	0.059	2.185	0.165	0.054
0.23	0.7	0.037	1.16	0.27	0.046	2.08	0.73	0.063	1.35	0.495	0.034	1.77	0.085	0.061	2.185	0.17	0.054
0.23	0.71	0.038	1.16	0.28	0.048	2.08	0.74	0.066	1.355	0.005	0.040	1.77	0.09	0.065	2.185	0.175	0.054
0.23	0.72	0.040	1.16	0.29	0.051	2.08	0.75	0.069	1.355	0.01	0.039	1.77	0.095	0.067	2.185	0.18	0.055
0.23	0.73	0.042	1.16	0.3	0.051	2.08	0.76	0.068	1.355	0.015	0.038	1.77	0.1	0.068	2.185	0.185	0.056
0.23	0.74	0.044	1.16	0.31	0.048	2.08	0.77	0.064	1.355	0.02	0.036	1.77	0.105	0.068	2.185	0.19	0.056
0.23	0.75	0.044	1.16	0.32	0.046	2.08	0.78	0.059	1.355	0.025	0.036	1.77	0.11	0.068	2.185	0.195	0.052
0.23	0.76	0.043	1.16	0.33	0.044	2.08	0.79	0.058	1.355	0.03	0.035	1.77	0.115	0.069	2.185	0.2	0.044
0.23	0.77	0.042	1.16	0.34	0.044	2.08	0.8	0.057	1.355	0.035	0.035	1.77	0.12	0.069	2.185	0.205	0.040
0.23	0.78	0.042	1.16	0.35	0.045	2.08	0.81	0.056	1.355	0.04	0.036	1.77	0.125	0.067	2.185	0.21	0.039
0.23	0.79	0.044	1.16	0.36	0.048	2.08	0.82	0.054	1.355	0.045	0.036	1.77	0.13	0.061	2.185	0.215	0.041
0.23	0.8	0.046	1.16	0.37	0.052	2.08	0.83	0.050	1.355	0.05	0.036	1.77	0.135	0.056	2.185	0.22	0.043
0.23	0.81	0.046	1.16	0.38	0.053	2.08	0.84	0.047	1.355	0.055	0.035	1.77	0.14	0.052	2.185	0.225	0.048
0.23	0.82	0.044	1.16	0.39	0.052	2.08	0.85	0.044	1.355	0.06	0.034	1.77	0.145	0.051	2.185	0.23	0.052
0.23	0.83	0.044	1.16	0.4	0.050	2.08	0.86	0.043	1.355	0.065	0.034	1.77	0.15	0.056	2.185	0.235	0.054
0.23	0.84	0.046	1.16	0.41	0.050	2.08	0.87	0.042	1.355	0.07	0.033	1.77	0.155	0.065	2.185	0.24	0.052
0.23	0.85	0.045	1.16	0.42	0.051	2.08	0.88	0.042	1.355	0.075	0.034	1.77	0.16	0.069	2.185	0.245	0.048
0.23	0.86	0.044	1.16	0.43	0.050	2.08	0.89	0.042	1.355	0.08	0.037	1.77	0.165	0.069	2.185	0.25	0.044
0.23	0.87	0.043	1.16	0.44	0.049	2.09	0.01	0.072	1.355	0.085	0.039	1.77	0.17	0.067	2.185	0.255	0.041
0.23	0.88	0.043	1.16	0.45	0.047	2.09	0.02	0.073	1.355	0.09	0.040	1.77	0.175	0.066	2.185	0.26	0.042
0.23	0.89	0.043	1.16	0.46	0.046	2.09	0.03	0.070	1.355	0.095	0.041	1.77	0.18	0.065	2.185	0.265	0.045
0.24	0.01	0.076	1.16	0.47	0.044	2.09	0.04	0.063	1.355	0.1	0.041	1.77	0.185	0.060	2.185	0.27	0.047
0.24	0.02	0.074	1.16	0.48	0.044	2.09	0.05	0.057	1.355	0.105	0.041	1.77	0.19	0.051	2.185	0.275	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.24	0.03	0.070	1.16	0.49	0.045	2.09	0.06	0.052	1.355	0.11	0.041	1.77	0.195	0.046	2.185	0.28	0.046
0.24	0.04	0.069	1.16	0.5	0.044	2.09	0.07	0.048	1.355	0.115	0.041	1.77	0.2	0.050	2.185	0.285	0.044
0.24	0.05	0.067	1.16	0.51	0.043	2.09	0.08	0.047	1.355	0.12	0.045	1.77	0.205	0.058	2.185	0.29	0.044
0.24	0.06	0.064	1.16	0.52	0.042	2.09	0.09	0.047	1.355	0.125	0.047	1.77	0.21	0.062	2.185	0.295	0.043
0.24	0.07	0.060	1.16	0.53	0.043	2.09	0.1	0.046	1.355	0.13	0.049	1.77	0.215	0.063	2.185	0.3	0.040
0.24	0.08	0.057	1.16	0.54	0.044	2.09	0.11	0.045	1.355	0.135	0.050	1.77	0.22	0.062	2.185	0.305	0.036
0.24	0.09	0.056	1.16	0.55	0.045	2.09	0.12	0.046	1.355	0.14	0.051	1.77	0.225	0.060	2.185	0.31	0.033
0.24	0.1	0.055	1.16	0.56	0.047	2.09	0.13	0.050	1.355	0.145	0.050	1.77	0.23	0.057	2.185	0.315	0.034
0.24	0.11	0.051	1.16	0.57	0.048	2.09	0.14	0.054	1.355	0.15	0.048	1.77	0.235	0.056	2.185	0.32	0.037
0.24	0.12	0.047	1.16	0.58	0.046	2.09	0.15	0.055	1.355	0.155	0.045	1.77	0.24	0.056	2.185	0.325	0.041
0.24	0.13	0.042	1.16	0.59	0.044	2.09	0.16	0.052	1.355	0.16	0.041	1.77	0.245	0.057	2.185	0.33	0.045
0.24	0.14	0.040	1.16	0.6	0.044	2.09	0.17	0.047	1.355	0.165	0.042	1.77	0.25	0.056	2.185	0.335	0.046
0.24	0.15	0.039	1.16	0.61	0.045	2.09	0.18	0.043	1.355	0.17	0.044	1.77	0.255	0.054	2.185	0.34	0.044
0.24	0.16	0.038	1.16	0.62	0.046	2.09	0.19	0.042	1.355	0.175	0.044	1.77	0.26	0.051	2.185	0.345	0.040
0.24	0.17	0.037	1.16	0.63	0.047	2.09	0.2	0.041	1.355	0.18	0.041	1.77	0.265	0.046	2.185	0.35	0.037
0.24	0.18	0.036	1.16	0.64	0.047	2.09	0.21	0.041	1.355	0.185	0.038	1.77	0.27	0.041	2.185	0.355	0.034
0.24	0.19	0.037	1.16	0.65	0.047	2.09	0.22	0.043	1.355	0.19	0.036	1.77	0.275	0.038	2.185	0.36	0.033
0.24	0.2	0.037	1.16	0.66	0.049	2.09	0.23	0.047	1.355	0.195	0.037	1.77	0.28	0.040	2.185	0.365	0.032
0.24	0.21	0.038	1.16	0.67	0.052	2.09	0.24	0.052	1.355	0.2	0.040	1.77	0.285	0.048	2.185	0.37	0.031
0.24	0.22	0.039	1.16	0.68	0.054	2.09	0.25	0.055	1.355	0.205	0.042	1.77	0.29	0.058	2.185	0.375	0.032
0.24	0.23	0.038	1.16	0.69	0.056	2.09	0.26	0.055	1.355	0.21	0.045	1.77	0.295	0.061	2.185	0.38	0.035
0.24	0.24	0.038	1.16	0.7	0.055	2.09	0.27	0.054	1.355	0.215	0.045	1.77	0.3	0.058	2.185	0.385	0.039
0.24	0.25	0.038	1.16	0.71	0.052	2.09	0.28	0.050	1.355	0.22	0.044	1.77	0.305	0.054	2.185	0.39	0.040
0.24	0.26	0.039	1.16	0.72	0.051	2.09	0.29	0.047	1.355	0.225	0.041	1.77	0.31	0.053	2.185	0.395	0.039
0.24	0.27	0.040	1.16	0.73	0.053	2.09	0.3	0.045	1.355	0.23	0.037	1.77	0.315	0.054	2.185	0.4	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.24	0.28	0.041	1.16	0.74	0.055	2.09	0.31	0.043	1.355	0.235	0.035	1.77	0.32	0.052	2.185	0.405	0.039
0.24	0.29	0.040	1.16	0.75	0.056	2.09	0.32	0.041	1.355	0.24	0.035	1.77	0.325	0.048	2.185	0.41	0.038
0.24	0.3	0.039	1.16	0.76	0.055	2.09	0.33	0.040	1.355	0.245	0.036	1.77	0.33	0.045	2.185	0.415	0.038
0.24	0.31	0.038	1.16	0.77	0.053	2.09	0.34	0.041	1.355	0.25	0.035	1.77	0.335	0.046	2.185	0.42	0.040
0.24	0.32	0.036	1.16	0.78	0.051	2.09	0.35	0.043	1.355	0.255	0.035	1.77	0.34	0.047	2.185	0.425	0.041
0.24	0.33	0.035	1.16	0.79	0.050	2.09	0.36	0.044	1.355	0.26	0.036	1.77	0.345	0.048	2.185	0.43	0.041
0.24	0.34	0.034	1.16	0.8	0.050	2.09	0.37	0.044	1.355	0.265	0.039	1.77	0.35	0.048	2.185	0.435	0.040
0.24	0.35	0.035	1.16	0.81	0.049	2.09	0.38	0.044	1.355	0.27	0.041	1.77	0.355	0.048	2.185	0.44	0.037
0.24	0.36	0.037	1.16	0.82	0.049	2.09	0.39	0.042	1.355	0.275	0.041	1.77	0.36	0.047	2.185	0.445	0.036
0.24	0.37	0.040	1.16	0.83	0.050	2.09	0.4	0.042	1.355	0.28	0.039	1.77	0.365	0.044	2.185	0.45	0.037
0.24	0.38	0.042	1.16	0.84	0.051	2.09	0.41	0.043	1.355	0.285	0.040	1.77	0.37	0.042	2.185	0.455	0.039
0.24	0.39	0.043	1.16	0.85	0.053	2.09	0.42	0.045	1.355	0.29	0.045	1.77	0.375	0.043	2.185	0.46	0.039
0.24	0.4	0.041	1.16	0.86	0.053	2.09	0.43	0.047	1.355	0.295	0.050	1.77	0.38	0.045	2.185	0.465	0.039
0.24	0.41	0.039	1.16	0.87	0.052	2.09	0.44	0.049	1.355	0.3	0.052	1.77	0.385	0.045	2.185	0.47	0.038
0.24	0.42	0.037	1.16	0.88	0.050	2.09	0.45	0.051	1.355	0.305	0.049	1.77	0.39	0.043	2.185	0.475	0.040
0.24	0.43	0.036	1.16	0.89	0.047	2.09	0.46	0.052	1.355	0.31	0.044	1.77	0.395	0.040	2.185	0.48	0.042
0.24	0.44	0.036	1.17	0.01	0.032	2.09	0.47	0.052	1.355	0.315	0.041	1.77	0.4	0.040	2.185	0.485	0.043
0.24	0.45	0.037	1.17	0.02	0.032	2.09	0.48	0.052	1.355	0.32	0.042	1.77	0.405	0.043	2.185	0.49	0.045
0.24	0.46	0.038	1.17	0.03	0.033	2.09	0.49	0.053	1.355	0.325	0.044	1.77	0.41	0.045	2.185	0.495	0.045
0.24	0.47	0.039	1.17	0.04	0.033	2.09	0.5	0.055	1.355	0.33	0.044	1.77	0.415	0.045	2.19	0.005	0.066
0.24	0.48	0.038	1.17	0.05	0.034	2.09	0.51	0.056	1.355	0.335	0.041	1.77	0.42	0.044	2.19	0.01	0.064
0.24	0.49	0.038	1.17	0.06	0.035	2.09	0.52	0.056	1.355	0.34	0.040	1.77	0.425	0.048	2.19	0.015	0.062
0.24	0.5	0.037	1.17	0.07	0.036	2.09	0.53	0.055	1.355	0.345	0.042	1.77	0.43	0.052	2.19	0.02	0.061
0.24	0.51	0.037	1.17	0.08	0.037	2.09	0.54	0.055	1.355	0.35	0.043	1.77	0.435	0.054	2.19	0.025	0.063
0.24	0.52	0.037	1.17	0.09	0.037	2.09	0.55	0.054	1.355	0.355	0.042	1.77	0.44	0.052	2.19	0.03	0.066

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.24	0.53	0.037	1.17	0.1	0.038	2.09	0.56	0.053	1.355	0.36	0.041	1.77	0.445	0.048	2.19	0.035	0.069
0.24	0.54	0.038	1.17	0.11	0.039	2.09	0.57	0.055	1.355	0.365	0.038	1.77	0.45	0.043	2.19	0.04	0.069
0.24	0.55	0.038	1.17	0.12	0.041	2.09	0.58	0.058	1.355	0.37	0.037	1.77	0.455	0.041	2.19	0.045	0.062
0.24	0.56	0.037	1.17	0.13	0.043	2.09	0.59	0.059	1.355	0.375	0.039	1.77	0.46	0.042	2.19	0.05	0.052
0.24	0.57	0.035	1.17	0.14	0.043	2.09	0.6	0.059	1.355	0.38	0.043	1.77	0.465	0.044	2.19	0.055	0.051
0.24	0.58	0.035	1.17	0.15	0.042	2.09	0.61	0.058	1.355	0.385	0.045	1.77	0.47	0.047	2.19	0.06	0.056
0.24	0.59	0.035	1.17	0.16	0.040	2.09	0.62	0.057	1.355	0.39	0.041	1.77	0.475	0.051	2.19	0.065	0.061
0.24	0.6	0.036	1.17	0.17	0.040	2.09	0.63	0.060	1.355	0.395	0.037	1.77	0.48	0.056	2.19	0.07	0.064
0.24	0.61	0.037	1.17	0.18	0.041	2.09	0.64	0.064	1.355	0.4	0.040	1.77	0.485	0.059	2.19	0.075	0.064
0.24	0.62	0.037	1.17	0.19	0.045	2.09	0.65	0.066	1.355	0.405	0.045	1.77	0.49	0.060	2.19	0.08	0.061
0.24	0.63	0.037	1.17	0.2	0.048	2.09	0.66	0.065	1.355	0.41	0.050	1.77	0.495	0.060	2.19	0.085	0.056
0.24	0.64	0.038	1.17	0.21	0.050	2.09	0.67	0.063	1.355	0.415	0.053	1.775	0.005	0.056	2.19	0.09	0.051
0.24	0.65	0.037	1.17	0.22	0.048	2.09	0.68	0.064	1.355	0.42	0.053	1.775	0.01	0.063	2.19	0.095	0.047
0.24	0.66	0.037	1.17	0.23	0.045	2.09	0.69	0.065	1.355	0.425	0.047	1.775	0.015	0.070	2.19	0.1	0.045
0.24	0.67	0.035	1.17	0.24	0.042	2.09	0.7	0.065	1.355	0.43	0.039	1.775	0.02	0.075	2.19	0.105	0.044
0.24	0.68	0.035	1.17	0.25	0.043	2.09	0.71	0.063	1.355	0.435	0.035	1.775	0.025	0.078	2.19	0.11	0.043
0.24	0.69	0.034	1.17	0.26	0.044	2.09	0.72	0.063	1.355	0.44	0.034	1.775	0.03	0.076	2.19	0.115	0.044
0.24	0.7	0.034	1.17	0.27	0.045	2.09	0.73	0.064	1.355	0.445	0.034	1.775	0.035	0.070	2.19	0.12	0.046
0.24	0.71	0.035	1.17	0.28	0.047	2.09	0.74	0.065	1.355	0.45	0.034	1.775	0.04	0.065	2.19	0.125	0.048
0.24	0.72	0.037	1.17	0.29	0.051	2.09	0.75	0.066	1.355	0.455	0.035	1.775	0.045	0.062	2.19	0.13	0.049
0.24	0.73	0.039	1.17	0.3	0.052	2.09	0.76	0.064	1.355	0.46	0.037	1.775	0.05	0.059	2.19	0.135	0.047
0.24	0.74	0.041	1.17	0.31	0.050	2.09	0.77	0.061	1.355	0.465	0.037	1.775	0.055	0.059	2.19	0.14	0.045
0.24	0.75	0.041	1.17	0.32	0.047	2.09	0.78	0.056	1.355	0.47	0.036	1.775	0.06	0.063	2.19	0.145	0.047
0.24	0.76	0.041	1.17	0.33	0.045	2.09	0.79	0.054	1.355	0.475	0.036	1.775	0.065	0.064	2.19	0.15	0.051
0.24	0.77	0.041	1.17	0.34	0.044	2.09	0.8	0.054	1.355	0.48	0.036	1.775	0.07	0.062	2.19	0.155	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.24	0.78	0.041	1.17	0.35	0.043	2.09	0.81	0.054	1.355	0.485	0.036	1.775	0.075	0.059	2.19	0.16	0.053
0.24	0.79	0.042	1.17	0.36	0.045	2.09	0.82	0.053	1.355	0.49	0.035	1.775	0.08	0.059	2.19	0.165	0.053
0.24	0.8	0.044	1.17	0.37	0.048	2.09	0.83	0.051	1.355	0.495	0.033	1.775	0.085	0.064	2.19	0.17	0.053
0.24	0.81	0.043	1.17	0.38	0.049	2.09	0.84	0.048	1.36	0.005	0.040	1.775	0.09	0.069	2.19	0.175	0.054
0.24	0.82	0.042	1.17	0.39	0.049	2.09	0.85	0.045	1.36	0.01	0.040	1.775	0.095	0.072	2.19	0.18	0.054
0.24	0.83	0.042	1.17	0.4	0.048	2.09	0.86	0.044	1.36	0.015	0.038	1.775	0.1	0.073	2.19	0.185	0.055
0.24	0.84	0.042	1.17	0.41	0.049	2.09	0.87	0.043	1.36	0.02	0.036	1.775	0.105	0.073	2.19	0.19	0.054
0.24	0.85	0.042	1.17	0.42	0.049	2.09	0.88	0.042	1.36	0.025	0.036	1.775	0.11	0.071	2.19	0.195	0.049
0.24	0.86	0.041	1.17	0.43	0.047	2.09	0.89	0.041	1.36	0.03	0.036	1.775	0.115	0.068	2.19	0.2	0.040
0.24	0.87	0.041	1.17	0.44	0.045	2.1	0.01	0.068	1.36	0.035	0.035	1.775	0.12	0.064	2.19	0.205	0.036
0.24	0.88	0.042	1.17	0.45	0.045	2.1	0.02	0.070	1.36	0.04	0.035	1.775	0.125	0.060	2.19	0.21	0.037
0.24	0.89	0.043	1.17	0.46	0.045	2.1	0.03	0.068	1.36	0.045	0.035	1.775	0.13	0.054	2.19	0.215	0.038
0.25	0.01	0.072	1.17	0.47	0.045	2.1	0.04	0.063	1.36	0.05	0.034	1.775	0.135	0.053	2.19	0.22	0.040
0.25	0.02	0.070	1.17	0.48	0.045	2.1	0.05	0.057	1.36	0.055	0.034	1.775	0.14	0.053	2.19	0.225	0.042
0.25	0.03	0.067	1.17	0.49	0.045	2.1	0.06	0.051	1.36	0.06	0.033	1.775	0.145	0.054	2.19	0.23	0.047
0.25	0.04	0.066	1.17	0.5	0.044	2.1	0.07	0.047	1.36	0.065	0.032	1.775	0.15	0.057	2.19	0.235	0.050
0.25	0.05	0.066	1.17	0.51	0.042	2.1	0.08	0.044	1.36	0.07	0.032	1.775	0.155	0.064	2.19	0.24	0.051
0.25	0.06	0.065	1.17	0.52	0.041	2.1	0.09	0.044	1.36	0.075	0.033	1.775	0.16	0.068	2.19	0.245	0.048
0.25	0.07	0.063	1.17	0.53	0.042	2.1	0.1	0.043	1.36	0.08	0.034	1.775	0.165	0.067	2.19	0.25	0.045
0.25	0.08	0.060	1.17	0.54	0.044	2.1	0.11	0.042	1.36	0.085	0.035	1.775	0.17	0.065	2.19	0.255	0.042
0.25	0.09	0.059	1.17	0.55	0.047	2.1	0.12	0.044	1.36	0.09	0.036	1.775	0.175	0.064	2.19	0.26	0.043
0.25	0.1	0.057	1.17	0.56	0.050	2.1	0.13	0.048	1.36	0.095	0.036	1.775	0.18	0.061	2.19	0.265	0.047
0.25	0.11	0.054	1.17	0.57	0.050	2.1	0.14	0.052	1.36	0.1	0.038	1.775	0.185	0.056	2.19	0.27	0.049
0.25	0.12	0.048	1.17	0.58	0.049	2.1	0.15	0.052	1.36	0.105	0.039	1.775	0.19	0.048	2.19	0.275	0.049
0.25	0.13	0.043	1.17	0.59	0.047	2.1	0.16	0.049	1.36	0.11	0.040	1.775	0.195	0.044	2.19	0.28	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.25	0.14	0.040	1.17	0.6	0.046	2.1	0.17	0.044	1.36	0.115	0.041	1.775	0.2	0.048	2.19	0.285	0.044
0.25	0.15	0.040	1.17	0.61	0.046	2.1	0.18	0.041	1.36	0.12	0.043	1.775	0.205	0.055	2.19	0.29	0.043
0.25	0.16	0.040	1.17	0.62	0.046	2.1	0.19	0.041	1.36	0.125	0.045	1.775	0.21	0.060	2.19	0.295	0.042
0.25	0.17	0.040	1.17	0.63	0.046	2.1	0.2	0.041	1.36	0.13	0.046	1.775	0.215	0.062	2.19	0.3	0.040
0.25	0.18	0.039	1.17	0.64	0.047	2.1	0.21	0.040	1.36	0.135	0.047	1.775	0.22	0.061	2.19	0.305	0.037
0.25	0.19	0.038	1.17	0.65	0.047	2.1	0.22	0.041	1.36	0.14	0.047	1.775	0.225	0.059	2.19	0.31	0.034
0.25	0.2	0.039	1.17	0.66	0.047	2.1	0.23	0.043	1.36	0.145	0.047	1.775	0.23	0.057	2.19	0.315	0.034
0.25	0.21	0.039	1.17	0.67	0.050	2.1	0.24	0.046	1.36	0.15	0.046	1.775	0.235	0.056	2.19	0.32	0.037
0.25	0.22	0.038	1.17	0.68	0.052	2.1	0.25	0.049	1.36	0.155	0.044	1.775	0.24	0.057	2.19	0.325	0.040
0.25	0.23	0.037	1.17	0.69	0.055	2.1	0.26	0.049	1.36	0.16	0.041	1.775	0.245	0.057	2.19	0.33	0.043
0.25	0.24	0.037	1.17	0.7	0.054	2.1	0.27	0.049	1.36	0.165	0.041	1.775	0.25	0.055	2.19	0.335	0.044
0.25	0.25	0.038	1.17	0.71	0.052	2.1	0.28	0.047	1.36	0.17	0.044	1.775	0.255	0.054	2.19	0.34	0.043
0.25	0.26	0.038	1.17	0.72	0.050	2.1	0.29	0.045	1.36	0.175	0.046	1.775	0.26	0.051	2.19	0.345	0.041
0.25	0.27	0.039	1.17	0.73	0.052	2.1	0.3	0.042	1.36	0.18	0.044	1.775	0.265	0.046	2.19	0.35	0.038
0.25	0.28	0.041	1.17	0.74	0.053	2.1	0.31	0.040	1.36	0.185	0.041	1.775	0.27	0.040	2.19	0.355	0.036
0.25	0.29	0.042	1.17	0.75	0.054	2.1	0.32	0.038	1.36	0.19	0.038	1.775	0.275	0.038	2.19	0.36	0.034
0.25	0.3	0.041	1.17	0.76	0.055	2.1	0.33	0.038	1.36	0.195	0.036	1.775	0.28	0.041	2.19	0.365	0.033
0.25	0.31	0.039	1.17	0.77	0.054	2.1	0.34	0.039	1.36	0.2	0.037	1.775	0.285	0.050	2.19	0.37	0.033
0.25	0.32	0.037	1.17	0.78	0.051	2.1	0.35	0.041	1.36	0.205	0.039	1.775	0.29	0.059	2.19	0.375	0.035
0.25	0.33	0.036	1.17	0.79	0.050	2.1	0.36	0.043	1.36	0.21	0.042	1.775	0.295	0.062	2.19	0.38	0.038
0.25	0.34	0.035	1.17	0.8	0.048	2.1	0.37	0.044	1.36	0.215	0.044	1.775	0.3	0.059	2.19	0.385	0.040
0.25	0.35	0.036	1.17	0.81	0.048	2.1	0.38	0.044	1.36	0.22	0.043	1.775	0.305	0.056	2.19	0.39	0.041
0.25	0.36	0.039	1.17	0.82	0.048	2.1	0.39	0.043	1.36	0.225	0.040	1.775	0.31	0.054	2.19	0.395	0.039
0.25	0.37	0.042	1.17	0.83	0.050	2.1	0.4	0.042	1.36	0.23	0.037	1.775	0.315	0.055	2.19	0.4	0.040
0.25	0.38	0.046	1.17	0.84	0.053	2.1	0.41	0.043	1.36	0.235	0.038	1.775	0.32	0.053	2.19	0.405	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.25	0.39	0.048	1.17	0.85	0.055	2.1	0.42	0.045	1.36	0.24	0.040	1.775	0.325	0.049	2.19	0.41	0.041
0.25	0.4	0.047	1.17	0.86	0.055	2.1	0.43	0.048	1.36	0.245	0.042	1.775	0.33	0.045	2.19	0.415	0.040
0.25	0.41	0.043	1.17	0.87	0.055	2.1	0.44	0.050	1.36	0.25	0.042	1.775	0.335	0.046	2.19	0.42	0.039
0.25	0.42	0.039	1.17	0.88	0.053	2.1	0.45	0.053	1.36	0.255	0.042	1.775	0.34	0.047	2.19	0.425	0.039
0.25	0.43	0.037	1.17	0.89	0.051	2.1	0.46	0.057	1.36	0.26	0.043	1.775	0.345	0.048	2.19	0.43	0.040
0.25	0.44	0.037	1.18	0.01	0.033	2.1	0.47	0.058	1.36	0.265	0.043	1.775	0.35	0.048	2.19	0.435	0.041
0.25	0.45	0.039	1.18	0.02	0.033	2.1	0.48	0.058	1.36	0.27	0.043	1.775	0.355	0.047	2.19	0.44	0.039
0.25	0.46	0.041	1.18	0.03	0.033	2.1	0.49	0.058	1.36	0.275	0.040	1.775	0.36	0.044	2.19	0.445	0.035
0.25	0.47	0.042	1.18	0.04	0.033	2.1	0.5	0.057	1.36	0.28	0.037	1.775	0.365	0.041	2.19	0.45	0.035
0.25	0.48	0.041	1.18	0.05	0.034	2.1	0.51	0.057	1.36	0.285	0.040	1.775	0.37	0.041	2.19	0.455	0.036
0.25	0.49	0.039	1.18	0.06	0.035	2.1	0.52	0.056	1.36	0.29	0.046	1.775	0.375	0.043	2.19	0.46	0.037
0.25	0.5	0.038	1.18	0.07	0.036	2.1	0.53	0.054	1.36	0.295	0.052	1.775	0.38	0.046	2.19	0.465	0.039
0.25	0.51	0.038	1.18	0.08	0.037	2.1	0.54	0.054	1.36	0.3	0.053	1.775	0.385	0.045	2.19	0.47	0.041
0.25	0.52	0.038	1.18	0.09	0.037	2.1	0.55	0.053	1.36	0.305	0.049	1.775	0.39	0.043	2.19	0.475	0.044
0.25	0.53	0.038	1.18	0.1	0.038	2.1	0.56	0.053	1.36	0.31	0.043	1.775	0.395	0.040	2.19	0.48	0.046
0.25	0.54	0.038	1.18	0.11	0.039	2.1	0.57	0.055	1.36	0.315	0.041	1.775	0.4	0.042	2.19	0.485	0.046
0.25	0.55	0.037	1.18	0.12	0.041	2.1	0.58	0.057	1.36	0.32	0.043	1.775	0.405	0.046	2.19	0.49	0.044
0.25	0.56	0.036	1.18	0.13	0.043	2.1	0.59	0.058	1.36	0.325	0.046	1.775	0.41	0.049	2.19	0.495	0.042
0.25	0.57	0.035	1.18	0.14	0.043	2.1	0.6	0.058	1.36	0.33	0.046	1.775	0.415	0.049	2.195	0.005	0.058
0.25	0.58	0.035	1.18	0.15	0.041	2.1	0.61	0.057	1.36	0.335	0.043	1.775	0.42	0.048	2.195	0.01	0.056
0.25	0.59	0.035	1.18	0.16	0.039	2.1	0.62	0.057	1.36	0.34	0.041	1.775	0.425	0.049	2.195	0.015	0.055
0.25	0.6	0.037	1.18	0.17	0.039	2.1	0.63	0.059	1.36	0.345	0.042	1.775	0.43	0.052	2.195	0.02	0.056
0.25	0.61	0.037	1.18	0.18	0.041	2.1	0.64	0.063	1.36	0.35	0.042	1.775	0.435	0.053	2.195	0.025	0.058
0.25	0.62	0.037	1.18	0.19	0.046	2.1	0.65	0.064	1.36	0.355	0.040	1.775	0.44	0.052	2.195	0.03	0.062
0.25	0.63	0.037	1.18	0.2	0.049	2.1	0.66	0.064	1.36	0.36	0.039	1.775	0.445	0.048	2.195	0.035	0.064

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.25	0.64	0.038	1.18	0.21	0.051	2.1	0.67	0.063	1.36	0.365	0.037	1.775	0.45	0.044	2.195	0.04	0.063
0.25	0.65	0.038	1.18	0.22	0.049	2.1	0.68	0.064	1.36	0.37	0.038	1.775	0.455	0.043	2.195	0.045	0.058
0.25	0.66	0.036	1.18	0.23	0.046	2.1	0.69	0.066	1.36	0.375	0.041	1.775	0.46	0.043	2.195	0.05	0.052
0.25	0.67	0.035	1.18	0.24	0.043	2.1	0.7	0.066	1.36	0.38	0.047	1.775	0.465	0.043	2.195	0.055	0.052
0.25	0.68	0.034	1.18	0.25	0.043	2.1	0.71	0.065	1.36	0.385	0.048	1.775	0.47	0.042	2.195	0.06	0.054
0.25	0.69	0.034	1.18	0.26	0.043	2.1	0.72	0.064	1.36	0.39	0.042	1.775	0.475	0.045	2.195	0.065	0.057
0.25	0.7	0.034	1.18	0.27	0.045	2.1	0.73	0.065	1.36	0.395	0.037	1.775	0.48	0.051	2.195	0.07	0.060
0.25	0.71	0.034	1.18	0.28	0.047	2.1	0.74	0.064	1.36	0.4	0.038	1.775	0.485	0.056	2.195	0.075	0.060
0.25	0.72	0.036	1.18	0.29	0.050	2.1	0.75	0.063	1.36	0.405	0.044	1.775	0.49	0.059	2.195	0.08	0.058
0.25	0.73	0.038	1.18	0.3	0.051	2.1	0.76	0.060	1.36	0.41	0.049	1.775	0.495	0.060	2.195	0.085	0.054
0.25	0.74	0.039	1.18	0.31	0.050	2.1	0.77	0.057	1.36	0.415	0.051	1.78	0.005	0.059	2.195	0.09	0.050
0.25	0.75	0.040	1.18	0.32	0.048	2.1	0.78	0.053	1.36	0.42	0.049	1.78	0.01	0.066	2.195	0.095	0.047
0.25	0.76	0.041	1.18	0.33	0.046	2.1	0.79	0.051	1.36	0.425	0.043	1.78	0.015	0.072	2.195	0.1	0.047
0.25	0.77	0.041	1.18	0.34	0.044	2.1	0.8	0.050	1.36	0.43	0.037	1.78	0.02	0.077	2.195	0.105	0.049
0.25	0.78	0.040	1.18	0.35	0.043	2.1	0.81	0.050	1.36	0.435	0.037	1.78	0.025	0.078	2.195	0.11	0.049
0.25	0.79	0.041	1.18	0.36	0.044	2.1	0.82	0.050	1.36	0.44	0.038	1.78	0.03	0.075	2.195	0.115	0.047
0.25	0.8	0.041	1.18	0.37	0.044	2.1	0.83	0.049	1.36	0.445	0.039	1.78	0.035	0.070	2.195	0.12	0.044
0.25	0.81	0.041	1.18	0.38	0.045	2.1	0.84	0.047	1.36	0.45	0.038	1.78	0.04	0.068	2.195	0.125	0.043
0.25	0.82	0.040	1.18	0.39	0.045	2.1	0.85	0.046	1.36	0.455	0.038	1.78	0.045	0.067	2.195	0.13	0.043
0.25	0.83	0.040	1.18	0.4	0.045	2.1	0.86	0.046	1.36	0.46	0.038	1.78	0.05	0.063	2.195	0.135	0.043
0.25	0.84	0.040	1.18	0.41	0.047	2.1	0.87	0.045	1.36	0.465	0.038	1.78	0.055	0.058	2.195	0.14	0.043
0.25	0.85	0.040	1.18	0.42	0.047	2.1	0.88	0.043	1.36	0.47	0.036	1.78	0.06	0.058	2.195	0.145	0.046
0.25	0.86	0.039	1.18	0.43	0.044	2.1	0.89	0.041	1.36	0.475	0.035	1.78	0.065	0.059	2.195	0.15	0.050
0.25	0.87	0.040	1.18	0.44	0.042	2.11	0.01	0.065	1.36	0.48	0.035	1.78	0.07	0.057	2.195	0.155	0.051
0.25	0.88	0.043	1.18	0.45	0.042	2.11	0.02	0.069	1.36	0.485	0.037	1.78	0.075	0.054	2.195	0.16	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.25	0.89	0.044	1.18	0.46	0.043	2.11	0.03	0.070	1.36	0.49	0.036	1.78	0.08	0.057	2.195	0.165	0.052
0.26	0.01	0.068	1.18	0.47	0.043	2.11	0.04	0.066	1.36	0.495	0.033	1.78	0.085	0.066	2.195	0.17	0.053
0.26	0.02	0.067	1.18	0.48	0.043	2.11	0.05	0.060	1.365	0.005	0.040	1.78	0.09	0.072	2.195	0.175	0.053
0.26	0.03	0.065	1.18	0.49	0.043	2.11	0.06	0.052	1.365	0.01	0.039	1.78	0.095	0.074	2.195	0.18	0.054
0.26	0.04	0.065	1.18	0.5	0.043	2.11	0.07	0.048	1.365	0.015	0.037	1.78	0.1	0.075	2.195	0.185	0.054
0.26	0.05	0.066	1.18	0.51	0.042	2.11	0.08	0.044	1.365	0.02	0.035	1.78	0.105	0.074	2.195	0.19	0.052
0.26	0.06	0.065	1.18	0.52	0.041	2.11	0.09	0.042	1.365	0.025	0.035	1.78	0.11	0.071	2.195	0.195	0.045
0.26	0.07	0.064	1.18	0.53	0.042	2.11	0.1	0.041	1.365	0.03	0.035	1.78	0.115	0.066	2.195	0.2	0.039
0.26	0.08	0.062	1.18	0.54	0.044	2.11	0.11	0.041	1.365	0.035	0.035	1.78	0.12	0.059	2.195	0.205	0.036
0.26	0.09	0.060	1.18	0.55	0.048	2.11	0.12	0.043	1.365	0.04	0.034	1.78	0.125	0.054	2.195	0.21	0.035
0.26	0.1	0.058	1.18	0.56	0.051	2.11	0.13	0.047	1.365	0.045	0.034	1.78	0.13	0.052	2.195	0.215	0.035
0.26	0.11	0.055	1.18	0.57	0.052	2.11	0.14	0.050	1.365	0.05	0.033	1.78	0.135	0.054	2.195	0.22	0.035
0.26	0.12	0.049	1.18	0.58	0.052	2.11	0.15	0.050	1.365	0.055	0.033	1.78	0.14	0.056	2.195	0.225	0.037
0.26	0.13	0.044	1.18	0.59	0.050	2.11	0.16	0.046	1.365	0.06	0.032	1.78	0.145	0.057	2.195	0.23	0.039
0.26	0.14	0.042	1.18	0.6	0.048	2.11	0.17	0.041	1.365	0.065	0.031	1.78	0.15	0.058	2.195	0.235	0.043
0.26	0.15	0.043	1.18	0.61	0.047	2.11	0.18	0.039	1.365	0.07	0.031	1.78	0.155	0.061	2.195	0.24	0.046
0.26	0.16	0.044	1.18	0.62	0.047	2.11	0.19	0.039	1.365	0.075	0.032	1.78	0.16	0.064	2.195	0.245	0.046
0.26	0.17	0.043	1.18	0.63	0.048	2.11	0.2	0.039	1.365	0.08	0.032	1.78	0.165	0.064	2.195	0.25	0.045
0.26	0.18	0.042	1.18	0.64	0.048	2.11	0.21	0.039	1.365	0.085	0.033	1.78	0.17	0.062	2.195	0.255	0.045
0.26	0.19	0.040	1.18	0.65	0.048	2.11	0.22	0.039	1.365	0.09	0.034	1.78	0.175	0.061	2.195	0.26	0.048
0.26	0.2	0.039	1.18	0.66	0.047	2.11	0.23	0.040	1.365	0.095	0.034	1.78	0.18	0.058	2.195	0.265	0.050
0.26	0.21	0.039	1.18	0.67	0.048	2.11	0.24	0.043	1.365	0.1	0.036	1.78	0.185	0.052	2.195	0.27	0.051
0.26	0.22	0.038	1.18	0.68	0.051	2.11	0.25	0.045	1.365	0.105	0.038	1.78	0.19	0.044	2.195	0.275	0.050
0.26	0.23	0.038	1.18	0.69	0.053	2.11	0.26	0.046	1.365	0.11	0.040	1.78	0.195	0.043	2.195	0.28	0.047
0.26	0.24	0.038	1.18	0.7	0.053	2.11	0.27	0.046	1.365	0.115	0.042	1.78	0.2	0.047	2.195	0.285	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.26	0.25	0.038	1.18	0.71	0.050	2.11	0.28	0.045	1.365	0.12	0.043	1.78	0.205	0.051	2.195	0.29	0.040
0.26	0.26	0.040	1.18	0.72	0.049	2.11	0.29	0.043	1.365	0.125	0.042	1.78	0.21	0.055	2.195	0.295	0.039
0.26	0.27	0.040	1.18	0.73	0.050	2.11	0.3	0.041	1.365	0.13	0.041	1.78	0.215	0.058	2.195	0.3	0.038
0.26	0.28	0.042	1.18	0.74	0.052	2.11	0.31	0.038	1.365	0.135	0.041	1.78	0.22	0.059	2.195	0.305	0.036
0.26	0.29	0.042	1.18	0.75	0.054	2.11	0.32	0.036	1.365	0.14	0.041	1.78	0.225	0.058	2.195	0.31	0.033
0.26	0.3	0.042	1.18	0.76	0.056	2.11	0.33	0.037	1.365	0.145	0.041	1.78	0.23	0.056	2.195	0.315	0.033
0.26	0.31	0.040	1.18	0.77	0.056	2.11	0.34	0.038	1.365	0.15	0.042	1.78	0.235	0.056	2.195	0.32	0.034
0.26	0.32	0.038	1.18	0.78	0.053	2.11	0.35	0.041	1.365	0.155	0.042	1.78	0.24	0.056	2.195	0.325	0.037
0.26	0.33	0.037	1.18	0.79	0.051	2.11	0.36	0.043	1.365	0.16	0.040	1.78	0.245	0.055	2.195	0.33	0.040
0.26	0.34	0.036	1.18	0.8	0.049	2.11	0.37	0.044	1.365	0.165	0.039	1.78	0.25	0.054	2.195	0.335	0.042
0.26	0.35	0.037	1.18	0.81	0.048	2.11	0.38	0.044	1.365	0.17	0.042	1.78	0.255	0.053	2.195	0.34	0.042
0.26	0.36	0.039	1.18	0.82	0.049	2.11	0.39	0.043	1.365	0.175	0.045	1.78	0.26	0.051	2.195	0.345	0.041
0.26	0.37	0.043	1.18	0.83	0.051	2.11	0.4	0.044	1.365	0.18	0.046	1.78	0.265	0.046	2.195	0.35	0.040
0.26	0.38	0.047	1.18	0.84	0.053	2.11	0.41	0.045	1.365	0.185	0.044	1.78	0.27	0.041	2.195	0.355	0.039
0.26	0.39	0.050	1.18	0.85	0.055	2.11	0.42	0.046	1.365	0.19	0.041	1.78	0.275	0.040	2.195	0.36	0.038
0.26	0.4	0.050	1.18	0.86	0.055	2.11	0.43	0.048	1.365	0.195	0.037	1.78	0.28	0.044	2.195	0.365	0.036
0.26	0.41	0.046	1.18	0.87	0.054	2.11	0.44	0.051	1.365	0.2	0.035	1.78	0.285	0.050	2.195	0.37	0.036
0.26	0.42	0.041	1.18	0.88	0.054	2.11	0.45	0.055	1.365	0.205	0.036	1.78	0.29	0.058	2.195	0.375	0.038
0.26	0.43	0.039	1.18	0.89	0.054	2.11	0.46	0.060	1.365	0.21	0.038	1.78	0.295	0.061	2.195	0.38	0.041
0.26	0.44	0.039	1.19	0.01	0.033	2.11	0.47	0.063	1.365	0.215	0.041	1.78	0.3	0.060	2.195	0.385	0.044
0.26	0.45	0.041	1.19	0.02	0.033	2.11	0.48	0.063	1.365	0.22	0.042	1.78	0.305	0.057	2.195	0.39	0.043
0.26	0.46	0.043	1.19	0.03	0.033	2.11	0.49	0.061	1.365	0.225	0.040	1.78	0.31	0.055	2.195	0.395	0.041
0.26	0.47	0.044	1.19	0.04	0.034	2.11	0.5	0.059	1.365	0.23	0.039	1.78	0.315	0.056	2.195	0.4	0.041
0.26	0.48	0.043	1.19	0.05	0.035	2.11	0.51	0.056	1.365	0.235	0.042	1.78	0.32	0.054	2.195	0.405	0.042
0.26	0.49	0.040	1.19	0.06	0.036	2.11	0.52	0.055	1.365	0.24	0.045	1.78	0.325	0.050	2.195	0.41	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.26	0.5	0.038	1.19	0.07	0.037	2.11	0.53	0.053	1.365	0.245	0.047	1.78	0.33	0.045	2.195	0.415	0.040
0.26	0.51	0.038	1.19	0.08	0.038	2.11	0.54	0.053	1.365	0.25	0.047	1.78	0.335	0.046	2.195	0.42	0.038
0.26	0.52	0.040	1.19	0.09	0.038	2.11	0.55	0.052	1.365	0.255	0.047	1.78	0.34	0.048	2.195	0.425	0.037
0.26	0.53	0.040	1.19	0.1	0.038	2.11	0.56	0.052	1.365	0.26	0.047	1.78	0.345	0.048	2.195	0.43	0.040
0.26	0.54	0.039	1.19	0.11	0.039	2.11	0.57	0.053	1.365	0.265	0.047	1.78	0.35	0.048	2.195	0.435	0.042
0.26	0.55	0.037	1.19	0.12	0.042	2.11	0.58	0.055	1.365	0.27	0.045	1.78	0.355	0.045	2.195	0.44	0.039
0.26	0.56	0.036	1.19	0.13	0.044	2.11	0.59	0.057	1.365	0.275	0.041	1.78	0.36	0.042	2.195	0.445	0.035
0.26	0.57	0.035	1.19	0.14	0.044	2.11	0.6	0.058	1.365	0.28	0.037	1.78	0.365	0.040	2.195	0.45	0.033
0.26	0.58	0.035	1.19	0.15	0.042	2.11	0.61	0.058	1.365	0.285	0.040	1.78	0.37	0.041	2.195	0.455	0.034
0.26	0.59	0.035	1.19	0.16	0.039	2.11	0.62	0.059	1.365	0.29	0.047	1.78	0.375	0.044	2.195	0.46	0.036
0.26	0.6	0.037	1.19	0.17	0.039	2.11	0.63	0.060	1.365	0.295	0.052	1.78	0.38	0.046	2.195	0.465	0.040
0.26	0.61	0.037	1.19	0.18	0.041	2.11	0.64	0.061	1.365	0.3	0.052	1.78	0.385	0.046	2.195	0.47	0.044
0.26	0.62	0.037	1.19	0.19	0.045	2.11	0.65	0.062	1.365	0.305	0.047	1.78	0.39	0.043	2.195	0.475	0.047
0.26	0.63	0.037	1.19	0.2	0.048	2.11	0.66	0.061	1.365	0.31	0.042	1.78	0.395	0.041	2.195	0.48	0.049
0.26	0.64	0.038	1.19	0.21	0.050	2.11	0.67	0.060	1.365	0.315	0.041	1.78	0.4	0.043	2.195	0.485	0.049
0.26	0.65	0.038	1.19	0.22	0.049	2.11	0.68	0.062	1.365	0.32	0.044	1.78	0.405	0.047	2.195	0.49	0.047
0.26	0.66	0.037	1.19	0.23	0.046	2.11	0.69	0.063	1.365	0.325	0.047	1.78	0.41	0.050	2.195	0.495	0.042
0.26	0.67	0.035	1.19	0.24	0.044	2.11	0.7	0.064	1.365	0.33	0.047	1.78	0.415	0.050	2.2	0.005	0.054
0.26	0.68	0.034	1.19	0.25	0.043	2.11	0.71	0.064	1.365	0.335	0.044	1.78	0.42	0.049	2.2	0.01	0.053
0.26	0.69	0.034	1.19	0.26	0.043	2.11	0.72	0.064	1.365	0.34	0.041	1.78	0.425	0.049	2.2	0.015	0.053
0.26	0.7	0.034	1.19	0.27	0.044	2.11	0.73	0.064	1.365	0.345	0.041	1.78	0.43	0.050	2.2	0.02	0.054
0.26	0.71	0.035	1.19	0.28	0.046	2.11	0.74	0.062	1.365	0.35	0.041	1.78	0.435	0.050	2.2	0.025	0.055
0.26	0.72	0.036	1.19	0.29	0.049	2.11	0.75	0.060	1.365	0.355	0.040	1.78	0.44	0.049	2.2	0.03	0.056
0.26	0.73	0.038	1.19	0.3	0.050	2.11	0.76	0.058	1.365	0.36	0.039	1.78	0.445	0.046	2.2	0.035	0.055
0.26	0.74	0.040	1.19	0.31	0.049	2.11	0.77	0.055	1.365	0.365	0.038	1.78	0.45	0.043	2.2	0.04	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.26	0.75	0.041	1.19	0.32	0.048	2.11	0.78	0.051	1.365	0.37	0.039	1.78	0.455	0.044	2.2	0.045	0.051
0.26	0.76	0.041	1.19	0.33	0.047	2.11	0.79	0.049	1.365	0.375	0.044	1.78	0.46	0.046	2.2	0.05	0.052
0.26	0.77	0.041	1.19	0.34	0.045	2.11	0.8	0.047	1.365	0.38	0.049	1.78	0.465	0.046	2.2	0.055	0.054
0.26	0.78	0.041	1.19	0.35	0.045	2.11	0.81	0.046	1.365	0.385	0.049	1.78	0.47	0.044	2.2	0.06	0.055
0.26	0.79	0.040	1.19	0.36	0.044	2.11	0.82	0.046	1.365	0.39	0.043	1.78	0.475	0.043	2.2	0.065	0.055
0.26	0.8	0.040	1.19	0.37	0.043	2.11	0.83	0.046	1.365	0.395	0.037	1.78	0.48	0.048	2.2	0.07	0.055
0.26	0.81	0.039	1.19	0.38	0.042	2.11	0.84	0.046	1.365	0.4	0.037	1.78	0.485	0.054	2.2	0.075	0.055
0.26	0.82	0.038	1.19	0.39	0.042	2.11	0.85	0.047	1.365	0.405	0.042	1.78	0.49	0.058	2.2	0.08	0.055
0.26	0.83	0.038	1.19	0.4	0.043	2.11	0.86	0.048	1.365	0.41	0.046	1.78	0.495	0.060	2.2	0.085	0.054
0.26	0.84	0.037	1.19	0.41	0.045	2.11	0.87	0.048	1.365	0.415	0.047	1.785	0.005	0.060	2.2	0.09	0.050
0.26	0.85	0.037	1.19	0.42	0.046	2.11	0.88	0.046	1.365	0.42	0.044	1.785	0.01	0.067	2.2	0.095	0.047
0.26	0.86	0.038	1.19	0.43	0.044	2.11	0.89	0.042	1.365	0.425	0.038	1.785	0.015	0.073	2.2	0.1	0.050
0.26	0.87	0.040	1.19	0.44	0.042	2.12	0.01	0.062	1.365	0.43	0.037	1.785	0.02	0.076	2.2	0.105	0.055
0.26	0.88	0.044	1.19	0.45	0.041	2.12	0.02	0.068	1.365	0.435	0.039	1.785	0.025	0.076	2.2	0.11	0.058
0.26	0.89	0.046	1.19	0.46	0.042	2.12	0.03	0.070	1.365	0.44	0.042	1.785	0.03	0.072	2.2	0.115	0.055
0.27	0.01	0.065	1.19	0.47	0.042	2.12	0.04	0.068	1.365	0.445	0.043	1.785	0.035	0.068	2.2	0.12	0.047
0.27	0.02	0.065	1.19	0.48	0.041	2.12	0.05	0.061	1.365	0.45	0.042	1.785	0.04	0.068	2.2	0.125	0.039
0.27	0.03	0.066	1.19	0.49	0.041	2.12	0.06	0.054	1.365	0.455	0.040	1.785	0.045	0.068	2.2	0.13	0.037
0.27	0.04	0.067	1.19	0.5	0.042	2.12	0.07	0.049	1.365	0.46	0.039	1.785	0.05	0.064	2.2	0.135	0.038
0.27	0.05	0.066	1.19	0.51	0.042	2.12	0.08	0.046	1.365	0.465	0.038	1.785	0.055	0.057	2.2	0.14	0.039
0.27	0.06	0.065	1.19	0.52	0.042	2.12	0.09	0.043	1.365	0.47	0.036	1.785	0.06	0.054	2.2	0.145	0.042
0.27	0.07	0.063	1.19	0.53	0.042	2.12	0.1	0.041	1.365	0.475	0.035	1.785	0.065	0.054	2.2	0.15	0.046
0.27	0.08	0.061	1.19	0.54	0.044	2.12	0.11	0.041	1.365	0.48	0.035	1.785	0.07	0.052	2.2	0.155	0.048
0.27	0.09	0.061	1.19	0.55	0.047	2.12	0.12	0.043	1.365	0.485	0.037	1.785	0.075	0.051	2.2	0.16	0.049
0.27	0.1	0.058	1.19	0.56	0.051	2.12	0.13	0.046	1.365	0.49	0.037	1.785	0.08	0.057	2.2	0.165	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.27	0.11	0.055	1.19	0.57	0.052	2.12	0.14	0.048	1.365	0.495	0.035	1.785	0.085	0.067	2.2	0.17	0.051
0.27	0.12	0.051	1.19	0.58	0.052	2.12	0.15	0.046	1.37	0.005	0.039	1.785	0.09	0.072	2.2	0.175	0.052
0.27	0.13	0.046	1.19	0.59	0.051	2.12	0.16	0.043	1.37	0.01	0.038	1.785	0.095	0.074	2.2	0.18	0.052
0.27	0.14	0.045	1.19	0.6	0.049	2.12	0.17	0.039	1.37	0.015	0.036	1.785	0.1	0.074	2.2	0.185	0.051
0.27	0.15	0.046	1.19	0.61	0.049	2.12	0.18	0.037	1.37	0.02	0.035	1.785	0.105	0.071	2.2	0.19	0.048
0.27	0.16	0.047	1.19	0.62	0.049	2.12	0.19	0.036	1.37	0.025	0.034	1.785	0.11	0.065	2.2	0.195	0.042
0.27	0.17	0.046	1.19	0.63	0.050	2.12	0.2	0.037	1.37	0.03	0.034	1.785	0.115	0.060	2.2	0.2	0.038
0.27	0.18	0.044	1.19	0.64	0.050	2.12	0.21	0.037	1.37	0.035	0.034	1.785	0.12	0.055	2.2	0.205	0.037
0.27	0.19	0.041	1.19	0.65	0.049	2.12	0.22	0.038	1.37	0.04	0.033	1.785	0.125	0.053	2.2	0.21	0.035
0.27	0.2	0.039	1.19	0.66	0.048	2.12	0.23	0.040	1.37	0.045	0.032	1.785	0.13	0.052	2.2	0.215	0.033
0.27	0.21	0.038	1.19	0.67	0.049	2.12	0.24	0.043	1.37	0.05	0.032	1.785	0.135	0.055	2.2	0.22	0.032
0.27	0.22	0.038	1.19	0.68	0.051	2.12	0.25	0.045	1.37	0.055	0.032	1.785	0.14	0.058	2.2	0.225	0.032
0.27	0.23	0.038	1.19	0.69	0.052	2.12	0.26	0.047	1.37	0.06	0.031	1.785	0.145	0.058	2.2	0.23	0.033
0.27	0.24	0.039	1.19	0.7	0.052	2.12	0.27	0.046	1.37	0.065	0.031	1.785	0.15	0.057	2.2	0.235	0.036
0.27	0.25	0.040	1.19	0.71	0.050	2.12	0.28	0.045	1.37	0.07	0.031	1.785	0.155	0.057	2.2	0.24	0.039
0.27	0.26	0.041	1.19	0.72	0.048	2.12	0.29	0.043	1.37	0.075	0.031	1.785	0.16	0.059	2.2	0.245	0.043
0.27	0.27	0.043	1.19	0.73	0.049	2.12	0.3	0.040	1.37	0.08	0.032	1.785	0.165	0.060	2.2	0.25	0.046
0.27	0.28	0.044	1.19	0.74	0.052	2.12	0.31	0.037	1.37	0.085	0.034	1.785	0.17	0.059	2.2	0.255	0.049
0.27	0.29	0.044	1.19	0.75	0.055	2.12	0.32	0.035	1.37	0.09	0.035	1.785	0.175	0.057	2.2	0.26	0.052
0.27	0.3	0.044	1.19	0.76	0.057	2.12	0.33	0.036	1.37	0.095	0.035	1.785	0.18	0.055	2.2	0.265	0.053
0.27	0.31	0.042	1.19	0.77	0.056	2.12	0.34	0.038	1.37	0.1	0.035	1.785	0.185	0.049	2.2	0.27	0.053
0.27	0.32	0.040	1.19	0.78	0.054	2.12	0.35	0.040	1.37	0.105	0.037	1.785	0.19	0.044	2.2	0.275	0.051
0.27	0.33	0.038	1.19	0.79	0.051	2.12	0.36	0.043	1.37	0.11	0.040	1.785	0.195	0.044	2.2	0.28	0.048
0.27	0.34	0.036	1.19	0.8	0.050	2.12	0.37	0.043	1.37	0.115	0.042	1.785	0.2	0.047	2.2	0.285	0.042
0.27	0.35	0.036	1.19	0.81	0.049	2.12	0.38	0.043	1.37	0.12	0.042	1.785	0.205	0.047	2.2	0.29	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.27	0.36	0.038	1.19	0.82	0.049	2.12	0.39	0.043	1.37	0.125	0.040	1.785	0.21	0.048	2.2	0.295	0.036
0.27	0.37	0.041	1.19	0.83	0.051	2.12	0.4	0.044	1.37	0.13	0.039	1.785	0.215	0.052	2.2	0.3	0.035
0.27	0.38	0.045	1.19	0.84	0.052	2.12	0.41	0.045	1.37	0.135	0.039	1.785	0.22	0.055	2.2	0.305	0.034
0.27	0.39	0.048	1.19	0.85	0.052	2.12	0.42	0.045	1.37	0.14	0.040	1.785	0.225	0.056	2.2	0.31	0.032
0.27	0.4	0.048	1.19	0.86	0.052	2.12	0.43	0.046	1.37	0.145	0.040	1.785	0.23	0.056	2.2	0.315	0.032
0.27	0.41	0.045	1.19	0.87	0.052	2.12	0.44	0.049	1.37	0.15	0.040	1.785	0.235	0.055	2.2	0.32	0.032
0.27	0.42	0.041	1.19	0.88	0.053	2.12	0.45	0.054	1.37	0.155	0.041	1.785	0.24	0.055	2.2	0.325	0.035
0.27	0.43	0.040	1.19	0.89	0.056	2.12	0.46	0.059	1.37	0.16	0.040	1.785	0.245	0.054	2.2	0.33	0.038
0.27	0.44	0.040	1.2	0.01	0.033	2.12	0.47	0.063	1.37	0.165	0.038	1.785	0.25	0.053	2.2	0.335	0.041
0.27	0.45	0.042	1.2	0.02	0.033	2.12	0.48	0.064	1.37	0.17	0.039	1.785	0.255	0.052	2.2	0.34	0.042
0.27	0.46	0.045	1.2	0.03	0.034	2.12	0.49	0.062	1.37	0.175	0.044	1.785	0.26	0.050	2.2	0.345	0.042
0.27	0.47	0.045	1.2	0.04	0.034	2.12	0.5	0.058	1.37	0.18	0.046	1.785	0.265	0.046	2.2	0.35	0.043
0.27	0.48	0.043	1.2	0.05	0.035	2.12	0.51	0.053	1.37	0.185	0.045	1.785	0.27	0.042	2.2	0.355	0.044
0.27	0.49	0.040	1.2	0.06	0.037	2.12	0.52	0.052	1.37	0.19	0.042	1.785	0.275	0.043	2.2	0.36	0.043
0.27	0.5	0.038	1.2	0.07	0.039	2.12	0.53	0.051	1.37	0.195	0.038	1.785	0.28	0.046	2.2	0.365	0.040
0.27	0.51	0.039	1.2	0.08	0.039	2.12	0.54	0.052	1.37	0.2	0.035	1.785	0.285	0.051	2.2	0.37	0.038
0.27	0.52	0.041	1.2	0.09	0.039	2.12	0.55	0.052	1.37	0.205	0.033	1.785	0.29	0.056	2.2	0.375	0.039
0.27	0.53	0.042	1.2	0.1	0.039	2.12	0.56	0.051	1.37	0.21	0.034	1.785	0.295	0.059	2.2	0.38	0.042
0.27	0.54	0.040	1.2	0.11	0.040	2.12	0.57	0.051	1.37	0.215	0.036	1.785	0.3	0.060	2.2	0.385	0.044
0.27	0.55	0.037	1.2	0.12	0.043	2.12	0.58	0.053	1.37	0.22	0.039	1.785	0.305	0.058	2.2	0.39	0.044
0.27	0.56	0.036	1.2	0.13	0.047	2.12	0.59	0.055	1.37	0.225	0.040	1.785	0.31	0.056	2.2	0.395	0.042
0.27	0.57	0.035	1.2	0.14	0.048	2.12	0.6	0.058	1.37	0.23	0.043	1.785	0.315	0.056	2.2	0.4	0.039
0.27	0.58	0.035	1.2	0.15	0.045	2.12	0.61	0.060	1.37	0.235	0.045	1.785	0.32	0.054	2.2	0.405	0.041
0.27	0.59	0.035	1.2	0.16	0.041	2.12	0.62	0.062	1.37	0.24	0.048	1.785	0.325	0.049	2.2	0.41	0.041
0.27	0.6	0.036	1.2	0.17	0.039	2.12	0.63	0.061	1.37	0.245	0.048	1.785	0.33	0.044	2.2	0.415	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.27	0.61	0.036	1.2	0.18	0.039	2.12	0.64	0.061	1.37	0.25	0.049	1.785	0.335	0.044	2.2	0.42	0.037
0.27	0.62	0.036	1.2	0.19	0.042	2.12	0.65	0.060	1.37	0.255	0.049	1.785	0.34	0.047	2.2	0.425	0.038
0.27	0.63	0.036	1.2	0.2	0.045	2.12	0.66	0.059	1.37	0.26	0.048	1.785	0.345	0.048	2.2	0.43	0.040
0.27	0.64	0.037	1.2	0.21	0.047	2.12	0.67	0.058	1.37	0.265	0.048	1.785	0.35	0.047	2.2	0.435	0.040
0.27	0.65	0.037	1.2	0.22	0.047	2.12	0.68	0.059	1.37	0.27	0.046	1.785	0.355	0.045	2.2	0.44	0.037
0.27	0.66	0.036	1.2	0.23	0.046	2.12	0.69	0.059	1.37	0.275	0.042	1.785	0.36	0.043	2.2	0.445	0.034
0.27	0.67	0.035	1.2	0.24	0.045	2.12	0.7	0.060	1.37	0.28	0.039	1.785	0.365	0.043	2.2	0.45	0.032
0.27	0.68	0.034	1.2	0.25	0.045	2.12	0.71	0.061	1.37	0.285	0.041	1.785	0.37	0.043	2.2	0.455	0.033
0.27	0.69	0.035	1.2	0.26	0.044	2.12	0.72	0.063	1.37	0.29	0.047	1.785	0.375	0.044	2.2	0.46	0.036
0.27	0.7	0.035	1.2	0.27	0.044	2.12	0.73	0.063	1.37	0.295	0.051	1.785	0.38	0.045	2.2	0.465	0.041
0.27	0.71	0.036	1.2	0.28	0.047	2.12	0.74	0.062	1.37	0.3	0.049	1.785	0.385	0.045	2.2	0.47	0.046
0.27	0.72	0.038	1.2	0.29	0.049	2.12	0.75	0.061	1.37	0.305	0.044	1.785	0.39	0.043	2.2	0.475	0.050
0.27	0.73	0.039	1.2	0.3	0.049	2.12	0.76	0.059	1.37	0.31	0.041	1.785	0.395	0.042	2.2	0.48	0.052
0.27	0.74	0.042	1.2	0.31	0.048	2.12	0.77	0.056	1.37	0.315	0.042	1.785	0.4	0.044	2.2	0.485	0.052
0.27	0.75	0.044	1.2	0.32	0.048	2.12	0.78	0.053	1.37	0.32	0.045	1.785	0.405	0.047	2.2	0.49	0.050
0.27	0.76	0.044	1.2	0.33	0.048	2.12	0.79	0.050	1.37	0.325	0.047	1.785	0.41	0.049	2.2	0.495	0.044
0.27	0.77	0.043	1.2	0.34	0.047	2.12	0.8	0.047	1.37	0.33	0.047	1.785	0.415	0.049	2.205	0.005	0.052
0.27	0.78	0.041	1.2	0.35	0.047	2.12	0.81	0.044	1.37	0.335	0.045	1.785	0.42	0.049	2.205	0.01	0.054
0.27	0.79	0.040	1.2	0.36	0.046	2.12	0.82	0.043	1.37	0.34	0.042	1.785	0.425	0.049	2.205	0.015	0.054
0.27	0.8	0.038	1.2	0.37	0.044	2.12	0.83	0.044	1.37	0.345	0.041	1.785	0.43	0.049	2.205	0.02	0.055
0.27	0.81	0.037	1.2	0.38	0.043	2.12	0.84	0.045	1.37	0.35	0.042	1.785	0.435	0.047	2.205	0.025	0.055
0.27	0.82	0.036	1.2	0.39	0.043	2.12	0.85	0.047	1.37	0.355	0.042	1.785	0.44	0.045	2.205	0.03	0.052
0.27	0.83	0.035	1.2	0.4	0.043	2.12	0.86	0.049	1.37	0.36	0.041	1.785	0.445	0.043	2.205	0.035	0.046
0.27	0.84	0.035	1.2	0.41	0.045	2.12	0.87	0.050	1.37	0.365	0.040	1.785	0.45	0.044	2.205	0.04	0.041
0.27	0.85	0.036	1.2	0.42	0.047	2.12	0.88	0.049	1.37	0.37	0.040	1.785	0.455	0.049	2.205	0.045	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.27	0.86	0.037	1.2	0.43	0.046	2.12	0.89	0.045	1.37	0.375	0.044	1.785	0.46	0.053	2.205	0.05	0.052
0.27	0.87	0.040	1.2	0.44	0.044	2.13	0.01	0.061	1.37	0.38	0.047	1.785	0.465	0.055	2.205	0.055	0.057
0.27	0.88	0.044	1.2	0.45	0.043	2.13	0.02	0.065	1.37	0.385	0.047	1.785	0.47	0.054	2.205	0.06	0.057
0.27	0.89	0.046	1.2	0.46	0.041	2.13	0.03	0.066	1.37	0.39	0.042	1.785	0.475	0.053	2.205	0.065	0.055
0.28	0.01	0.065	1.2	0.47	0.041	2.13	0.04	0.063	1.37	0.395	0.037	1.785	0.48	0.054	2.205	0.07	0.052
0.28	0.02	0.067	1.2	0.48	0.040	2.13	0.05	0.057	1.37	0.4	0.037	1.785	0.485	0.054	2.205	0.075	0.052
0.28	0.03	0.069	1.2	0.49	0.039	2.13	0.06	0.053	1.37	0.405	0.041	1.785	0.49	0.056	2.205	0.08	0.054
0.28	0.04	0.069	1.2	0.5	0.041	2.13	0.07	0.050	1.37	0.41	0.045	1.785	0.495	0.058	2.205	0.085	0.054
0.28	0.05	0.067	1.2	0.51	0.042	2.13	0.08	0.048	1.37	0.415	0.044	1.79	0.005	0.058	2.205	0.09	0.050
0.28	0.06	0.064	1.2	0.52	0.042	2.13	0.09	0.045	1.37	0.42	0.040	1.79	0.01	0.064	2.205	0.095	0.047
0.28	0.07	0.062	1.2	0.53	0.042	2.13	0.1	0.043	1.37	0.425	0.037	1.79	0.015	0.069	2.205	0.1	0.053
0.28	0.08	0.061	1.2	0.54	0.043	2.13	0.11	0.042	1.37	0.43	0.037	1.79	0.02	0.072	2.205	0.105	0.060
0.28	0.09	0.061	1.2	0.55	0.045	2.13	0.12	0.044	1.37	0.435	0.040	1.79	0.025	0.071	2.205	0.11	0.064
0.28	0.1	0.059	1.2	0.56	0.048	2.13	0.13	0.045	1.37	0.44	0.044	1.79	0.03	0.068	2.205	0.115	0.062
0.28	0.11	0.057	1.2	0.57	0.049	2.13	0.14	0.045	1.37	0.445	0.045	1.79	0.035	0.067	2.205	0.12	0.053
0.28	0.12	0.053	1.2	0.58	0.050	2.13	0.15	0.043	1.37	0.45	0.044	1.79	0.04	0.068	2.205	0.125	0.040
0.28	0.13	0.050	1.2	0.59	0.049	2.13	0.16	0.040	1.37	0.455	0.042	1.79	0.045	0.069	2.205	0.13	0.035
0.28	0.14	0.048	1.2	0.6	0.049	2.13	0.17	0.037	1.37	0.46	0.039	1.79	0.05	0.065	2.205	0.135	0.034
0.28	0.15	0.048	1.2	0.61	0.049	2.13	0.18	0.036	1.37	0.465	0.037	1.79	0.055	0.060	2.205	0.14	0.035
0.28	0.16	0.048	1.2	0.62	0.049	2.13	0.19	0.035	1.37	0.47	0.036	1.79	0.06	0.057	2.205	0.145	0.037
0.28	0.17	0.047	1.2	0.63	0.050	2.13	0.2	0.036	1.37	0.475	0.036	1.79	0.065	0.055	2.205	0.15	0.039
0.28	0.18	0.044	1.2	0.64	0.051	2.13	0.21	0.037	1.37	0.48	0.036	1.79	0.07	0.055	2.205	0.155	0.042
0.28	0.19	0.041	1.2	0.65	0.050	2.13	0.22	0.039	1.37	0.485	0.037	1.79	0.075	0.055	2.205	0.16	0.043
0.28	0.2	0.038	1.2	0.66	0.049	2.13	0.23	0.041	1.37	0.49	0.037	1.79	0.08	0.060	2.205	0.165	0.045
0.28	0.21	0.037	1.2	0.67	0.050	2.13	0.24	0.044	1.37	0.495	0.035	1.79	0.085	0.067	2.205	0.17	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.28	0.22	0.037	1.2	0.68	0.052	2.13	0.25	0.048	1.375	0.005	0.039	1.79	0.09	0.071	2.205	0.175	0.047
0.28	0.23	0.039	1.2	0.69	0.053	2.13	0.26	0.050	1.375	0.01	0.037	1.79	0.095	0.071	2.205	0.18	0.047
0.28	0.24	0.041	1.2	0.7	0.052	2.13	0.27	0.050	1.375	0.015	0.035	1.79	0.1	0.069	2.205	0.185	0.045
0.28	0.25	0.043	1.2	0.71	0.050	2.13	0.28	0.047	1.375	0.02	0.034	1.79	0.105	0.063	2.205	0.19	0.042
0.28	0.26	0.044	1.2	0.72	0.048	2.13	0.29	0.043	1.375	0.025	0.034	1.79	0.11	0.057	2.205	0.195	0.039
0.28	0.27	0.046	1.2	0.73	0.048	2.13	0.3	0.039	1.375	0.03	0.033	1.79	0.115	0.053	2.205	0.2	0.038
0.28	0.28	0.047	1.2	0.74	0.051	2.13	0.31	0.036	1.375	0.035	0.033	1.79	0.12	0.055	2.205	0.205	0.038
0.28	0.29	0.047	1.2	0.75	0.055	2.13	0.32	0.035	1.375	0.04	0.032	1.79	0.125	0.055	2.205	0.21	0.035
0.28	0.3	0.045	1.2	0.76	0.056	2.13	0.33	0.035	1.375	0.045	0.032	1.79	0.13	0.055	2.205	0.215	0.032
0.28	0.31	0.043	1.2	0.77	0.054	2.13	0.34	0.037	1.375	0.05	0.031	1.79	0.135	0.056	2.205	0.22	0.031
0.28	0.32	0.041	1.2	0.78	0.051	2.13	0.35	0.040	1.375	0.055	0.031	1.79	0.14	0.057	2.205	0.225	0.030
0.28	0.33	0.038	1.2	0.79	0.049	2.13	0.36	0.043	1.375	0.06	0.031	1.79	0.145	0.057	2.205	0.23	0.030
0.28	0.34	0.036	1.2	0.8	0.049	2.13	0.37	0.044	1.375	0.065	0.031	1.79	0.15	0.056	2.205	0.235	0.031
0.28	0.35	0.036	1.2	0.81	0.049	2.13	0.38	0.043	1.375	0.07	0.030	1.79	0.155	0.055	2.205	0.24	0.033
0.28	0.36	0.037	1.2	0.82	0.050	2.13	0.39	0.043	1.375	0.075	0.031	1.79	0.16	0.055	2.205	0.245	0.039
0.28	0.37	0.039	1.2	0.83	0.050	2.13	0.4	0.044	1.375	0.08	0.032	1.79	0.165	0.054	2.205	0.25	0.047
0.28	0.38	0.042	1.2	0.84	0.050	2.13	0.41	0.044	1.375	0.085	0.034	1.79	0.17	0.052	2.205	0.255	0.052
0.28	0.39	0.044	1.2	0.85	0.050	2.13	0.42	0.043	1.375	0.09	0.035	1.79	0.175	0.052	2.205	0.26	0.053
0.28	0.4	0.044	1.2	0.86	0.050	2.13	0.43	0.044	1.375	0.095	0.035	1.79	0.18	0.051	2.205	0.265	0.053
0.28	0.41	0.042	1.2	0.87	0.051	2.13	0.44	0.046	1.375	0.1	0.035	1.79	0.185	0.049	2.205	0.27	0.052
0.28	0.42	0.040	1.2	0.88	0.054	2.13	0.45	0.050	1.375	0.105	0.036	1.79	0.19	0.046	2.205	0.275	0.051
0.28	0.43	0.039	1.2	0.89	0.058	2.13	0.46	0.054	1.375	0.11	0.039	1.79	0.195	0.045	2.205	0.28	0.048
0.28	0.44	0.040	1.21	0.01	0.034	2.13	0.47	0.058	1.375	0.115	0.040	1.79	0.2	0.045	2.205	0.285	0.043
0.28	0.45	0.042	1.21	0.02	0.034	2.13	0.48	0.059	1.375	0.12	0.039	1.79	0.205	0.045	2.205	0.29	0.037
0.28	0.46	0.044	1.21	0.03	0.034	2.13	0.49	0.057	1.375	0.125	0.037	1.79	0.21	0.044	2.205	0.295	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.28	0.47	0.044	1.21	0.04	0.034	2.13	0.5	0.053	1.375	0.13	0.038	1.79	0.215	0.047	2.205	0.3	0.033
0.28	0.48	0.042	1.21	0.05	0.036	2.13	0.51	0.049	1.375	0.135	0.040	1.79	0.22	0.052	2.205	0.305	0.032
0.28	0.49	0.040	1.21	0.06	0.038	2.13	0.52	0.047	1.375	0.14	0.042	1.79	0.225	0.057	2.205	0.31	0.031
0.28	0.5	0.038	1.21	0.07	0.040	2.13	0.53	0.048	1.375	0.145	0.041	1.79	0.23	0.058	2.205	0.315	0.031
0.28	0.51	0.039	1.21	0.08	0.041	2.13	0.54	0.050	1.375	0.15	0.040	1.79	0.235	0.057	2.205	0.32	0.031
0.28	0.52	0.041	1.21	0.09	0.040	2.13	0.55	0.053	1.375	0.155	0.039	1.79	0.24	0.056	2.205	0.325	0.033
0.28	0.53	0.042	1.21	0.1	0.040	2.13	0.56	0.052	1.375	0.16	0.039	1.79	0.245	0.055	2.205	0.33	0.036
0.28	0.54	0.040	1.21	0.11	0.041	2.13	0.57	0.051	1.375	0.165	0.039	1.79	0.25	0.053	2.205	0.335	0.040
0.28	0.55	0.037	1.21	0.12	0.045	2.13	0.58	0.052	1.375	0.17	0.041	1.79	0.255	0.051	2.205	0.34	0.041
0.28	0.56	0.035	1.21	0.13	0.051	2.13	0.59	0.054	1.375	0.175	0.044	1.79	0.26	0.049	2.205	0.345	0.041
0.28	0.57	0.035	1.21	0.14	0.053	2.13	0.6	0.058	1.375	0.18	0.045	1.79	0.265	0.045	2.205	0.35	0.045
0.28	0.58	0.035	1.21	0.15	0.051	2.13	0.61	0.061	1.375	0.185	0.043	1.79	0.27	0.044	2.205	0.355	0.047
0.28	0.59	0.035	1.21	0.16	0.045	2.13	0.62	0.062	1.375	0.19	0.041	1.79	0.275	0.046	2.205	0.36	0.046
0.28	0.6	0.035	1.21	0.17	0.040	2.13	0.63	0.062	1.375	0.195	0.037	1.79	0.28	0.049	2.205	0.365	0.042
0.28	0.61	0.035	1.21	0.18	0.038	2.13	0.64	0.062	1.375	0.2	0.034	1.79	0.285	0.052	2.205	0.37	0.038
0.28	0.62	0.035	1.21	0.19	0.040	2.13	0.65	0.061	1.375	0.205	0.033	1.79	0.29	0.054	2.205	0.375	0.038
0.28	0.63	0.036	1.21	0.2	0.042	2.13	0.66	0.060	1.375	0.21	0.032	1.79	0.295	0.056	2.205	0.38	0.040
0.28	0.64	0.036	1.21	0.21	0.044	2.13	0.67	0.059	1.375	0.215	0.034	1.79	0.3	0.057	2.205	0.385	0.042
0.28	0.65	0.036	1.21	0.22	0.045	2.13	0.68	0.058	1.375	0.22	0.036	1.79	0.305	0.056	2.205	0.39	0.043
0.28	0.66	0.035	1.21	0.23	0.045	2.13	0.69	0.057	1.375	0.225	0.039	1.79	0.31	0.055	2.205	0.395	0.041
0.28	0.67	0.034	1.21	0.24	0.046	2.13	0.7	0.057	1.375	0.23	0.044	1.79	0.315	0.053	2.205	0.4	0.038
0.28	0.68	0.034	1.21	0.25	0.047	2.13	0.71	0.059	1.375	0.235	0.046	1.79	0.32	0.050	2.205	0.405	0.037
0.28	0.69	0.035	1.21	0.26	0.046	2.13	0.72	0.061	1.375	0.24	0.047	1.79	0.325	0.045	2.205	0.41	0.038
0.28	0.7	0.036	1.21	0.27	0.046	2.13	0.73	0.063	1.375	0.245	0.047	1.79	0.33	0.041	2.205	0.415	0.037
0.28	0.71	0.038	1.21	0.28	0.048	2.13	0.74	0.064	1.375	0.25	0.047	1.79	0.335	0.041	2.205	0.42	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.28	0.72	0.041	1.21	0.29	0.050	2.13	0.75	0.063	1.375	0.255	0.047	1.79	0.34	0.045	2.205	0.425	0.038
0.28	0.73	0.043	1.21	0.3	0.049	2.13	0.76	0.062	1.375	0.26	0.047	1.79	0.345	0.046	2.205	0.43	0.040
0.28	0.74	0.047	1.21	0.31	0.049	2.13	0.77	0.059	1.375	0.265	0.046	1.79	0.35	0.045	2.205	0.435	0.038
0.28	0.75	0.049	1.21	0.32	0.049	2.13	0.78	0.056	1.375	0.27	0.045	1.79	0.355	0.045	2.205	0.44	0.036
0.28	0.76	0.049	1.21	0.33	0.050	2.13	0.79	0.053	1.375	0.275	0.042	1.79	0.36	0.045	2.205	0.445	0.034
0.28	0.77	0.046	1.21	0.34	0.050	2.13	0.8	0.050	1.375	0.28	0.040	1.79	0.365	0.045	2.205	0.45	0.033
0.28	0.78	0.043	1.21	0.35	0.049	2.13	0.81	0.046	1.375	0.285	0.041	1.79	0.37	0.044	2.205	0.455	0.033
0.28	0.79	0.039	1.21	0.36	0.048	2.13	0.82	0.044	1.375	0.29	0.044	1.79	0.375	0.042	2.205	0.46	0.036
0.28	0.8	0.037	1.21	0.37	0.047	2.13	0.83	0.044	1.375	0.295	0.046	1.79	0.38	0.042	2.205	0.465	0.043
0.28	0.81	0.036	1.21	0.38	0.046	2.13	0.84	0.045	1.375	0.3	0.043	1.79	0.385	0.043	2.205	0.47	0.048
0.28	0.82	0.035	1.21	0.39	0.047	2.13	0.85	0.046	1.375	0.305	0.041	1.79	0.39	0.042	2.205	0.475	0.052
0.28	0.83	0.034	1.21	0.4	0.046	2.13	0.86	0.048	1.375	0.31	0.041	1.79	0.395	0.043	2.205	0.48	0.054
0.28	0.84	0.034	1.21	0.41	0.047	2.13	0.87	0.049	1.375	0.315	0.043	1.79	0.4	0.045	2.205	0.485	0.053
0.28	0.85	0.036	1.21	0.42	0.048	2.13	0.88	0.049	1.375	0.32	0.046	1.79	0.405	0.048	2.205	0.49	0.050
0.28	0.86	0.039	1.21	0.43	0.048	2.13	0.89	0.048	1.375	0.325	0.047	1.79	0.41	0.050	2.205	0.495	0.044
0.28	0.87	0.041	1.21	0.44	0.047	2.14	0.01	0.062	1.375	0.33	0.047	1.79	0.415	0.051	2.21	0.005	0.051
0.28	0.88	0.044	1.21	0.45	0.045	2.14	0.02	0.063	1.375	0.335	0.044	1.79	0.42	0.051	2.21	0.01	0.053
0.28	0.89	0.045	1.21	0.46	0.042	2.14	0.03	0.062	1.375	0.34	0.041	1.79	0.425	0.051	2.21	0.015	0.055
0.29	0.01	0.068	1.21	0.47	0.040	2.14	0.04	0.057	1.375	0.345	0.041	1.79	0.43	0.049	2.21	0.02	0.056
0.29	0.02	0.071	1.21	0.48	0.039	2.14	0.05	0.053	1.375	0.35	0.042	1.79	0.435	0.046	2.21	0.025	0.055
0.29	0.03	0.072	1.21	0.49	0.039	2.14	0.06	0.050	1.375	0.355	0.045	1.79	0.44	0.043	2.21	0.03	0.051
0.29	0.04	0.069	1.21	0.5	0.040	2.14	0.07	0.050	1.375	0.36	0.045	1.79	0.445	0.042	2.21	0.035	0.044
0.29	0.05	0.067	1.21	0.51	0.042	2.14	0.08	0.049	1.375	0.365	0.043	1.79	0.45	0.046	2.21	0.04	0.040
0.29	0.06	0.065	1.21	0.52	0.042	2.14	0.09	0.048	1.375	0.37	0.041	1.79	0.455	0.054	2.21	0.045	0.045
0.29	0.07	0.063	1.21	0.53	0.042	2.14	0.1	0.046	1.375	0.375	0.041	1.79	0.46	0.061	2.21	0.05	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.29	0.08	0.062	1.21	0.54	0.042	2.14	0.11	0.045	1.375	0.38	0.043	1.79	0.465	0.063	2.21	0.055	0.057
0.29	0.09	0.062	1.21	0.55	0.043	2.14	0.12	0.045	1.375	0.385	0.043	1.79	0.47	0.063	2.21	0.06	0.059
0.29	0.1	0.060	1.21	0.56	0.044	2.14	0.13	0.045	1.375	0.39	0.040	1.79	0.475	0.063	2.21	0.065	0.056
0.29	0.11	0.058	1.21	0.57	0.045	2.14	0.14	0.043	1.375	0.395	0.039	1.79	0.48	0.061	2.21	0.07	0.052
0.29	0.12	0.055	1.21	0.58	0.046	2.14	0.15	0.041	1.375	0.4	0.041	1.79	0.485	0.057	2.21	0.075	0.051
0.29	0.13	0.052	1.21	0.59	0.047	2.14	0.16	0.040	1.375	0.405	0.045	1.79	0.49	0.054	2.21	0.08	0.054
0.29	0.14	0.051	1.21	0.6	0.048	2.14	0.17	0.038	1.375	0.41	0.047	1.79	0.495	0.056	2.21	0.085	0.055
0.29	0.15	0.049	1.21	0.61	0.048	2.14	0.18	0.036	1.375	0.415	0.046	1.795	0.005	0.053	2.21	0.09	0.052
0.29	0.16	0.048	1.21	0.62	0.048	2.14	0.19	0.036	1.375	0.42	0.043	1.795	0.01	0.057	2.21	0.095	0.050
0.29	0.17	0.046	1.21	0.63	0.049	2.14	0.2	0.037	1.375	0.425	0.038	1.795	0.015	0.061	2.21	0.1	0.056
0.29	0.18	0.043	1.21	0.64	0.050	2.14	0.21	0.038	1.375	0.43	0.037	1.795	0.02	0.064	2.21	0.105	0.064
0.29	0.19	0.040	1.21	0.65	0.049	2.14	0.22	0.040	1.375	0.435	0.040	1.795	0.025	0.065	2.21	0.11	0.068
0.29	0.2	0.038	1.21	0.66	0.049	2.14	0.23	0.042	1.375	0.44	0.043	1.795	0.03	0.065	2.21	0.115	0.067
0.29	0.21	0.036	1.21	0.67	0.050	2.14	0.24	0.046	1.375	0.445	0.045	1.795	0.035	0.067	2.21	0.12	0.059
0.29	0.22	0.037	1.21	0.68	0.051	2.14	0.25	0.050	1.375	0.45	0.044	1.795	0.04	0.068	2.21	0.125	0.047
0.29	0.23	0.039	1.21	0.69	0.052	2.14	0.26	0.053	1.375	0.455	0.042	1.795	0.045	0.069	2.21	0.13	0.038
0.29	0.24	0.042	1.21	0.7	0.052	2.14	0.27	0.052	1.375	0.46	0.039	1.795	0.05	0.067	2.21	0.135	0.034
0.29	0.25	0.045	1.21	0.71	0.050	2.14	0.28	0.049	1.375	0.465	0.037	1.795	0.055	0.063	2.21	0.14	0.033
0.29	0.26	0.047	1.21	0.72	0.048	2.14	0.29	0.044	1.375	0.47	0.036	1.795	0.06	0.062	2.21	0.145	0.033
0.29	0.27	0.048	1.21	0.73	0.047	2.14	0.3	0.039	1.375	0.475	0.036	1.795	0.065	0.061	2.21	0.15	0.034
0.29	0.28	0.048	1.21	0.74	0.049	2.14	0.31	0.036	1.375	0.48	0.036	1.795	0.07	0.061	2.21	0.155	0.035
0.29	0.29	0.047	1.21	0.75	0.052	2.14	0.32	0.035	1.375	0.485	0.035	1.795	0.075	0.060	2.21	0.16	0.037
0.29	0.3	0.045	1.21	0.76	0.053	2.14	0.33	0.035	1.375	0.49	0.035	1.795	0.08	0.062	2.21	0.165	0.038
0.29	0.31	0.043	1.21	0.77	0.051	2.14	0.34	0.037	1.375	0.495	0.034	1.795	0.085	0.066	2.21	0.17	0.039
0.29	0.32	0.040	1.21	0.78	0.049	2.14	0.35	0.040	1.38	0.005	0.038	1.795	0.09	0.068	2.21	0.175	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.29	0.33	0.037	1.21	0.79	0.046	2.14	0.36	0.043	1.38	0.01	0.036	1.795	0.095	0.067	2.21	0.18	0.039
0.29	0.34	0.035	1.21	0.8	0.046	2.14	0.37	0.044	1.38	0.015	0.035	1.795	0.1	0.066	2.21	0.185	0.039
0.29	0.35	0.035	1.21	0.81	0.047	2.14	0.38	0.043	1.38	0.02	0.034	1.795	0.105	0.062	2.21	0.19	0.039
0.29	0.36	0.035	1.21	0.82	0.048	2.14	0.39	0.043	1.38	0.025	0.033	1.795	0.11	0.055	2.21	0.195	0.039
0.29	0.37	0.036	1.21	0.83	0.049	2.14	0.4	0.044	1.38	0.03	0.033	1.795	0.115	0.052	2.21	0.2	0.039
0.29	0.38	0.038	1.21	0.84	0.049	2.14	0.41	0.043	1.38	0.035	0.033	1.795	0.12	0.056	2.21	0.205	0.038
0.29	0.39	0.040	1.21	0.85	0.049	2.14	0.42	0.042	1.38	0.04	0.032	1.795	0.125	0.059	2.21	0.21	0.035
0.29	0.4	0.040	1.21	0.86	0.050	2.14	0.43	0.042	1.38	0.045	0.032	1.795	0.13	0.057	2.21	0.215	0.033
0.29	0.41	0.039	1.21	0.87	0.052	2.14	0.44	0.043	1.38	0.05	0.032	1.795	0.135	0.055	2.21	0.22	0.032
0.29	0.42	0.038	1.21	0.88	0.055	2.14	0.45	0.044	1.38	0.055	0.031	1.795	0.14	0.055	2.21	0.225	0.031
0.29	0.43	0.039	1.21	0.89	0.060	2.14	0.46	0.047	1.38	0.06	0.031	1.795	0.145	0.055	2.21	0.23	0.031
0.29	0.44	0.040	1.22	0.01	0.034	2.14	0.47	0.049	1.38	0.065	0.030	1.795	0.15	0.054	2.21	0.235	0.030
0.29	0.45	0.042	1.22	0.02	0.034	2.14	0.48	0.051	1.38	0.07	0.030	1.795	0.155	0.053	2.21	0.24	0.032
0.29	0.46	0.043	1.22	0.03	0.034	2.14	0.49	0.050	1.38	0.075	0.031	1.795	0.16	0.052	2.21	0.245	0.037
0.29	0.47	0.043	1.22	0.04	0.035	2.14	0.5	0.048	1.38	0.08	0.032	1.795	0.165	0.051	2.21	0.25	0.047
0.29	0.48	0.041	1.22	0.05	0.036	2.14	0.51	0.045	1.38	0.085	0.033	1.795	0.17	0.050	2.21	0.255	0.052
0.29	0.49	0.039	1.22	0.06	0.038	2.14	0.52	0.044	1.38	0.09	0.035	1.795	0.175	0.050	2.21	0.26	0.053
0.29	0.5	0.038	1.22	0.07	0.040	2.14	0.53	0.045	1.38	0.095	0.036	1.795	0.18	0.049	2.21	0.265	0.052
0.29	0.51	0.038	1.22	0.08	0.041	2.14	0.54	0.048	1.38	0.1	0.035	1.795	0.185	0.050	2.21	0.27	0.051
0.29	0.52	0.039	1.22	0.09	0.041	2.14	0.55	0.052	1.38	0.105	0.035	1.795	0.19	0.049	2.21	0.275	0.050
0.29	0.53	0.039	1.22	0.1	0.041	2.14	0.56	0.054	1.38	0.11	0.036	1.795	0.195	0.046	2.21	0.28	0.047
0.29	0.54	0.038	1.22	0.11	0.043	2.14	0.57	0.054	1.38	0.115	0.037	1.795	0.2	0.043	2.21	0.285	0.043
0.29	0.55	0.036	1.22	0.12	0.048	2.14	0.58	0.054	1.38	0.12	0.036	1.795	0.205	0.044	2.21	0.29	0.038
0.29	0.56	0.035	1.22	0.13	0.054	2.14	0.59	0.055	1.38	0.125	0.035	1.795	0.21	0.049	2.21	0.295	0.035
0.29	0.57	0.035	1.22	0.14	0.056	2.14	0.6	0.057	1.38	0.13	0.038	1.795	0.215	0.052	2.21	0.3	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.29	0.58	0.035	1.22	0.15	0.054	2.14	0.61	0.060	1.38	0.135	0.041	1.795	0.22	0.055	2.21	0.305	0.032
0.29	0.59	0.036	1.22	0.16	0.048	2.14	0.62	0.062	1.38	0.14	0.043	1.795	0.225	0.060	2.21	0.31	0.031
0.29	0.6	0.036	1.22	0.17	0.042	2.14	0.63	0.063	1.38	0.145	0.043	1.795	0.23	0.063	2.21	0.315	0.030
0.29	0.61	0.036	1.22	0.18	0.038	2.14	0.64	0.063	1.38	0.15	0.041	1.795	0.235	0.063	2.21	0.32	0.030
0.29	0.62	0.035	1.22	0.19	0.037	2.14	0.65	0.062	1.38	0.155	0.039	1.795	0.24	0.062	2.21	0.325	0.031
0.29	0.63	0.035	1.22	0.2	0.039	2.14	0.66	0.062	1.38	0.16	0.039	1.795	0.245	0.059	2.21	0.33	0.034
0.29	0.64	0.035	1.22	0.21	0.042	2.14	0.67	0.060	1.38	0.165	0.040	1.795	0.25	0.054	2.21	0.335	0.037
0.29	0.65	0.034	1.22	0.22	0.043	2.14	0.68	0.060	1.38	0.17	0.044	1.795	0.255	0.050	2.21	0.34	0.038
0.29	0.66	0.034	1.22	0.23	0.044	2.14	0.69	0.058	1.38	0.175	0.046	1.795	0.26	0.046	2.21	0.345	0.040
0.29	0.67	0.034	1.22	0.24	0.044	2.14	0.7	0.057	1.38	0.18	0.045	1.795	0.265	0.043	2.21	0.35	0.045
0.29	0.68	0.034	1.22	0.25	0.046	2.14	0.71	0.058	1.38	0.185	0.042	1.795	0.27	0.044	2.21	0.355	0.048
0.29	0.69	0.035	1.22	0.26	0.046	2.14	0.72	0.061	1.38	0.19	0.038	1.795	0.275	0.048	2.21	0.36	0.046
0.29	0.7	0.037	1.22	0.27	0.047	2.14	0.73	0.064	1.38	0.195	0.035	1.795	0.28	0.051	2.21	0.365	0.042
0.29	0.71	0.040	1.22	0.28	0.049	2.14	0.74	0.065	1.38	0.2	0.034	1.795	0.285	0.053	2.21	0.37	0.038
0.29	0.72	0.044	1.22	0.29	0.050	2.14	0.75	0.065	1.38	0.205	0.033	1.795	0.29	0.054	2.21	0.375	0.037
0.29	0.73	0.048	1.22	0.3	0.050	2.14	0.76	0.064	1.38	0.21	0.033	1.795	0.295	0.053	2.21	0.38	0.037
0.29	0.74	0.051	1.22	0.31	0.051	2.14	0.77	0.061	1.38	0.215	0.034	1.795	0.3	0.052	2.21	0.385	0.038
0.29	0.75	0.053	1.22	0.32	0.051	2.14	0.78	0.059	1.38	0.22	0.036	1.795	0.305	0.050	2.21	0.39	0.040
0.29	0.76	0.053	1.22	0.33	0.052	2.14	0.79	0.056	1.38	0.225	0.039	1.795	0.31	0.049	2.21	0.395	0.040
0.29	0.77	0.049	1.22	0.34	0.052	2.14	0.8	0.052	1.38	0.23	0.042	1.795	0.315	0.046	2.21	0.4	0.037
0.29	0.78	0.043	1.22	0.35	0.051	2.14	0.81	0.048	1.38	0.235	0.045	1.795	0.32	0.043	2.21	0.405	0.035
0.29	0.79	0.039	1.22	0.36	0.050	2.14	0.82	0.047	1.38	0.24	0.044	1.795	0.325	0.041	2.21	0.41	0.034
0.29	0.8	0.037	1.22	0.37	0.050	2.14	0.83	0.047	1.38	0.245	0.044	1.795	0.33	0.040	2.21	0.415	0.035
0.29	0.81	0.035	1.22	0.38	0.051	2.14	0.84	0.047	1.38	0.25	0.045	1.795	0.335	0.040	2.21	0.42	0.036
0.29	0.82	0.034	1.22	0.39	0.052	2.14	0.85	0.047	1.38	0.255	0.045	1.795	0.34	0.041	2.21	0.425	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.29	0.83	0.034	1.22	0.4	0.052	2.14	0.86	0.047	1.38	0.26	0.045	1.795	0.345	0.041	2.21	0.43	0.038
0.29	0.84	0.035	1.22	0.41	0.050	2.14	0.87	0.048	1.38	0.265	0.044	1.795	0.35	0.041	2.21	0.435	0.037
0.29	0.85	0.038	1.22	0.42	0.048	2.14	0.88	0.049	1.38	0.27	0.042	1.795	0.355	0.043	2.21	0.44	0.037
0.29	0.86	0.041	1.22	0.43	0.047	2.14	0.89	0.049	1.38	0.275	0.040	1.795	0.36	0.045	2.21	0.445	0.037
0.29	0.87	0.044	1.22	0.44	0.046	2.15	0.01	0.064	1.38	0.28	0.040	1.795	0.365	0.044	2.21	0.45	0.036
0.29	0.88	0.045	1.22	0.45	0.045	2.15	0.02	0.063	1.38	0.285	0.040	1.795	0.37	0.040	2.21	0.455	0.035
0.29	0.89	0.045	1.22	0.46	0.043	2.15	0.03	0.059	1.38	0.29	0.040	1.795	0.375	0.037	2.21	0.46	0.037
0.3	0.01	0.070	1.22	0.47	0.041	2.15	0.04	0.054	1.38	0.295	0.039	1.795	0.38	0.038	2.21	0.465	0.044
0.3	0.02	0.072	1.22	0.48	0.039	2.15	0.05	0.050	1.38	0.3	0.038	1.795	0.385	0.040	2.21	0.47	0.050
0.3	0.03	0.071	1.22	0.49	0.038	2.15	0.06	0.049	1.38	0.305	0.039	1.795	0.39	0.042	2.21	0.475	0.053
0.3	0.04	0.068	1.22	0.5	0.039	2.15	0.07	0.050	1.38	0.31	0.042	1.795	0.395	0.044	2.21	0.48	0.053
0.3	0.05	0.066	1.22	0.51	0.041	2.15	0.08	0.051	1.38	0.315	0.044	1.795	0.4	0.047	2.21	0.485	0.051
0.3	0.06	0.065	1.22	0.52	0.043	2.15	0.09	0.050	1.38	0.32	0.046	1.795	0.405	0.050	2.21	0.49	0.046
0.3	0.07	0.065	1.22	0.53	0.044	2.15	0.1	0.048	1.38	0.325	0.047	1.795	0.41	0.053	2.21	0.495	0.040
0.3	0.08	0.064	1.22	0.54	0.043	2.15	0.11	0.047	1.38	0.33	0.046	1.795	0.415	0.054	2.215	0.005	0.049
0.3	0.09	0.063	1.22	0.55	0.041	2.15	0.12	0.046	1.38	0.335	0.043	1.795	0.42	0.054	2.215	0.01	0.051
0.3	0.1	0.060	1.22	0.56	0.041	2.15	0.13	0.045	1.38	0.34	0.040	1.795	0.425	0.053	2.215	0.015	0.053
0.3	0.11	0.057	1.22	0.57	0.041	2.15	0.14	0.043	1.38	0.345	0.039	1.795	0.43	0.050	2.215	0.02	0.054
0.3	0.12	0.055	1.22	0.58	0.041	2.15	0.15	0.042	1.38	0.35	0.042	1.795	0.435	0.045	2.215	0.025	0.054
0.3	0.13	0.053	1.22	0.59	0.043	2.15	0.16	0.041	1.38	0.355	0.046	1.795	0.44	0.041	2.215	0.03	0.053
0.3	0.14	0.052	1.22	0.6	0.045	2.15	0.17	0.041	1.38	0.36	0.048	1.795	0.445	0.041	2.215	0.035	0.052
0.3	0.15	0.051	1.22	0.61	0.046	2.15	0.18	0.040	1.38	0.365	0.045	1.795	0.45	0.048	2.215	0.04	0.051
0.3	0.16	0.049	1.22	0.62	0.046	2.15	0.19	0.039	1.38	0.37	0.042	1.795	0.455	0.057	2.215	0.045	0.053
0.3	0.17	0.046	1.22	0.63	0.047	2.15	0.2	0.039	1.38	0.375	0.038	1.795	0.46	0.064	2.215	0.05	0.056
0.3	0.18	0.042	1.22	0.64	0.048	2.15	0.21	0.040	1.38	0.38	0.037	1.795	0.465	0.066	2.215	0.055	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.3	0.19	0.039	1.22	0.65	0.048	2.15	0.22	0.042	1.38	0.385	0.038	1.795	0.47	0.067	2.215	0.06	0.059
0.3	0.2	0.036	1.22	0.66	0.049	2.15	0.23	0.044	1.38	0.39	0.039	1.795	0.475	0.066	2.215	0.065	0.057
0.3	0.21	0.036	1.22	0.67	0.050	2.15	0.24	0.047	1.38	0.395	0.041	1.795	0.48	0.064	2.215	0.07	0.053
0.3	0.22	0.036	1.22	0.68	0.051	2.15	0.25	0.051	1.38	0.4	0.044	1.795	0.485	0.060	2.215	0.075	0.052
0.3	0.23	0.038	1.22	0.69	0.051	2.15	0.26	0.053	1.38	0.405	0.048	1.795	0.49	0.054	2.215	0.08	0.055
0.3	0.24	0.042	1.22	0.7	0.051	2.15	0.27	0.052	1.38	0.41	0.050	1.795	0.495	0.052	2.215	0.085	0.057
0.3	0.25	0.045	1.22	0.71	0.049	2.15	0.28	0.048	1.38	0.415	0.050	1.8	0.005	0.051	2.215	0.09	0.057
0.3	0.26	0.047	1.22	0.72	0.046	2.15	0.29	0.043	1.38	0.42	0.047	1.8	0.01	0.054	2.215	0.095	0.056
0.3	0.27	0.048	1.22	0.73	0.046	2.15	0.3	0.040	1.38	0.425	0.042	1.8	0.015	0.057	2.215	0.1	0.060
0.3	0.28	0.048	1.22	0.74	0.047	2.15	0.31	0.037	1.38	0.43	0.038	1.8	0.02	0.060	2.215	0.105	0.066
0.3	0.29	0.046	1.22	0.75	0.048	2.15	0.32	0.036	1.38	0.435	0.038	1.8	0.025	0.062	2.215	0.11	0.069
0.3	0.3	0.043	1.22	0.76	0.048	2.15	0.33	0.036	1.38	0.44	0.040	1.8	0.03	0.064	2.215	0.115	0.069
0.3	0.31	0.040	1.22	0.77	0.049	2.15	0.34	0.037	1.38	0.445	0.041	1.8	0.035	0.066	2.215	0.12	0.063
0.3	0.32	0.038	1.22	0.78	0.048	2.15	0.35	0.040	1.38	0.45	0.041	1.8	0.04	0.069	2.215	0.125	0.052
0.3	0.33	0.036	1.22	0.79	0.046	2.15	0.36	0.042	1.38	0.455	0.039	1.8	0.045	0.070	2.215	0.13	0.042
0.3	0.34	0.034	1.22	0.8	0.045	2.15	0.37	0.043	1.38	0.46	0.037	1.8	0.05	0.068	2.215	0.135	0.036
0.3	0.35	0.034	1.22	0.81	0.045	2.15	0.38	0.043	1.38	0.465	0.036	1.8	0.055	0.065	2.215	0.14	0.033
0.3	0.36	0.034	1.22	0.82	0.046	2.15	0.39	0.043	1.38	0.47	0.035	1.8	0.06	0.064	2.215	0.145	0.032
0.3	0.37	0.034	1.22	0.83	0.047	2.15	0.4	0.044	1.38	0.475	0.036	1.8	0.065	0.064	2.215	0.15	0.032
0.3	0.38	0.035	1.22	0.84	0.048	2.15	0.41	0.043	1.38	0.48	0.035	1.8	0.07	0.064	2.215	0.155	0.033
0.3	0.39	0.036	1.22	0.85	0.048	2.15	0.42	0.042	1.38	0.485	0.034	1.8	0.075	0.063	2.215	0.16	0.034
0.3	0.4	0.036	1.22	0.86	0.050	2.15	0.43	0.042	1.38	0.49	0.034	1.8	0.08	0.063	2.215	0.165	0.035
0.3	0.41	0.036	1.22	0.87	0.051	2.15	0.44	0.041	1.38	0.495	0.034	1.8	0.085	0.065	2.215	0.17	0.036
0.3	0.42	0.037	1.22	0.88	0.055	2.15	0.45	0.041	1.385	0.005	0.038	1.8	0.09	0.066	2.215	0.175	0.036
0.3	0.43	0.038	1.22	0.89	0.060	2.15	0.46	0.041	1.385	0.01	0.036	1.8	0.095	0.066	2.215	0.18	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.3	0.44	0.040	1.23	0.01	0.034	2.15	0.47	0.042	1.385	0.015	0.035	1.8	0.1	0.065	2.215	0.185	0.039
0.3	0.45	0.041	1.23	0.02	0.034	2.15	0.48	0.044	1.385	0.02	0.034	1.8	0.105	0.063	2.215	0.19	0.042
0.3	0.46	0.041	1.23	0.03	0.034	2.15	0.49	0.046	1.385	0.025	0.033	1.8	0.11	0.058	2.215	0.195	0.044
0.3	0.47	0.041	1.23	0.04	0.035	2.15	0.5	0.045	1.385	0.03	0.033	1.8	0.115	0.055	2.215	0.2	0.042
0.3	0.48	0.040	1.23	0.05	0.036	2.15	0.51	0.044	1.385	0.035	0.032	1.8	0.12	0.059	2.215	0.205	0.038
0.3	0.49	0.038	1.23	0.06	0.037	2.15	0.52	0.043	1.385	0.04	0.032	1.8	0.125	0.062	2.215	0.21	0.034
0.3	0.5	0.037	1.23	0.07	0.039	2.15	0.53	0.044	1.385	0.045	0.032	1.8	0.13	0.059	2.215	0.215	0.033
0.3	0.51	0.037	1.23	0.08	0.040	2.15	0.54	0.047	1.385	0.05	0.032	1.8	0.135	0.055	2.215	0.22	0.034
0.3	0.52	0.037	1.23	0.09	0.040	2.15	0.55	0.051	1.385	0.055	0.032	1.8	0.14	0.052	2.215	0.225	0.034
0.3	0.53	0.036	1.23	0.1	0.041	2.15	0.56	0.054	1.385	0.06	0.031	1.8	0.145	0.052	2.215	0.23	0.035
0.3	0.54	0.036	1.23	0.11	0.044	2.15	0.57	0.057	1.385	0.065	0.030	1.8	0.15	0.053	2.215	0.235	0.034
0.3	0.55	0.035	1.23	0.12	0.049	2.15	0.58	0.058	1.385	0.07	0.030	1.8	0.155	0.054	2.215	0.24	0.034
0.3	0.56	0.035	1.23	0.13	0.054	2.15	0.59	0.057	1.385	0.075	0.030	1.8	0.16	0.055	2.215	0.245	0.038
0.3	0.57	0.035	1.23	0.14	0.057	2.15	0.6	0.057	1.385	0.08	0.031	1.8	0.165	0.055	2.215	0.25	0.047
0.3	0.58	0.036	1.23	0.15	0.054	2.15	0.61	0.058	1.385	0.085	0.032	1.8	0.17	0.055	2.215	0.255	0.052
0.3	0.59	0.036	1.23	0.16	0.048	2.15	0.62	0.060	1.385	0.09	0.034	1.8	0.175	0.051	2.215	0.26	0.052
0.3	0.6	0.037	1.23	0.17	0.042	2.15	0.63	0.062	1.385	0.095	0.035	1.8	0.18	0.048	2.215	0.265	0.051
0.3	0.61	0.037	1.23	0.18	0.037	2.15	0.64	0.063	1.385	0.1	0.034	1.8	0.185	0.049	2.215	0.27	0.050
0.3	0.62	0.036	1.23	0.19	0.036	2.15	0.65	0.064	1.385	0.105	0.033	1.8	0.19	0.049	2.215	0.275	0.049
0.3	0.63	0.036	1.23	0.2	0.037	2.15	0.66	0.064	1.385	0.11	0.034	1.8	0.195	0.047	2.215	0.28	0.046
0.3	0.64	0.035	1.23	0.21	0.040	2.15	0.67	0.063	1.385	0.115	0.034	1.8	0.2	0.045	2.215	0.285	0.043
0.3	0.65	0.034	1.23	0.22	0.041	2.15	0.68	0.063	1.385	0.12	0.034	1.8	0.205	0.048	2.215	0.29	0.039
0.3	0.66	0.033	1.23	0.23	0.041	2.15	0.69	0.061	1.385	0.125	0.035	1.8	0.21	0.054	2.215	0.295	0.037
0.3	0.67	0.033	1.23	0.24	0.042	2.15	0.7	0.058	1.385	0.13	0.037	1.8	0.215	0.058	2.215	0.3	0.035
0.3	0.68	0.033	1.23	0.25	0.043	2.15	0.71	0.058	1.385	0.135	0.040	1.8	0.22	0.060	2.215	0.305	0.033

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.3	0.69	0.035	1.23	0.26	0.045	2.15	0.72	0.060	1.385	0.14	0.043	1.8	0.225	0.065	2.215	0.31	0.032
0.3	0.7	0.037	1.23	0.27	0.047	2.15	0.73	0.063	1.385	0.145	0.043	1.8	0.23	0.068	2.215	0.315	0.030
0.3	0.71	0.041	1.23	0.28	0.049	2.15	0.74	0.064	1.385	0.15	0.041	1.8	0.235	0.070	2.215	0.32	0.030
0.3	0.72	0.045	1.23	0.29	0.050	2.15	0.75	0.064	1.385	0.155	0.039	1.8	0.24	0.069	2.215	0.325	0.031
0.3	0.73	0.050	1.23	0.3	0.051	2.15	0.76	0.063	1.385	0.16	0.038	1.8	0.245	0.065	2.215	0.33	0.035
0.3	0.74	0.052	1.23	0.31	0.052	2.15	0.77	0.061	1.385	0.165	0.041	1.8	0.25	0.057	2.215	0.335	0.039
0.3	0.75	0.054	1.23	0.32	0.052	2.15	0.78	0.060	1.385	0.17	0.045	1.8	0.255	0.049	2.215	0.34	0.040
0.3	0.76	0.052	1.23	0.33	0.052	2.15	0.79	0.057	1.385	0.175	0.048	1.8	0.26	0.044	2.215	0.345	0.040
0.3	0.77	0.048	1.23	0.34	0.052	2.15	0.8	0.053	1.385	0.18	0.046	1.8	0.265	0.040	2.215	0.35	0.043
0.3	0.78	0.042	1.23	0.35	0.052	2.15	0.81	0.050	1.385	0.185	0.041	1.8	0.27	0.042	2.215	0.355	0.045
0.3	0.79	0.039	1.23	0.36	0.052	2.15	0.82	0.050	1.385	0.19	0.036	1.8	0.275	0.047	2.215	0.36	0.044
0.3	0.8	0.037	1.23	0.37	0.053	2.15	0.83	0.050	1.385	0.195	0.035	1.8	0.28	0.052	2.215	0.365	0.041
0.3	0.81	0.035	1.23	0.38	0.055	2.15	0.84	0.051	1.385	0.2	0.035	1.8	0.285	0.054	2.215	0.37	0.038
0.3	0.82	0.034	1.23	0.39	0.056	2.15	0.85	0.050	1.385	0.205	0.036	1.8	0.29	0.054	2.215	0.375	0.037
0.3	0.83	0.034	1.23	0.4	0.056	2.15	0.86	0.048	1.385	0.21	0.037	1.8	0.295	0.052	2.215	0.38	0.037
0.3	0.84	0.035	1.23	0.41	0.053	2.15	0.87	0.047	1.385	0.215	0.037	1.8	0.3	0.046	2.215	0.385	0.037
0.3	0.85	0.039	1.23	0.42	0.048	2.15	0.88	0.047	1.385	0.22	0.038	1.8	0.305	0.042	2.215	0.39	0.040
0.3	0.86	0.043	1.23	0.43	0.045	2.15	0.89	0.049	1.385	0.225	0.039	1.8	0.31	0.040	2.215	0.395	0.042
0.3	0.87	0.046	1.23	0.44	0.044	2.16	0.01	0.067	1.385	0.23	0.040	1.8	0.315	0.038	2.215	0.4	0.040
0.3	0.88	0.047	1.23	0.45	0.044	2.16	0.02	0.063	1.385	0.235	0.042	1.8	0.32	0.037	2.215	0.405	0.035
0.3	0.89	0.047	1.23	0.46	0.043	2.16	0.03	0.059	1.385	0.24	0.042	1.8	0.325	0.037	2.215	0.41	0.033
0.31	0.01	0.067	1.23	0.47	0.042	2.16	0.04	0.054	1.385	0.245	0.040	1.8	0.33	0.038	2.215	0.415	0.032
0.31	0.02	0.069	1.23	0.48	0.040	2.16	0.05	0.050	1.385	0.25	0.041	1.8	0.335	0.039	2.215	0.42	0.034
0.31	0.03	0.069	1.23	0.49	0.038	2.16	0.06	0.050	1.385	0.255	0.042	1.8	0.34	0.038	2.215	0.425	0.036
0.31	0.04	0.067	1.23	0.5	0.038	2.16	0.07	0.050	1.385	0.26	0.042	1.8	0.345	0.037	2.215	0.43	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.31	0.05	0.065	1.23	0.51	0.040	2.16	0.08	0.051	1.385	0.265	0.041	1.8	0.35	0.038	2.215	0.435	0.037
0.31	0.06	0.065	1.23	0.52	0.043	2.16	0.09	0.051	1.385	0.27	0.040	1.8	0.355	0.040	2.215	0.44	0.039
0.31	0.07	0.065	1.23	0.53	0.044	2.16	0.1	0.049	1.385	0.275	0.038	1.8	0.36	0.041	2.215	0.445	0.040
0.31	0.08	0.064	1.23	0.54	0.043	2.16	0.11	0.048	1.385	0.28	0.037	1.8	0.365	0.039	2.215	0.45	0.040
0.31	0.09	0.062	1.23	0.55	0.041	2.16	0.12	0.047	1.385	0.285	0.037	1.8	0.37	0.035	2.215	0.455	0.038
0.31	0.1	0.059	1.23	0.56	0.039	2.16	0.13	0.046	1.385	0.29	0.036	1.8	0.375	0.033	2.215	0.46	0.038
0.31	0.11	0.056	1.23	0.57	0.038	2.16	0.14	0.045	1.385	0.295	0.035	1.8	0.38	0.035	2.215	0.465	0.044
0.31	0.12	0.054	1.23	0.58	0.038	2.16	0.15	0.045	1.385	0.3	0.036	1.8	0.385	0.040	2.215	0.47	0.049
0.31	0.13	0.053	1.23	0.59	0.040	2.16	0.16	0.046	1.385	0.305	0.039	1.8	0.39	0.044	2.215	0.475	0.050
0.31	0.14	0.052	1.23	0.6	0.043	2.16	0.17	0.046	1.385	0.31	0.042	1.8	0.395	0.048	2.215	0.48	0.049
0.31	0.15	0.051	1.23	0.61	0.044	2.16	0.18	0.045	1.385	0.315	0.045	1.8	0.4	0.051	2.215	0.485	0.045
0.31	0.16	0.048	1.23	0.62	0.045	2.16	0.19	0.044	1.385	0.32	0.046	1.8	0.405	0.053	2.215	0.49	0.040
0.31	0.17	0.044	1.23	0.63	0.046	2.16	0.2	0.043	1.385	0.325	0.046	1.8	0.41	0.055	2.215	0.495	0.036
0.31	0.18	0.040	1.23	0.64	0.047	2.16	0.21	0.043	1.385	0.33	0.044	1.8	0.415	0.056	2.22	0.005	0.048
0.31	0.19	0.037	1.23	0.65	0.047	2.16	0.22	0.044	1.385	0.335	0.041	1.8	0.42	0.056	2.22	0.01	0.048
0.31	0.2	0.036	1.23	0.66	0.048	2.16	0.23	0.046	1.385	0.34	0.038	1.8	0.425	0.054	2.22	0.015	0.049
0.31	0.21	0.035	1.23	0.67	0.049	2.16	0.24	0.047	1.385	0.345	0.037	1.8	0.43	0.049	2.22	0.02	0.050
0.31	0.22	0.035	1.23	0.68	0.050	2.16	0.25	0.049	1.385	0.35	0.040	1.8	0.435	0.041	2.22	0.025	0.054
0.31	0.23	0.037	1.23	0.69	0.050	2.16	0.26	0.050	1.385	0.355	0.046	1.8	0.44	0.038	2.22	0.03	0.061
0.31	0.24	0.040	1.23	0.7	0.049	2.16	0.27	0.049	1.385	0.36	0.048	1.8	0.445	0.040	2.22	0.035	0.067
0.31	0.25	0.044	1.23	0.71	0.047	2.16	0.28	0.045	1.385	0.365	0.046	1.8	0.45	0.049	2.22	0.04	0.068
0.31	0.26	0.046	1.23	0.72	0.045	2.16	0.29	0.042	1.385	0.37	0.041	1.8	0.455	0.058	2.22	0.045	0.067
0.31	0.27	0.046	1.23	0.73	0.045	2.16	0.3	0.039	1.385	0.375	0.037	1.8	0.46	0.063	2.22	0.05	0.065
0.31	0.28	0.045	1.23	0.74	0.045	2.16	0.31	0.039	1.385	0.38	0.035	1.8	0.465	0.065	2.22	0.055	0.062
0.31	0.29	0.043	1.23	0.75	0.045	2.16	0.32	0.038	1.385	0.385	0.036	1.8	0.47	0.066	2.22	0.06	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.31	0.3	0.040	1.23	0.76	0.047	2.16	0.33	0.037	1.385	0.39	0.039	1.8	0.475	0.065	2.22	0.065	0.056
0.31	0.31	0.038	1.23	0.77	0.049	2.16	0.34	0.037	1.385	0.395	0.042	1.8	0.48	0.063	2.22	0.07	0.054
0.31	0.32	0.036	1.23	0.78	0.048	2.16	0.35	0.039	1.385	0.4	0.046	1.8	0.485	0.059	2.22	0.075	0.056
0.31	0.33	0.035	1.23	0.79	0.046	2.16	0.36	0.041	1.385	0.405	0.049	1.8	0.49	0.053	2.22	0.08	0.058
0.31	0.34	0.034	1.23	0.8	0.044	2.16	0.37	0.042	1.385	0.41	0.051	1.8	0.495	0.050	2.22	0.085	0.061
0.31	0.35	0.034	1.23	0.81	0.044	2.16	0.38	0.043	1.385	0.415	0.051	1.805	0.005	0.050	2.22	0.09	0.062
0.31	0.36	0.033	1.23	0.82	0.045	2.16	0.39	0.043	1.385	0.42	0.049	1.805	0.01	0.054	2.22	0.095	0.062
0.31	0.37	0.033	1.23	0.83	0.046	2.16	0.4	0.043	1.385	0.425	0.045	1.805	0.015	0.057	2.22	0.1	0.063
0.31	0.38	0.033	1.23	0.84	0.047	2.16	0.41	0.042	1.385	0.43	0.040	1.805	0.02	0.059	2.22	0.105	0.067
0.31	0.39	0.033	1.23	0.85	0.048	2.16	0.42	0.042	1.385	0.435	0.037	1.805	0.025	0.062	2.22	0.11	0.069
0.31	0.4	0.033	1.23	0.86	0.049	2.16	0.43	0.041	1.385	0.44	0.036	1.805	0.03	0.064	2.22	0.115	0.069
0.31	0.41	0.034	1.23	0.87	0.050	2.16	0.44	0.040	1.385	0.445	0.036	1.805	0.035	0.067	2.22	0.12	0.064
0.31	0.42	0.036	1.23	0.88	0.053	2.16	0.45	0.039	1.385	0.45	0.035	1.805	0.04	0.069	2.22	0.125	0.054
0.31	0.43	0.038	1.23	0.89	0.058	2.16	0.46	0.039	1.385	0.455	0.035	1.805	0.045	0.071	2.22	0.13	0.045
0.31	0.44	0.040	1.24	0.01	0.034	2.16	0.47	0.040	1.385	0.46	0.035	1.805	0.05	0.069	2.22	0.135	0.040
0.31	0.45	0.041	1.24	0.02	0.034	2.16	0.48	0.042	1.385	0.465	0.034	1.805	0.055	0.063	2.22	0.14	0.035
0.31	0.46	0.040	1.24	0.03	0.034	2.16	0.49	0.044	1.385	0.47	0.034	1.805	0.06	0.062	2.22	0.145	0.032
0.31	0.47	0.040	1.24	0.04	0.035	2.16	0.5	0.045	1.385	0.475	0.034	1.805	0.065	0.063	2.22	0.15	0.031
0.31	0.48	0.039	1.24	0.05	0.036	2.16	0.51	0.046	1.385	0.48	0.034	1.805	0.07	0.063	2.22	0.155	0.032
0.31	0.49	0.037	1.24	0.06	0.037	2.16	0.52	0.046	1.385	0.485	0.033	1.805	0.075	0.063	2.22	0.16	0.033
0.31	0.5	0.037	1.24	0.07	0.038	2.16	0.53	0.047	1.385	0.49	0.034	1.805	0.08	0.063	2.22	0.165	0.034
0.31	0.51	0.036	1.24	0.08	0.039	2.16	0.54	0.048	1.385	0.495	0.036	1.805	0.085	0.066	2.22	0.17	0.035
0.31	0.52	0.036	1.24	0.09	0.040	2.16	0.55	0.051	1.39	0.005	0.037	1.805	0.09	0.068	2.22	0.175	0.038
0.31	0.53	0.035	1.24	0.1	0.042	2.16	0.56	0.055	1.39	0.01	0.036	1.805	0.095	0.067	2.22	0.18	0.042
0.31	0.54	0.035	1.24	0.11	0.045	2.16	0.57	0.059	1.39	0.015	0.035	1.805	0.1	0.066	2.22	0.185	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.31	0.55	0.035	1.24	0.12	0.048	2.16	0.58	0.060	1.39	0.02	0.034	1.805	0.105	0.064	2.22	0.19	0.051
0.31	0.56	0.035	1.24	0.13	0.052	2.16	0.59	0.059	1.39	0.025	0.034	1.805	0.11	0.061	2.22	0.195	0.052
0.31	0.57	0.035	1.24	0.14	0.055	2.16	0.6	0.056	1.39	0.03	0.033	1.805	0.115	0.059	2.22	0.2	0.047
0.31	0.58	0.036	1.24	0.15	0.053	2.16	0.61	0.056	1.39	0.035	0.033	1.805	0.12	0.062	2.22	0.205	0.039
0.31	0.59	0.037	1.24	0.16	0.048	2.16	0.62	0.057	1.39	0.04	0.033	1.805	0.125	0.065	2.22	0.21	0.034
0.31	0.6	0.037	1.24	0.17	0.041	2.16	0.63	0.060	1.39	0.045	0.033	1.805	0.13	0.061	2.22	0.215	0.034
0.31	0.61	0.038	1.24	0.18	0.037	2.16	0.64	0.062	1.39	0.05	0.032	1.805	0.135	0.054	2.22	0.22	0.037
0.31	0.62	0.038	1.24	0.19	0.035	2.16	0.65	0.064	1.39	0.055	0.031	1.805	0.14	0.050	2.22	0.225	0.041
0.31	0.63	0.037	1.24	0.2	0.035	2.16	0.66	0.065	1.39	0.06	0.031	1.805	0.145	0.052	2.22	0.23	0.042
0.31	0.64	0.036	1.24	0.21	0.037	2.16	0.67	0.066	1.39	0.065	0.030	1.805	0.15	0.055	2.22	0.235	0.041
0.31	0.65	0.035	1.24	0.22	0.039	2.16	0.68	0.065	1.39	0.07	0.030	1.805	0.155	0.057	2.22	0.24	0.040
0.31	0.66	0.034	1.24	0.23	0.039	2.16	0.69	0.062	1.39	0.075	0.030	1.805	0.16	0.059	2.22	0.245	0.041
0.31	0.67	0.033	1.24	0.24	0.040	2.16	0.7	0.058	1.39	0.08	0.031	1.805	0.165	0.060	2.22	0.25	0.047
0.31	0.68	0.033	1.24	0.25	0.041	2.16	0.71	0.056	1.39	0.085	0.032	1.805	0.17	0.059	2.22	0.255	0.051
0.31	0.69	0.035	1.24	0.26	0.043	2.16	0.72	0.057	1.39	0.09	0.032	1.805	0.175	0.054	2.22	0.26	0.051
0.31	0.7	0.037	1.24	0.27	0.046	2.16	0.73	0.059	1.39	0.095	0.033	1.805	0.18	0.048	2.22	0.265	0.050
0.31	0.71	0.040	1.24	0.28	0.049	2.16	0.74	0.059	1.39	0.1	0.033	1.805	0.185	0.048	2.22	0.27	0.049
0.31	0.72	0.044	1.24	0.29	0.051	2.16	0.75	0.059	1.39	0.105	0.032	1.805	0.19	0.049	2.22	0.275	0.048
0.31	0.73	0.048	1.24	0.3	0.051	2.16	0.76	0.058	1.39	0.11	0.032	1.805	0.195	0.048	2.22	0.28	0.047
0.31	0.74	0.050	1.24	0.31	0.052	2.16	0.77	0.058	1.39	0.115	0.033	1.805	0.2	0.047	2.22	0.285	0.044
0.31	0.75	0.049	1.24	0.32	0.053	2.16	0.78	0.058	1.39	0.12	0.034	1.805	0.205	0.051	2.22	0.29	0.041
0.31	0.76	0.047	1.24	0.33	0.052	2.16	0.79	0.057	1.39	0.125	0.035	1.805	0.21	0.058	2.22	0.295	0.040
0.31	0.77	0.044	1.24	0.34	0.051	2.16	0.8	0.055	1.39	0.13	0.037	1.805	0.215	0.060	2.22	0.3	0.037
0.31	0.78	0.040	1.24	0.35	0.051	2.16	0.81	0.053	1.39	0.135	0.039	1.805	0.22	0.062	2.22	0.305	0.034
0.31	0.79	0.038	1.24	0.36	0.053	2.16	0.82	0.052	1.39	0.14	0.040	1.805	0.225	0.067	2.22	0.31	0.032

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.31	0.8	0.037	1.24	0.37	0.055	2.16	0.83	0.053	1.39	0.145	0.041	1.805	0.23	0.071	2.22	0.315	0.031
0.31	0.81	0.035	1.24	0.38	0.057	2.16	0.84	0.054	1.39	0.15	0.040	1.805	0.235	0.073	2.22	0.32	0.031
0.31	0.82	0.034	1.24	0.39	0.058	2.16	0.85	0.054	1.39	0.155	0.038	1.805	0.24	0.072	2.22	0.325	0.034
0.31	0.83	0.034	1.24	0.4	0.057	2.16	0.86	0.050	1.39	0.16	0.038	1.805	0.245	0.067	2.22	0.33	0.039
0.31	0.84	0.035	1.24	0.41	0.053	2.16	0.87	0.047	1.39	0.165	0.040	1.805	0.25	0.058	2.22	0.335	0.043
0.31	0.85	0.038	1.24	0.42	0.047	2.16	0.88	0.047	1.39	0.17	0.045	1.805	0.255	0.050	2.22	0.34	0.044
0.31	0.86	0.043	1.24	0.43	0.043	2.16	0.89	0.048	1.39	0.175	0.048	1.805	0.26	0.046	2.22	0.345	0.042
0.31	0.87	0.046	1.24	0.44	0.042	2.17	0.01	0.069	1.39	0.18	0.047	1.805	0.265	0.042	2.22	0.35	0.042
0.31	0.88	0.048	1.24	0.45	0.043	2.17	0.02	0.065	1.39	0.185	0.042	1.805	0.27	0.042	2.22	0.355	0.042
0.31	0.89	0.050	1.24	0.46	0.042	2.17	0.03	0.061	1.39	0.19	0.036	1.805	0.275	0.047	2.22	0.36	0.040
0.32	0.01	0.063	1.24	0.47	0.042	2.17	0.04	0.056	1.39	0.195	0.035	1.805	0.28	0.053	2.22	0.365	0.038
0.32	0.02	0.065	1.24	0.48	0.040	2.17	0.05	0.052	1.39	0.2	0.037	1.805	0.285	0.055	2.22	0.37	0.038
0.32	0.03	0.066	1.24	0.49	0.038	2.17	0.06	0.052	1.39	0.205	0.040	1.805	0.29	0.055	2.22	0.375	0.038
0.32	0.04	0.066	1.24	0.5	0.037	2.17	0.07	0.052	1.39	0.21	0.042	1.805	0.295	0.051	2.22	0.38	0.038
0.32	0.05	0.065	1.24	0.51	0.039	2.17	0.08	0.052	1.39	0.215	0.043	1.805	0.3	0.043	2.22	0.385	0.039
0.32	0.06	0.064	1.24	0.52	0.042	2.17	0.09	0.051	1.39	0.22	0.042	1.805	0.305	0.038	2.22	0.39	0.044
0.32	0.07	0.063	1.24	0.53	0.044	2.17	0.1	0.049	1.39	0.225	0.039	1.805	0.31	0.035	2.22	0.395	0.047
0.32	0.08	0.061	1.24	0.54	0.044	2.17	0.11	0.048	1.39	0.23	0.037	1.805	0.315	0.034	2.22	0.4	0.045
0.32	0.09	0.059	1.24	0.55	0.042	2.17	0.12	0.048	1.39	0.235	0.039	1.805	0.32	0.035	2.22	0.405	0.039
0.32	0.1	0.056	1.24	0.56	0.040	2.17	0.13	0.048	1.39	0.24	0.041	1.805	0.325	0.036	2.22	0.41	0.034
0.32	0.11	0.054	1.24	0.57	0.039	2.17	0.14	0.047	1.39	0.245	0.039	1.805	0.33	0.038	2.22	0.415	0.032
0.32	0.12	0.053	1.24	0.58	0.038	2.17	0.15	0.048	1.39	0.25	0.038	1.805	0.335	0.038	2.22	0.42	0.032
0.32	0.13	0.052	1.24	0.59	0.039	2.17	0.16	0.050	1.39	0.255	0.038	1.805	0.34	0.037	2.22	0.425	0.034
0.32	0.14	0.051	1.24	0.6	0.041	2.17	0.17	0.051	1.39	0.26	0.039	1.805	0.345	0.037	2.22	0.43	0.035
0.32	0.15	0.049	1.24	0.61	0.043	2.17	0.18	0.051	1.39	0.265	0.038	1.805	0.35	0.037	2.22	0.435	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.32	0.16	0.046	1.24	0.62	0.044	2.17	0.19	0.049	1.39	0.27	0.037	1.805	0.355	0.037	2.22	0.44	0.041
0.32	0.17	0.042	1.24	0.63	0.045	2.17	0.2	0.046	1.39	0.275	0.035	1.805	0.36	0.037	2.22	0.445	0.042
0.32	0.18	0.039	1.24	0.64	0.046	2.17	0.21	0.044	1.39	0.28	0.034	1.805	0.365	0.034	2.22	0.45	0.042
0.32	0.19	0.037	1.24	0.65	0.046	2.17	0.22	0.045	1.39	0.285	0.034	1.805	0.37	0.032	2.22	0.455	0.040
0.32	0.2	0.035	1.24	0.66	0.047	2.17	0.23	0.047	1.39	0.29	0.034	1.805	0.375	0.031	2.22	0.46	0.039
0.32	0.21	0.034	1.24	0.67	0.048	2.17	0.24	0.047	1.39	0.295	0.034	1.805	0.38	0.034	2.22	0.465	0.042
0.32	0.22	0.034	1.24	0.68	0.049	2.17	0.25	0.047	1.39	0.3	0.035	1.805	0.385	0.041	2.22	0.47	0.045
0.32	0.23	0.036	1.24	0.69	0.049	2.17	0.26	0.047	1.39	0.305	0.038	1.805	0.39	0.048	2.22	0.475	0.045
0.32	0.24	0.038	1.24	0.7	0.049	2.17	0.27	0.046	1.39	0.31	0.042	1.805	0.395	0.052	2.22	0.48	0.043
0.32	0.25	0.041	1.24	0.71	0.048	2.17	0.28	0.043	1.39	0.315	0.045	1.805	0.4	0.054	2.22	0.485	0.039
0.32	0.26	0.043	1.24	0.72	0.046	2.17	0.29	0.040	1.39	0.32	0.045	1.805	0.405	0.055	2.22	0.49	0.036
0.32	0.27	0.043	1.24	0.73	0.044	2.17	0.3	0.039	1.39	0.325	0.044	1.805	0.41	0.056	2.22	0.495	0.034
0.32	0.28	0.042	1.24	0.74	0.043	2.17	0.31	0.038	1.39	0.33	0.043	1.805	0.415	0.056	2.225	0.005	0.049
0.32	0.29	0.040	1.24	0.75	0.044	2.17	0.32	0.038	1.39	0.335	0.040	1.805	0.42	0.055	2.225	0.01	0.047
0.32	0.3	0.038	1.24	0.76	0.046	2.17	0.33	0.038	1.39	0.34	0.037	1.805	0.425	0.052	2.225	0.015	0.047
0.32	0.31	0.036	1.24	0.77	0.049	2.17	0.34	0.038	1.39	0.345	0.036	1.805	0.43	0.045	2.225	0.02	0.048
0.32	0.32	0.035	1.24	0.78	0.049	2.17	0.35	0.039	1.39	0.35	0.039	1.805	0.435	0.037	2.225	0.025	0.054
0.32	0.33	0.034	1.24	0.79	0.047	2.17	0.36	0.039	1.39	0.355	0.046	1.805	0.44	0.036	2.225	0.03	0.066
0.32	0.34	0.034	1.24	0.8	0.044	2.17	0.37	0.040	1.39	0.36	0.047	1.805	0.445	0.040	2.225	0.035	0.076
0.32	0.35	0.034	1.24	0.81	0.043	2.17	0.38	0.041	1.39	0.365	0.044	1.805	0.45	0.049	2.225	0.04	0.078
0.32	0.36	0.033	1.24	0.82	0.044	2.17	0.39	0.041	1.39	0.37	0.039	1.805	0.455	0.057	2.225	0.045	0.075
0.32	0.37	0.032	1.24	0.83	0.045	2.17	0.4	0.041	1.39	0.375	0.035	1.805	0.46	0.062	2.225	0.05	0.070
0.32	0.38	0.032	1.24	0.84	0.046	2.17	0.41	0.041	1.39	0.38	0.035	1.805	0.465	0.064	2.225	0.055	0.066
0.32	0.39	0.032	1.24	0.85	0.047	2.17	0.42	0.041	1.39	0.385	0.036	1.805	0.47	0.064	2.225	0.06	0.060
0.32	0.4	0.032	1.24	0.86	0.048	2.17	0.43	0.041	1.39	0.39	0.039	1.805	0.475	0.063	2.225	0.065	0.055

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.32	0.41	0.034	1.24	0.87	0.049	2.17	0.44	0.039	1.39	0.395	0.042	1.805	0.48	0.061	2.225	0.07	0.053
0.32	0.42	0.035	1.24	0.88	0.052	2.17	0.45	0.038	1.39	0.4	0.046	1.805	0.485	0.057	2.225	0.075	0.057
0.32	0.43	0.038	1.24	0.89	0.056	2.17	0.46	0.038	1.39	0.405	0.049	1.805	0.49	0.052	2.225	0.08	0.061
0.32	0.44	0.040	1.25	0.01	0.033	2.17	0.47	0.039	1.39	0.41	0.050	1.805	0.495	0.050	2.225	0.085	0.064
0.32	0.45	0.040	1.25	0.02	0.033	2.17	0.48	0.041	1.39	0.415	0.050	1.81	0.005	0.051	2.225	0.09	0.065
0.32	0.46	0.040	1.25	0.03	0.034	2.17	0.49	0.044	1.39	0.42	0.049	1.81	0.01	0.055	2.225	0.095	0.064
0.32	0.47	0.039	1.25	0.04	0.034	2.17	0.5	0.047	1.39	0.425	0.046	1.81	0.015	0.058	2.225	0.1	0.065
0.32	0.48	0.038	1.25	0.05	0.035	2.17	0.51	0.049	1.39	0.43	0.041	1.81	0.02	0.060	2.225	0.105	0.067
0.32	0.49	0.037	1.25	0.06	0.036	2.17	0.52	0.051	1.39	0.435	0.037	1.81	0.025	0.063	2.225	0.11	0.069
0.32	0.5	0.036	1.25	0.07	0.037	2.17	0.53	0.051	1.39	0.44	0.035	1.81	0.03	0.065	2.225	0.115	0.069
0.32	0.51	0.036	1.25	0.08	0.038	2.17	0.54	0.052	1.39	0.445	0.034	1.81	0.035	0.068	2.225	0.12	0.064
0.32	0.52	0.036	1.25	0.09	0.039	2.17	0.55	0.053	1.39	0.45	0.033	1.81	0.04	0.070	2.225	0.125	0.053
0.32	0.53	0.036	1.25	0.1	0.041	2.17	0.56	0.056	1.39	0.455	0.033	1.81	0.045	0.071	2.225	0.13	0.047
0.32	0.54	0.035	1.25	0.11	0.044	2.17	0.57	0.059	1.39	0.46	0.033	1.81	0.05	0.067	2.225	0.135	0.043
0.32	0.55	0.035	1.25	0.12	0.046	2.17	0.58	0.060	1.39	0.465	0.032	1.81	0.055	0.059	2.225	0.14	0.037
0.32	0.56	0.034	1.25	0.13	0.049	2.17	0.59	0.058	1.39	0.47	0.032	1.81	0.06	0.057	2.225	0.145	0.033
0.32	0.57	0.035	1.25	0.14	0.051	2.17	0.6	0.055	1.39	0.475	0.032	1.81	0.065	0.059	2.225	0.15	0.031
0.32	0.58	0.035	1.25	0.15	0.051	2.17	0.61	0.054	1.39	0.48	0.033	1.81	0.07	0.061	2.225	0.155	0.031
0.32	0.59	0.037	1.25	0.16	0.047	2.17	0.62	0.054	1.39	0.485	0.034	1.81	0.075	0.063	2.225	0.16	0.032
0.32	0.6	0.038	1.25	0.17	0.041	2.17	0.63	0.057	1.39	0.49	0.036	1.81	0.08	0.064	2.225	0.165	0.034
0.32	0.61	0.039	1.25	0.18	0.037	2.17	0.64	0.061	1.39	0.495	0.038	1.81	0.085	0.069	2.225	0.17	0.036
0.32	0.62	0.040	1.25	0.19	0.034	2.17	0.65	0.064	1.395	0.005	0.036	1.81	0.09	0.073	2.225	0.175	0.042
0.32	0.63	0.039	1.25	0.2	0.034	2.17	0.66	0.066	1.395	0.01	0.035	1.81	0.095	0.074	2.225	0.18	0.048
0.32	0.64	0.037	1.25	0.21	0.036	2.17	0.67	0.066	1.395	0.015	0.035	1.81	0.1	0.070	2.225	0.185	0.055
0.32	0.65	0.036	1.25	0.22	0.038	2.17	0.68	0.064	1.395	0.02	0.035	1.81	0.105	0.065	2.225	0.19	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.32	0.66	0.034	1.25	0.23	0.039	2.17	0.69	0.060	1.395	0.025	0.034	1.81	0.11	0.063	2.225	0.195	0.057
0.32	0.67	0.034	1.25	0.24	0.039	2.17	0.7	0.056	1.395	0.03	0.034	1.81	0.115	0.061	2.225	0.2	0.051
0.32	0.68	0.034	1.25	0.25	0.040	2.17	0.71	0.053	1.395	0.035	0.033	1.81	0.12	0.063	2.225	0.205	0.041
0.32	0.69	0.035	1.25	0.26	0.043	2.17	0.72	0.053	1.395	0.04	0.033	1.81	0.125	0.065	2.225	0.21	0.035
0.32	0.7	0.036	1.25	0.27	0.046	2.17	0.73	0.054	1.395	0.045	0.033	1.81	0.13	0.062	2.225	0.215	0.036
0.32	0.71	0.038	1.25	0.28	0.049	2.17	0.74	0.053	1.395	0.05	0.032	1.81	0.135	0.055	2.225	0.22	0.042
0.32	0.72	0.041	1.25	0.29	0.051	2.17	0.75	0.052	1.395	0.055	0.031	1.81	0.14	0.051	2.225	0.225	0.046
0.32	0.73	0.043	1.25	0.3	0.052	2.17	0.76	0.051	1.395	0.06	0.031	1.81	0.145	0.054	2.225	0.23	0.047
0.32	0.74	0.044	1.25	0.31	0.052	2.17	0.77	0.053	1.395	0.065	0.030	1.81	0.15	0.058	2.225	0.235	0.046
0.32	0.75	0.043	1.25	0.32	0.053	2.17	0.78	0.054	1.395	0.07	0.030	1.81	0.155	0.060	2.225	0.24	0.045
0.32	0.76	0.042	1.25	0.33	0.052	2.17	0.79	0.056	1.395	0.075	0.031	1.81	0.16	0.060	2.225	0.245	0.045
0.32	0.77	0.040	1.25	0.34	0.051	2.17	0.8	0.057	1.395	0.08	0.031	1.81	0.165	0.060	2.225	0.25	0.047
0.32	0.78	0.038	1.25	0.35	0.051	2.17	0.81	0.057	1.395	0.085	0.031	1.81	0.17	0.059	2.225	0.255	0.050
0.32	0.79	0.037	1.25	0.36	0.052	2.17	0.82	0.056	1.395	0.09	0.032	1.81	0.175	0.055	2.225	0.26	0.050
0.32	0.8	0.037	1.25	0.37	0.053	2.17	0.83	0.057	1.395	0.095	0.032	1.81	0.18	0.049	2.225	0.265	0.049
0.32	0.81	0.035	1.25	0.38	0.055	2.17	0.84	0.058	1.395	0.1	0.032	1.81	0.185	0.048	2.225	0.27	0.048
0.32	0.82	0.034	1.25	0.39	0.056	2.17	0.85	0.058	1.395	0.105	0.032	1.81	0.19	0.049	2.225	0.275	0.048
0.32	0.83	0.034	1.25	0.4	0.055	2.17	0.86	0.054	1.395	0.11	0.032	1.81	0.195	0.047	2.225	0.28	0.050
0.32	0.84	0.035	1.25	0.41	0.051	2.17	0.87	0.050	1.395	0.115	0.033	1.81	0.2	0.047	2.225	0.285	0.051
0.32	0.85	0.037	1.25	0.42	0.046	2.17	0.88	0.048	1.395	0.12	0.035	1.81	0.205	0.053	2.225	0.29	0.049
0.32	0.86	0.041	1.25	0.43	0.042	2.17	0.89	0.049	1.395	0.125	0.036	1.81	0.21	0.058	2.225	0.295	0.044
0.32	0.87	0.045	1.25	0.44	0.042	2.18	0.01	0.068	1.395	0.13	0.038	1.81	0.215	0.060	2.225	0.3	0.039
0.32	0.88	0.049	1.25	0.45	0.042	2.18	0.02	0.065	1.395	0.135	0.039	1.81	0.22	0.062	2.225	0.305	0.034
0.32	0.89	0.053	1.25	0.46	0.042	2.18	0.03	0.062	1.395	0.14	0.039	1.81	0.225	0.066	2.225	0.31	0.033
0.33	0.01	0.060	1.25	0.47	0.042	2.18	0.04	0.058	1.395	0.145	0.039	1.81	0.23	0.070	2.225	0.315	0.033

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.33	0.02	0.063	1.25	0.48	0.041	2.18	0.05	0.055	1.395	0.15	0.038	1.81	0.235	0.072	2.225	0.32	0.034
0.33	0.03	0.065	1.25	0.49	0.039	2.18	0.06	0.054	1.395	0.155	0.037	1.81	0.24	0.070	2.225	0.325	0.036
0.33	0.04	0.065	1.25	0.5	0.038	2.18	0.07	0.055	1.395	0.16	0.036	1.81	0.245	0.065	2.225	0.33	0.041
0.33	0.05	0.065	1.25	0.51	0.039	2.18	0.08	0.054	1.395	0.165	0.038	1.81	0.25	0.058	2.225	0.335	0.046
0.33	0.06	0.062	1.25	0.52	0.041	2.18	0.09	0.052	1.395	0.17	0.043	1.81	0.255	0.053	2.225	0.34	0.047
0.33	0.07	0.059	1.25	0.53	0.043	2.18	0.1	0.049	1.395	0.175	0.047	1.81	0.26	0.050	2.225	0.345	0.046
0.33	0.08	0.057	1.25	0.54	0.043	2.18	0.11	0.048	1.395	0.18	0.047	1.81	0.265	0.047	2.225	0.35	0.044
0.33	0.09	0.055	1.25	0.55	0.043	2.18	0.12	0.049	1.395	0.185	0.042	1.81	0.27	0.047	2.225	0.355	0.042
0.33	0.1	0.054	1.25	0.56	0.042	2.18	0.13	0.049	1.395	0.19	0.036	1.81	0.275	0.051	2.225	0.36	0.040
0.33	0.11	0.052	1.25	0.57	0.041	2.18	0.14	0.048	1.395	0.195	0.035	1.81	0.28	0.054	2.225	0.365	0.038
0.33	0.12	0.051	1.25	0.58	0.041	2.18	0.15	0.050	1.395	0.2	0.040	1.81	0.285	0.054	2.225	0.37	0.038
0.33	0.13	0.050	1.25	0.59	0.041	2.18	0.16	0.052	1.395	0.205	0.044	1.81	0.29	0.053	2.225	0.375	0.040
0.33	0.14	0.048	1.25	0.6	0.042	2.18	0.17	0.053	1.395	0.21	0.045	1.81	0.295	0.049	2.225	0.38	0.041
0.33	0.15	0.046	1.25	0.61	0.044	2.18	0.18	0.053	1.395	0.215	0.044	1.81	0.3	0.043	2.225	0.385	0.042
0.33	0.16	0.042	1.25	0.62	0.045	2.18	0.19	0.051	1.395	0.22	0.042	1.81	0.305	0.037	2.225	0.39	0.046
0.33	0.17	0.039	1.25	0.63	0.045	2.18	0.2	0.047	1.395	0.225	0.038	1.81	0.31	0.034	2.225	0.395	0.050
0.33	0.18	0.037	1.25	0.64	0.045	2.18	0.21	0.044	1.395	0.23	0.035	1.81	0.315	0.033	2.225	0.4	0.050
0.33	0.19	0.036	1.25	0.65	0.045	2.18	0.22	0.044	1.395	0.235	0.036	1.81	0.32	0.035	2.225	0.405	0.045
0.33	0.2	0.035	1.25	0.66	0.046	2.18	0.23	0.046	1.395	0.24	0.038	1.81	0.325	0.037	2.225	0.41	0.037
0.33	0.21	0.034	1.25	0.67	0.047	2.18	0.24	0.047	1.395	0.245	0.039	1.81	0.33	0.039	2.225	0.415	0.034
0.33	0.22	0.034	1.25	0.68	0.048	2.18	0.25	0.046	1.395	0.25	0.037	1.81	0.335	0.040	2.225	0.42	0.032
0.33	0.23	0.035	1.25	0.69	0.050	2.18	0.26	0.045	1.395	0.255	0.036	1.81	0.34	0.039	2.225	0.425	0.032
0.33	0.24	0.036	1.25	0.7	0.051	2.18	0.27	0.044	1.395	0.26	0.035	1.81	0.345	0.038	2.225	0.43	0.034
0.33	0.25	0.038	1.25	0.71	0.050	2.18	0.28	0.043	1.395	0.265	0.035	1.81	0.35	0.036	2.225	0.435	0.038
0.33	0.26	0.040	1.25	0.72	0.047	2.18	0.29	0.040	1.395	0.27	0.034	1.81	0.355	0.035	2.225	0.44	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.33	0.27	0.040	1.25	0.73	0.043	2.18	0.3	0.038	1.395	0.275	0.033	1.81	0.36	0.034	2.225	0.445	0.043
0.33	0.28	0.040	1.25	0.74	0.042	2.18	0.31	0.038	1.395	0.28	0.032	1.81	0.365	0.032	2.225	0.45	0.043
0.33	0.29	0.039	1.25	0.75	0.043	2.18	0.32	0.038	1.395	0.285	0.032	1.81	0.37	0.030	2.225	0.455	0.041
0.33	0.3	0.037	1.25	0.76	0.046	2.18	0.33	0.039	1.395	0.29	0.033	1.81	0.375	0.031	2.225	0.46	0.039
0.33	0.31	0.036	1.25	0.77	0.048	2.18	0.34	0.040	1.395	0.295	0.034	1.81	0.38	0.035	2.225	0.465	0.039
0.33	0.32	0.035	1.25	0.78	0.049	2.18	0.35	0.039	1.395	0.3	0.035	1.81	0.385	0.042	2.225	0.47	0.040
0.33	0.33	0.034	1.25	0.79	0.048	2.18	0.36	0.038	1.395	0.305	0.037	1.81	0.39	0.051	2.225	0.475	0.041
0.33	0.34	0.034	1.25	0.8	0.046	2.18	0.37	0.038	1.395	0.31	0.040	1.81	0.395	0.055	2.225	0.48	0.040
0.33	0.35	0.033	1.25	0.81	0.044	2.18	0.38	0.039	1.395	0.315	0.042	1.81	0.4	0.055	2.225	0.485	0.037
0.33	0.36	0.033	1.25	0.82	0.043	2.18	0.39	0.040	1.395	0.32	0.043	1.81	0.405	0.055	2.225	0.49	0.035
0.33	0.37	0.033	1.25	0.83	0.044	2.18	0.4	0.040	1.395	0.325	0.042	1.81	0.41	0.055	2.225	0.495	0.034
0.33	0.38	0.032	1.25	0.84	0.045	2.18	0.41	0.040	1.395	0.33	0.042	1.81	0.415	0.054	2.23	0.005	0.054
0.33	0.39	0.032	1.25	0.85	0.045	2.18	0.42	0.040	1.395	0.335	0.042	1.81	0.42	0.051	2.23	0.01	0.053
0.33	0.4	0.033	1.25	0.86	0.046	2.18	0.43	0.040	1.395	0.34	0.040	1.81	0.425	0.045	2.23	0.015	0.053
0.33	0.41	0.034	1.25	0.87	0.047	2.18	0.44	0.039	1.395	0.345	0.037	1.81	0.43	0.041	2.23	0.02	0.054
0.33	0.42	0.035	1.25	0.88	0.050	2.18	0.45	0.038	1.395	0.35	0.041	1.81	0.435	0.039	2.23	0.025	0.059
0.33	0.43	0.038	1.25	0.89	0.054	2.18	0.46	0.039	1.395	0.355	0.045	1.81	0.44	0.039	2.23	0.03	0.069
0.33	0.44	0.040	1.26	0.01	0.033	2.18	0.47	0.040	1.395	0.36	0.046	1.81	0.445	0.043	2.23	0.035	0.078
0.33	0.45	0.040	1.26	0.02	0.033	2.18	0.48	0.042	1.395	0.365	0.042	1.81	0.45	0.050	2.23	0.04	0.080
0.33	0.46	0.040	1.26	0.03	0.034	2.18	0.49	0.045	1.395	0.37	0.037	1.81	0.455	0.057	2.23	0.045	0.077
0.33	0.47	0.038	1.26	0.04	0.034	2.18	0.5	0.048	1.395	0.375	0.033	1.81	0.46	0.060	2.23	0.05	0.072
0.33	0.48	0.037	1.26	0.05	0.035	2.18	0.51	0.051	1.395	0.38	0.034	1.81	0.465	0.062	2.23	0.055	0.066
0.33	0.49	0.036	1.26	0.06	0.035	2.18	0.52	0.054	1.395	0.385	0.037	1.81	0.47	0.062	2.23	0.06	0.059
0.33	0.5	0.035	1.26	0.07	0.036	2.18	0.53	0.054	1.395	0.39	0.039	1.81	0.475	0.061	2.23	0.065	0.054
0.33	0.51	0.035	1.26	0.08	0.037	2.18	0.54	0.054	1.395	0.395	0.041	1.81	0.48	0.058	2.23	0.07	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.33	0.52	0.035	1.26	0.09	0.038	2.18	0.55	0.055	1.395	0.4	0.043	1.81	0.485	0.054	2.23	0.075	0.056
0.33	0.53	0.036	1.26	0.1	0.040	2.18	0.56	0.056	1.395	0.405	0.046	1.81	0.49	0.049	2.23	0.08	0.062
0.33	0.54	0.035	1.26	0.11	0.042	2.18	0.57	0.059	1.395	0.41	0.048	1.81	0.495	0.049	2.23	0.085	0.064
0.33	0.55	0.034	1.26	0.12	0.045	2.18	0.58	0.059	1.395	0.415	0.048	1.815	0.005	0.051	2.23	0.09	0.065
0.33	0.56	0.034	1.26	0.13	0.047	2.18	0.59	0.057	1.395	0.42	0.046	1.815	0.01	0.055	2.23	0.095	0.064
0.33	0.57	0.034	1.26	0.14	0.049	2.18	0.6	0.054	1.395	0.425	0.044	1.815	0.015	0.058	2.23	0.1	0.065
0.33	0.58	0.035	1.26	0.15	0.049	2.18	0.61	0.052	1.395	0.43	0.041	1.815	0.02	0.061	2.23	0.105	0.068
0.33	0.59	0.036	1.26	0.16	0.046	2.18	0.62	0.053	1.395	0.435	0.037	1.815	0.025	0.063	2.23	0.11	0.069
0.33	0.6	0.038	1.26	0.17	0.041	2.18	0.63	0.056	1.395	0.44	0.035	1.815	0.03	0.065	2.23	0.115	0.068
0.33	0.61	0.040	1.26	0.18	0.037	2.18	0.64	0.060	1.395	0.445	0.034	1.815	0.035	0.067	2.23	0.12	0.062
0.33	0.62	0.041	1.26	0.19	0.034	2.18	0.65	0.063	1.395	0.45	0.034	1.815	0.04	0.068	2.23	0.125	0.052
0.33	0.63	0.040	1.26	0.2	0.034	2.18	0.66	0.066	1.395	0.455	0.033	1.815	0.045	0.067	2.23	0.13	0.046
0.33	0.64	0.038	1.26	0.21	0.036	2.18	0.67	0.066	1.395	0.46	0.032	1.815	0.05	0.062	2.23	0.135	0.044
0.33	0.65	0.036	1.26	0.22	0.038	2.18	0.68	0.063	1.395	0.465	0.032	1.815	0.055	0.055	2.23	0.14	0.039
0.33	0.66	0.035	1.26	0.23	0.039	2.18	0.69	0.058	1.395	0.47	0.032	1.815	0.06	0.056	2.23	0.145	0.034
0.33	0.67	0.035	1.26	0.24	0.039	2.18	0.7	0.054	1.395	0.475	0.032	1.815	0.065	0.061	2.23	0.15	0.031
0.33	0.68	0.035	1.26	0.25	0.040	2.18	0.71	0.051	1.395	0.48	0.033	1.815	0.07	0.064	2.23	0.155	0.031
0.33	0.69	0.035	1.26	0.26	0.043	2.18	0.72	0.052	1.395	0.485	0.035	1.815	0.075	0.066	2.23	0.16	0.032
0.33	0.7	0.036	1.26	0.27	0.045	2.18	0.73	0.052	1.395	0.49	0.037	1.815	0.08	0.067	2.23	0.165	0.035
0.33	0.71	0.037	1.26	0.28	0.048	2.18	0.74	0.051	1.395	0.495	0.039	1.815	0.085	0.071	2.23	0.17	0.040
0.33	0.72	0.039	1.26	0.29	0.050	2.18	0.75	0.049	1.4	0.005	0.035	1.815	0.09	0.077	2.23	0.175	0.046
0.33	0.73	0.040	1.26	0.3	0.053	2.18	0.76	0.048	1.4	0.01	0.035	1.815	0.095	0.079	2.23	0.18	0.053
0.33	0.74	0.040	1.26	0.31	0.053	2.18	0.77	0.048	1.4	0.015	0.035	1.815	0.1	0.076	2.23	0.185	0.059
0.33	0.75	0.039	1.26	0.32	0.053	2.18	0.78	0.051	1.4	0.02	0.035	1.815	0.105	0.069	2.23	0.19	0.062
0.33	0.76	0.038	1.26	0.33	0.052	2.18	0.79	0.054	1.4	0.025	0.035	1.815	0.11	0.063	2.23	0.195	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.33	0.77	0.036	1.26	0.34	0.052	2.18	0.8	0.059	1.4	0.03	0.034	1.815	0.115	0.060	2.23	0.2	0.053
0.33	0.78	0.036	1.26	0.35	0.053	2.18	0.81	0.060	1.4	0.035	0.033	1.815	0.12	0.060	2.23	0.205	0.044
0.33	0.79	0.036	1.26	0.36	0.053	2.18	0.82	0.059	1.4	0.04	0.033	1.815	0.125	0.063	2.23	0.21	0.038
0.33	0.8	0.035	1.26	0.37	0.051	2.18	0.83	0.060	1.4	0.045	0.033	1.815	0.13	0.062	2.23	0.215	0.040
0.33	0.81	0.034	1.26	0.38	0.050	2.18	0.84	0.061	1.4	0.05	0.033	1.815	0.135	0.055	2.23	0.22	0.046
0.33	0.82	0.033	1.26	0.39	0.051	2.18	0.85	0.060	1.4	0.055	0.032	1.815	0.14	0.052	2.23	0.225	0.049
0.33	0.83	0.033	1.26	0.4	0.050	2.18	0.86	0.057	1.4	0.06	0.031	1.815	0.145	0.056	2.23	0.23	0.050
0.33	0.84	0.034	1.26	0.41	0.047	2.18	0.87	0.053	1.4	0.065	0.031	1.815	0.15	0.059	2.23	0.235	0.049
0.33	0.85	0.036	1.26	0.42	0.044	2.18	0.88	0.050	1.4	0.07	0.031	1.815	0.155	0.059	2.23	0.24	0.048
0.33	0.86	0.039	1.26	0.43	0.042	2.18	0.89	0.050	1.4	0.075	0.031	1.815	0.16	0.058	2.23	0.245	0.047
0.33	0.87	0.044	1.26	0.44	0.042	2.19	0.01	0.064	1.4	0.08	0.031	1.815	0.165	0.056	2.23	0.25	0.047
0.33	0.88	0.050	1.26	0.45	0.043	2.19	0.02	0.062	1.4	0.085	0.032	1.815	0.17	0.055	2.23	0.255	0.048
0.33	0.89	0.055	1.26	0.46	0.044	2.19	0.03	0.060	1.4	0.09	0.032	1.815	0.175	0.055	2.23	0.26	0.049
0.34	0.01	0.059	1.26	0.47	0.043	2.19	0.04	0.058	1.4	0.095	0.032	1.815	0.18	0.055	2.23	0.265	0.048
0.34	0.02	0.063	1.26	0.48	0.043	2.19	0.05	0.056	1.4	0.1	0.032	1.815	0.185	0.055	2.23	0.27	0.047
0.34	0.03	0.065	1.26	0.49	0.041	2.19	0.06	0.056	1.4	0.105	0.033	1.815	0.19	0.054	2.23	0.275	0.048
0.34	0.04	0.065	1.26	0.5	0.039	2.19	0.07	0.056	1.4	0.11	0.033	1.815	0.195	0.050	2.23	0.28	0.053
0.34	0.05	0.064	1.26	0.51	0.040	2.19	0.08	0.056	1.4	0.115	0.034	1.815	0.2	0.046	2.23	0.285	0.058
0.34	0.06	0.061	1.26	0.52	0.041	2.19	0.09	0.054	1.4	0.12	0.036	1.815	0.205	0.051	2.23	0.29	0.058
0.34	0.07	0.057	1.26	0.53	0.043	2.19	0.1	0.052	1.4	0.125	0.038	1.815	0.21	0.058	2.23	0.295	0.051
0.34	0.08	0.054	1.26	0.54	0.044	2.19	0.11	0.050	1.4	0.13	0.039	1.815	0.215	0.059	2.23	0.3	0.041
0.34	0.09	0.053	1.26	0.55	0.045	2.19	0.12	0.049	1.4	0.135	0.039	1.815	0.22	0.059	2.23	0.305	0.035
0.34	0.1	0.053	1.26	0.56	0.045	2.19	0.13	0.048	1.4	0.14	0.040	1.815	0.225	0.062	2.23	0.31	0.034
0.34	0.11	0.052	1.26	0.57	0.045	2.19	0.14	0.048	1.4	0.145	0.039	1.815	0.23	0.066	2.23	0.315	0.036
0.34	0.12	0.050	1.26	0.58	0.044	2.19	0.15	0.049	1.4	0.15	0.036	1.815	0.235	0.068	2.23	0.32	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.34	0.13	0.047	1.26	0.59	0.044	2.19	0.16	0.051	1.4	0.155	0.035	1.815	0.24	0.068	2.23	0.325	0.039
0.34	0.14	0.044	1.26	0.6	0.044	2.19	0.17	0.052	1.4	0.16	0.034	1.815	0.245	0.066	2.23	0.33	0.040
0.34	0.15	0.041	1.26	0.61	0.046	2.19	0.18	0.051	1.4	0.165	0.036	1.815	0.25	0.063	2.23	0.335	0.045
0.34	0.16	0.038	1.26	0.62	0.046	2.19	0.19	0.049	1.4	0.17	0.040	1.815	0.255	0.060	2.23	0.34	0.048
0.34	0.17	0.037	1.26	0.63	0.045	2.19	0.2	0.044	1.4	0.175	0.044	1.815	0.26	0.055	2.23	0.345	0.048
0.34	0.18	0.036	1.26	0.64	0.044	2.19	0.21	0.041	1.4	0.18	0.045	1.815	0.265	0.053	2.23	0.35	0.047
0.34	0.19	0.035	1.26	0.65	0.045	2.19	0.22	0.041	1.4	0.185	0.043	1.815	0.27	0.054	2.23	0.355	0.045
0.34	0.2	0.034	1.26	0.66	0.047	2.19	0.23	0.043	1.4	0.19	0.038	1.815	0.275	0.056	2.23	0.36	0.042
0.34	0.21	0.034	1.26	0.67	0.048	2.19	0.24	0.045	1.4	0.195	0.037	1.815	0.28	0.055	2.23	0.365	0.040
0.34	0.22	0.034	1.26	0.68	0.049	2.19	0.25	0.046	1.4	0.2	0.040	1.815	0.285	0.054	2.23	0.37	0.040
0.34	0.23	0.034	1.26	0.69	0.051	2.19	0.26	0.046	1.4	0.205	0.043	1.815	0.29	0.052	2.23	0.375	0.042
0.34	0.24	0.035	1.26	0.7	0.052	2.19	0.27	0.045	1.4	0.21	0.043	1.815	0.295	0.049	2.23	0.38	0.043
0.34	0.25	0.036	1.26	0.71	0.050	2.19	0.28	0.043	1.4	0.215	0.041	1.815	0.3	0.044	2.23	0.385	0.044
0.34	0.26	0.038	1.26	0.72	0.046	2.19	0.29	0.041	1.4	0.22	0.038	1.815	0.305	0.038	2.23	0.39	0.046
0.34	0.27	0.039	1.26	0.73	0.042	2.19	0.3	0.038	1.4	0.225	0.035	1.815	0.31	0.035	2.23	0.395	0.049
0.34	0.28	0.039	1.26	0.74	0.041	2.19	0.31	0.037	1.4	0.23	0.033	1.815	0.315	0.036	2.23	0.4	0.050
0.34	0.29	0.039	1.26	0.75	0.043	2.19	0.32	0.038	1.4	0.235	0.033	1.815	0.32	0.037	2.23	0.405	0.049
0.34	0.3	0.038	1.26	0.76	0.045	2.19	0.33	0.040	1.4	0.24	0.035	1.815	0.325	0.039	2.23	0.41	0.044
0.34	0.31	0.036	1.26	0.77	0.047	2.19	0.34	0.040	1.4	0.245	0.036	1.815	0.33	0.040	2.23	0.415	0.038
0.34	0.32	0.035	1.26	0.78	0.049	2.19	0.35	0.040	1.4	0.25	0.036	1.815	0.335	0.041	2.23	0.42	0.034
0.34	0.33	0.034	1.26	0.79	0.050	2.19	0.36	0.039	1.4	0.255	0.034	1.815	0.34	0.041	2.23	0.425	0.032
0.34	0.34	0.034	1.26	0.8	0.048	2.19	0.37	0.039	1.4	0.26	0.034	1.815	0.345	0.039	2.23	0.43	0.033
0.34	0.35	0.033	1.26	0.81	0.045	2.19	0.38	0.039	1.4	0.265	0.033	1.815	0.35	0.036	2.23	0.435	0.038
0.34	0.36	0.033	1.26	0.82	0.042	2.19	0.39	0.040	1.4	0.27	0.032	1.815	0.355	0.034	2.23	0.44	0.042
0.34	0.37	0.034	1.26	0.83	0.042	2.19	0.4	0.040	1.4	0.275	0.032	1.815	0.36	0.033	2.23	0.445	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.34	0.38	0.034	1.26	0.84	0.043	2.19	0.41	0.040	1.4	0.28	0.032	1.815	0.365	0.032	2.23	0.45	0.043
0.34	0.39	0.034	1.26	0.85	0.042	2.19	0.42	0.039	1.4	0.285	0.032	1.815	0.37	0.031	2.23	0.455	0.041
0.34	0.4	0.034	1.26	0.86	0.043	2.19	0.43	0.039	1.4	0.29	0.033	1.815	0.375	0.032	2.23	0.46	0.038
0.34	0.41	0.034	1.26	0.87	0.045	2.19	0.44	0.038	1.4	0.295	0.035	1.815	0.38	0.035	2.23	0.465	0.036
0.34	0.42	0.035	1.26	0.88	0.048	2.19	0.45	0.038	1.4	0.3	0.035	1.815	0.385	0.042	2.23	0.47	0.038
0.34	0.43	0.037	1.26	0.89	0.052	2.19	0.46	0.040	1.4	0.305	0.036	1.815	0.39	0.050	2.23	0.475	0.041
0.34	0.44	0.040	1.27	0.01	0.033	2.19	0.47	0.042	1.4	0.31	0.037	1.815	0.395	0.055	2.23	0.48	0.041
0.34	0.45	0.040	1.27	0.02	0.033	2.19	0.48	0.044	1.4	0.315	0.038	1.815	0.4	0.055	2.23	0.485	0.039
0.34	0.46	0.039	1.27	0.03	0.033	2.19	0.49	0.046	1.4	0.32	0.039	1.815	0.405	0.054	2.23	0.49	0.037
0.34	0.47	0.038	1.27	0.04	0.034	2.19	0.5	0.048	1.4	0.325	0.039	1.815	0.41	0.053	2.23	0.495	0.035
0.34	0.48	0.037	1.27	0.05	0.034	2.19	0.51	0.052	1.4	0.33	0.042	1.815	0.415	0.050	2.235	0.005	0.063
0.34	0.49	0.036	1.27	0.06	0.035	2.19	0.52	0.054	1.4	0.335	0.044	1.815	0.42	0.045	2.235	0.01	0.065
0.34	0.5	0.035	1.27	0.07	0.035	2.19	0.53	0.055	1.4	0.34	0.043	1.815	0.425	0.042	2.235	0.015	0.066
0.34	0.51	0.035	1.27	0.08	0.037	2.19	0.54	0.054	1.4	0.345	0.041	1.815	0.43	0.043	2.235	0.02	0.067
0.34	0.52	0.035	1.27	0.09	0.038	2.19	0.55	0.054	1.4	0.35	0.042	1.815	0.435	0.049	2.235	0.025	0.069
0.34	0.53	0.034	1.27	0.1	0.040	2.19	0.56	0.056	1.4	0.355	0.045	1.815	0.44	0.052	2.235	0.03	0.074
0.34	0.54	0.034	1.27	0.11	0.042	2.19	0.57	0.058	1.4	0.36	0.044	1.815	0.445	0.052	2.235	0.035	0.080
0.34	0.55	0.033	1.27	0.12	0.044	2.19	0.58	0.058	1.4	0.365	0.041	1.815	0.45	0.053	2.235	0.04	0.080
0.34	0.56	0.033	1.27	0.13	0.047	2.19	0.59	0.055	1.4	0.37	0.037	1.815	0.455	0.056	2.235	0.045	0.077
0.34	0.57	0.034	1.27	0.14	0.049	2.19	0.6	0.051	1.4	0.375	0.033	1.815	0.46	0.059	2.235	0.05	0.071
0.34	0.58	0.035	1.27	0.15	0.049	2.19	0.61	0.050	1.4	0.38	0.034	1.815	0.465	0.060	2.235	0.055	0.064
0.34	0.59	0.037	1.27	0.16	0.046	2.19	0.62	0.051	1.4	0.385	0.036	1.815	0.47	0.060	2.235	0.06	0.056
0.34	0.6	0.038	1.27	0.17	0.041	2.19	0.63	0.055	1.4	0.39	0.039	1.815	0.475	0.059	2.235	0.065	0.051
0.34	0.61	0.039	1.27	0.18	0.038	2.19	0.64	0.060	1.4	0.395	0.039	1.815	0.48	0.056	2.235	0.07	0.052
0.34	0.62	0.039	1.27	0.19	0.035	2.19	0.65	0.063	1.4	0.4	0.040	1.815	0.485	0.051	2.235	0.075	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.34	0.63	0.039	1.27	0.2	0.035	2.19	0.66	0.066	1.4	0.405	0.042	1.815	0.49	0.049	2.235	0.08	0.060
0.34	0.64	0.038	1.27	0.21	0.036	2.19	0.67	0.065	1.4	0.41	0.044	1.815	0.495	0.048	2.235	0.085	0.063
0.34	0.65	0.037	1.27	0.22	0.038	2.19	0.68	0.062	1.4	0.415	0.044	1.82	0.005	0.052	2.235	0.09	0.062
0.34	0.66	0.036	1.27	0.23	0.039	2.19	0.69	0.056	1.4	0.42	0.043	1.82	0.01	0.056	2.235	0.095	0.063
0.34	0.67	0.035	1.27	0.24	0.039	2.19	0.7	0.052	1.4	0.425	0.041	1.82	0.015	0.059	2.235	0.1	0.065
0.34	0.68	0.036	1.27	0.25	0.039	2.19	0.71	0.051	1.4	0.43	0.039	1.82	0.02	0.061	2.235	0.105	0.068
0.34	0.69	0.036	1.27	0.26	0.041	2.19	0.72	0.052	1.4	0.435	0.037	1.82	0.025	0.063	2.235	0.11	0.070
0.34	0.7	0.036	1.27	0.27	0.043	2.19	0.73	0.053	1.4	0.44	0.036	1.82	0.03	0.065	2.235	0.115	0.067
0.34	0.71	0.037	1.27	0.28	0.046	2.19	0.74	0.052	1.4	0.445	0.036	1.82	0.035	0.066	2.235	0.12	0.059
0.34	0.72	0.038	1.27	0.29	0.049	2.19	0.75	0.049	1.4	0.45	0.035	1.82	0.04	0.064	2.235	0.125	0.048
0.34	0.73	0.039	1.27	0.3	0.052	2.19	0.76	0.047	1.4	0.455	0.034	1.82	0.045	0.060	2.235	0.13	0.043
0.34	0.74	0.038	1.27	0.31	0.053	2.19	0.77	0.047	1.4	0.46	0.033	1.82	0.05	0.056	2.235	0.135	0.043
0.34	0.75	0.037	1.27	0.32	0.053	2.19	0.78	0.049	1.4	0.465	0.032	1.82	0.055	0.055	2.235	0.14	0.039
0.34	0.76	0.035	1.27	0.33	0.052	2.19	0.79	0.052	1.4	0.47	0.032	1.82	0.06	0.060	2.235	0.145	0.035
0.34	0.77	0.035	1.27	0.34	0.053	2.19	0.8	0.058	1.4	0.475	0.032	1.82	0.065	0.066	2.235	0.15	0.034
0.34	0.78	0.034	1.27	0.35	0.054	2.19	0.81	0.061	1.4	0.48	0.033	1.82	0.07	0.069	2.235	0.155	0.035
0.34	0.79	0.034	1.27	0.36	0.054	2.19	0.82	0.061	1.4	0.485	0.035	1.82	0.075	0.070	2.235	0.16	0.036
0.34	0.8	0.034	1.27	0.37	0.050	2.19	0.83	0.062	1.4	0.49	0.037	1.82	0.08	0.070	2.235	0.165	0.037
0.34	0.81	0.033	1.27	0.38	0.047	2.19	0.84	0.062	1.4	0.495	0.039	1.82	0.085	0.072	2.235	0.17	0.041
0.34	0.82	0.033	1.27	0.39	0.046	2.19	0.85	0.061	1.405	0.005	0.037	1.82	0.09	0.077	2.235	0.175	0.048
0.34	0.83	0.033	1.27	0.4	0.046	2.19	0.86	0.058	1.405	0.01	0.036	1.82	0.095	0.081	2.235	0.18	0.055
0.34	0.84	0.033	1.27	0.41	0.044	2.19	0.87	0.054	1.405	0.015	0.035	1.82	0.1	0.081	2.235	0.185	0.061
0.34	0.85	0.035	1.27	0.42	0.042	2.19	0.88	0.051	1.405	0.02	0.034	1.82	0.105	0.074	2.235	0.19	0.063
0.34	0.86	0.038	1.27	0.43	0.041	2.19	0.89	0.049	1.405	0.025	0.034	1.82	0.11	0.064	2.235	0.195	0.060
0.34	0.87	0.043	1.27	0.44	0.042	2.2	0.01	0.060	1.405	0.03	0.034	1.82	0.115	0.058	2.235	0.2	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.34	0.88	0.050	1.27	0.45	0.045	2.2	0.02	0.059	1.405	0.035	0.034	1.82	0.12	0.056	2.235	0.205	0.045
0.34	0.89	0.055	1.27	0.46	0.046	2.2	0.03	0.058	1.405	0.04	0.033	1.82	0.125	0.058	2.235	0.21	0.042
0.35	0.01	0.055	1.27	0.47	0.045	2.2	0.04	0.057	1.405	0.045	0.034	1.82	0.13	0.059	2.235	0.215	0.045
0.35	0.02	0.061	1.27	0.48	0.044	2.2	0.05	0.056	1.405	0.05	0.035	1.82	0.135	0.056	2.235	0.22	0.050
0.35	0.03	0.064	1.27	0.49	0.043	2.2	0.06	0.056	1.405	0.055	0.033	1.82	0.14	0.054	2.235	0.225	0.052
0.35	0.04	0.064	1.27	0.5	0.042	2.2	0.07	0.056	1.405	0.06	0.032	1.82	0.145	0.056	2.235	0.23	0.053
0.35	0.05	0.063	1.27	0.51	0.042	2.2	0.08	0.056	1.405	0.065	0.032	1.82	0.15	0.057	2.235	0.235	0.053
0.35	0.06	0.061	1.27	0.52	0.042	2.2	0.09	0.056	1.405	0.07	0.032	1.82	0.155	0.055	2.235	0.24	0.051
0.35	0.07	0.057	1.27	0.53	0.044	2.2	0.1	0.055	1.405	0.075	0.032	1.82	0.16	0.052	2.235	0.245	0.049
0.35	0.08	0.053	1.27	0.54	0.044	2.2	0.11	0.054	1.405	0.08	0.033	1.82	0.165	0.050	2.235	0.25	0.046
0.35	0.09	0.052	1.27	0.55	0.046	2.2	0.12	0.051	1.405	0.085	0.033	1.82	0.17	0.050	2.235	0.255	0.046
0.35	0.1	0.053	1.27	0.56	0.047	2.2	0.13	0.048	1.405	0.09	0.032	1.82	0.175	0.054	2.235	0.26	0.046
0.35	0.11	0.052	1.27	0.57	0.047	2.2	0.14	0.046	1.405	0.095	0.032	1.82	0.18	0.059	2.235	0.265	0.045
0.35	0.12	0.050	1.27	0.58	0.047	2.2	0.15	0.045	1.405	0.1	0.033	1.82	0.185	0.061	2.235	0.27	0.044
0.35	0.13	0.045	1.27	0.59	0.047	2.2	0.16	0.046	1.405	0.105	0.034	1.82	0.19	0.060	2.235	0.275	0.046
0.35	0.14	0.041	1.27	0.6	0.046	2.2	0.17	0.048	1.405	0.11	0.034	1.82	0.195	0.056	2.235	0.28	0.054
0.35	0.15	0.038	1.27	0.61	0.046	2.2	0.18	0.048	1.405	0.115	0.035	1.82	0.2	0.050	2.235	0.285	0.062
0.35	0.16	0.036	1.27	0.62	0.046	2.2	0.19	0.046	1.405	0.12	0.037	1.82	0.205	0.049	2.235	0.29	0.063
0.35	0.17	0.035	1.27	0.63	0.046	2.2	0.2	0.042	1.405	0.125	0.039	1.82	0.21	0.054	2.235	0.295	0.057
0.35	0.18	0.034	1.27	0.64	0.046	2.2	0.21	0.039	1.405	0.13	0.040	1.82	0.215	0.055	2.235	0.3	0.045
0.35	0.19	0.034	1.27	0.65	0.048	2.2	0.22	0.039	1.405	0.135	0.040	1.82	0.22	0.054	2.235	0.305	0.038
0.35	0.2	0.034	1.27	0.66	0.050	2.2	0.23	0.041	1.405	0.14	0.040	1.82	0.225	0.055	2.235	0.31	0.038
0.35	0.21	0.034	1.27	0.67	0.052	2.2	0.24	0.043	1.405	0.145	0.040	1.82	0.23	0.062	2.235	0.315	0.041
0.35	0.22	0.034	1.27	0.68	0.052	2.2	0.25	0.046	1.405	0.15	0.038	1.82	0.235	0.066	2.235	0.32	0.041
0.35	0.23	0.034	1.27	0.69	0.052	2.2	0.26	0.048	1.405	0.155	0.036	1.82	0.24	0.068	2.235	0.325	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.35	0.24	0.034	1.27	0.7	0.050	2.2	0.27	0.047	1.405	0.16	0.034	1.82	0.245	0.069	2.235	0.33	0.039
0.35	0.25	0.035	1.27	0.71	0.047	2.2	0.28	0.045	1.405	0.165	0.034	1.82	0.25	0.068	2.235	0.335	0.042
0.35	0.26	0.037	1.27	0.72	0.044	2.2	0.29	0.041	1.405	0.17	0.037	1.82	0.255	0.066	2.235	0.34	0.047
0.35	0.27	0.037	1.27	0.73	0.042	2.2	0.3	0.038	1.405	0.175	0.041	1.82	0.26	0.061	2.235	0.345	0.049
0.35	0.28	0.038	1.27	0.74	0.043	2.2	0.31	0.037	1.405	0.18	0.043	1.82	0.265	0.058	2.235	0.35	0.049
0.35	0.29	0.038	1.27	0.75	0.044	2.2	0.32	0.038	1.405	0.185	0.045	1.82	0.27	0.058	2.235	0.355	0.047
0.35	0.3	0.038	1.27	0.76	0.045	2.2	0.33	0.039	1.405	0.19	0.045	1.82	0.275	0.058	2.235	0.36	0.043
0.35	0.31	0.037	1.27	0.77	0.046	2.2	0.34	0.041	1.405	0.195	0.043	1.82	0.28	0.056	2.235	0.365	0.041
0.35	0.32	0.035	1.27	0.78	0.049	2.2	0.35	0.041	1.405	0.2	0.042	1.82	0.285	0.054	2.235	0.37	0.041
0.35	0.33	0.034	1.27	0.79	0.051	2.2	0.36	0.041	1.405	0.205	0.041	1.82	0.29	0.053	2.235	0.375	0.043
0.35	0.34	0.034	1.27	0.8	0.050	2.2	0.37	0.040	1.405	0.21	0.040	1.82	0.295	0.050	2.235	0.38	0.044
0.35	0.35	0.034	1.27	0.81	0.046	2.2	0.38	0.040	1.405	0.215	0.037	1.82	0.3	0.047	2.235	0.385	0.044
0.35	0.36	0.034	1.27	0.82	0.043	2.2	0.39	0.040	1.405	0.22	0.035	1.82	0.305	0.042	2.235	0.39	0.045
0.35	0.37	0.035	1.27	0.83	0.041	2.2	0.4	0.040	1.405	0.225	0.033	1.82	0.31	0.039	2.235	0.395	0.047
0.35	0.38	0.036	1.27	0.84	0.041	2.2	0.41	0.039	1.405	0.23	0.032	1.82	0.315	0.039	2.235	0.4	0.049
0.35	0.39	0.036	1.27	0.85	0.041	2.2	0.42	0.038	1.405	0.235	0.032	1.82	0.32	0.041	2.235	0.405	0.050
0.35	0.4	0.035	1.27	0.86	0.042	2.2	0.43	0.038	1.405	0.24	0.033	1.82	0.325	0.041	2.235	0.41	0.048
0.35	0.41	0.035	1.27	0.87	0.044	2.2	0.44	0.038	1.405	0.245	0.033	1.82	0.33	0.041	2.235	0.415	0.043
0.35	0.42	0.035	1.27	0.88	0.047	2.2	0.45	0.039	1.405	0.25	0.034	1.82	0.335	0.041	2.235	0.42	0.037
0.35	0.43	0.036	1.27	0.89	0.052	2.2	0.46	0.041	1.405	0.255	0.034	1.82	0.34	0.040	2.235	0.425	0.033
0.35	0.44	0.038	1.28	0.01	0.033	2.2	0.47	0.044	1.405	0.26	0.034	1.82	0.345	0.038	2.235	0.43	0.034
0.35	0.45	0.038	1.28	0.02	0.033	2.2	0.48	0.045	1.405	0.265	0.034	1.82	0.35	0.036	2.235	0.435	0.037
0.35	0.46	0.038	1.28	0.03	0.033	2.2	0.49	0.046	1.405	0.27	0.033	1.82	0.355	0.035	2.235	0.44	0.041
0.35	0.47	0.037	1.28	0.04	0.034	2.2	0.5	0.047	1.405	0.275	0.033	1.82	0.36	0.034	2.235	0.445	0.043
0.35	0.48	0.036	1.28	0.05	0.034	2.2	0.51	0.050	1.405	0.28	0.034	1.82	0.365	0.033	2.235	0.45	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.35	0.49	0.036	1.28	0.06	0.035	2.2	0.52	0.053	1.405	0.285	0.035	1.82	0.37	0.032	2.235	0.455	0.039
0.35	0.5	0.035	1.28	0.07	0.036	2.2	0.53	0.053	1.405	0.29	0.035	1.82	0.375	0.033	2.235	0.46	0.037
0.35	0.51	0.034	1.28	0.08	0.037	2.2	0.54	0.052	1.405	0.295	0.037	1.82	0.38	0.035	2.235	0.465	0.036
0.35	0.52	0.034	1.28	0.09	0.039	2.2	0.55	0.053	1.405	0.3	0.036	1.82	0.385	0.040	2.235	0.47	0.039
0.35	0.53	0.033	1.28	0.1	0.040	2.2	0.56	0.054	1.405	0.305	0.034	1.82	0.39	0.046	2.235	0.475	0.042
0.35	0.54	0.033	1.28	0.11	0.041	2.2	0.57	0.056	1.405	0.31	0.034	1.82	0.395	0.052	2.235	0.48	0.044
0.35	0.55	0.033	1.28	0.12	0.043	2.2	0.58	0.056	1.405	0.315	0.035	1.82	0.4	0.054	2.235	0.485	0.043
0.35	0.56	0.033	1.28	0.13	0.047	2.2	0.59	0.053	1.405	0.32	0.036	1.82	0.405	0.053	2.235	0.49	0.041
0.35	0.57	0.034	1.28	0.14	0.049	2.2	0.6	0.049	1.405	0.325	0.038	1.82	0.41	0.050	2.235	0.495	0.037
0.35	0.58	0.036	1.28	0.15	0.049	2.2	0.61	0.047	1.405	0.33	0.042	1.82	0.415	0.045	2.24	0.005	0.072
0.35	0.59	0.037	1.28	0.16	0.046	2.2	0.62	0.050	1.405	0.335	0.045	1.82	0.42	0.043	2.24	0.01	0.077
0.35	0.6	0.038	1.28	0.17	0.042	2.2	0.63	0.055	1.405	0.34	0.044	1.82	0.425	0.047	2.24	0.015	0.080
0.35	0.61	0.038	1.28	0.18	0.039	2.2	0.64	0.059	1.405	0.345	0.042	1.82	0.43	0.054	2.24	0.02	0.080
0.35	0.62	0.038	1.28	0.19	0.037	2.2	0.65	0.063	1.405	0.35	0.043	1.82	0.435	0.059	2.24	0.025	0.079
0.35	0.63	0.037	1.28	0.2	0.037	2.2	0.66	0.065	1.405	0.355	0.045	1.82	0.44	0.060	2.24	0.03	0.080
0.35	0.64	0.037	1.28	0.21	0.037	2.2	0.67	0.065	1.405	0.36	0.044	1.82	0.445	0.059	2.24	0.035	0.081
0.35	0.65	0.036	1.28	0.22	0.038	2.2	0.68	0.061	1.405	0.365	0.042	1.82	0.45	0.055	2.24	0.04	0.080
0.35	0.66	0.036	1.28	0.23	0.038	2.2	0.69	0.055	1.405	0.37	0.039	1.82	0.455	0.054	2.24	0.045	0.075
0.35	0.67	0.036	1.28	0.24	0.038	2.2	0.7	0.050	1.405	0.375	0.037	1.82	0.46	0.056	2.24	0.05	0.067
0.35	0.68	0.036	1.28	0.25	0.039	2.2	0.71	0.050	1.405	0.38	0.035	1.82	0.465	0.058	2.24	0.055	0.059
0.35	0.69	0.036	1.28	0.26	0.040	2.2	0.72	0.053	1.405	0.385	0.035	1.82	0.47	0.058	2.24	0.06	0.052
0.35	0.7	0.036	1.28	0.27	0.042	2.2	0.73	0.055	1.405	0.39	0.037	1.82	0.475	0.058	2.24	0.065	0.049
0.35	0.71	0.038	1.28	0.28	0.044	2.2	0.74	0.054	1.405	0.395	0.038	1.82	0.48	0.055	2.24	0.07	0.054
0.35	0.72	0.039	1.28	0.29	0.048	2.2	0.75	0.052	1.405	0.4	0.038	1.82	0.485	0.052	2.24	0.075	0.058
0.35	0.73	0.040	1.28	0.3	0.051	2.2	0.76	0.050	1.405	0.405	0.038	1.82	0.49	0.050	2.24	0.08	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.35	0.74	0.038	1.28	0.31	0.053	2.2	0.77	0.048	1.405	0.41	0.039	1.82	0.495	0.049	2.24	0.085	0.060
0.35	0.75	0.036	1.28	0.32	0.052	2.2	0.78	0.048	1.405	0.415	0.039	1.825	0.005	0.054	2.24	0.09	0.058
0.35	0.76	0.035	1.28	0.33	0.052	2.2	0.79	0.050	1.405	0.42	0.039	1.825	0.01	0.058	2.24	0.095	0.058
0.35	0.77	0.034	1.28	0.34	0.053	2.2	0.8	0.055	1.405	0.425	0.038	1.825	0.015	0.061	2.24	0.1	0.063
0.35	0.78	0.033	1.28	0.35	0.054	2.2	0.81	0.059	1.405	0.43	0.038	1.825	0.02	0.062	2.24	0.105	0.067
0.35	0.79	0.033	1.28	0.36	0.053	2.2	0.82	0.060	1.405	0.435	0.037	1.825	0.025	0.063	2.24	0.11	0.068
0.35	0.8	0.033	1.28	0.37	0.049	2.2	0.83	0.061	1.405	0.44	0.036	1.825	0.03	0.064	2.24	0.115	0.064
0.35	0.81	0.032	1.28	0.38	0.046	2.2	0.84	0.062	1.405	0.445	0.036	1.825	0.035	0.064	2.24	0.12	0.053
0.35	0.82	0.032	1.28	0.39	0.045	2.2	0.85	0.061	1.405	0.45	0.036	1.825	0.04	0.060	2.24	0.125	0.042
0.35	0.83	0.033	1.28	0.4	0.044	2.2	0.86	0.058	1.405	0.455	0.035	1.825	0.045	0.056	2.24	0.13	0.039
0.35	0.84	0.033	1.28	0.41	0.043	2.2	0.87	0.054	1.405	0.46	0.033	1.825	0.05	0.055	2.24	0.135	0.039
0.35	0.85	0.034	1.28	0.42	0.042	2.2	0.88	0.050	1.405	0.465	0.032	1.825	0.055	0.059	2.24	0.14	0.038
0.35	0.86	0.037	1.28	0.43	0.041	2.2	0.89	0.047	1.405	0.47	0.032	1.825	0.06	0.066	2.24	0.145	0.036
0.35	0.87	0.042	1.28	0.44	0.042	2.21	0.01	0.059	1.405	0.475	0.032	1.825	0.065	0.071	2.24	0.15	0.038
0.35	0.88	0.047	1.28	0.45	0.044	2.21	0.02	0.058	1.405	0.48	0.032	1.825	0.07	0.073	2.24	0.155	0.040
0.35	0.89	0.051	1.28	0.46	0.046	2.21	0.03	0.058	1.405	0.485	0.033	1.825	0.075	0.073	2.24	0.16	0.041
0.36	0.01	0.051	1.28	0.47	0.047	2.21	0.04	0.058	1.405	0.49	0.035	1.825	0.08	0.072	2.24	0.165	0.040
0.36	0.02	0.057	1.28	0.48	0.046	2.21	0.05	0.058	1.405	0.495	0.037	1.825	0.085	0.072	2.24	0.17	0.041
0.36	0.03	0.063	1.28	0.49	0.045	2.21	0.06	0.058	1.41	0.005	0.038	1.825	0.09	0.076	2.24	0.175	0.047
0.36	0.04	0.065	1.28	0.5	0.045	2.21	0.07	0.057	1.41	0.01	0.036	1.825	0.095	0.081	2.24	0.18	0.056
0.36	0.05	0.064	1.28	0.51	0.045	2.21	0.08	0.057	1.41	0.015	0.035	1.825	0.1	0.083	2.24	0.185	0.062
0.36	0.06	0.061	1.28	0.52	0.045	2.21	0.09	0.058	1.41	0.02	0.034	1.825	0.105	0.080	2.24	0.19	0.063
0.36	0.07	0.057	1.28	0.53	0.046	2.21	0.1	0.059	1.41	0.025	0.034	1.825	0.11	0.068	2.24	0.195	0.058
0.36	0.08	0.054	1.28	0.54	0.045	2.21	0.11	0.059	1.41	0.03	0.035	1.825	0.115	0.057	2.24	0.2	0.051
0.36	0.09	0.053	1.28	0.55	0.046	2.21	0.12	0.055	1.41	0.035	0.035	1.825	0.12	0.053	2.24	0.205	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.36	0.1	0.053	1.28	0.56	0.046	2.21	0.13	0.048	1.41	0.04	0.034	1.825	0.125	0.054	2.24	0.21	0.045
0.36	0.11	0.052	1.28	0.57	0.047	2.21	0.14	0.043	1.41	0.045	0.035	1.825	0.13	0.058	2.24	0.215	0.049
0.36	0.12	0.048	1.28	0.58	0.047	2.21	0.15	0.041	1.41	0.05	0.035	1.825	0.135	0.059	2.24	0.22	0.054
0.36	0.13	0.043	1.28	0.59	0.048	2.21	0.16	0.041	1.41	0.055	0.035	1.825	0.14	0.056	2.24	0.225	0.057
0.36	0.14	0.039	1.28	0.6	0.047	2.21	0.17	0.043	1.41	0.06	0.034	1.825	0.145	0.055	2.24	0.23	0.058
0.36	0.15	0.036	1.28	0.61	0.047	2.21	0.18	0.045	1.41	0.065	0.033	1.825	0.15	0.054	2.24	0.235	0.058
0.36	0.16	0.035	1.28	0.62	0.047	2.21	0.19	0.044	1.41	0.07	0.033	1.825	0.155	0.049	2.24	0.24	0.055
0.36	0.17	0.034	1.28	0.63	0.048	2.21	0.2	0.042	1.41	0.075	0.033	1.825	0.16	0.045	2.24	0.245	0.049
0.36	0.18	0.034	1.28	0.64	0.049	2.21	0.21	0.040	1.41	0.08	0.034	1.825	0.165	0.044	2.24	0.25	0.044
0.36	0.19	0.033	1.28	0.65	0.052	2.21	0.22	0.039	1.41	0.085	0.034	1.825	0.17	0.047	2.24	0.255	0.042
0.36	0.2	0.034	1.28	0.66	0.053	2.21	0.23	0.040	1.41	0.09	0.033	1.825	0.175	0.053	2.24	0.26	0.042
0.36	0.21	0.034	1.28	0.67	0.054	2.21	0.24	0.043	1.41	0.095	0.033	1.825	0.18	0.059	2.24	0.265	0.041
0.36	0.22	0.034	1.28	0.68	0.054	2.21	0.25	0.046	1.41	0.1	0.034	1.825	0.185	0.062	2.24	0.27	0.040
0.36	0.23	0.034	1.28	0.69	0.052	2.21	0.26	0.049	1.41	0.105	0.035	1.825	0.19	0.062	2.24	0.275	0.042
0.36	0.24	0.034	1.28	0.7	0.049	2.21	0.27	0.049	1.41	0.11	0.035	1.825	0.195	0.060	2.24	0.28	0.051
0.36	0.25	0.035	1.28	0.71	0.046	2.21	0.28	0.046	1.41	0.115	0.035	1.825	0.2	0.055	2.24	0.285	0.060
0.36	0.26	0.035	1.28	0.72	0.044	2.21	0.29	0.042	1.41	0.12	0.038	1.825	0.205	0.048	2.24	0.29	0.063
0.36	0.27	0.036	1.28	0.73	0.045	2.21	0.3	0.039	1.41	0.125	0.040	1.825	0.21	0.047	2.24	0.295	0.059
0.36	0.28	0.037	1.28	0.74	0.047	2.21	0.31	0.038	1.41	0.13	0.041	1.825	0.215	0.048	2.24	0.3	0.050
0.36	0.29	0.037	1.28	0.75	0.047	2.21	0.32	0.038	1.41	0.135	0.041	1.825	0.22	0.048	2.24	0.305	0.045
0.36	0.3	0.037	1.28	0.76	0.046	2.21	0.33	0.039	1.41	0.14	0.041	1.825	0.225	0.051	2.24	0.31	0.043
0.36	0.31	0.036	1.28	0.77	0.046	2.21	0.34	0.041	1.41	0.145	0.041	1.825	0.23	0.060	2.24	0.315	0.044
0.36	0.32	0.035	1.28	0.78	0.048	2.21	0.35	0.042	1.41	0.15	0.040	1.825	0.235	0.066	2.24	0.32	0.043
0.36	0.33	0.034	1.28	0.79	0.050	2.21	0.36	0.042	1.41	0.155	0.038	1.825	0.24	0.069	2.24	0.325	0.041
0.36	0.34	0.034	1.28	0.8	0.050	2.21	0.37	0.041	1.41	0.16	0.035	1.825	0.245	0.071	2.24	0.33	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.36	0.35	0.034	1.28	0.81	0.048	2.21	0.38	0.040
0.36	0.36	0.035	1.28	0.82	0.044	2.21	0.39	0.041
0.36	0.37	0.036	1.28	0.83	0.042	2.21	0.4	0.040
0.36	0.38	0.038	1.28	0.84	0.041	2.21	0.41	0.039
0.36	0.39	0.037	1.28	0.85	0.041	2.21	0.42	0.038
0.36	0.4	0.036	1.28	0.86	0.042	2.21	0.43	0.038
0.36	0.41	0.035	1.28	0.87	0.044	2.21	0.44	0.038
0.36	0.42	0.035	1.28	0.88	0.048	2.21	0.45	0.039
0.36	0.43	0.035	1.28	0.89	0.053	2.21	0.46	0.041
0.36	0.44	0.036	1.29	0.01	0.033	2.21	0.47	0.044
0.36	0.45	0.036	1.29	0.02	0.033	2.21	0.48	0.045
0.36	0.46	0.036	1.29	0.03	0.033	2.21	0.49	0.045
0.36	0.47	0.036	1.29	0.04	0.034	2.21	0.5	0.045
0.36	0.48	0.036	1.29	0.05	0.034	2.21	0.51	0.048
0.36	0.49	0.035	1.29	0.06	0.035	2.21	0.52	0.050
0.36	0.5	0.035	1.29	0.07	0.036	2.21	0.53	0.051
0.36	0.51	0.034	1.29	0.08	0.038	2.21	0.54	0.051
0.36	0.52	0.033	1.29	0.09	0.040	2.21	0.55	0.051
0.36	0.53	0.032	1.29	0.1	0.039	2.21	0.56	0.052
0.36	0.54	0.032	1.29	0.11	0.040	2.21	0.57	0.053
0.36	0.55	0.032	1.29	0.12	0.042	2.21	0.58	0.052
0.36	0.56	0.033	1.29	0.13	0.045	2.21	0.59	0.050
0.36	0.57	0.034	1.29	0.14	0.048	2.21	0.6	0.048
0.36	0.58	0.036	1.29	0.15	0.048	2.21	0.61	0.047
0.36	0.59	0.037	1.29	0.16	0.046	2.21	0.62	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
1.41	0.165	0.035	1.825	0.25	0.070	2.24	0.335	0.042
1.41	0.17	0.036	1.825	0.255	0.069	2.24	0.34	0.046
1.41	0.175	0.038	1.825	0.26	0.065	2.24	0.345	0.048
1.41	0.18	0.042	1.825	0.265	0.061	2.24	0.35	0.048
1.41	0.185	0.047	1.825	0.27	0.058	2.24	0.355	0.046
1.41	0.19	0.049	1.825	0.275	0.057	2.24	0.36	0.043
1.41	0.195	0.049	1.825	0.28	0.056	2.24	0.365	0.041
1.41	0.2	0.046	1.825	0.285	0.054	2.24	0.37	0.041
1.41	0.205	0.044	1.825	0.29	0.052	2.24	0.375	0.043
1.41	0.21	0.039	1.825	0.295	0.050	2.24	0.38	0.044
1.41	0.215	0.036	1.825	0.3	0.048	2.24	0.385	0.044
1.41	0.22	0.033	1.825	0.305	0.045	2.24	0.39	0.043
1.41	0.225	0.032	1.825	0.31	0.043	2.24	0.395	0.044
1.41	0.23	0.032	1.825	0.315	0.045	2.24	0.4	0.047
1.41	0.235	0.032	1.825	0.32	0.046	2.24	0.405	0.049
1.41	0.24	0.032	1.825	0.325	0.044	2.24	0.41	0.049
1.41	0.245	0.032	1.825	0.33	0.041	2.24	0.415	0.045
1.41	0.25	0.033	1.825	0.335	0.039	2.24	0.42	0.039
1.41	0.255	0.034	1.825	0.34	0.038	2.24	0.425	0.035
1.41	0.26	0.035	1.825	0.345	0.038	2.24	0.43	0.035
1.41	0.265	0.035	1.825	0.35	0.037	2.24	0.435	0.037
1.41	0.27	0.036	1.825	0.355	0.035	2.24	0.44	0.040
1.41	0.275	0.038	1.825	0.36	0.035	2.24	0.445	0.042
1.41	0.28	0.040	1.825	0.365	0.035	2.24	0.45	0.040
1.41	0.285	0.039	1.825	0.37	0.035	2.24	0.455	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.36	0.6	0.038	1.29	0.17	0.043	2.21	0.63	0.052	1.41	0.29	0.040	1.825	0.375	0.034	2.24	0.46	0.036
0.36	0.61	0.038	1.29	0.18	0.041	2.21	0.64	0.057	1.41	0.295	0.041	1.825	0.38	0.035	2.24	0.465	0.037
0.36	0.62	0.037	1.29	0.19	0.040	2.21	0.65	0.062	1.41	0.3	0.040	1.825	0.385	0.037	2.24	0.47	0.039
0.36	0.63	0.036	1.29	0.2	0.040	2.21	0.66	0.064	1.41	0.305	0.036	1.825	0.39	0.041	2.24	0.475	0.042
0.36	0.64	0.036	1.29	0.21	0.039	2.21	0.67	0.064	1.41	0.31	0.034	1.825	0.395	0.046	2.24	0.48	0.044
0.36	0.65	0.036	1.29	0.22	0.039	2.21	0.68	0.060	1.41	0.315	0.033	1.825	0.4	0.051	2.24	0.485	0.044
0.36	0.66	0.036	1.29	0.23	0.038	2.21	0.69	0.054	1.41	0.32	0.034	1.825	0.405	0.050	2.24	0.49	0.041
0.36	0.67	0.036	1.29	0.24	0.038	2.21	0.7	0.049	1.41	0.325	0.037	1.825	0.41	0.049	2.24	0.495	0.038
0.36	0.68	0.036	1.29	0.25	0.038	2.21	0.71	0.049	1.41	0.33	0.041	1.825	0.415	0.047	2.245	0.005	0.079
0.36	0.69	0.037	1.29	0.26	0.040	2.21	0.72	0.052	1.41	0.335	0.044	1.825	0.42	0.047	2.245	0.01	0.086
0.36	0.7	0.037	1.29	0.27	0.041	2.21	0.73	0.056	1.41	0.34	0.044	1.825	0.425	0.054	2.245	0.015	0.089
0.36	0.71	0.039	1.29	0.28	0.043	2.21	0.74	0.058	1.41	0.345	0.043	1.825	0.43	0.060	2.245	0.02	0.089
0.36	0.72	0.041	1.29	0.29	0.046	2.21	0.75	0.056	1.41	0.35	0.044	1.825	0.435	0.063	2.245	0.025	0.087
0.36	0.73	0.041	1.29	0.3	0.049	2.21	0.76	0.053	1.41	0.355	0.045	1.825	0.44	0.062	2.245	0.03	0.084
0.36	0.74	0.039	1.29	0.31	0.050	2.21	0.77	0.049	1.41	0.36	0.044	1.825	0.445	0.058	2.245	0.035	0.082
0.36	0.75	0.037	1.29	0.32	0.050	2.21	0.78	0.047	1.41	0.365	0.043	1.825	0.45	0.052	2.245	0.04	0.079
0.36	0.76	0.035	1.29	0.33	0.051	2.21	0.79	0.048	1.41	0.37	0.042	1.825	0.455	0.048	2.245	0.045	0.072
0.36	0.77	0.034	1.29	0.34	0.052	2.21	0.8	0.052	1.41	0.375	0.040	1.825	0.46	0.051	2.245	0.05	0.063
0.36	0.78	0.033	1.29	0.35	0.052	2.21	0.81	0.056	1.41	0.38	0.038	1.825	0.465	0.054	2.245	0.055	0.055
0.36	0.79	0.032	1.29	0.36	0.051	2.21	0.82	0.058	1.41	0.385	0.036	1.825	0.47	0.056	2.245	0.06	0.051
0.36	0.8	0.032	1.29	0.37	0.049	2.21	0.83	0.058	1.41	0.39	0.035	1.825	0.475	0.056	2.245	0.065	0.051
0.36	0.81	0.032	1.29	0.38	0.046	2.21	0.84	0.059	1.41	0.395	0.036	1.825	0.48	0.054	2.245	0.07	0.057
0.36	0.82	0.033	1.29	0.39	0.045	2.21	0.85	0.059	1.41	0.4	0.037	1.825	0.485	0.052	2.245	0.075	0.060
0.36	0.83	0.033	1.29	0.4	0.045	2.21	0.86	0.058	1.41	0.405	0.037	1.825	0.49	0.051	2.245	0.08	0.060
0.36	0.84	0.034	1.29	0.41	0.044	2.21	0.87	0.054	1.41	0.41	0.036	1.825	0.495	0.051	2.245	0.085	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.36	0.85	0.035	1.29	0.42	0.043	2.21	0.88	0.049	1.41	0.415	0.036	1.83	0.005	0.056	2.245	0.09	0.054
0.36	0.86	0.037	1.29	0.43	0.042	2.21	0.89	0.044	1.41	0.42	0.035	1.83	0.01	0.059	2.245	0.095	0.054
0.36	0.87	0.039	1.29	0.44	0.041	2.22	0.01	0.061	1.41	0.425	0.036	1.83	0.015	0.062	2.245	0.1	0.059
0.36	0.88	0.042	1.29	0.45	0.043	2.22	0.02	0.062	1.41	0.43	0.036	1.83	0.02	0.063	2.245	0.105	0.063
0.36	0.89	0.045	1.29	0.46	0.045	2.22	0.03	0.063	1.41	0.435	0.036	1.83	0.025	0.063	2.245	0.11	0.063
0.37	0.01	0.049	1.29	0.47	0.046	2.22	0.04	0.063	1.41	0.44	0.037	1.83	0.03	0.066	2.245	0.115	0.057
0.37	0.02	0.055	1.29	0.48	0.047	2.22	0.05	0.062	1.41	0.445	0.037	1.83	0.035	0.066	2.245	0.12	0.047
0.37	0.03	0.061	1.29	0.49	0.047	2.22	0.06	0.059	1.41	0.45	0.038	1.83	0.04	0.063	2.245	0.125	0.037
0.37	0.04	0.064	1.29	0.5	0.048	2.22	0.07	0.058	1.41	0.455	0.037	1.83	0.045	0.060	2.245	0.13	0.034
0.37	0.05	0.063	1.29	0.51	0.048	2.22	0.08	0.059	1.41	0.46	0.035	1.83	0.05	0.059	2.245	0.135	0.035
0.37	0.06	0.061	1.29	0.52	0.049	2.22	0.09	0.061	1.41	0.465	0.033	1.83	0.055	0.063	2.245	0.14	0.036
0.37	0.07	0.057	1.29	0.53	0.049	2.22	0.1	0.062	1.41	0.47	0.032	1.83	0.06	0.069	2.245	0.145	0.038
0.37	0.08	0.054	1.29	0.54	0.048	2.22	0.11	0.062	1.41	0.475	0.031	1.83	0.065	0.073	2.245	0.15	0.042
0.37	0.09	0.053	1.29	0.55	0.046	2.22	0.12	0.057	1.41	0.48	0.031	1.83	0.07	0.074	2.245	0.155	0.045
0.37	0.1	0.051	1.29	0.56	0.045	2.22	0.13	0.048	1.41	0.485	0.031	1.83	0.075	0.073	2.245	0.16	0.046
0.37	0.11	0.048	1.29	0.57	0.045	2.22	0.14	0.041	1.41	0.49	0.032	1.83	0.08	0.071	2.245	0.165	0.043
0.37	0.12	0.045	1.29	0.58	0.045	2.22	0.15	0.038	1.41	0.495	0.034	1.83	0.085	0.071	2.245	0.17	0.040
0.37	0.13	0.042	1.29	0.59	0.046	2.22	0.16	0.038	1.415	0.005	0.038	1.83	0.09	0.075	2.245	0.175	0.045
0.37	0.14	0.038	1.29	0.6	0.047	2.22	0.17	0.041	1.415	0.01	0.036	1.83	0.095	0.079	2.245	0.18	0.054
0.37	0.15	0.036	1.29	0.61	0.047	2.22	0.18	0.045	1.415	0.015	0.035	1.83	0.1	0.084	2.245	0.185	0.062
0.37	0.16	0.035	1.29	0.62	0.049	2.22	0.19	0.047	1.415	0.02	0.034	1.83	0.105	0.084	2.245	0.19	0.063
0.37	0.17	0.034	1.29	0.63	0.051	2.22	0.2	0.045	1.415	0.025	0.035	1.83	0.11	0.075	2.245	0.195	0.057
0.37	0.18	0.034	1.29	0.64	0.052	2.22	0.21	0.042	1.415	0.03	0.035	1.83	0.115	0.061	2.245	0.2	0.049
0.37	0.19	0.034	1.29	0.65	0.053	2.22	0.22	0.041	1.415	0.035	0.035	1.83	0.12	0.055	2.245	0.205	0.044
0.37	0.2	0.034	1.29	0.66	0.054	2.22	0.23	0.042	1.415	0.04	0.035	1.83	0.125	0.056	2.245	0.21	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.37	0.21	0.034	1.29	0.67	0.055	2.22	0.24	0.044	1.415	0.045	0.035	1.83	0.13	0.060	2.245	0.215	0.052
0.37	0.22	0.035	1.29	0.68	0.054	2.22	0.25	0.047	1.415	0.05	0.036	1.83	0.135	0.062	2.245	0.22	0.057
0.37	0.23	0.035	1.29	0.69	0.052	2.22	0.26	0.049	1.415	0.055	0.037	1.83	0.14	0.060	2.245	0.225	0.060
0.37	0.24	0.034	1.29	0.7	0.048	2.22	0.27	0.049	1.415	0.06	0.037	1.83	0.145	0.055	2.245	0.23	0.062
0.37	0.25	0.034	1.29	0.71	0.047	2.22	0.28	0.048	1.415	0.065	0.035	1.83	0.15	0.051	2.245	0.235	0.060
0.37	0.26	0.034	1.29	0.72	0.047	2.22	0.29	0.045	1.415	0.07	0.034	1.83	0.155	0.047	2.245	0.24	0.055
0.37	0.27	0.035	1.29	0.73	0.050	2.22	0.3	0.041	1.415	0.075	0.034	1.83	0.16	0.043	2.245	0.245	0.047
0.37	0.28	0.036	1.29	0.74	0.052	2.22	0.31	0.039	1.415	0.08	0.035	1.83	0.165	0.043	2.245	0.25	0.042
0.37	0.29	0.037	1.29	0.75	0.052	2.22	0.32	0.039	1.415	0.085	0.034	1.83	0.17	0.046	2.245	0.255	0.040
0.37	0.3	0.037	1.29	0.76	0.050	2.22	0.33	0.040	1.415	0.09	0.033	1.83	0.175	0.052	2.245	0.26	0.040
0.37	0.31	0.036	1.29	0.77	0.048	2.22	0.34	0.041	1.415	0.095	0.033	1.83	0.18	0.058	2.245	0.265	0.041
0.37	0.32	0.035	1.29	0.78	0.048	2.22	0.35	0.042	1.415	0.1	0.034	1.83	0.185	0.061	2.245	0.27	0.041
0.37	0.33	0.035	1.29	0.79	0.051	2.22	0.36	0.042	1.415	0.105	0.034	1.83	0.19	0.063	2.245	0.275	0.044
0.37	0.34	0.035	1.29	0.8	0.051	2.22	0.37	0.041	1.415	0.11	0.034	1.83	0.195	0.062	2.245	0.28	0.049
0.37	0.35	0.036	1.29	0.81	0.049	2.22	0.38	0.041	1.415	0.115	0.035	1.83	0.2	0.058	2.245	0.285	0.056
0.37	0.36	0.036	1.29	0.82	0.046	2.22	0.39	0.042	1.415	0.12	0.037	1.83	0.205	0.049	2.245	0.29	0.059
0.37	0.37	0.037	1.29	0.83	0.043	2.22	0.4	0.042	1.415	0.125	0.040	1.83	0.21	0.042	2.245	0.295	0.057
0.37	0.38	0.038	1.29	0.84	0.042	2.22	0.41	0.040	1.415	0.13	0.041	1.83	0.215	0.040	2.245	0.3	0.054
0.37	0.39	0.038	1.29	0.85	0.043	2.22	0.42	0.039	1.415	0.135	0.042	1.83	0.22	0.042	2.245	0.305	0.051
0.37	0.4	0.037	1.29	0.86	0.044	2.22	0.43	0.038	1.415	0.14	0.042	1.83	0.225	0.050	2.245	0.31	0.048
0.37	0.41	0.035	1.29	0.87	0.047	2.22	0.44	0.039	1.415	0.145	0.042	1.83	0.23	0.060	2.245	0.315	0.045
0.37	0.42	0.035	1.29	0.88	0.050	2.22	0.45	0.040	1.415	0.15	0.041	1.83	0.235	0.067	2.245	0.32	0.043
0.37	0.43	0.035	1.29	0.89	0.054	2.22	0.46	0.041	1.415	0.155	0.038	1.83	0.24	0.070	2.245	0.325	0.041
0.37	0.44	0.035	1.3	0.01	0.033	2.22	0.47	0.043	1.415	0.16	0.036	1.83	0.245	0.071	2.245	0.33	0.040
0.37	0.45	0.035	1.3	0.02	0.033	2.22	0.48	0.043	1.415	0.165	0.036	1.83	0.25	0.070	2.245	0.335	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.37	0.46	0.035	1.3	0.03	0.033	2.22	0.49	0.042	1.415	0.17	0.038	1.83	0.255	0.069	2.245	0.34	0.045
0.37	0.47	0.036	1.3	0.04	0.034	2.22	0.5	0.043	1.415	0.175	0.038	1.83	0.26	0.066	2.245	0.345	0.046
0.37	0.48	0.036	1.3	0.05	0.034	2.22	0.51	0.045	1.415	0.18	0.041	1.83	0.265	0.062	2.245	0.35	0.045
0.37	0.49	0.035	1.3	0.06	0.035	2.22	0.52	0.048	1.415	0.185	0.047	1.83	0.27	0.057	2.245	0.355	0.043
0.37	0.5	0.034	1.3	0.07	0.036	2.22	0.53	0.048	1.415	0.19	0.051	1.83	0.275	0.054	2.245	0.36	0.040
0.37	0.51	0.033	1.3	0.08	0.038	2.22	0.54	0.049	1.415	0.195	0.051	1.83	0.28	0.053	2.245	0.365	0.040
0.37	0.52	0.033	1.3	0.09	0.039	2.22	0.55	0.049	1.415	0.2	0.049	1.83	0.285	0.052	2.245	0.37	0.039
0.37	0.53	0.032	1.3	0.1	0.039	2.22	0.56	0.050	1.415	0.205	0.047	1.83	0.29	0.051	2.245	0.375	0.041
0.37	0.54	0.032	1.3	0.11	0.039	2.22	0.57	0.049	1.415	0.21	0.043	1.83	0.295	0.049	2.245	0.38	0.042
0.37	0.55	0.032	1.3	0.12	0.040	2.22	0.58	0.048	1.415	0.215	0.039	1.83	0.3	0.047	2.245	0.385	0.043
0.37	0.56	0.033	1.3	0.13	0.044	2.22	0.59	0.048	1.415	0.22	0.035	1.83	0.305	0.046	2.245	0.39	0.042
0.37	0.57	0.034	1.3	0.14	0.046	2.22	0.6	0.048	1.415	0.225	0.033	1.83	0.31	0.047	2.245	0.395	0.042
0.37	0.58	0.035	1.3	0.15	0.048	2.22	0.61	0.048	1.415	0.23	0.032	1.83	0.315	0.049	2.245	0.4	0.044
0.37	0.59	0.037	1.3	0.16	0.048	2.22	0.62	0.047	1.415	0.235	0.033	1.83	0.32	0.049	2.245	0.405	0.046
0.37	0.6	0.038	1.3	0.17	0.045	2.22	0.63	0.049	1.415	0.24	0.033	1.83	0.325	0.047	2.245	0.41	0.047
0.37	0.61	0.038	1.3	0.18	0.043	2.22	0.64	0.053	1.415	0.245	0.033	1.83	0.33	0.042	2.245	0.415	0.043
0.37	0.62	0.037	1.3	0.19	0.043	2.22	0.65	0.059	1.415	0.25	0.034	1.83	0.335	0.038	2.245	0.42	0.039
0.37	0.63	0.036	1.3	0.2	0.044	2.22	0.66	0.062	1.415	0.255	0.035	1.83	0.34	0.038	2.245	0.425	0.037
0.37	0.64	0.035	1.3	0.21	0.043	2.22	0.67	0.062	1.415	0.26	0.035	1.83	0.345	0.040	2.245	0.43	0.037
0.37	0.65	0.035	1.3	0.22	0.041	2.22	0.68	0.059	1.415	0.265	0.037	1.83	0.35	0.039	2.245	0.435	0.038
0.37	0.66	0.035	1.3	0.23	0.039	2.22	0.69	0.053	1.415	0.27	0.041	1.83	0.355	0.037	2.245	0.44	0.040
0.37	0.67	0.036	1.3	0.24	0.038	2.22	0.7	0.049	1.415	0.275	0.044	1.83	0.36	0.036	2.245	0.445	0.041
0.37	0.68	0.036	1.3	0.25	0.039	2.22	0.71	0.048	1.415	0.28	0.045	1.83	0.365	0.038	2.245	0.45	0.039
0.37	0.69	0.038	1.3	0.26	0.040	2.22	0.72	0.053	1.415	0.285	0.044	1.83	0.37	0.038	2.245	0.455	0.037
0.37	0.7	0.039	1.3	0.27	0.041	2.22	0.73	0.058	1.415	0.29	0.043	1.83	0.375	0.037	2.245	0.46	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.37	0.71	0.041	1.3	0.28	0.043	2.22	0.74	0.061	1.415	0.295	0.045	1.83	0.38	0.036	2.245	0.465	0.038
0.37	0.72	0.043	1.3	0.29	0.045	2.22	0.75	0.060	1.415	0.3	0.044	1.83	0.385	0.036	2.245	0.47	0.040
0.37	0.73	0.042	1.3	0.3	0.047	2.22	0.76	0.056	1.415	0.305	0.039	1.83	0.39	0.040	2.245	0.475	0.041
0.37	0.74	0.040	1.3	0.31	0.047	2.22	0.77	0.051	1.415	0.31	0.036	1.83	0.395	0.045	2.245	0.48	0.042
0.37	0.75	0.038	1.3	0.32	0.048	2.22	0.78	0.048	1.415	0.315	0.034	1.83	0.4	0.049	2.245	0.485	0.041
0.37	0.76	0.035	1.3	0.33	0.050	2.22	0.79	0.048	1.415	0.32	0.034	1.83	0.405	0.049	2.245	0.49	0.038
0.37	0.77	0.034	1.3	0.34	0.051	2.22	0.8	0.050	1.415	0.325	0.036	1.83	0.41	0.049	2.245	0.495	0.037
0.37	0.78	0.033	1.3	0.35	0.051	2.22	0.81	0.052	1.415	0.33	0.040	1.83	0.415	0.049	2.25	0.005	0.080
0.37	0.79	0.033	1.3	0.36	0.050	2.22	0.82	0.053	1.415	0.335	0.043	1.83	0.42	0.051	2.25	0.01	0.087
0.37	0.8	0.033	1.3	0.37	0.048	2.22	0.83	0.053	1.415	0.34	0.044	1.83	0.425	0.057	2.25	0.015	0.090
0.37	0.81	0.033	1.3	0.38	0.046	2.22	0.84	0.055	1.415	0.345	0.043	1.83	0.43	0.061	2.25	0.02	0.090
0.37	0.82	0.033	1.3	0.39	0.045	2.22	0.85	0.057	1.415	0.35	0.044	1.83	0.435	0.061	2.25	0.025	0.089
0.37	0.83	0.034	1.3	0.4	0.045	2.22	0.86	0.057	1.415	0.355	0.044	1.83	0.44	0.059	2.25	0.03	0.086
0.37	0.84	0.034	1.3	0.41	0.045	2.22	0.87	0.055	1.415	0.36	0.044	1.83	0.445	0.054	2.25	0.035	0.082
0.37	0.85	0.036	1.3	0.42	0.045	2.22	0.88	0.049	1.415	0.365	0.044	1.83	0.45	0.046	2.25	0.04	0.076
0.37	0.86	0.037	1.3	0.43	0.044	2.22	0.89	0.043	1.415	0.37	0.043	1.83	0.455	0.041	2.25	0.045	0.068
0.37	0.87	0.038	1.3	0.44	0.042	2.23	0.01	0.066	1.415	0.375	0.042	1.83	0.46	0.044	2.25	0.05	0.060
0.37	0.88	0.039	1.3	0.45	0.042	2.23	0.02	0.068	1.415	0.38	0.039	1.83	0.465	0.050	2.25	0.055	0.056
0.37	0.89	0.040	1.3	0.46	0.044	2.23	0.03	0.069	1.415	0.385	0.036	1.83	0.47	0.053	2.25	0.06	0.055
0.38	0.01	0.050	1.3	0.47	0.045	2.23	0.04	0.069	1.415	0.39	0.035	1.83	0.475	0.053	2.25	0.065	0.056
0.38	0.02	0.055	1.3	0.48	0.046	2.23	0.05	0.066	1.415	0.395	0.036	1.83	0.48	0.051	2.25	0.07	0.058
0.38	0.03	0.059	1.3	0.49	0.047	2.23	0.06	0.061	1.415	0.4	0.037	1.83	0.485	0.048	2.25	0.075	0.059
0.38	0.04	0.061	1.3	0.5	0.048	2.23	0.07	0.059	1.415	0.405	0.037	1.83	0.49	0.049	2.25	0.08	0.056
0.38	0.05	0.061	1.3	0.51	0.051	2.23	0.08	0.059	1.415	0.41	0.037	1.83	0.495	0.051	2.25	0.085	0.052
0.38	0.06	0.059	1.3	0.52	0.053	2.23	0.09	0.061	1.415	0.415	0.036	1.835	0.005	0.056	2.25	0.09	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.38	0.07	0.057	1.3	0.53	0.053	2.23	0.1	0.062	1.415	0.42	0.035	1.835	0.01	0.058	2.25	0.095	0.050
0.38	0.08	0.055	1.3	0.54	0.050	2.23	0.11	0.061	1.415	0.425	0.034	1.835	0.015	0.060	2.25	0.1	0.054
0.38	0.09	0.052	1.3	0.55	0.046	2.23	0.12	0.055	1.415	0.43	0.034	1.835	0.02	0.061	2.25	0.105	0.055
0.38	0.1	0.048	1.3	0.56	0.043	2.23	0.13	0.047	1.415	0.435	0.035	1.835	0.025	0.063	2.25	0.11	0.052
0.38	0.11	0.044	1.3	0.57	0.042	2.23	0.14	0.040	1.415	0.44	0.037	1.835	0.03	0.067	2.25	0.115	0.047
0.38	0.12	0.041	1.3	0.58	0.041	2.23	0.15	0.037	1.415	0.445	0.039	1.835	0.035	0.069	2.25	0.12	0.040
0.38	0.13	0.039	1.3	0.59	0.043	2.23	0.16	0.038	1.415	0.45	0.040	1.835	0.04	0.068	2.25	0.125	0.034
0.38	0.14	0.037	1.3	0.6	0.045	2.23	0.17	0.042	1.415	0.455	0.038	1.835	0.045	0.066	2.25	0.13	0.031
0.38	0.15	0.036	1.3	0.61	0.047	2.23	0.18	0.047	1.415	0.46	0.036	1.835	0.05	0.064	2.25	0.135	0.032
0.38	0.16	0.036	1.3	0.62	0.050	2.23	0.19	0.050	1.415	0.465	0.034	1.835	0.055	0.066	2.25	0.14	0.035
0.38	0.17	0.035	1.3	0.63	0.052	2.23	0.2	0.049	1.415	0.47	0.032	1.835	0.06	0.069	2.25	0.145	0.039
0.38	0.18	0.035	1.3	0.64	0.053	2.23	0.21	0.046	1.415	0.475	0.031	1.835	0.065	0.070	2.25	0.15	0.044
0.38	0.19	0.035	1.3	0.65	0.052	2.23	0.22	0.046	1.415	0.48	0.030	1.835	0.07	0.069	2.25	0.155	0.049
0.38	0.2	0.034	1.3	0.66	0.052	2.23	0.23	0.047	1.415	0.485	0.030	1.835	0.075	0.068	2.25	0.16	0.050
0.38	0.21	0.034	1.3	0.67	0.052	2.23	0.24	0.047	1.415	0.49	0.030	1.835	0.08	0.067	2.25	0.165	0.046
0.38	0.22	0.034	1.3	0.68	0.052	2.23	0.25	0.048	1.415	0.495	0.031	1.835	0.085	0.069	2.25	0.17	0.040
0.38	0.23	0.034	1.3	0.69	0.051	2.23	0.26	0.049	1.42	0.005	0.037	1.835	0.09	0.073	2.25	0.175	0.043
0.38	0.24	0.034	1.3	0.7	0.049	2.23	0.27	0.049	1.42	0.01	0.035	1.835	0.095	0.079	2.25	0.18	0.052
0.38	0.25	0.034	1.3	0.71	0.049	2.23	0.28	0.050	1.42	0.015	0.034	1.835	0.1	0.083	2.25	0.185	0.061
0.38	0.26	0.034	1.3	0.72	0.051	2.23	0.29	0.049	1.42	0.02	0.034	1.835	0.105	0.086	2.25	0.19	0.062
0.38	0.27	0.034	1.3	0.73	0.054	2.23	0.3	0.045	1.42	0.025	0.034	1.835	0.11	0.081	2.25	0.195	0.055
0.38	0.28	0.035	1.3	0.74	0.056	2.23	0.31	0.042	1.42	0.03	0.035	1.835	0.115	0.070	2.25	0.2	0.047
0.38	0.29	0.036	1.3	0.75	0.055	2.23	0.32	0.040	1.42	0.035	0.035	1.835	0.12	0.063	2.25	0.205	0.042
0.38	0.3	0.036	1.3	0.76	0.052	2.23	0.33	0.041	1.42	0.04	0.035	1.835	0.125	0.064	2.25	0.21	0.045
0.38	0.31	0.036	1.3	0.77	0.050	2.23	0.34	0.042	1.42	0.045	0.036	1.835	0.13	0.067	2.25	0.215	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.38	0.32	0.036	1.3	0.78	0.051	2.23	0.35	0.043	1.42	0.05	0.037	1.835	0.135	0.069	2.25	0.22	0.059
0.38	0.33	0.037	1.3	0.79	0.054	2.23	0.36	0.042	1.42	0.055	0.038	1.835	0.14	0.065	2.25	0.225	0.062
0.38	0.34	0.037	1.3	0.8	0.054	2.23	0.37	0.042	1.42	0.06	0.038	1.835	0.145	0.058	2.25	0.23	0.062
0.38	0.35	0.038	1.3	0.81	0.053	2.23	0.38	0.042	1.42	0.065	0.037	1.835	0.15	0.053	2.25	0.235	0.059
0.38	0.36	0.037	1.3	0.82	0.049	2.23	0.39	0.043	1.42	0.07	0.035	1.835	0.155	0.051	2.25	0.24	0.052
0.38	0.37	0.037	1.3	0.83	0.046	2.23	0.4	0.043	1.42	0.075	0.034	1.835	0.16	0.052	2.25	0.245	0.045
0.38	0.38	0.037	1.3	0.84	0.045	2.23	0.41	0.042	1.42	0.08	0.035	1.835	0.165	0.052	2.25	0.25	0.042
0.38	0.39	0.037	1.3	0.85	0.047	2.23	0.42	0.040	1.42	0.085	0.033	1.835	0.17	0.052	2.25	0.255	0.043
0.38	0.4	0.036	1.3	0.86	0.049	2.23	0.43	0.039	1.42	0.09	0.033	1.835	0.175	0.052	2.25	0.26	0.045
0.38	0.41	0.035	1.3	0.87	0.050	2.23	0.44	0.040	1.42	0.095	0.033	1.835	0.18	0.055	2.25	0.265	0.046
0.38	0.42	0.035	1.3	0.88	0.053	2.23	0.45	0.040	1.42	0.1	0.033	1.835	0.185	0.059	2.25	0.27	0.048
0.38	0.43	0.035	1.3	0.89	0.056	2.23	0.46	0.040	1.42	0.105	0.034	1.835	0.19	0.062	2.25	0.275	0.050
0.38	0.44	0.034	1.31	0.01	0.034	2.23	0.47	0.041	1.42	0.11	0.034	1.835	0.195	0.063	2.25	0.28	0.052
0.38	0.45	0.034	1.31	0.02	0.034	2.23	0.48	0.041	1.42	0.115	0.035	1.835	0.2	0.060	2.25	0.285	0.055
0.38	0.46	0.034	1.31	0.03	0.034	2.23	0.49	0.040	1.42	0.12	0.036	1.835	0.205	0.052	2.25	0.29	0.055
0.38	0.47	0.035	1.31	0.04	0.034	2.23	0.5	0.041	1.42	0.125	0.038	1.835	0.21	0.042	2.25	0.295	0.055
0.38	0.48	0.035	1.31	0.05	0.034	2.23	0.51	0.042	1.42	0.13	0.041	1.835	0.215	0.038	2.25	0.3	0.056
0.38	0.49	0.035	1.31	0.06	0.035	2.23	0.52	0.044	1.42	0.135	0.043	1.835	0.22	0.041	2.25	0.305	0.055
0.38	0.5	0.034	1.31	0.07	0.036	2.23	0.53	0.045	1.42	0.14	0.043	1.835	0.225	0.049	2.25	0.31	0.051
0.38	0.51	0.033	1.31	0.08	0.038	2.23	0.54	0.046	1.42	0.145	0.042	1.835	0.23	0.060	2.25	0.315	0.046
0.38	0.52	0.032	1.31	0.09	0.038	2.23	0.55	0.048	1.42	0.15	0.040	1.835	0.235	0.067	2.25	0.32	0.042
0.38	0.53	0.032	1.31	0.1	0.038	2.23	0.56	0.048	1.42	0.155	0.038	1.835	0.24	0.070	2.25	0.325	0.040
0.38	0.54	0.032	1.31	0.11	0.038	2.23	0.57	0.047	1.42	0.16	0.038	1.835	0.245	0.070	2.25	0.33	0.039
0.38	0.55	0.032	1.31	0.12	0.040	2.23	0.58	0.046	1.42	0.165	0.040	1.835	0.25	0.069	2.25	0.335	0.042
0.38	0.56	0.032	1.31	0.13	0.042	2.23	0.59	0.046	1.42	0.17	0.041	1.835	0.255	0.068	2.25	0.34	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.38	0.57	0.033	1.31	0.14	0.046	2.23	0.6	0.048	1.42	0.175	0.039	1.835	0.26	0.065	2.25	0.345	0.044
0.38	0.58	0.034	1.31	0.15	0.048	2.23	0.61	0.049	1.42	0.18	0.040	1.835	0.265	0.062	2.25	0.35	0.042
0.38	0.59	0.036	1.31	0.16	0.048	2.23	0.62	0.048	1.42	0.185	0.046	1.835	0.27	0.057	2.25	0.355	0.038
0.38	0.6	0.038	1.31	0.17	0.047	2.23	0.63	0.048	1.42	0.19	0.052	1.835	0.275	0.053	2.25	0.36	0.036
0.38	0.61	0.038	1.31	0.18	0.047	2.23	0.64	0.050	1.42	0.195	0.053	1.835	0.28	0.050	2.25	0.365	0.036
0.38	0.62	0.037	1.31	0.19	0.048	2.23	0.65	0.055	1.42	0.2	0.051	1.835	0.285	0.049	2.25	0.37	0.037
0.38	0.63	0.035	1.31	0.2	0.048	2.23	0.66	0.058	1.42	0.205	0.049	1.835	0.29	0.048	2.25	0.375	0.039
0.38	0.64	0.035	1.31	0.21	0.046	2.23	0.67	0.060	1.42	0.21	0.046	1.835	0.295	0.047	2.25	0.38	0.041
0.38	0.65	0.034	1.31	0.22	0.043	2.23	0.68	0.059	1.42	0.215	0.043	1.835	0.3	0.047	2.25	0.385	0.041
0.38	0.66	0.035	1.31	0.23	0.040	2.23	0.69	0.055	1.42	0.22	0.038	1.835	0.305	0.047	2.25	0.39	0.040
0.38	0.67	0.036	1.31	0.24	0.039	2.23	0.7	0.051	1.42	0.225	0.034	1.835	0.31	0.049	2.25	0.395	0.039
0.38	0.68	0.037	1.31	0.25	0.040	2.23	0.71	0.050	1.42	0.23	0.033	1.835	0.315	0.050	2.25	0.4	0.040
0.38	0.69	0.040	1.31	0.26	0.041	2.23	0.72	0.054	1.42	0.235	0.034	1.835	0.32	0.050	2.25	0.405	0.042
0.38	0.7	0.042	1.31	0.27	0.042	2.23	0.73	0.059	1.42	0.24	0.034	1.835	0.325	0.048	2.25	0.41	0.043
0.38	0.71	0.044	1.31	0.28	0.043	2.23	0.74	0.062	1.42	0.245	0.035	1.835	0.33	0.044	2.25	0.415	0.041
0.38	0.72	0.044	1.31	0.29	0.044	2.23	0.75	0.062	1.42	0.25	0.037	1.835	0.335	0.040	2.25	0.42	0.040
0.38	0.73	0.042	1.31	0.3	0.045	2.23	0.76	0.059	1.42	0.255	0.038	1.835	0.34	0.040	2.25	0.425	0.040
0.38	0.74	0.040	1.31	0.31	0.045	2.23	0.77	0.054	1.42	0.26	0.039	1.835	0.345	0.042	2.25	0.43	0.039
0.38	0.75	0.038	1.31	0.32	0.046	2.23	0.78	0.051	1.42	0.265	0.042	1.835	0.35	0.040	2.25	0.435	0.039
0.38	0.76	0.036	1.31	0.33	0.048	2.23	0.79	0.050	1.42	0.27	0.045	1.835	0.355	0.038	2.25	0.44	0.039
0.38	0.77	0.035	1.31	0.34	0.049	2.23	0.8	0.050	1.42	0.275	0.047	1.835	0.36	0.040	2.25	0.445	0.039
0.38	0.78	0.035	1.31	0.35	0.049	2.23	0.81	0.049	1.42	0.28	0.048	1.835	0.365	0.043	2.25	0.45	0.037
0.38	0.79	0.035	1.31	0.36	0.048	2.23	0.82	0.048	1.42	0.285	0.047	1.835	0.37	0.044	2.25	0.455	0.036
0.38	0.8	0.035	1.31	0.37	0.047	2.23	0.83	0.049	1.42	0.29	0.046	1.835	0.375	0.042	2.25	0.46	0.037
0.38	0.81	0.035	1.31	0.38	0.046	2.23	0.84	0.051	1.42	0.295	0.045	1.835	0.38	0.037	2.25	0.465	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.38	0.82	0.034	1.31	0.39	0.045	2.23	0.85	0.054	1.42	0.3	0.046	1.835	0.385	0.036	2.25	0.47	0.041
0.38	0.83	0.034	1.31	0.4	0.046	2.23	0.86	0.056	1.42	0.305	0.043	1.835	0.39	0.039	2.25	0.475	0.041
0.38	0.84	0.035	1.31	0.41	0.046	2.23	0.87	0.053	1.42	0.31	0.038	1.835	0.395	0.045	2.25	0.48	0.039
0.38	0.85	0.036	1.31	0.42	0.047	2.23	0.88	0.048	1.42	0.315	0.035	1.835	0.4	0.050	2.25	0.485	0.037
0.38	0.86	0.037	1.31	0.43	0.046	2.23	0.89	0.042	1.42	0.32	0.034	1.835	0.405	0.051	2.25	0.49	0.036
0.38	0.87	0.037	1.31	0.44	0.044	2.24	0.01	0.073	1.42	0.325	0.036	1.835	0.41	0.050	2.25	0.495	0.036
0.38	0.88	0.038	1.31	0.45	0.043	2.24	0.02	0.075	1.42	0.33	0.039	1.835	0.415	0.050	2.255	0.005	0.077
0.38	0.89	0.038	1.31	0.46	0.043	2.24	0.03	0.076	1.42	0.335	0.041	1.835	0.42	0.051	2.255	0.01	0.084
0.39	0.01	0.053	1.31	0.47	0.045	2.24	0.04	0.074	1.42	0.34	0.042	1.835	0.425	0.055	2.255	0.015	0.087
0.39	0.02	0.056	1.31	0.48	0.046	2.24	0.05	0.068	1.42	0.345	0.042	1.835	0.43	0.058	2.255	0.02	0.087
0.39	0.03	0.059	1.31	0.49	0.046	2.24	0.06	0.063	1.42	0.35	0.042	1.835	0.435	0.058	2.255	0.025	0.086
0.39	0.04	0.060	1.31	0.5	0.048	2.24	0.07	0.059	1.42	0.355	0.043	1.835	0.44	0.054	2.255	0.03	0.084
0.39	0.05	0.059	1.31	0.51	0.051	2.24	0.08	0.058	1.42	0.36	0.043	1.835	0.445	0.048	2.255	0.035	0.080
0.39	0.06	0.057	1.31	0.52	0.054	2.24	0.09	0.059	1.42	0.365	0.043	1.835	0.45	0.040	2.255	0.04	0.072
0.39	0.07	0.055	1.31	0.53	0.054	2.24	0.1	0.059	1.42	0.37	0.043	1.835	0.455	0.037	2.255	0.045	0.065
0.39	0.08	0.053	1.31	0.54	0.050	2.24	0.11	0.056	1.42	0.375	0.042	1.835	0.46	0.041	2.255	0.05	0.063
0.39	0.09	0.050	1.31	0.55	0.045	2.24	0.12	0.051	1.42	0.38	0.039	1.835	0.465	0.047	2.255	0.055	0.063
0.39	0.1	0.045	1.31	0.56	0.041	2.24	0.13	0.044	1.42	0.385	0.037	1.835	0.47	0.050	2.255	0.06	0.063
0.39	0.11	0.041	1.31	0.57	0.039	2.24	0.14	0.040	1.42	0.39	0.037	1.835	0.475	0.048	2.255	0.065	0.061
0.39	0.12	0.038	1.31	0.58	0.039	2.24	0.15	0.039	1.42	0.395	0.038	1.835	0.48	0.046	2.255	0.07	0.058
0.39	0.13	0.037	1.31	0.59	0.041	2.24	0.16	0.041	1.42	0.4	0.038	1.835	0.485	0.043	2.255	0.075	0.055
0.39	0.14	0.037	1.31	0.6	0.044	2.24	0.17	0.044	1.42	0.405	0.038	1.835	0.49	0.047	2.255	0.08	0.051
0.39	0.15	0.036	1.31	0.61	0.046	2.24	0.18	0.050	1.42	0.41	0.038	1.835	0.495	0.051	2.255	0.085	0.049
0.39	0.16	0.037	1.31	0.62	0.048	2.24	0.19	0.052	1.42	0.415	0.037	1.84	0.005	0.057	2.255	0.09	0.048
0.39	0.17	0.037	1.31	0.63	0.050	2.24	0.2	0.051	1.42	0.42	0.036	1.84	0.01	0.057	2.255	0.095	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.39	0.18	0.037	1.31	0.64	0.051	2.24	0.21	0.050	1.42	0.425	0.034	1.84	0.015	0.057	2.255	0.1	0.048
0.39	0.19	0.036	1.31	0.65	0.050	2.24	0.22	0.050	1.42	0.43	0.034	1.84	0.02	0.058	2.255	0.105	0.045
0.39	0.2	0.035	1.31	0.66	0.049	2.24	0.23	0.051	1.42	0.435	0.035	1.84	0.025	0.060	2.255	0.11	0.042
0.39	0.21	0.034	1.31	0.67	0.049	2.24	0.24	0.050	1.42	0.44	0.038	1.84	0.03	0.065	2.255	0.115	0.038
0.39	0.22	0.034	1.31	0.68	0.050	2.24	0.25	0.049	1.42	0.445	0.040	1.84	0.035	0.068	2.255	0.12	0.034
0.39	0.23	0.034	1.31	0.69	0.050	2.24	0.26	0.048	1.42	0.45	0.040	1.84	0.04	0.070	2.255	0.125	0.032
0.39	0.24	0.035	1.31	0.7	0.051	2.24	0.27	0.049	1.42	0.455	0.039	1.84	0.045	0.069	2.255	0.13	0.031
0.39	0.25	0.035	1.31	0.71	0.051	2.24	0.28	0.051	1.42	0.46	0.037	1.84	0.05	0.067	2.255	0.135	0.031
0.39	0.26	0.034	1.31	0.72	0.052	2.24	0.29	0.052	1.42	0.465	0.034	1.84	0.055	0.066	2.255	0.14	0.034
0.39	0.27	0.034	1.31	0.73	0.055	2.24	0.3	0.049	1.42	0.47	0.032	1.84	0.06	0.064	2.255	0.145	0.039
0.39	0.28	0.034	1.31	0.74	0.055	2.24	0.31	0.045	1.42	0.475	0.031	1.84	0.065	0.063	2.255	0.15	0.045
0.39	0.29	0.035	1.31	0.75	0.053	2.24	0.32	0.042	1.42	0.48	0.030	1.84	0.07	0.060	2.255	0.155	0.050
0.39	0.3	0.035	1.31	0.76	0.051	2.24	0.33	0.041	1.42	0.485	0.030	1.84	0.075	0.058	2.255	0.16	0.052
0.39	0.31	0.036	1.31	0.77	0.052	2.24	0.34	0.042	1.42	0.49	0.030	1.84	0.08	0.059	2.255	0.165	0.049
0.39	0.32	0.038	1.31	0.78	0.055	2.24	0.35	0.043	1.42	0.495	0.030	1.84	0.085	0.064	2.255	0.17	0.042
0.39	0.33	0.039	1.31	0.79	0.057	2.24	0.36	0.042	1.425	0.005	0.037	1.84	0.09	0.071	2.255	0.175	0.041
0.39	0.34	0.041	1.31	0.8	0.058	2.24	0.37	0.041	1.425	0.01	0.035	1.84	0.095	0.078	2.255	0.18	0.049
0.39	0.35	0.040	1.31	0.81	0.056	2.24	0.38	0.042	1.425	0.015	0.034	1.84	0.1	0.083	2.255	0.185	0.059
0.39	0.36	0.039	1.31	0.82	0.053	2.24	0.39	0.043	1.425	0.02	0.034	1.84	0.105	0.086	2.255	0.19	0.060
0.39	0.37	0.037	1.31	0.83	0.049	2.24	0.4	0.043	1.425	0.025	0.034	1.84	0.11	0.084	2.255	0.195	0.053
0.39	0.38	0.036	1.31	0.84	0.049	2.24	0.41	0.042	1.425	0.03	0.035	1.84	0.115	0.077	2.255	0.2	0.045
0.39	0.39	0.036	1.31	0.85	0.051	2.24	0.42	0.041	1.425	0.035	0.035	1.84	0.12	0.070	2.255	0.205	0.040
0.39	0.4	0.035	1.31	0.86	0.053	2.24	0.43	0.039	1.425	0.04	0.035	1.84	0.125	0.070	2.255	0.21	0.042
0.39	0.41	0.035	1.31	0.87	0.054	2.24	0.44	0.039	1.425	0.045	0.036	1.84	0.13	0.073	2.255	0.215	0.051
0.39	0.42	0.035	1.31	0.88	0.055	2.24	0.45	0.039	1.425	0.05	0.037	1.84	0.135	0.075	2.255	0.22	0.057

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.39	0.43	0.035	1.31	0.89	0.056	2.24	0.46	0.039	1.425	0.055	0.038	1.84	0.14	0.074	2.255	0.225	0.061
0.39	0.44	0.034	1.32	0.01	0.035	2.24	0.47	0.040	1.425	0.06	0.038	1.84	0.145	0.067	2.255	0.23	0.060
0.39	0.45	0.034	1.32	0.02	0.034	2.24	0.48	0.040	1.425	0.065	0.036	1.84	0.15	0.059	2.255	0.235	0.055
0.39	0.46	0.034	1.32	0.03	0.034	2.24	0.49	0.039	1.425	0.07	0.035	1.84	0.155	0.060	2.255	0.24	0.048
0.39	0.47	0.034	1.32	0.04	0.034	2.24	0.5	0.039	1.425	0.075	0.035	1.84	0.16	0.062	2.255	0.245	0.044
0.39	0.48	0.034	1.32	0.05	0.034	2.24	0.51	0.039	1.425	0.08	0.035	1.84	0.165	0.063	2.255	0.25	0.044
0.39	0.49	0.034	1.32	0.06	0.035	2.24	0.52	0.040	1.425	0.085	0.034	1.84	0.17	0.060	2.255	0.255	0.047
0.39	0.5	0.033	1.32	0.07	0.036	2.24	0.53	0.042	1.425	0.09	0.033	1.84	0.175	0.056	2.255	0.26	0.049
0.39	0.51	0.033	1.32	0.08	0.037	2.24	0.54	0.044	1.425	0.095	0.032	1.84	0.18	0.054	2.255	0.265	0.051
0.39	0.52	0.033	1.32	0.09	0.038	2.24	0.55	0.046	1.425	0.1	0.033	1.84	0.185	0.056	2.255	0.27	0.053
0.39	0.53	0.032	1.32	0.1	0.039	2.24	0.56	0.046	1.425	0.105	0.033	1.84	0.19	0.059	2.255	0.275	0.054
0.39	0.54	0.032	1.32	0.11	0.039	2.24	0.57	0.046	1.425	0.11	0.034	1.84	0.195	0.061	2.255	0.28	0.055
0.39	0.55	0.032	1.32	0.12	0.040	2.24	0.58	0.045	1.425	0.115	0.035	1.84	0.2	0.059	2.255	0.285	0.055
0.39	0.56	0.032	1.32	0.13	0.042	2.24	0.59	0.045	1.425	0.12	0.035	1.84	0.205	0.054	2.255	0.29	0.054
0.39	0.57	0.033	1.32	0.14	0.045	2.24	0.6	0.048	1.425	0.125	0.036	1.84	0.21	0.045	2.255	0.295	0.054
0.39	0.58	0.034	1.32	0.15	0.047	2.24	0.61	0.050	1.425	0.13	0.039	1.84	0.215	0.040	2.255	0.3	0.056
0.39	0.59	0.035	1.32	0.16	0.048	2.24	0.62	0.050	1.425	0.135	0.042	1.84	0.22	0.041	2.255	0.305	0.056
0.39	0.6	0.036	1.32	0.17	0.048	2.24	0.63	0.050	1.425	0.14	0.043	1.84	0.225	0.047	2.255	0.31	0.051
0.39	0.61	0.037	1.32	0.18	0.049	2.24	0.64	0.050	1.425	0.145	0.041	1.84	0.23	0.057	2.255	0.315	0.045
0.39	0.62	0.036	1.32	0.19	0.050	2.24	0.65	0.052	1.425	0.15	0.037	1.84	0.235	0.064	2.255	0.32	0.041
0.39	0.63	0.035	1.32	0.2	0.050	2.24	0.66	0.056	1.425	0.155	0.037	1.84	0.24	0.068	2.255	0.325	0.039
0.39	0.64	0.034	1.32	0.21	0.048	2.24	0.67	0.059	1.425	0.16	0.040	1.84	0.245	0.069	2.255	0.33	0.038
0.39	0.65	0.034	1.32	0.22	0.044	2.24	0.68	0.060	1.425	0.165	0.042	1.84	0.25	0.068	2.255	0.335	0.038
0.39	0.66	0.034	1.32	0.23	0.041	2.24	0.69	0.058	1.425	0.17	0.042	1.84	0.255	0.066	2.255	0.34	0.040
0.39	0.67	0.036	1.32	0.24	0.040	2.24	0.7	0.056	1.425	0.175	0.038	1.84	0.26	0.064	2.255	0.345	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.39	0.68	0.038	1.32	0.25	0.040	2.24	0.71	0.054	1.425	0.18	0.039	1.84	0.265	0.060	2.255	0.35	0.039
0.39	0.69	0.042	1.32	0.26	0.041	2.24	0.72	0.056	1.425	0.185	0.045	1.84	0.27	0.057	2.255	0.355	0.037
0.39	0.7	0.045	1.32	0.27	0.042	2.24	0.73	0.060	1.425	0.19	0.051	1.84	0.275	0.054	2.255	0.36	0.035
0.39	0.71	0.045	1.32	0.28	0.043	2.24	0.74	0.062	1.425	0.195	0.052	1.84	0.28	0.050	2.255	0.365	0.035
0.39	0.72	0.043	1.32	0.29	0.043	2.24	0.75	0.062	1.425	0.2	0.051	1.84	0.285	0.047	2.255	0.37	0.037
0.39	0.73	0.041	1.32	0.3	0.043	2.24	0.76	0.060	1.425	0.205	0.050	1.84	0.29	0.046	2.255	0.375	0.038
0.39	0.74	0.039	1.32	0.31	0.043	2.24	0.77	0.056	1.425	0.21	0.047	1.84	0.295	0.046	2.255	0.38	0.040
0.39	0.75	0.037	1.32	0.32	0.045	2.24	0.78	0.054	1.425	0.215	0.044	1.84	0.3	0.047	2.255	0.385	0.039
0.39	0.76	0.036	1.32	0.33	0.046	2.24	0.79	0.052	1.425	0.22	0.040	1.84	0.305	0.049	2.255	0.39	0.038
0.39	0.77	0.035	1.32	0.34	0.047	2.24	0.8	0.050	1.425	0.225	0.035	1.84	0.31	0.050	2.255	0.395	0.037
0.39	0.78	0.036	1.32	0.35	0.047	2.24	0.81	0.046	1.425	0.23	0.033	1.84	0.315	0.050	2.255	0.4	0.038
0.39	0.79	0.037	1.32	0.36	0.046	2.24	0.82	0.044	1.425	0.235	0.034	1.84	0.32	0.050	2.255	0.405	0.039
0.39	0.8	0.037	1.32	0.37	0.045	2.24	0.83	0.044	1.425	0.24	0.036	1.84	0.325	0.049	2.255	0.41	0.040
0.39	0.81	0.036	1.32	0.38	0.046	2.24	0.84	0.048	1.425	0.245	0.040	1.84	0.33	0.045	2.255	0.415	0.040
0.39	0.82	0.035	1.32	0.39	0.047	2.24	0.85	0.051	1.425	0.25	0.041	1.84	0.335	0.043	2.255	0.42	0.042
0.39	0.83	0.035	1.32	0.4	0.048	2.24	0.86	0.053	1.425	0.255	0.041	1.84	0.34	0.044	2.255	0.425	0.043
0.39	0.84	0.035	1.32	0.41	0.048	2.24	0.87	0.051	1.425	0.26	0.042	1.84	0.345	0.044	2.255	0.43	0.042
0.39	0.85	0.036	1.32	0.42	0.047	2.24	0.88	0.046	1.425	0.265	0.044	1.84	0.35	0.041	2.255	0.435	0.040
0.39	0.86	0.038	1.32	0.43	0.047	2.24	0.89	0.043	1.425	0.27	0.047	1.84	0.355	0.041	2.255	0.44	0.038
0.39	0.87	0.038	1.32	0.44	0.045	2.25	0.01	0.075	1.425	0.275	0.048	1.84	0.36	0.044	2.255	0.445	0.037
0.39	0.88	0.039	1.32	0.45	0.043	2.25	0.02	0.079	1.425	0.28	0.048	1.84	0.365	0.047	2.255	0.45	0.035
0.39	0.89	0.039	1.32	0.46	0.043	2.25	0.03	0.079	1.425	0.285	0.047	1.84	0.37	0.048	2.255	0.455	0.035
0.4	0.01	0.057	1.32	0.47	0.044	2.25	0.04	0.076	1.425	0.29	0.046	1.84	0.375	0.046	2.255	0.46	0.037
0.4	0.02	0.059	1.32	0.48	0.045	2.25	0.05	0.071	1.425	0.295	0.045	1.84	0.38	0.041	2.255	0.465	0.040
0.4	0.03	0.059	1.32	0.49	0.045	2.25	0.06	0.065	1.425	0.3	0.045	1.84	0.385	0.038	2.255	0.47	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.4	0.04	0.058	1.32	0.5	0.046	2.25	0.07	0.061	1.425	0.305	0.043	1.84	0.39	0.038	2.255	0.475	0.042
0.4	0.05	0.057	1.32	0.51	0.049	2.25	0.08	0.057	1.425	0.31	0.040	1.84	0.395	0.043	2.255	0.48	0.038
0.4	0.06	0.054	1.32	0.52	0.052	2.25	0.09	0.055	1.425	0.315	0.036	1.84	0.4	0.048	2.255	0.485	0.036
0.4	0.07	0.052	1.32	0.53	0.052	2.25	0.1	0.052	1.425	0.32	0.034	1.84	0.405	0.051	2.255	0.49	0.035
0.4	0.08	0.050	1.32	0.54	0.049	2.25	0.11	0.049	1.425	0.325	0.035	1.84	0.41	0.050	2.255	0.495	0.035
0.4	0.09	0.048	1.32	0.55	0.044	2.25	0.12	0.044	1.425	0.33	0.037	1.84	0.415	0.049	2.26	0.005	0.069
0.4	0.1	0.044	1.32	0.56	0.040	2.25	0.13	0.040	1.425	0.335	0.039	1.84	0.42	0.049	2.26	0.01	0.077
0.4	0.11	0.040	1.32	0.57	0.039	2.25	0.14	0.039	1.425	0.34	0.039	1.84	0.425	0.050	2.26	0.015	0.082
0.4	0.12	0.037	1.32	0.58	0.039	2.25	0.15	0.040	1.425	0.345	0.039	1.84	0.43	0.053	2.26	0.02	0.082
0.4	0.13	0.037	1.32	0.59	0.041	2.25	0.16	0.043	1.425	0.35	0.040	1.84	0.435	0.053	2.26	0.025	0.082
0.4	0.14	0.036	1.32	0.6	0.044	2.25	0.17	0.046	1.425	0.355	0.041	1.84	0.44	0.049	2.26	0.03	0.080
0.4	0.15	0.036	1.32	0.61	0.046	2.25	0.18	0.049	1.425	0.36	0.041	1.84	0.445	0.042	2.26	0.035	0.077
0.4	0.16	0.037	1.32	0.62	0.047	2.25	0.19	0.052	1.425	0.365	0.041	1.84	0.45	0.037	2.26	0.04	0.072
0.4	0.17	0.037	1.32	0.63	0.048	2.25	0.2	0.051	1.425	0.37	0.041	1.84	0.455	0.038	2.26	0.045	0.068
0.4	0.18	0.037	1.32	0.64	0.048	2.25	0.21	0.050	1.425	0.375	0.040	1.84	0.46	0.043	2.26	0.05	0.069
0.4	0.19	0.037	1.32	0.65	0.048	2.25	0.22	0.052	1.425	0.38	0.039	1.84	0.465	0.048	2.26	0.055	0.071
0.4	0.2	0.035	1.32	0.66	0.048	2.25	0.23	0.053	1.425	0.385	0.039	1.84	0.47	0.048	2.26	0.06	0.071
0.4	0.21	0.034	1.32	0.67	0.048	2.25	0.24	0.051	1.425	0.39	0.040	1.84	0.475	0.045	2.26	0.065	0.067
0.4	0.22	0.034	1.32	0.68	0.049	2.25	0.25	0.048	1.425	0.395	0.040	1.84	0.48	0.041	2.26	0.07	0.059
0.4	0.23	0.034	1.32	0.69	0.050	2.25	0.26	0.048	1.425	0.4	0.040	1.84	0.485	0.041	2.26	0.075	0.053
0.4	0.24	0.035	1.32	0.7	0.051	2.25	0.27	0.049	1.425	0.405	0.039	1.84	0.49	0.047	2.26	0.08	0.050
0.4	0.25	0.035	1.32	0.71	0.052	2.25	0.28	0.051	1.425	0.41	0.039	1.84	0.495	0.053	2.26	0.085	0.049
0.4	0.26	0.035	1.32	0.72	0.052	2.25	0.29	0.052	1.425	0.415	0.038	1.845	0.005	0.058	2.26	0.09	0.049
0.4	0.27	0.034	1.32	0.73	0.053	2.25	0.3	0.050	1.425	0.42	0.037	1.845	0.01	0.057	2.26	0.095	0.047
0.4	0.28	0.034	1.32	0.74	0.052	2.25	0.31	0.047	1.425	0.425	0.035	1.845	0.015	0.056	2.26	0.1	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.4	0.29	0.034	1.32	0.75	0.049	2.25	0.32	0.043	1.425	0.43	0.034	1.845	0.02	0.053	2.26	0.105	0.039
0.4	0.3	0.035	1.32	0.76	0.049	2.25	0.33	0.042	1.425	0.435	0.035	1.845	0.025	0.053	2.26	0.11	0.035
0.4	0.31	0.037	1.32	0.77	0.053	2.25	0.34	0.042	1.425	0.44	0.038	1.845	0.03	0.059	2.26	0.115	0.033
0.4	0.32	0.040	1.32	0.78	0.057	2.25	0.35	0.043	1.425	0.445	0.040	1.845	0.035	0.064	2.26	0.12	0.032
0.4	0.33	0.042	1.32	0.79	0.059	2.25	0.36	0.042	1.425	0.45	0.041	1.845	0.04	0.067	2.26	0.125	0.032
0.4	0.34	0.043	1.32	0.8	0.060	2.25	0.37	0.041	1.425	0.455	0.040	1.845	0.045	0.068	2.26	0.13	0.032
0.4	0.35	0.043	1.32	0.81	0.058	2.25	0.38	0.041	1.425	0.46	0.037	1.845	0.05	0.066	2.26	0.135	0.032
0.4	0.36	0.040	1.32	0.82	0.056	2.25	0.39	0.041	1.425	0.465	0.034	1.845	0.055	0.062	2.26	0.14	0.034
0.4	0.37	0.037	1.32	0.83	0.053	2.25	0.4	0.041	1.425	0.47	0.031	1.845	0.06	0.059	2.26	0.145	0.038
0.4	0.38	0.036	1.32	0.84	0.052	2.25	0.41	0.041	1.425	0.475	0.030	1.845	0.065	0.056	2.26	0.15	0.044
0.4	0.39	0.036	1.32	0.85	0.053	2.25	0.42	0.040	1.425	0.48	0.030	1.845	0.07	0.052	2.26	0.155	0.050
0.4	0.4	0.036	1.32	0.86	0.055	2.25	0.43	0.040	1.425	0.485	0.030	1.845	0.075	0.049	2.26	0.16	0.053
0.4	0.41	0.036	1.32	0.87	0.055	2.25	0.44	0.039	1.425	0.49	0.030	1.845	0.08	0.051	2.26	0.165	0.050
0.4	0.42	0.035	1.32	0.88	0.054	2.25	0.45	0.039	1.425	0.495	0.030	1.845	0.085	0.060	2.26	0.17	0.044
0.4	0.43	0.035	1.32	0.89	0.054	2.25	0.46	0.039	1.43	0.005	0.037	1.845	0.09	0.069	2.26	0.175	0.041
0.4	0.44	0.034	1.33	0.01	0.036	2.25	0.47	0.039	1.43	0.01	0.036	1.845	0.095	0.076	2.26	0.18	0.047
0.4	0.45	0.034	1.33	0.02	0.035	2.25	0.48	0.039	1.43	0.015	0.035	1.845	0.1	0.081	2.26	0.185	0.056
0.4	0.46	0.034	1.33	0.03	0.034	2.25	0.49	0.038	1.43	0.02	0.035	1.845	0.105	0.083	2.26	0.19	0.057
0.4	0.47	0.034	1.33	0.04	0.034	2.25	0.5	0.038	1.43	0.025	0.035	1.845	0.11	0.082	2.26	0.195	0.050
0.4	0.48	0.034	1.33	0.05	0.034	2.25	0.51	0.037	1.43	0.03	0.036	1.845	0.115	0.077	2.26	0.2	0.042
0.4	0.49	0.033	1.33	0.06	0.035	2.25	0.52	0.038	1.43	0.035	0.036	1.845	0.12	0.073	2.26	0.205	0.038
0.4	0.5	0.033	1.33	0.07	0.036	2.25	0.53	0.039	1.43	0.04	0.036	1.845	0.125	0.073	2.26	0.21	0.041
0.4	0.51	0.033	1.33	0.08	0.037	2.25	0.54	0.041	1.43	0.045	0.036	1.845	0.13	0.076	2.26	0.215	0.048
0.4	0.52	0.033	1.33	0.09	0.038	2.25	0.55	0.043	1.43	0.05	0.037	1.845	0.135	0.077	2.26	0.22	0.054
0.4	0.53	0.033	1.33	0.1	0.039	2.25	0.56	0.044	1.43	0.055	0.037	1.845	0.14	0.078	2.26	0.225	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.4	0.54	0.033	1.33	0.11	0.041	2.25	0.57	0.044	1.43	0.06	0.036	1.845	0.145	0.075	2.26	0.23	0.056
0.4	0.55	0.033	1.33	0.12	0.042	2.25	0.58	0.044	1.43	0.065	0.035	1.845	0.15	0.071	2.26	0.235	0.051
0.4	0.56	0.032	1.33	0.13	0.044	2.25	0.59	0.046	1.43	0.07	0.036	1.845	0.155	0.069	2.26	0.24	0.047
0.4	0.57	0.033	1.33	0.14	0.046	2.25	0.6	0.048	1.43	0.075	0.036	1.845	0.16	0.069	2.26	0.245	0.045
0.4	0.58	0.033	1.33	0.15	0.047	2.25	0.61	0.051	1.43	0.08	0.036	1.845	0.165	0.069	2.26	0.25	0.046
0.4	0.59	0.034	1.33	0.16	0.048	2.25	0.62	0.052	1.43	0.085	0.036	1.845	0.17	0.066	2.26	0.255	0.048
0.4	0.6	0.035	1.33	0.17	0.048	2.25	0.63	0.052	1.43	0.09	0.035	1.845	0.175	0.062	2.26	0.26	0.051
0.4	0.61	0.035	1.33	0.18	0.049	2.25	0.64	0.051	1.43	0.095	0.033	1.845	0.18	0.058	2.26	0.265	0.053
0.4	0.62	0.035	1.33	0.19	0.050	2.25	0.65	0.052	1.43	0.1	0.033	1.845	0.185	0.055	2.26	0.27	0.054
0.4	0.63	0.035	1.33	0.2	0.049	2.25	0.66	0.054	1.43	0.105	0.033	1.845	0.19	0.055	2.26	0.275	0.055
0.4	0.64	0.034	1.33	0.21	0.047	2.25	0.67	0.059	1.43	0.11	0.033	1.845	0.195	0.056	2.26	0.28	0.055
0.4	0.65	0.034	1.33	0.22	0.044	2.25	0.68	0.062	1.43	0.115	0.034	1.845	0.2	0.055	2.26	0.285	0.054
0.4	0.66	0.035	1.33	0.23	0.041	2.25	0.69	0.062	1.43	0.12	0.035	1.845	0.205	0.052	2.26	0.29	0.052
0.4	0.67	0.036	1.33	0.24	0.040	2.25	0.7	0.059	1.43	0.125	0.035	1.845	0.21	0.046	2.26	0.295	0.053
0.4	0.68	0.039	1.33	0.25	0.040	2.25	0.71	0.057	1.43	0.13	0.038	1.845	0.215	0.040	2.26	0.3	0.055
0.4	0.69	0.043	1.33	0.26	0.040	2.25	0.72	0.057	1.43	0.135	0.041	1.845	0.22	0.038	2.26	0.305	0.054
0.4	0.7	0.046	1.33	0.27	0.041	2.25	0.73	0.059	1.43	0.14	0.042	1.845	0.225	0.042	2.26	0.31	0.049
0.4	0.71	0.045	1.33	0.28	0.042	2.25	0.74	0.061	1.43	0.145	0.041	1.845	0.23	0.051	2.26	0.315	0.043
0.4	0.72	0.042	1.33	0.29	0.042	2.25	0.75	0.061	1.43	0.15	0.039	1.845	0.235	0.060	2.26	0.32	0.040
0.4	0.73	0.039	1.33	0.3	0.041	2.25	0.76	0.059	1.43	0.155	0.037	1.845	0.24	0.065	2.26	0.325	0.038
0.4	0.74	0.037	1.33	0.31	0.042	2.25	0.77	0.057	1.43	0.16	0.040	1.845	0.245	0.066	2.26	0.33	0.036
0.4	0.75	0.037	1.33	0.32	0.043	2.25	0.78	0.055	1.43	0.165	0.042	1.845	0.25	0.066	2.26	0.335	0.036
0.4	0.76	0.037	1.33	0.33	0.045	2.25	0.79	0.053	1.43	0.17	0.041	1.845	0.255	0.064	2.26	0.34	0.037
0.4	0.77	0.036	1.33	0.34	0.045	2.25	0.8	0.050	1.43	0.175	0.037	1.845	0.26	0.060	2.26	0.345	0.038
0.4	0.78	0.036	1.33	0.35	0.044	2.25	0.81	0.045	1.43	0.18	0.036	1.845	0.265	0.057	2.26	0.35	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.4	0.79	0.037	1.33	0.36	0.043	2.25	0.82	0.041	1.43	0.185	0.042	1.845	0.27	0.055	2.26	0.355	0.038
0.4	0.8	0.037	1.33	0.37	0.044	2.25	0.83	0.041	1.43	0.19	0.047	1.845	0.275	0.055	2.26	0.36	0.039
0.4	0.81	0.036	1.33	0.38	0.045	2.25	0.84	0.044	1.43	0.195	0.049	1.845	0.28	0.052	2.26	0.365	0.039
0.4	0.82	0.036	1.33	0.39	0.047	2.25	0.85	0.047	1.43	0.2	0.049	1.845	0.285	0.048	2.26	0.37	0.039
0.4	0.83	0.035	1.33	0.4	0.049	2.25	0.86	0.049	1.43	0.205	0.048	1.845	0.29	0.046	2.26	0.375	0.039
0.4	0.84	0.036	1.33	0.41	0.048	2.25	0.87	0.050	1.43	0.21	0.046	1.845	0.295	0.047	2.26	0.38	0.039
0.4	0.85	0.037	1.33	0.42	0.047	2.25	0.88	0.050	1.43	0.215	0.043	1.845	0.3	0.049	2.26	0.385	0.038
0.4	0.86	0.038	1.33	0.43	0.046	2.25	0.89	0.048	1.43	0.22	0.039	1.845	0.305	0.050	2.26	0.39	0.037
0.4	0.87	0.040	1.33	0.44	0.044	2.26	0.01	0.073	1.43	0.225	0.035	1.845	0.31	0.050	2.26	0.395	0.035
0.4	0.88	0.041	1.33	0.45	0.042	2.26	0.02	0.077	1.43	0.23	0.033	1.845	0.315	0.050	2.26	0.4	0.035
0.4	0.89	0.041	1.33	0.46	0.042	2.26	0.03	0.078	1.43	0.235	0.034	1.845	0.32	0.050	2.26	0.405	0.036
0.41	0.01	0.060	1.33	0.47	0.042	2.26	0.04	0.077	1.43	0.24	0.038	1.845	0.325	0.049	2.26	0.41	0.038
0.41	0.02	0.061	1.33	0.48	0.043	2.26	0.05	0.074	1.43	0.245	0.042	1.845	0.33	0.047	2.26	0.415	0.039
0.41	0.03	0.060	1.33	0.49	0.043	2.26	0.06	0.070	1.43	0.25	0.044	1.845	0.335	0.046	2.26	0.42	0.042
0.41	0.04	0.057	1.33	0.5	0.044	2.26	0.07	0.063	1.43	0.255	0.043	1.845	0.34	0.047	2.26	0.425	0.043
0.41	0.05	0.054	1.33	0.51	0.045	2.26	0.08	0.057	1.43	0.26	0.043	1.845	0.345	0.047	2.26	0.43	0.043
0.41	0.06	0.050	1.33	0.52	0.048	2.26	0.09	0.052	1.43	0.265	0.044	1.845	0.35	0.043	2.26	0.435	0.040
0.41	0.07	0.048	1.33	0.53	0.049	2.26	0.1	0.047	1.43	0.27	0.046	1.845	0.355	0.044	2.26	0.44	0.037
0.41	0.08	0.048	1.33	0.54	0.048	2.26	0.11	0.043	1.43	0.275	0.047	1.845	0.36	0.047	2.26	0.445	0.036
0.41	0.09	0.048	1.33	0.55	0.044	2.26	0.12	0.039	1.43	0.28	0.046	1.845	0.365	0.050	2.26	0.45	0.034
0.41	0.1	0.045	1.33	0.56	0.041	2.26	0.13	0.037	1.43	0.285	0.045	1.845	0.37	0.050	2.26	0.455	0.034
0.41	0.11	0.040	1.33	0.57	0.040	2.26	0.14	0.038	1.43	0.29	0.045	1.845	0.375	0.048	2.26	0.46	0.037
0.41	0.12	0.037	1.33	0.58	0.042	2.26	0.15	0.041	1.43	0.295	0.043	1.845	0.38	0.046	2.26	0.465	0.041
0.41	0.13	0.036	1.33	0.59	0.043	2.26	0.16	0.044	1.43	0.3	0.041	1.845	0.385	0.043	2.26	0.47	0.043
0.41	0.14	0.036	1.33	0.6	0.044	2.26	0.17	0.045	1.43	0.305	0.040	1.845	0.39	0.040	2.26	0.475	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.41	0.15	0.036	1.33	0.61	0.044	2.26	0.18	0.047	1.43	0.31	0.039	1.845	0.395	0.042	2.26	0.48	0.039
0.41	0.16	0.036	1.33	0.62	0.045	2.26	0.19	0.049	1.43	0.315	0.036	1.845	0.4	0.045	2.26	0.485	0.036
0.41	0.17	0.037	1.33	0.63	0.046	2.26	0.2	0.049	1.43	0.32	0.034	1.845	0.405	0.047	2.26	0.49	0.036
0.41	0.18	0.037	1.33	0.64	0.048	2.26	0.21	0.049	1.43	0.325	0.034	1.845	0.41	0.048	2.26	0.495	0.035
0.41	0.19	0.037	1.33	0.65	0.048	2.26	0.22	0.050	1.43	0.33	0.036	1.845	0.415	0.047	2.265	0.005	0.060
0.41	0.2	0.035	1.33	0.66	0.048	2.26	0.23	0.050	1.43	0.335	0.037	1.845	0.42	0.045	2.265	0.01	0.068
0.41	0.21	0.034	1.33	0.67	0.048	2.26	0.24	0.049	1.43	0.34	0.037	1.845	0.425	0.043	2.265	0.015	0.076
0.41	0.22	0.034	1.33	0.68	0.048	2.26	0.25	0.047	1.43	0.345	0.036	1.845	0.43	0.045	2.265	0.02	0.077
0.41	0.23	0.035	1.33	0.69	0.049	2.26	0.26	0.048	1.43	0.35	0.036	1.845	0.435	0.046	2.265	0.025	0.076
0.41	0.24	0.035	1.33	0.7	0.050	2.26	0.27	0.049	1.43	0.355	0.038	1.845	0.44	0.045	2.265	0.03	0.075
0.41	0.25	0.035	1.33	0.71	0.050	2.26	0.28	0.050	1.43	0.36	0.039	1.845	0.445	0.042	2.265	0.035	0.073
0.41	0.26	0.035	1.33	0.72	0.050	2.26	0.29	0.050	1.43	0.365	0.038	1.845	0.45	0.040	2.265	0.04	0.072
0.41	0.27	0.034	1.33	0.73	0.049	2.26	0.3	0.049	1.43	0.37	0.038	1.845	0.455	0.042	2.265	0.045	0.073
0.41	0.28	0.034	1.33	0.74	0.048	2.26	0.31	0.046	1.43	0.375	0.038	1.845	0.46	0.046	2.265	0.05	0.075
0.41	0.29	0.034	1.33	0.75	0.047	2.26	0.32	0.043	1.43	0.38	0.039	1.845	0.465	0.049	2.265	0.055	0.076
0.41	0.3	0.036	1.33	0.76	0.048	2.26	0.33	0.042	1.43	0.385	0.041	1.845	0.47	0.047	2.265	0.06	0.076
0.41	0.31	0.039	1.33	0.77	0.051	2.26	0.34	0.043	1.43	0.39	0.042	1.845	0.475	0.041	2.265	0.065	0.072
0.41	0.32	0.042	1.33	0.78	0.056	2.26	0.35	0.044	1.43	0.395	0.041	1.845	0.48	0.039	2.265	0.07	0.065
0.41	0.33	0.045	1.33	0.79	0.058	2.26	0.36	0.044	1.43	0.4	0.041	1.845	0.485	0.043	2.265	0.075	0.056
0.41	0.34	0.046	1.33	0.8	0.059	2.26	0.37	0.043	1.43	0.405	0.040	1.845	0.49	0.050	2.265	0.08	0.052
0.41	0.35	0.044	1.33	0.81	0.059	2.26	0.38	0.041	1.43	0.41	0.039	1.845	0.495	0.056	2.265	0.085	0.050
0.41	0.36	0.040	1.33	0.82	0.057	2.26	0.39	0.040	1.43	0.415	0.039	1.85	0.005	0.058	2.265	0.09	0.048
0.41	0.37	0.037	1.33	0.83	0.054	2.26	0.4	0.039	1.43	0.42	0.037	1.85	0.01	0.059	2.265	0.095	0.045
0.41	0.38	0.036	1.33	0.84	0.052	2.26	0.41	0.039	1.43	0.425	0.035	1.85	0.015	0.057	2.265	0.1	0.040
0.41	0.39	0.036	1.33	0.85	0.052	2.26	0.42	0.040	1.43	0.43	0.034	1.85	0.02	0.052	2.265	0.105	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.41	0.4	0.037	1.33	0.86	0.053	2.26	0.43	0.039	1.43	0.435	0.035	1.85	0.025	0.050	2.265	0.11	0.034
0.41	0.41	0.037	1.33	0.87	0.052	2.26	0.44	0.038	1.43	0.44	0.038	1.85	0.03	0.053	2.265	0.115	0.032
0.41	0.42	0.036	1.33	0.88	0.051	2.26	0.45	0.038	1.43	0.445	0.040	1.85	0.035	0.059	2.265	0.12	0.032
0.41	0.43	0.036	1.33	0.89	0.051	2.26	0.46	0.038	1.43	0.45	0.041	1.85	0.04	0.062	2.265	0.125	0.034
0.41	0.44	0.035	1.34	0.01	0.037	2.26	0.47	0.038	1.43	0.455	0.039	1.85	0.045	0.062	2.265	0.13	0.034
0.41	0.45	0.035	1.34	0.02	0.036	2.26	0.48	0.038	1.43	0.46	0.036	1.85	0.05	0.060	2.265	0.135	0.034
0.41	0.46	0.034	1.34	0.03	0.035	2.26	0.49	0.037	1.43	0.465	0.033	1.85	0.055	0.057	2.265	0.14	0.034
0.41	0.47	0.034	1.34	0.04	0.034	2.26	0.5	0.036	1.43	0.47	0.031	1.85	0.06	0.056	2.265	0.145	0.037
0.41	0.48	0.034	1.34	0.05	0.034	2.26	0.51	0.036	1.43	0.475	0.031	1.85	0.065	0.054	2.265	0.15	0.042
0.41	0.49	0.033	1.34	0.06	0.035	2.26	0.52	0.036	1.43	0.48	0.030	1.85	0.07	0.051	2.265	0.155	0.048
0.41	0.5	0.033	1.34	0.07	0.036	2.26	0.53	0.037	1.43	0.485	0.031	1.85	0.075	0.047	2.265	0.16	0.051
0.41	0.51	0.033	1.34	0.08	0.037	2.26	0.54	0.038	1.43	0.49	0.031	1.85	0.08	0.050	2.265	0.165	0.049
0.41	0.52	0.033	1.34	0.09	0.039	2.26	0.55	0.039	1.43	0.495	0.032	1.85	0.085	0.061	2.265	0.17	0.043
0.41	0.53	0.033	1.34	0.1	0.040	2.26	0.56	0.041	1.435	0.005	0.038	1.85	0.09	0.070	2.265	0.175	0.040
0.41	0.54	0.033	1.34	0.11	0.042	2.26	0.57	0.042	1.435	0.01	0.036	1.85	0.095	0.075	2.265	0.18	0.045
0.41	0.55	0.033	1.34	0.12	0.044	2.26	0.58	0.044	1.435	0.015	0.035	1.85	0.1	0.077	2.265	0.185	0.051
0.41	0.56	0.033	1.34	0.13	0.046	2.26	0.59	0.046	1.435	0.02	0.035	1.85	0.105	0.077	2.265	0.19	0.051
0.41	0.57	0.033	1.34	0.14	0.047	2.26	0.6	0.048	1.435	0.025	0.036	1.85	0.11	0.074	2.265	0.195	0.046
0.41	0.58	0.033	1.34	0.15	0.047	2.26	0.61	0.051	1.435	0.03	0.037	1.85	0.115	0.072	2.265	0.2	0.041
0.41	0.59	0.033	1.34	0.16	0.047	2.26	0.62	0.053	1.435	0.035	0.038	1.85	0.12	0.072	2.265	0.205	0.039
0.41	0.6	0.034	1.34	0.17	0.046	2.26	0.63	0.053	1.435	0.04	0.037	1.85	0.125	0.074	2.265	0.21	0.041
0.41	0.61	0.034	1.34	0.18	0.046	2.26	0.64	0.052	1.435	0.045	0.037	1.85	0.13	0.076	2.265	0.215	0.045
0.41	0.62	0.034	1.34	0.19	0.046	2.26	0.65	0.052	1.435	0.05	0.037	1.85	0.135	0.077	2.265	0.22	0.048
0.41	0.63	0.034	1.34	0.2	0.046	2.26	0.66	0.054	1.435	0.055	0.036	1.85	0.14	0.077	2.265	0.225	0.050
0.41	0.64	0.034	1.34	0.21	0.045	2.26	0.67	0.059	1.435	0.06	0.034	1.85	0.145	0.077	2.265	0.23	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.41	0.65	0.034	1.34	0.22	0.044	2.26	0.68	0.063	1.435	0.065	0.035	1.85	0.15	0.075	2.265	0.235	0.047
0.41	0.66	0.035	1.34	0.23	0.041	2.26	0.69	0.063	1.435	0.07	0.037	1.85	0.155	0.073	2.265	0.24	0.047
0.41	0.67	0.036	1.34	0.24	0.039	2.26	0.7	0.061	1.435	0.075	0.038	1.85	0.16	0.071	2.265	0.245	0.046
0.41	0.68	0.039	1.34	0.25	0.039	2.26	0.71	0.058	1.435	0.08	0.039	1.85	0.165	0.071	2.265	0.25	0.046
0.41	0.69	0.042	1.34	0.26	0.040	2.26	0.72	0.056	1.435	0.085	0.038	1.85	0.17	0.069	2.265	0.255	0.047
0.41	0.7	0.045	1.34	0.27	0.041	2.26	0.73	0.058	1.435	0.09	0.037	1.85	0.175	0.066	2.265	0.26	0.050
0.41	0.71	0.044	1.34	0.28	0.041	2.26	0.74	0.059	1.435	0.095	0.035	1.85	0.18	0.062	2.265	0.265	0.052
0.41	0.72	0.041	1.34	0.29	0.042	2.26	0.75	0.060	1.435	0.1	0.033	1.85	0.185	0.057	2.265	0.27	0.053
0.41	0.73	0.038	1.34	0.3	0.042	2.26	0.76	0.058	1.435	0.105	0.033	1.85	0.19	0.052	2.265	0.275	0.054
0.41	0.74	0.036	1.34	0.31	0.042	2.26	0.77	0.056	1.435	0.11	0.033	1.85	0.195	0.049	2.265	0.28	0.053
0.41	0.75	0.037	1.34	0.32	0.042	2.26	0.78	0.054	1.435	0.115	0.034	1.85	0.2	0.050	2.265	0.285	0.052
0.41	0.76	0.037	1.34	0.33	0.042	2.26	0.79	0.052	1.435	0.12	0.035	1.85	0.205	0.050	2.265	0.29	0.050
0.41	0.77	0.036	1.34	0.34	0.042	2.26	0.8	0.049	1.435	0.125	0.036	1.85	0.21	0.047	2.265	0.295	0.050
0.41	0.78	0.036	1.34	0.35	0.042	2.26	0.81	0.044	1.435	0.13	0.039	1.85	0.215	0.041	2.265	0.3	0.052
0.41	0.79	0.036	1.34	0.36	0.042	2.26	0.82	0.040	1.435	0.135	0.043	1.85	0.22	0.036	2.265	0.305	0.050
0.41	0.8	0.036	1.34	0.37	0.043	2.26	0.83	0.038	1.435	0.14	0.045	1.85	0.225	0.038	2.265	0.31	0.044
0.41	0.81	0.036	1.34	0.38	0.045	2.26	0.84	0.040	1.435	0.145	0.045	1.85	0.23	0.047	2.265	0.315	0.039
0.41	0.82	0.037	1.34	0.39	0.047	2.26	0.85	0.043	1.435	0.15	0.043	1.85	0.235	0.056	2.265	0.32	0.037
0.41	0.83	0.037	1.34	0.4	0.048	2.26	0.86	0.049	1.435	0.155	0.041	1.85	0.24	0.061	2.265	0.325	0.036
0.41	0.84	0.036	1.34	0.41	0.048	2.26	0.87	0.054	1.435	0.16	0.040	1.85	0.245	0.063	2.265	0.33	0.036
0.41	0.85	0.036	1.34	0.42	0.047	2.26	0.88	0.057	1.435	0.165	0.040	1.85	0.25	0.062	2.265	0.335	0.035
0.41	0.86	0.038	1.34	0.43	0.045	2.26	0.89	0.057	1.435	0.17	0.038	1.85	0.255	0.059	2.265	0.34	0.036
0.41	0.87	0.039	1.34	0.44	0.042	2.27	0.01	0.068	1.435	0.175	0.035	1.85	0.26	0.054	2.265	0.345	0.037
0.41	0.88	0.041	1.34	0.45	0.040	2.27	0.02	0.072	1.435	0.18	0.034	1.85	0.265	0.051	2.265	0.35	0.040
0.41	0.89	0.041	1.34	0.46	0.040	2.27	0.03	0.075	1.435	0.185	0.038	1.85	0.27	0.052	2.265	0.355	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.42	0.01	0.061	1.34	0.47	0.040	2.27	0.04	0.077	1.435	0.19	0.042	1.85	0.275	0.054	2.265	0.36	0.046
0.42	0.02	0.060	1.34	0.48	0.041	2.27	0.05	0.077	1.435	0.195	0.043	1.85	0.28	0.053	2.265	0.365	0.047
0.42	0.03	0.059	1.34	0.49	0.041	2.27	0.06	0.074	1.435	0.2	0.043	1.85	0.285	0.050	2.265	0.37	0.045
0.42	0.04	0.056	1.34	0.5	0.042	2.27	0.07	0.067	1.435	0.205	0.043	1.85	0.29	0.048	2.265	0.375	0.041
0.42	0.05	0.052	1.34	0.51	0.043	2.27	0.08	0.058	1.435	0.21	0.043	1.85	0.295	0.048	2.265	0.38	0.038
0.42	0.06	0.048	1.34	0.52	0.045	2.27	0.09	0.051	1.435	0.215	0.042	1.85	0.3	0.050	2.265	0.385	0.036
0.42	0.07	0.047	1.34	0.53	0.046	2.27	0.1	0.046	1.435	0.22	0.039	1.85	0.305	0.051	2.265	0.39	0.035
0.42	0.08	0.049	1.34	0.54	0.046	2.27	0.11	0.041	1.435	0.225	0.035	1.85	0.31	0.051	2.265	0.395	0.035
0.42	0.09	0.049	1.34	0.55	0.044	2.27	0.12	0.038	1.435	0.23	0.034	1.85	0.315	0.051	2.265	0.4	0.035
0.42	0.1	0.046	1.34	0.56	0.042	2.27	0.13	0.037	1.435	0.235	0.035	1.85	0.32	0.050	2.265	0.405	0.034
0.42	0.11	0.041	1.34	0.57	0.042	2.27	0.14	0.038	1.435	0.24	0.040	1.85	0.325	0.049	2.265	0.41	0.035
0.42	0.12	0.037	1.34	0.58	0.045	2.27	0.15	0.040	1.435	0.245	0.043	1.85	0.33	0.047	2.265	0.415	0.037
0.42	0.13	0.035	1.34	0.59	0.045	2.27	0.16	0.042	1.435	0.25	0.044	1.85	0.335	0.048	2.265	0.42	0.040
0.42	0.14	0.035	1.34	0.6	0.043	2.27	0.17	0.043	1.435	0.255	0.044	1.85	0.34	0.049	2.265	0.425	0.042
0.42	0.15	0.035	1.34	0.61	0.043	2.27	0.18	0.045	1.435	0.26	0.043	1.85	0.345	0.048	2.265	0.43	0.042
0.42	0.16	0.035	1.34	0.62	0.044	2.27	0.19	0.046	1.435	0.265	0.043	1.85	0.35	0.045	2.265	0.435	0.039
0.42	0.17	0.036	1.34	0.63	0.046	2.27	0.2	0.047	1.435	0.27	0.043	1.85	0.355	0.047	2.265	0.44	0.038
0.42	0.18	0.036	1.34	0.64	0.048	2.27	0.21	0.047	1.435	0.275	0.043	1.85	0.36	0.050	2.265	0.445	0.037
0.42	0.19	0.036	1.34	0.65	0.049	2.27	0.22	0.047	1.435	0.28	0.042	1.85	0.365	0.051	2.265	0.45	0.035
0.42	0.2	0.036	1.34	0.66	0.049	2.27	0.23	0.047	1.435	0.285	0.041	1.85	0.37	0.050	2.265	0.455	0.034
0.42	0.21	0.035	1.34	0.67	0.048	2.27	0.24	0.045	1.435	0.29	0.041	1.85	0.375	0.049	2.265	0.46	0.037
0.42	0.22	0.035	1.34	0.68	0.048	2.27	0.25	0.045	1.435	0.295	0.039	1.85	0.38	0.050	2.265	0.465	0.040
0.42	0.23	0.035	1.34	0.69	0.048	2.27	0.26	0.045	1.435	0.3	0.037	1.85	0.385	0.050	2.265	0.47	0.041
0.42	0.24	0.036	1.34	0.7	0.048	2.27	0.27	0.047	1.435	0.305	0.036	1.85	0.39	0.048	2.265	0.475	0.041
0.42	0.25	0.036	1.34	0.71	0.048	2.27	0.28	0.047	1.435	0.31	0.037	1.85	0.395	0.046	2.265	0.48	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.42	0.26	0.035	1.34	0.72	0.048	2.27	0.29	0.046	1.435	0.315	0.036	1.85	0.4	0.043	2.265	0.485	0.038
0.42	0.27	0.034	1.34	0.73	0.047	2.27	0.3	0.045	1.435	0.32	0.035	1.85	0.405	0.043	2.265	0.49	0.037
0.42	0.28	0.034	1.34	0.74	0.046	2.27	0.31	0.043	1.435	0.325	0.034	1.85	0.41	0.044	2.265	0.495	0.036
0.42	0.29	0.035	1.34	0.75	0.045	2.27	0.32	0.042	1.435	0.33	0.035	1.85	0.415	0.045	2.27	0.005	0.055
0.42	0.3	0.037	1.34	0.76	0.046	2.27	0.33	0.043	1.435	0.335	0.036	1.85	0.42	0.043	2.27	0.01	0.061
0.42	0.31	0.040	1.34	0.77	0.049	2.27	0.34	0.045	1.435	0.34	0.036	1.85	0.425	0.041	2.27	0.015	0.069
0.42	0.32	0.044	1.34	0.78	0.052	2.27	0.35	0.048	1.435	0.345	0.036	1.85	0.43	0.040	2.27	0.02	0.072
0.42	0.33	0.047	1.34	0.79	0.055	2.27	0.36	0.048	1.435	0.35	0.035	1.85	0.435	0.042	2.27	0.025	0.071
0.42	0.34	0.047	1.34	0.8	0.057	2.27	0.37	0.046	1.435	0.355	0.035	1.85	0.44	0.047	2.27	0.03	0.070
0.42	0.35	0.043	1.34	0.81	0.058	2.27	0.38	0.042	1.435	0.36	0.035	1.85	0.445	0.050	2.27	0.035	0.069
0.42	0.36	0.040	1.34	0.82	0.057	2.27	0.39	0.040	1.435	0.365	0.035	1.85	0.45	0.049	2.27	0.04	0.072
0.42	0.37	0.037	1.34	0.83	0.055	2.27	0.4	0.039	1.435	0.37	0.035	1.85	0.455	0.049	2.27	0.045	0.077
0.42	0.38	0.037	1.34	0.84	0.051	2.27	0.41	0.038	1.435	0.375	0.036	1.85	0.46	0.050	2.27	0.05	0.079
0.42	0.39	0.037	1.34	0.85	0.049	2.27	0.42	0.038	1.435	0.38	0.038	1.85	0.465	0.049	2.27	0.055	0.080
0.42	0.4	0.038	1.34	0.86	0.049	2.27	0.43	0.038	1.435	0.385	0.041	1.85	0.47	0.044	2.27	0.06	0.080
0.42	0.41	0.039	1.34	0.87	0.049	2.27	0.44	0.038	1.435	0.39	0.042	1.85	0.475	0.038	2.27	0.065	0.077
0.42	0.42	0.038	1.34	0.88	0.048	2.27	0.45	0.037	1.435	0.395	0.042	1.85	0.48	0.037	2.27	0.07	0.071
0.42	0.43	0.037	1.34	0.89	0.048	2.27	0.46	0.037	1.435	0.4	0.041	1.85	0.485	0.044	2.27	0.075	0.062
0.42	0.44	0.036	1.35	0.01	0.038	2.27	0.47	0.037	1.435	0.405	0.040	1.85	0.49	0.051	2.27	0.08	0.055
0.42	0.45	0.035	1.35	0.02	0.036	2.27	0.48	0.037	1.435	0.41	0.039	1.85	0.495	0.057	2.27	0.085	0.050
0.42	0.46	0.035	1.35	0.03	0.035	2.27	0.49	0.036	1.435	0.415	0.038	1.855	0.005	0.057	2.27	0.09	0.045
0.42	0.47	0.035	1.35	0.04	0.034	2.27	0.5	0.036	1.435	0.42	0.037	1.855	0.01	0.060	2.27	0.095	0.042
0.42	0.48	0.034	1.35	0.05	0.034	2.27	0.51	0.035	1.435	0.425	0.034	1.855	0.015	0.059	2.27	0.1	0.040
0.42	0.49	0.033	1.35	0.06	0.034	2.27	0.52	0.035	1.435	0.43	0.033	1.855	0.02	0.055	2.27	0.105	0.040
0.42	0.5	0.033	1.35	0.07	0.035	2.27	0.53	0.035	1.435	0.435	0.035	1.855	0.025	0.052	2.27	0.11	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.42	0.51	0.033	1.35	0.08	0.037	2.27	0.54	0.036	1.435	0.44	0.038	1.855	0.03	0.053	2.27	0.115	0.035
0.42	0.52	0.033	1.35	0.09	0.038	2.27	0.55	0.036	1.435	0.445	0.039	1.855	0.035	0.057	2.27	0.12	0.034
0.42	0.53	0.033	1.35	0.1	0.040	2.27	0.56	0.038	1.435	0.45	0.040	1.855	0.04	0.059	2.27	0.125	0.036
0.42	0.54	0.033	1.35	0.11	0.042	2.27	0.57	0.040	1.435	0.455	0.038	1.855	0.045	0.058	2.27	0.13	0.037
0.42	0.55	0.033	1.35	0.12	0.045	2.27	0.58	0.042	1.435	0.46	0.035	1.855	0.05	0.055	2.27	0.135	0.036
0.42	0.56	0.033	1.35	0.13	0.046	2.27	0.59	0.044	1.435	0.465	0.032	1.855	0.055	0.054	2.27	0.14	0.035
0.42	0.57	0.033	1.35	0.14	0.047	2.27	0.6	0.047	1.435	0.47	0.031	1.855	0.06	0.055	2.27	0.145	0.036
0.42	0.58	0.033	1.35	0.15	0.046	2.27	0.61	0.050	1.435	0.475	0.031	1.855	0.065	0.056	2.27	0.15	0.039
0.42	0.59	0.033	1.35	0.16	0.045	2.27	0.62	0.051	1.435	0.48	0.031	1.855	0.07	0.055	2.27	0.155	0.044
0.42	0.6	0.033	1.35	0.17	0.044	2.27	0.63	0.051	1.435	0.485	0.032	1.855	0.075	0.054	2.27	0.16	0.046
0.42	0.61	0.033	1.35	0.18	0.043	2.27	0.64	0.050	1.435	0.49	0.033	1.855	0.08	0.059	2.27	0.165	0.043
0.42	0.62	0.034	1.35	0.19	0.043	2.27	0.65	0.051	1.435	0.495	0.035	1.855	0.085	0.068	2.27	0.17	0.039
0.42	0.63	0.034	1.35	0.2	0.043	2.27	0.66	0.054	1.44	0.005	0.038	1.855	0.09	0.074	2.27	0.175	0.037
0.42	0.64	0.034	1.35	0.21	0.043	2.27	0.67	0.058	1.44	0.01	0.037	1.855	0.095	0.076	2.27	0.18	0.039
0.42	0.65	0.035	1.35	0.22	0.043	2.27	0.68	0.061	1.44	0.015	0.036	1.855	0.1	0.075	2.27	0.185	0.042
0.42	0.66	0.035	1.35	0.23	0.041	2.27	0.69	0.062	1.44	0.02	0.036	1.855	0.105	0.071	2.27	0.19	0.043
0.42	0.67	0.037	1.35	0.24	0.040	2.27	0.7	0.060	1.44	0.025	0.037	1.855	0.11	0.067	2.27	0.195	0.041
0.42	0.68	0.039	1.35	0.25	0.039	2.27	0.71	0.057	1.44	0.03	0.039	1.855	0.115	0.068	2.27	0.2	0.041
0.42	0.69	0.041	1.35	0.26	0.040	2.27	0.72	0.055	1.44	0.035	0.039	1.855	0.12	0.071	2.27	0.205	0.041
0.42	0.7	0.042	1.35	0.27	0.041	2.27	0.73	0.056	1.44	0.04	0.039	1.855	0.125	0.073	2.27	0.21	0.042
0.42	0.71	0.042	1.35	0.28	0.042	2.27	0.74	0.059	1.44	0.045	0.038	1.855	0.13	0.075	2.27	0.215	0.043
0.42	0.72	0.040	1.35	0.29	0.043	2.27	0.75	0.059	1.44	0.05	0.037	1.855	0.135	0.074	2.27	0.22	0.044
0.42	0.73	0.038	1.35	0.3	0.044	2.27	0.76	0.058	1.44	0.055	0.036	1.855	0.14	0.074	2.27	0.225	0.044
0.42	0.74	0.037	1.35	0.31	0.043	2.27	0.77	0.056	1.44	0.06	0.034	1.855	0.145	0.074	2.27	0.23	0.044
0.42	0.75	0.036	1.35	0.32	0.043	2.27	0.78	0.055	1.44	0.065	0.035	1.855	0.15	0.073	2.27	0.235	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.42	0.76	0.036	1.35	0.33	0.042	2.27	0.79	0.052	1.44	0.07	0.037	1.855	0.155	0.072	2.27	0.24	0.045
0.42	0.77	0.036	1.35	0.34	0.041	2.27	0.8	0.048	1.44	0.075	0.039	1.855	0.16	0.071	2.27	0.245	0.044
0.42	0.78	0.036	1.35	0.35	0.041	2.27	0.81	0.044	1.44	0.08	0.040	1.855	0.165	0.070	2.27	0.25	0.043
0.42	0.79	0.035	1.35	0.36	0.041	2.27	0.82	0.040	1.44	0.085	0.040	1.855	0.17	0.068	2.27	0.255	0.044
0.42	0.8	0.035	1.35	0.37	0.042	2.27	0.83	0.038	1.44	0.09	0.039	1.855	0.175	0.067	2.27	0.26	0.046
0.42	0.81	0.036	1.35	0.38	0.044	2.27	0.84	0.038	1.44	0.095	0.037	1.855	0.18	0.064	2.27	0.265	0.048
0.42	0.82	0.037	1.35	0.39	0.045	2.27	0.85	0.043	1.44	0.1	0.034	1.855	0.185	0.059	2.27	0.27	0.050
0.42	0.83	0.037	1.35	0.4	0.046	2.27	0.86	0.051	1.44	0.105	0.033	1.855	0.19	0.052	2.27	0.275	0.051
0.42	0.84	0.037	1.35	0.41	0.047	2.27	0.87	0.059	1.44	0.11	0.035	1.855	0.195	0.048	2.27	0.28	0.049
0.42	0.85	0.036	1.35	0.42	0.047	2.27	0.88	0.063	1.44	0.115	0.037	1.855	0.2	0.048	2.27	0.285	0.047
0.42	0.86	0.037	1.35	0.43	0.044	2.27	0.89	0.063	1.44	0.12	0.037	1.855	0.205	0.049	2.27	0.29	0.045
0.42	0.87	0.038	1.35	0.44	0.041	2.28	0.01	0.065	1.44	0.125	0.039	1.855	0.21	0.047	2.27	0.295	0.045
0.42	0.88	0.039	1.35	0.45	0.039	2.28	0.02	0.070	1.44	0.13	0.044	1.855	0.215	0.042	2.27	0.3	0.045
0.42	0.89	0.040	1.35	0.46	0.038	2.28	0.03	0.074	1.44	0.135	0.048	1.855	0.22	0.037	2.27	0.305	0.042
0.43	0.01	0.061	1.35	0.47	0.038	2.28	0.04	0.077	1.44	0.14	0.051	1.855	0.225	0.039	2.27	0.31	0.039
0.43	0.02	0.060	1.35	0.48	0.038	2.28	0.05	0.078	1.44	0.145	0.050	1.855	0.23	0.048	2.27	0.315	0.036
0.43	0.03	0.057	1.35	0.49	0.039	2.28	0.06	0.076	1.44	0.15	0.047	1.855	0.235	0.056	2.27	0.32	0.036
0.43	0.04	0.054	1.35	0.5	0.040	2.28	0.07	0.070	1.44	0.155	0.044	1.855	0.24	0.059	2.27	0.325	0.036
0.43	0.05	0.051	1.35	0.51	0.042	2.28	0.08	0.060	1.44	0.16	0.041	1.855	0.245	0.060	2.27	0.33	0.036
0.43	0.06	0.048	1.35	0.52	0.044	2.28	0.09	0.052	1.44	0.165	0.039	1.855	0.25	0.059	2.27	0.335	0.036
0.43	0.07	0.048	1.35	0.53	0.044	2.28	0.1	0.047	1.44	0.17	0.036	1.855	0.255	0.054	2.27	0.34	0.037
0.43	0.08	0.050	1.35	0.54	0.044	2.28	0.11	0.043	1.44	0.175	0.035	1.855	0.26	0.047	2.27	0.345	0.040
0.43	0.09	0.051	1.35	0.55	0.043	2.28	0.12	0.040	1.44	0.18	0.034	1.855	0.265	0.045	2.27	0.35	0.045
0.43	0.1	0.047	1.35	0.56	0.042	2.28	0.13	0.039	1.44	0.185	0.037	1.855	0.27	0.048	2.27	0.355	0.051
0.43	0.11	0.041	1.35	0.57	0.043	2.28	0.14	0.039	1.44	0.19	0.039	1.855	0.275	0.051	2.27	0.36	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.43	0.12	0.037	1.35	0.58	0.045	2.28	0.15	0.039	1.44	0.195	0.039	1.855	0.28	0.051	2.27	0.365	0.054
0.43	0.13	0.035	1.35	0.59	0.045	2.28	0.16	0.040	1.44	0.2	0.039	1.855	0.285	0.050	2.27	0.37	0.050
0.43	0.14	0.034	1.35	0.6	0.043	2.28	0.17	0.042	1.44	0.205	0.041	1.855	0.29	0.050	2.27	0.375	0.043
0.43	0.15	0.034	1.35	0.61	0.042	2.28	0.18	0.043	1.44	0.21	0.042	1.855	0.295	0.051	2.27	0.38	0.036
0.43	0.16	0.034	1.35	0.62	0.044	2.28	0.19	0.046	1.44	0.215	0.041	1.855	0.3	0.052	2.27	0.385	0.034
0.43	0.17	0.035	1.35	0.63	0.047	2.28	0.2	0.047	1.44	0.22	0.038	1.855	0.305	0.052	2.27	0.39	0.035
0.43	0.18	0.036	1.35	0.64	0.049	2.28	0.21	0.046	1.44	0.225	0.035	1.855	0.31	0.051	2.27	0.395	0.037
0.43	0.19	0.037	1.35	0.65	0.049	2.28	0.22	0.045	1.44	0.23	0.034	1.855	0.315	0.051	2.27	0.4	0.037
0.43	0.2	0.036	1.35	0.66	0.049	2.28	0.23	0.043	1.44	0.235	0.036	1.855	0.32	0.049	2.27	0.405	0.035
0.43	0.21	0.036	1.35	0.67	0.048	2.28	0.24	0.042	1.44	0.24	0.040	1.855	0.325	0.047	2.27	0.41	0.034
0.43	0.22	0.035	1.35	0.68	0.047	2.28	0.25	0.041	1.44	0.245	0.043	1.855	0.33	0.046	2.27	0.415	0.035
0.43	0.23	0.035	1.35	0.69	0.046	2.28	0.26	0.042	1.44	0.25	0.044	1.855	0.335	0.048	2.27	0.42	0.037
0.43	0.24	0.036	1.35	0.7	0.046	2.28	0.27	0.043	1.44	0.255	0.044	1.855	0.34	0.049	2.27	0.425	0.039
0.43	0.25	0.036	1.35	0.71	0.046	2.28	0.28	0.044	1.44	0.26	0.043	1.855	0.345	0.048	2.27	0.43	0.040
0.43	0.26	0.035	1.35	0.72	0.046	2.28	0.29	0.043	1.44	0.265	0.042	1.855	0.35	0.046	2.27	0.435	0.038
0.43	0.27	0.035	1.35	0.73	0.045	2.28	0.3	0.042	1.44	0.27	0.040	1.855	0.355	0.048	2.27	0.44	0.038
0.43	0.28	0.034	1.35	0.74	0.045	2.28	0.31	0.042	1.44	0.275	0.037	1.855	0.36	0.051	2.27	0.445	0.038
0.43	0.29	0.035	1.35	0.75	0.045	2.28	0.32	0.042	1.44	0.28	0.036	1.855	0.365	0.050	2.27	0.45	0.036
0.43	0.3	0.037	1.35	0.76	0.046	2.28	0.33	0.044	1.44	0.285	0.036	1.855	0.37	0.048	2.27	0.455	0.035
0.43	0.31	0.040	1.35	0.77	0.046	2.28	0.34	0.048	1.44	0.29	0.036	1.855	0.375	0.047	2.27	0.46	0.035
0.43	0.32	0.043	1.35	0.78	0.047	2.28	0.35	0.051	1.44	0.295	0.036	1.855	0.38	0.050	2.27	0.465	0.037
0.43	0.33	0.045	1.35	0.79	0.049	2.28	0.36	0.051	1.44	0.3	0.036	1.855	0.385	0.052	2.27	0.47	0.038
0.43	0.34	0.045	1.35	0.8	0.052	2.28	0.37	0.048	1.44	0.305	0.036	1.855	0.39	0.052	2.27	0.475	0.038
0.43	0.35	0.042	1.35	0.81	0.056	2.28	0.38	0.044	1.44	0.31	0.036	1.855	0.395	0.050	2.27	0.48	0.037
0.43	0.36	0.039	1.35	0.82	0.057	2.28	0.39	0.041	1.44	0.315	0.037	1.855	0.4	0.047	2.27	0.485	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.43	0.37	0.038	1.35	0.83	0.055	2.28	0.4	0.040	1.44	0.32	0.036	1.855	0.405	0.044	2.27	0.49	0.038
0.43	0.38	0.038	1.35	0.84	0.050	2.28	0.41	0.039	1.44	0.325	0.034	1.855	0.41	0.044	2.27	0.495	0.036
0.43	0.39	0.039	1.35	0.85	0.046	2.28	0.42	0.038	1.44	0.33	0.034	1.855	0.415	0.046	2.275	0.005	0.054
0.43	0.4	0.041	1.35	0.86	0.046	2.28	0.43	0.038	1.44	0.335	0.035	1.855	0.42	0.046	2.275	0.01	0.058
0.43	0.41	0.041	1.35	0.87	0.046	2.28	0.44	0.037	1.44	0.34	0.037	1.855	0.425	0.044	2.275	0.015	0.064
0.43	0.42	0.040	1.35	0.88	0.047	2.28	0.45	0.037	1.44	0.345	0.037	1.855	0.43	0.042	2.275	0.02	0.068
0.43	0.43	0.038	1.35	0.89	0.048	2.28	0.46	0.036	1.44	0.35	0.037	1.855	0.435	0.043	2.275	0.025	0.070
0.43	0.44	0.037	1.36	0.01	0.038	2.28	0.47	0.035	1.44	0.355	0.035	1.855	0.44	0.049	2.275	0.03	0.069
0.43	0.45	0.036	1.36	0.02	0.036	2.28	0.48	0.035	1.44	0.36	0.034	1.855	0.445	0.057	2.275	0.035	0.069
0.43	0.46	0.036	1.36	0.03	0.035	2.28	0.49	0.035	1.44	0.365	0.033	1.855	0.45	0.060	2.275	0.04	0.073
0.43	0.47	0.036	1.36	0.04	0.034	2.28	0.5	0.035	1.44	0.37	0.033	1.855	0.455	0.058	2.275	0.045	0.079
0.43	0.48	0.035	1.36	0.05	0.033	2.28	0.51	0.035	1.44	0.375	0.034	1.855	0.46	0.053	2.275	0.05	0.082
0.43	0.49	0.034	1.36	0.06	0.033	2.28	0.52	0.035	1.44	0.38	0.037	1.855	0.465	0.048	2.275	0.055	0.083
0.43	0.5	0.033	1.36	0.07	0.034	2.28	0.53	0.035	1.44	0.385	0.040	1.855	0.47	0.042	2.275	0.06	0.083
0.43	0.51	0.033	1.36	0.08	0.035	2.28	0.54	0.035	1.44	0.39	0.042	1.855	0.475	0.039	2.275	0.065	0.081
0.43	0.52	0.033	1.36	0.09	0.037	2.28	0.55	0.036	1.44	0.395	0.042	1.855	0.48	0.039	2.275	0.07	0.077
0.43	0.53	0.033	1.36	0.1	0.039	2.28	0.56	0.037	1.44	0.4	0.041	1.855	0.485	0.044	2.275	0.075	0.068
0.43	0.54	0.034	1.36	0.11	0.041	2.28	0.57	0.038	1.44	0.405	0.040	1.855	0.49	0.051	2.275	0.08	0.056
0.43	0.55	0.034	1.36	0.12	0.043	2.28	0.58	0.040	1.44	0.41	0.039	1.855	0.495	0.056	2.275	0.085	0.047
0.43	0.56	0.034	1.36	0.13	0.045	2.28	0.59	0.042	1.44	0.415	0.038	1.86	0.005	0.054	2.275	0.09	0.042
0.43	0.57	0.034	1.36	0.14	0.045	2.28	0.6	0.044	1.44	0.42	0.036	1.86	0.01	0.058	2.275	0.095	0.042
0.43	0.58	0.033	1.36	0.15	0.045	2.28	0.61	0.046	1.44	0.425	0.033	1.86	0.015	0.059	2.275	0.1	0.044
0.43	0.59	0.033	1.36	0.16	0.044	2.28	0.62	0.047	1.44	0.43	0.033	1.86	0.02	0.060	2.275	0.105	0.045
0.43	0.6	0.033	1.36	0.17	0.043	2.28	0.63	0.047	1.44	0.435	0.035	1.86	0.025	0.060	2.275	0.11	0.043
0.43	0.61	0.033	1.36	0.18	0.042	2.28	0.64	0.047	1.44	0.44	0.037	1.86	0.03	0.062	2.275	0.115	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.43	0.62	0.034	1.36	0.19	0.041	2.28	0.65	0.049	1.44	0.445	0.038	1.86	0.035	0.062	2.275	0.12	0.037
0.43	0.63	0.034	1.36	0.2	0.041	2.28	0.66	0.054	1.44	0.45	0.038	1.86	0.04	0.059	2.275	0.125	0.037
0.43	0.64	0.035	1.36	0.21	0.041	2.28	0.67	0.058	1.44	0.455	0.036	1.86	0.045	0.056	2.275	0.13	0.038
0.43	0.65	0.035	1.36	0.22	0.041	2.28	0.68	0.059	1.44	0.46	0.033	1.86	0.05	0.053	2.275	0.135	0.038
0.43	0.66	0.035	1.36	0.23	0.041	2.28	0.69	0.058	1.44	0.465	0.031	1.86	0.055	0.054	2.275	0.14	0.037
0.43	0.67	0.036	1.36	0.24	0.041	2.28	0.7	0.057	1.44	0.47	0.031	1.86	0.06	0.056	2.275	0.145	0.035
0.43	0.68	0.037	1.36	0.25	0.042	2.28	0.71	0.055	1.44	0.475	0.031	1.86	0.065	0.057	2.275	0.15	0.036
0.43	0.69	0.039	1.36	0.26	0.042	2.28	0.72	0.054	1.44	0.48	0.031	1.86	0.07	0.059	2.275	0.155	0.039
0.43	0.7	0.040	1.36	0.27	0.042	2.28	0.73	0.055	1.44	0.485	0.033	1.86	0.075	0.063	2.275	0.16	0.039
0.43	0.71	0.040	1.36	0.28	0.042	2.28	0.74	0.058	1.44	0.49	0.035	1.86	0.08	0.068	2.275	0.165	0.037
0.43	0.72	0.040	1.36	0.29	0.044	2.28	0.75	0.058	1.44	0.495	0.037	1.86	0.085	0.074	2.275	0.17	0.035
0.43	0.73	0.039	1.36	0.3	0.045	2.28	0.76	0.058	1.445	0.005	0.039	1.86	0.09	0.077	2.275	0.175	0.034
0.43	0.74	0.037	1.36	0.31	0.044	2.28	0.77	0.056	1.445	0.01	0.038	1.86	0.095	0.078	2.275	0.18	0.034
0.43	0.75	0.036	1.36	0.32	0.044	2.28	0.78	0.054	1.445	0.015	0.037	1.86	0.1	0.076	2.275	0.185	0.037
0.43	0.76	0.036	1.36	0.33	0.043	2.28	0.79	0.051	1.445	0.02	0.037	1.86	0.105	0.071	2.275	0.19	0.041
0.43	0.77	0.035	1.36	0.34	0.042	2.28	0.8	0.047	1.445	0.025	0.038	1.86	0.11	0.065	2.275	0.195	0.044
0.43	0.78	0.035	1.36	0.35	0.042	2.28	0.81	0.045	1.445	0.03	0.040	1.86	0.115	0.065	2.275	0.2	0.045
0.43	0.79	0.034	1.36	0.36	0.042	2.28	0.82	0.042	1.445	0.035	0.041	1.86	0.12	0.068	2.275	0.205	0.045
0.43	0.8	0.035	1.36	0.37	0.042	2.28	0.83	0.040	1.445	0.04	0.040	1.86	0.125	0.071	2.275	0.21	0.043
0.43	0.81	0.035	1.36	0.38	0.043	2.28	0.84	0.040	1.445	0.045	0.039	1.86	0.13	0.072	2.275	0.215	0.042
0.43	0.82	0.036	1.36	0.39	0.044	2.28	0.85	0.044	1.445	0.05	0.038	1.86	0.135	0.071	2.275	0.22	0.042
0.43	0.83	0.036	1.36	0.4	0.044	2.28	0.86	0.052	1.445	0.055	0.037	1.86	0.14	0.069	2.275	0.225	0.043
0.43	0.84	0.036	1.36	0.41	0.046	2.28	0.87	0.058	1.445	0.06	0.035	1.86	0.145	0.068	2.275	0.23	0.042
0.43	0.85	0.036	1.36	0.42	0.045	2.28	0.88	0.061	1.445	0.065	0.036	1.86	0.15	0.069	2.275	0.235	0.042
0.43	0.86	0.036	1.36	0.43	0.043	2.28	0.89	0.061	1.445	0.07	0.038	1.86	0.155	0.069	2.275	0.24	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.43	0.87	0.037	1.36	0.44	0.041	2.29	0.01	0.066	1.445	0.075	0.040	1.86	0.16	0.068	2.275	0.245	0.040
0.43	0.88	0.038	1.36	0.45	0.039	2.29	0.02	0.071	1.445	0.08	0.041	1.86	0.165	0.067	2.275	0.25	0.039
0.43	0.89	0.039	1.36	0.46	0.038	2.29	0.03	0.075	1.445	0.085	0.041	1.86	0.17	0.066	2.275	0.255	0.038
0.44	0.01	0.063	1.36	0.47	0.037	2.29	0.04	0.076	1.445	0.09	0.040	1.86	0.175	0.064	2.275	0.26	0.040
0.44	0.02	0.060	1.36	0.48	0.037	2.29	0.05	0.076	1.445	0.095	0.037	1.86	0.18	0.062	2.275	0.265	0.044
0.44	0.03	0.056	1.36	0.49	0.037	2.29	0.06	0.074	1.445	0.1	0.034	1.86	0.185	0.058	2.275	0.27	0.047
0.44	0.04	0.053	1.36	0.5	0.039	2.29	0.07	0.069	1.445	0.105	0.034	1.86	0.19	0.052	2.275	0.275	0.046
0.44	0.05	0.050	1.36	0.51	0.041	2.29	0.08	0.061	1.445	0.11	0.038	1.86	0.195	0.049	2.275	0.28	0.044
0.44	0.06	0.048	1.36	0.52	0.042	2.29	0.09	0.054	1.445	0.115	0.041	1.86	0.2	0.050	2.275	0.285	0.041
0.44	0.07	0.049	1.36	0.53	0.042	2.29	0.1	0.050	1.445	0.12	0.042	1.86	0.205	0.050	2.275	0.29	0.040
0.44	0.08	0.051	1.36	0.54	0.042	2.29	0.11	0.046	1.445	0.125	0.044	1.86	0.21	0.048	2.275	0.295	0.039
0.44	0.09	0.051	1.36	0.55	0.042	2.29	0.12	0.043	1.445	0.13	0.050	1.86	0.215	0.042	2.275	0.3	0.038
0.44	0.1	0.047	1.36	0.56	0.042	2.29	0.13	0.041	1.445	0.135	0.055	1.86	0.22	0.040	2.275	0.305	0.037
0.44	0.11	0.041	1.36	0.57	0.042	2.29	0.14	0.041	1.445	0.14	0.057	1.86	0.225	0.045	2.275	0.31	0.036
0.44	0.12	0.037	1.36	0.58	0.043	2.29	0.15	0.040	1.445	0.145	0.055	1.86	0.23	0.054	2.275	0.315	0.036
0.44	0.13	0.034	1.36	0.59	0.044	2.29	0.16	0.041	1.445	0.15	0.050	1.86	0.235	0.061	2.275	0.32	0.036
0.44	0.14	0.034	1.36	0.6	0.042	2.29	0.17	0.042	1.445	0.155	0.045	1.86	0.24	0.063	2.275	0.325	0.037
0.44	0.15	0.033	1.36	0.61	0.042	2.29	0.18	0.045	1.445	0.16	0.042	1.86	0.245	0.062	2.275	0.33	0.037
0.44	0.16	0.034	1.36	0.62	0.043	2.29	0.19	0.047	1.445	0.165	0.040	1.86	0.25	0.059	2.275	0.335	0.038
0.44	0.17	0.035	1.36	0.63	0.046	2.29	0.2	0.047	1.445	0.17	0.038	1.86	0.255	0.052	2.275	0.34	0.041
0.44	0.18	0.036	1.36	0.64	0.047	2.29	0.21	0.045	1.445	0.175	0.036	1.86	0.26	0.045	2.275	0.345	0.046
0.44	0.19	0.037	1.36	0.65	0.048	2.29	0.22	0.043	1.445	0.18	0.036	1.86	0.265	0.043	2.275	0.35	0.052
0.44	0.2	0.037	1.36	0.66	0.047	2.29	0.23	0.042	1.445	0.185	0.038	1.86	0.27	0.045	2.275	0.355	0.057
0.44	0.21	0.036	1.36	0.67	0.046	2.29	0.24	0.040	1.445	0.19	0.041	1.86	0.275	0.047	2.275	0.36	0.059
0.44	0.22	0.036	1.36	0.68	0.046	2.29	0.25	0.039	1.445	0.195	0.040	1.86	0.28	0.049	2.275	0.365	0.057

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.44	0.23	0.036	1.36	0.69	0.046	2.29	0.26	0.040	1.445	0.2	0.038	1.86	0.285	0.050	2.275	0.37	0.051
0.44	0.24	0.036	1.36	0.7	0.045	2.29	0.27	0.041	1.445	0.205	0.041	1.86	0.29	0.051	2.275	0.375	0.044
0.44	0.25	0.036	1.36	0.71	0.045	2.29	0.28	0.043	1.445	0.21	0.043	1.86	0.295	0.052	2.275	0.38	0.037
0.44	0.26	0.035	1.36	0.72	0.044	2.29	0.29	0.043	1.445	0.215	0.042	1.86	0.3	0.053	2.275	0.385	0.035
0.44	0.27	0.035	1.36	0.73	0.044	2.29	0.3	0.043	1.445	0.22	0.038	1.86	0.305	0.052	2.275	0.39	0.037
0.44	0.28	0.035	1.36	0.74	0.045	2.29	0.31	0.043	1.445	0.225	0.035	1.86	0.31	0.052	2.275	0.395	0.041
0.44	0.29	0.037	1.36	0.75	0.046	2.29	0.32	0.044	1.445	0.23	0.034	1.86	0.315	0.050	2.275	0.4	0.042
0.44	0.3	0.038	1.36	0.76	0.047	2.29	0.33	0.046	1.445	0.235	0.035	1.86	0.32	0.047	2.275	0.405	0.039
0.44	0.31	0.040	1.36	0.77	0.046	2.29	0.34	0.048	1.445	0.24	0.040	1.86	0.325	0.044	2.275	0.41	0.035
0.44	0.32	0.041	1.36	0.78	0.044	2.29	0.35	0.051	1.445	0.245	0.043	1.86	0.33	0.044	2.275	0.415	0.034
0.44	0.33	0.042	1.36	0.79	0.045	2.29	0.36	0.051	1.445	0.25	0.045	1.86	0.335	0.046	2.275	0.42	0.034
0.44	0.34	0.041	1.36	0.8	0.048	2.29	0.37	0.048	1.445	0.255	0.045	1.86	0.34	0.047	2.275	0.425	0.036
0.44	0.35	0.040	1.36	0.81	0.053	2.29	0.38	0.044	1.445	0.26	0.044	1.86	0.345	0.046	2.275	0.43	0.037
0.44	0.36	0.039	1.36	0.82	0.056	2.29	0.39	0.043	1.445	0.265	0.043	1.86	0.35	0.045	2.275	0.435	0.037
0.44	0.37	0.038	1.36	0.83	0.054	2.29	0.4	0.042	1.445	0.27	0.039	1.86	0.355	0.047	2.275	0.44	0.037
0.44	0.38	0.039	1.36	0.84	0.049	2.29	0.41	0.040	1.445	0.275	0.035	1.86	0.36	0.048	2.275	0.445	0.037
0.44	0.39	0.042	1.36	0.85	0.044	2.29	0.42	0.039	1.445	0.28	0.033	1.86	0.365	0.047	2.275	0.45	0.036
0.44	0.4	0.044	1.36	0.86	0.043	2.29	0.43	0.039	1.445	0.285	0.034	1.86	0.37	0.045	2.275	0.455	0.034
0.44	0.41	0.045	1.36	0.87	0.045	2.29	0.44	0.038	1.445	0.29	0.034	1.86	0.375	0.045	2.275	0.46	0.034
0.44	0.42	0.043	1.36	0.88	0.046	2.29	0.45	0.036	1.445	0.295	0.034	1.86	0.38	0.047	2.275	0.465	0.034
0.44	0.43	0.040	1.36	0.89	0.048	2.29	0.46	0.035	1.445	0.3	0.035	1.86	0.385	0.051	2.275	0.47	0.035
0.44	0.44	0.038	1.37	0.01	0.037	2.29	0.47	0.035	1.445	0.305	0.037	1.86	0.39	0.052	2.275	0.475	0.035
0.44	0.45	0.037	1.37	0.02	0.036	2.29	0.48	0.035	1.445	0.31	0.038	1.86	0.395	0.051	2.275	0.48	0.035
0.44	0.46	0.037	1.37	0.03	0.034	2.29	0.49	0.035	1.445	0.315	0.039	1.86	0.4	0.048	2.275	0.485	0.036
0.44	0.47	0.036	1.37	0.04	0.033	2.29	0.5	0.035	1.445	0.32	0.038	1.86	0.405	0.047	2.275	0.49	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.44	0.48	0.035	1.37	0.05	0.033	2.29	0.51	0.036	1.445	0.325	0.035	1.86	0.41	0.049	2.275	0.495	0.035
0.44	0.49	0.034	1.37	0.06	0.032	2.29	0.52	0.036	1.445	0.33	0.034	1.86	0.415	0.050	2.28	0.005	0.053
0.44	0.5	0.034	1.37	0.07	0.033	2.29	0.53	0.036	1.445	0.335	0.035	1.86	0.42	0.050	2.28	0.01	0.058
0.44	0.51	0.034	1.37	0.08	0.034	2.29	0.54	0.036	1.445	0.34	0.037	1.86	0.425	0.049	2.28	0.015	0.062
0.44	0.52	0.034	1.37	0.09	0.035	2.29	0.55	0.036	1.445	0.345	0.039	1.86	0.43	0.046	2.28	0.02	0.068
0.44	0.53	0.034	1.37	0.1	0.037	2.29	0.56	0.037	1.445	0.35	0.039	1.86	0.435	0.046	2.28	0.025	0.072
0.44	0.54	0.034	1.37	0.11	0.039	2.29	0.57	0.037	1.445	0.355	0.037	1.86	0.44	0.050	2.28	0.03	0.073
0.44	0.55	0.035	1.37	0.12	0.041	2.29	0.58	0.038	1.445	0.36	0.036	1.86	0.445	0.060	2.28	0.035	0.073
0.44	0.56	0.035	1.37	0.13	0.042	2.29	0.59	0.040	1.445	0.365	0.034	1.86	0.45	0.066	2.28	0.04	0.076
0.44	0.57	0.035	1.37	0.14	0.042	2.29	0.6	0.042	1.445	0.37	0.033	1.86	0.455	0.065	2.28	0.045	0.081
0.44	0.58	0.034	1.37	0.15	0.042	2.29	0.61	0.044	1.445	0.375	0.033	1.86	0.46	0.058	2.28	0.05	0.084
0.44	0.59	0.033	1.37	0.16	0.042	2.29	0.62	0.044	1.445	0.38	0.035	1.86	0.465	0.050	2.28	0.055	0.085
0.44	0.6	0.033	1.37	0.17	0.042	2.29	0.63	0.043	1.445	0.385	0.037	1.86	0.47	0.045	2.28	0.06	0.085
0.44	0.61	0.033	1.37	0.18	0.042	2.29	0.64	0.043	1.445	0.39	0.040	1.86	0.475	0.043	2.28	0.065	0.084
0.44	0.62	0.034	1.37	0.19	0.040	2.29	0.65	0.046	1.445	0.395	0.041	1.86	0.48	0.043	2.28	0.07	0.079
0.44	0.63	0.034	1.37	0.2	0.039	2.29	0.66	0.051	1.445	0.4	0.041	1.86	0.485	0.046	2.28	0.075	0.069
0.44	0.64	0.035	1.37	0.21	0.039	2.29	0.67	0.055	1.445	0.405	0.040	1.86	0.49	0.050	2.28	0.08	0.054
0.44	0.65	0.035	1.37	0.22	0.040	2.29	0.68	0.055	1.445	0.41	0.039	1.86	0.495	0.055	2.28	0.085	0.045
0.44	0.66	0.035	1.37	0.23	0.041	2.29	0.69	0.054	1.445	0.415	0.037	1.865	0.005	0.048	2.28	0.09	0.044
0.44	0.67	0.036	1.37	0.24	0.043	2.29	0.7	0.053	1.445	0.42	0.034	1.865	0.01	0.053	2.28	0.095	0.049
0.44	0.68	0.036	1.37	0.25	0.043	2.29	0.71	0.052	1.445	0.425	0.033	1.865	0.015	0.058	2.28	0.1	0.053
0.44	0.69	0.037	1.37	0.26	0.043	2.29	0.72	0.052	1.445	0.43	0.033	1.865	0.02	0.064	2.28	0.105	0.051
0.44	0.7	0.038	1.37	0.27	0.042	2.29	0.73	0.053	1.445	0.435	0.034	1.865	0.025	0.070	2.28	0.11	0.047
0.44	0.71	0.039	1.37	0.28	0.042	2.29	0.74	0.055	1.445	0.44	0.035	1.865	0.03	0.070	2.28	0.115	0.043
0.44	0.72	0.040	1.37	0.29	0.043	2.29	0.75	0.056	1.445	0.445	0.036	1.865	0.035	0.067	2.28	0.12	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.44	0.73	0.039	1.37	0.3	0.044	2.29	0.76	0.055	1.445	0.45	0.035	1.865	0.04	0.062	2.28	0.125	0.039
0.44	0.74	0.038	1.37	0.31	0.044	2.29	0.77	0.055	1.445	0.455	0.033	1.865	0.045	0.057	2.28	0.13	0.040
0.44	0.75	0.037	1.37	0.32	0.044	2.29	0.78	0.052	1.445	0.46	0.031	1.865	0.05	0.056	2.28	0.135	0.040
0.44	0.76	0.035	1.37	0.33	0.044	2.29	0.79	0.049	1.445	0.465	0.030	1.865	0.055	0.058	2.28	0.14	0.039
0.44	0.77	0.034	1.37	0.34	0.043	2.29	0.8	0.046	1.445	0.47	0.030	1.865	0.06	0.059	2.28	0.145	0.037
0.44	0.78	0.034	1.37	0.35	0.042	2.29	0.81	0.046	1.445	0.475	0.031	1.865	0.065	0.060	2.28	0.15	0.037
0.44	0.79	0.033	1.37	0.36	0.042	2.29	0.82	0.046	1.445	0.48	0.032	1.865	0.07	0.063	2.28	0.155	0.037
0.44	0.8	0.034	1.37	0.37	0.042	2.29	0.83	0.045	1.445	0.485	0.034	1.865	0.075	0.068	2.28	0.16	0.036
0.44	0.81	0.034	1.37	0.38	0.043	2.29	0.84	0.044	1.445	0.49	0.036	1.865	0.08	0.073	2.28	0.165	0.034
0.44	0.82	0.035	1.37	0.39	0.043	2.29	0.85	0.046	1.445	0.495	0.039	1.865	0.085	0.077	2.28	0.17	0.032
0.44	0.83	0.035	1.37	0.4	0.044	2.29	0.86	0.050	1.45	0.005	0.040	1.865	0.09	0.079	2.28	0.175	0.032
0.44	0.84	0.035	1.37	0.41	0.045	2.29	0.87	0.054	1.45	0.01	0.040	1.865	0.095	0.078	2.28	0.18	0.033
0.44	0.85	0.035	1.37	0.42	0.044	2.29	0.88	0.055	1.45	0.015	0.038	1.865	0.1	0.076	2.28	0.185	0.037
0.44	0.86	0.035	1.37	0.43	0.042	2.29	0.89	0.055	1.45	0.02	0.038	1.865	0.105	0.071	2.28	0.19	0.045
0.44	0.87	0.036	1.37	0.44	0.041	2.3	0.01	0.072	1.45	0.025	0.039	1.865	0.11	0.067	2.28	0.195	0.050
0.44	0.88	0.037	1.37	0.45	0.039	2.3	0.02	0.077	1.45	0.03	0.040	1.865	0.115	0.065	2.28	0.2	0.050
0.44	0.89	0.039	1.37	0.46	0.037	2.3	0.03	0.078	1.45	0.035	0.041	1.865	0.12	0.067	2.28	0.205	0.047
0.45	0.01	0.063	1.37	0.47	0.036	2.3	0.04	0.075	1.45	0.04	0.041	1.865	0.125	0.069	2.28	0.21	0.045
0.45	0.02	0.060	1.37	0.48	0.036	2.3	0.05	0.071	1.45	0.045	0.040	1.865	0.13	0.068	2.28	0.215	0.043
0.45	0.03	0.056	1.37	0.49	0.036	2.3	0.06	0.068	1.45	0.05	0.039	1.865	0.135	0.067	2.28	0.22	0.043
0.45	0.04	0.053	1.37	0.5	0.037	2.3	0.07	0.065	1.45	0.055	0.037	1.865	0.14	0.066	2.28	0.225	0.044
0.45	0.05	0.050	1.37	0.51	0.039	2.3	0.08	0.060	1.45	0.06	0.036	1.865	0.145	0.065	2.28	0.23	0.044
0.45	0.06	0.049	1.37	0.52	0.040	2.3	0.09	0.055	1.45	0.065	0.036	1.865	0.15	0.064	2.28	0.235	0.042
0.45	0.07	0.049	1.37	0.53	0.041	2.3	0.1	0.051	1.45	0.07	0.038	1.865	0.155	0.064	2.28	0.24	0.040
0.45	0.08	0.050	1.37	0.54	0.042	2.3	0.11	0.048	1.45	0.075	0.040	1.865	0.16	0.063	2.28	0.245	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.45	0.09	0.050	1.37	0.55	0.042	2.3	0.12	0.046	1.45	0.08	0.041	1.865	0.165	0.062	2.28	0.25	0.035
0.45	0.1	0.046	1.37	0.56	0.042	2.3	0.13	0.044	1.45	0.085	0.041	1.865	0.17	0.061	2.28	0.255	0.035
0.45	0.11	0.041	1.37	0.57	0.042	2.3	0.14	0.043	1.45	0.09	0.039	1.865	0.175	0.059	2.28	0.26	0.037
0.45	0.12	0.037	1.37	0.58	0.042	2.3	0.15	0.043	1.45	0.095	0.036	1.865	0.18	0.057	2.28	0.265	0.041
0.45	0.13	0.035	1.37	0.59	0.043	2.3	0.16	0.043	1.45	0.1	0.034	1.865	0.185	0.055	2.28	0.27	0.043
0.45	0.14	0.035	1.37	0.6	0.043	2.3	0.17	0.045	1.45	0.105	0.035	1.865	0.19	0.052	2.28	0.275	0.042
0.45	0.15	0.034	1.37	0.61	0.041	2.3	0.18	0.047	1.45	0.11	0.040	1.865	0.195	0.052	2.28	0.28	0.040
0.45	0.16	0.035	1.37	0.62	0.041	2.3	0.19	0.050	1.45	0.115	0.045	1.865	0.2	0.054	2.28	0.285	0.040
0.45	0.17	0.035	1.37	0.63	0.043	2.3	0.2	0.049	1.45	0.12	0.046	1.865	0.205	0.053	2.28	0.29	0.039
0.45	0.18	0.036	1.37	0.64	0.044	2.3	0.21	0.046	1.45	0.125	0.048	1.865	0.21	0.049	2.28	0.295	0.037
0.45	0.19	0.037	1.37	0.65	0.044	2.3	0.22	0.042	1.45	0.13	0.055	1.865	0.215	0.044	2.28	0.3	0.036
0.45	0.2	0.037	1.37	0.66	0.044	2.3	0.23	0.041	1.45	0.135	0.060	1.865	0.22	0.044	2.28	0.305	0.037
0.45	0.21	0.038	1.37	0.67	0.044	2.3	0.24	0.039	1.45	0.14	0.061	1.865	0.225	0.052	2.28	0.31	0.037
0.45	0.22	0.038	1.37	0.68	0.045	2.3	0.25	0.038	1.45	0.145	0.057	1.865	0.23	0.061	2.28	0.315	0.038
0.45	0.23	0.037	1.37	0.69	0.045	2.3	0.26	0.039	1.45	0.15	0.050	1.865	0.235	0.066	2.28	0.32	0.039
0.45	0.24	0.036	1.37	0.7	0.045	2.3	0.27	0.041	1.45	0.155	0.044	1.865	0.24	0.067	2.28	0.325	0.039
0.45	0.25	0.035	1.37	0.71	0.045	2.3	0.28	0.044	1.45	0.16	0.042	1.865	0.245	0.067	2.28	0.33	0.040
0.45	0.26	0.034	1.37	0.72	0.044	2.3	0.29	0.044	1.45	0.165	0.041	1.865	0.25	0.064	2.28	0.335	0.041
0.45	0.27	0.034	1.37	0.73	0.044	2.3	0.3	0.044	1.45	0.17	0.039	1.865	0.255	0.057	2.28	0.34	0.046
0.45	0.28	0.035	1.37	0.74	0.045	2.3	0.31	0.045	1.45	0.175	0.038	1.865	0.26	0.048	2.28	0.345	0.052
0.45	0.29	0.037	1.37	0.75	0.046	2.3	0.32	0.045	1.45	0.18	0.039	1.865	0.265	0.044	2.28	0.35	0.057
0.45	0.3	0.039	1.37	0.76	0.047	2.3	0.33	0.046	1.45	0.185	0.044	1.865	0.27	0.045	2.28	0.355	0.061
0.45	0.31	0.040	1.37	0.77	0.046	2.3	0.34	0.047	1.45	0.19	0.045	1.865	0.275	0.048	2.28	0.36	0.061
0.45	0.32	0.040	1.37	0.78	0.044	2.3	0.35	0.048	1.45	0.195	0.041	1.865	0.28	0.050	2.28	0.365	0.057
0.45	0.33	0.039	1.37	0.79	0.043	2.3	0.36	0.048	1.45	0.2	0.038	1.865	0.285	0.050	2.28	0.37	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.45	0.34	0.038	1.37	0.8	0.046	2.3	0.37	0.046	1.45	0.205	0.040	1.865	0.29	0.051	2.28	0.375	0.044
0.45	0.35	0.038	1.37	0.81	0.050	2.3	0.38	0.044	1.45	0.21	0.043	1.865	0.295	0.052	2.28	0.38	0.039
0.45	0.36	0.038	1.37	0.82	0.052	2.3	0.39	0.043	1.45	0.215	0.043	1.865	0.3	0.052	2.28	0.385	0.038
0.45	0.37	0.038	1.37	0.83	0.050	2.3	0.4	0.043	1.45	0.22	0.038	1.865	0.305	0.052	2.28	0.39	0.041
0.45	0.38	0.040	1.37	0.84	0.046	2.3	0.41	0.042	1.45	0.225	0.034	1.865	0.31	0.051	2.28	0.395	0.045
0.45	0.39	0.043	1.37	0.85	0.043	2.3	0.42	0.040	1.45	0.23	0.033	1.865	0.315	0.048	2.28	0.4	0.045
0.45	0.4	0.047	1.37	0.86	0.042	2.3	0.43	0.039	1.45	0.235	0.034	1.865	0.32	0.043	2.28	0.405	0.041
0.45	0.41	0.047	1.37	0.87	0.043	2.3	0.44	0.038	1.45	0.24	0.039	1.865	0.325	0.041	2.28	0.41	0.038
0.45	0.42	0.044	1.37	0.88	0.046	2.3	0.45	0.036	1.45	0.245	0.043	1.865	0.33	0.042	2.28	0.415	0.035
0.45	0.43	0.040	1.37	0.89	0.049	2.3	0.46	0.035	1.45	0.25	0.044	1.865	0.335	0.044	2.28	0.42	0.034
0.45	0.44	0.038	1.38	0.01	0.037	2.3	0.47	0.035	1.45	0.255	0.045	1.865	0.34	0.045	2.28	0.425	0.035
0.45	0.45	0.037	1.38	0.02	0.035	2.3	0.48	0.035	1.45	0.26	0.044	1.865	0.345	0.044	2.28	0.43	0.036
0.45	0.46	0.037	1.38	0.03	0.034	2.3	0.49	0.035	1.45	0.265	0.043	1.865	0.35	0.043	2.28	0.435	0.037
0.45	0.47	0.036	1.38	0.04	0.033	2.3	0.5	0.036	1.45	0.27	0.039	1.865	0.355	0.044	2.28	0.44	0.037
0.45	0.48	0.035	1.38	0.05	0.032	2.3	0.51	0.037	1.45	0.275	0.035	1.865	0.36	0.044	2.28	0.445	0.037
0.45	0.49	0.035	1.38	0.06	0.032	2.3	0.52	0.038	1.45	0.28	0.033	1.865	0.365	0.041	2.28	0.45	0.036
0.45	0.5	0.034	1.38	0.07	0.032	2.3	0.53	0.039	1.45	0.285	0.034	1.865	0.37	0.040	2.28	0.455	0.034
0.45	0.51	0.034	1.38	0.08	0.033	2.3	0.54	0.038	1.45	0.29	0.034	1.865	0.375	0.042	2.28	0.46	0.033
0.45	0.52	0.034	1.38	0.09	0.034	2.3	0.55	0.037	1.45	0.295	0.035	1.865	0.38	0.044	2.28	0.465	0.033
0.45	0.53	0.035	1.38	0.1	0.036	2.3	0.56	0.038	1.45	0.3	0.036	1.865	0.385	0.047	2.28	0.47	0.034
0.45	0.54	0.036	1.38	0.11	0.037	2.3	0.57	0.038	1.45	0.305	0.038	1.865	0.39	0.049	2.28	0.475	0.034
0.45	0.55	0.036	1.38	0.12	0.038	2.3	0.58	0.038	1.45	0.31	0.040	1.865	0.395	0.048	2.28	0.48	0.034
0.45	0.56	0.036	1.38	0.13	0.040	2.3	0.59	0.039	1.45	0.315	0.040	1.865	0.4	0.048	2.28	0.485	0.035
0.45	0.57	0.036	1.38	0.14	0.040	2.3	0.6	0.041	1.45	0.32	0.040	1.865	0.405	0.050	2.28	0.49	0.035
0.45	0.58	0.035	1.38	0.15	0.041	2.3	0.61	0.044	1.45	0.325	0.038	1.865	0.41	0.053	2.28	0.495	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.45	0.59	0.034	1.38	0.16	0.041	2.3	0.62	0.044	1.45	0.33	0.036	1.865	0.415	0.055	2.285	0.005	0.052
0.45	0.6	0.033	1.38	0.17	0.042	2.3	0.63	0.043	1.45	0.335	0.035	1.865	0.42	0.055	2.285	0.01	0.057
0.45	0.61	0.033	1.38	0.18	0.042	2.3	0.64	0.043	1.45	0.34	0.037	1.865	0.425	0.053	2.285	0.015	0.063
0.45	0.62	0.033	1.38	0.19	0.040	2.3	0.65	0.045	1.45	0.345	0.039	1.865	0.43	0.051	2.285	0.02	0.069
0.45	0.63	0.034	1.38	0.2	0.039	2.3	0.66	0.049	1.45	0.35	0.040	1.865	0.435	0.049	2.285	0.025	0.073
0.45	0.64	0.035	1.38	0.21	0.038	2.3	0.67	0.051	1.45	0.355	0.039	1.865	0.44	0.052	2.285	0.03	0.074
0.45	0.65	0.035	1.38	0.22	0.039	2.3	0.68	0.051	1.45	0.36	0.038	1.865	0.445	0.061	2.285	0.035	0.075
0.45	0.66	0.036	1.38	0.23	0.041	2.3	0.69	0.050	1.45	0.365	0.036	1.865	0.45	0.069	2.285	0.04	0.076
0.45	0.67	0.036	1.38	0.24	0.042	2.3	0.7	0.050	1.45	0.37	0.034	1.865	0.455	0.069	2.285	0.045	0.080
0.45	0.68	0.036	1.38	0.25	0.042	2.3	0.71	0.050	1.45	0.375	0.034	1.865	0.46	0.063	2.285	0.05	0.084
0.45	0.69	0.036	1.38	0.26	0.042	2.3	0.72	0.052	1.45	0.38	0.034	1.865	0.465	0.054	2.285	0.055	0.086
0.45	0.7	0.036	1.38	0.27	0.041	2.3	0.73	0.052	1.45	0.385	0.034	1.865	0.47	0.050	2.285	0.06	0.086
0.45	0.71	0.037	1.38	0.28	0.040	2.3	0.74	0.052	1.45	0.39	0.036	1.865	0.475	0.049	2.285	0.065	0.084
0.45	0.72	0.038	1.38	0.29	0.040	2.3	0.75	0.052	1.45	0.395	0.039	1.865	0.48	0.048	2.285	0.07	0.079
0.45	0.73	0.039	1.38	0.3	0.041	2.3	0.76	0.052	1.45	0.4	0.039	1.865	0.485	0.048	2.285	0.075	0.068
0.45	0.74	0.038	1.38	0.31	0.043	2.3	0.77	0.051	1.45	0.405	0.038	1.865	0.49	0.050	2.285	0.08	0.054
0.45	0.75	0.037	1.38	0.32	0.044	2.3	0.78	0.049	1.45	0.41	0.037	1.865	0.495	0.053	2.285	0.085	0.045
0.45	0.76	0.035	1.38	0.33	0.044	2.3	0.79	0.046	1.45	0.415	0.035	1.87	0.005	0.042	2.285	0.09	0.046
0.45	0.77	0.034	1.38	0.34	0.044	2.3	0.8	0.044	1.45	0.42	0.034	1.87	0.01	0.047	2.285	0.095	0.054
0.45	0.78	0.033	1.38	0.35	0.043	2.3	0.81	0.046	1.45	0.425	0.034	1.87	0.015	0.055	2.285	0.1	0.060
0.45	0.79	0.033	1.38	0.36	0.043	2.3	0.82	0.048	1.45	0.43	0.033	1.87	0.02	0.065	2.285	0.105	0.056
0.45	0.8	0.033	1.38	0.37	0.042	2.3	0.83	0.049	1.45	0.435	0.033	1.87	0.025	0.073	2.285	0.11	0.049
0.45	0.81	0.033	1.38	0.38	0.041	2.3	0.84	0.048	1.45	0.44	0.033	1.87	0.03	0.073	2.285	0.115	0.044
0.45	0.82	0.034	1.38	0.39	0.042	2.3	0.85	0.048	1.45	0.445	0.034	1.87	0.035	0.068	2.285	0.12	0.041
0.45	0.83	0.034	1.38	0.4	0.043	2.3	0.86	0.049	1.45	0.45	0.033	1.87	0.04	0.064	2.285	0.125	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.45	0.84	0.034	1.38	0.41	0.045	2.3	0.87	0.049	1.45	0.455	0.031	1.87	0.045	0.064	2.285	0.13	0.042
0.45	0.85	0.034	1.38	0.42	0.044	2.3	0.88	0.049	1.45	0.46	0.030	1.87	0.05	0.065	2.285	0.135	0.043
0.45	0.86	0.035	1.38	0.43	0.042	2.3	0.89	0.049	1.45	0.465	0.030	1.87	0.055	0.066	2.285	0.14	0.041
0.45	0.87	0.035	1.38	0.44	0.040	2.31	0.01	0.079	1.45	0.47	0.030	1.87	0.06	0.066	2.285	0.145	0.039
0.45	0.88	0.036	1.38	0.45	0.038	2.31	0.02	0.084	1.45	0.475	0.031	1.87	0.065	0.065	2.285	0.15	0.040
0.45	0.89	0.038	1.38	0.46	0.037	2.31	0.03	0.083	1.45	0.48	0.032	1.87	0.07	0.067	2.285	0.155	0.040
0.46	0.01	0.060	1.38	0.47	0.035	2.31	0.04	0.076	1.45	0.485	0.034	1.87	0.075	0.071	2.285	0.16	0.037
0.46	0.02	0.057	1.38	0.48	0.035	2.31	0.05	0.068	1.45	0.49	0.037	1.87	0.08	0.076	2.285	0.165	0.033
0.46	0.03	0.055	1.38	0.49	0.035	2.31	0.06	0.063	1.45	0.495	0.039	1.87	0.085	0.079	2.285	0.17	0.031
0.46	0.04	0.053	1.38	0.5	0.036	2.31	0.07	0.061	1.455	0.005	0.042	1.87	0.09	0.079	2.285	0.175	0.031
0.46	0.05	0.051	1.38	0.51	0.037	2.31	0.08	0.058	1.455	0.01	0.041	1.87	0.095	0.078	2.285	0.18	0.034
0.46	0.06	0.049	1.38	0.52	0.038	2.31	0.09	0.055	1.455	0.015	0.040	1.87	0.1	0.075	2.285	0.185	0.041
0.46	0.07	0.047	1.38	0.53	0.040	2.31	0.1	0.053	1.455	0.02	0.040	1.87	0.105	0.071	2.285	0.19	0.049
0.46	0.08	0.047	1.38	0.54	0.041	2.31	0.11	0.052	1.455	0.025	0.040	1.87	0.11	0.068	2.285	0.195	0.053
0.46	0.09	0.047	1.38	0.55	0.041	2.31	0.12	0.051	1.455	0.03	0.040	1.87	0.115	0.067	2.285	0.2	0.052
0.46	0.1	0.044	1.38	0.56	0.041	2.31	0.13	0.049	1.455	0.035	0.040	1.87	0.12	0.069	2.285	0.205	0.048
0.46	0.11	0.041	1.38	0.57	0.042	2.31	0.14	0.047	1.455	0.04	0.040	1.87	0.125	0.069	2.285	0.21	0.045
0.46	0.12	0.039	1.38	0.58	0.043	2.31	0.15	0.047	1.455	0.045	0.040	1.87	0.13	0.069	2.285	0.215	0.043
0.46	0.13	0.038	1.38	0.59	0.044	2.31	0.16	0.047	1.455	0.05	0.039	1.87	0.135	0.066	2.285	0.22	0.043
0.46	0.14	0.037	1.38	0.6	0.044	2.31	0.17	0.049	1.455	0.055	0.037	1.87	0.14	0.065	2.285	0.225	0.045
0.46	0.15	0.037	1.38	0.61	0.042	2.31	0.18	0.052	1.455	0.06	0.035	1.87	0.145	0.064	2.285	0.23	0.045
0.46	0.16	0.037	1.38	0.62	0.040	2.31	0.19	0.053	1.455	0.065	0.035	1.87	0.15	0.061	2.285	0.235	0.043
0.46	0.17	0.036	1.38	0.63	0.040	2.31	0.2	0.052	1.455	0.07	0.037	1.87	0.155	0.059	2.285	0.24	0.041
0.46	0.18	0.036	1.38	0.64	0.041	2.31	0.21	0.047	1.455	0.075	0.041	1.87	0.16	0.057	2.285	0.245	0.038
0.46	0.19	0.036	1.38	0.65	0.041	2.31	0.22	0.043	1.455	0.08	0.043	1.87	0.165	0.057	2.285	0.25	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.46	0.2	0.037	1.38	0.66	0.042	2.31	0.23	0.042	1.455	0.085	0.042	1.87	0.17	0.056	2.285	0.255	0.033
0.46	0.21	0.039	1.38	0.67	0.043	2.31	0.24	0.040	1.455	0.09	0.039	1.87	0.175	0.053	2.285	0.26	0.035
0.46	0.22	0.040	1.38	0.68	0.043	2.31	0.25	0.039	1.455	0.095	0.036	1.87	0.18	0.049	2.285	0.265	0.038
0.46	0.23	0.039	1.38	0.69	0.044	2.31	0.26	0.039	1.455	0.1	0.034	1.87	0.185	0.051	2.285	0.27	0.039
0.46	0.24	0.037	1.38	0.7	0.043	2.31	0.27	0.042	1.455	0.105	0.037	1.87	0.19	0.057	2.285	0.275	0.039
0.46	0.25	0.035	1.38	0.71	0.044	2.31	0.28	0.044	1.455	0.11	0.042	1.87	0.195	0.063	2.285	0.28	0.040
0.46	0.26	0.034	1.38	0.72	0.044	2.31	0.29	0.045	1.455	0.115	0.047	1.87	0.2	0.065	2.285	0.285	0.042
0.46	0.27	0.034	1.38	0.73	0.044	2.31	0.3	0.045	1.455	0.12	0.047	1.87	0.205	0.062	2.285	0.29	0.042
0.46	0.28	0.035	1.38	0.74	0.044	2.31	0.31	0.046	1.455	0.125	0.050	1.87	0.21	0.055	2.285	0.295	0.039
0.46	0.29	0.037	1.38	0.75	0.044	2.31	0.32	0.046	1.455	0.13	0.057	1.87	0.215	0.048	2.285	0.3	0.038
0.46	0.3	0.038	1.38	0.76	0.045	2.31	0.33	0.045	1.455	0.135	0.062	1.87	0.22	0.048	2.285	0.305	0.038
0.46	0.31	0.039	1.38	0.77	0.044	2.31	0.34	0.044	1.455	0.14	0.061	1.87	0.225	0.056	2.285	0.31	0.040
0.46	0.32	0.038	1.38	0.78	0.043	2.31	0.35	0.044	1.455	0.145	0.055	1.87	0.23	0.064	2.285	0.315	0.041
0.46	0.33	0.037	1.38	0.79	0.043	2.31	0.36	0.044	1.455	0.15	0.046	1.87	0.235	0.069	2.285	0.32	0.041
0.46	0.34	0.036	1.38	0.8	0.044	2.31	0.37	0.043	1.455	0.155	0.042	1.87	0.24	0.070	2.285	0.325	0.042
0.46	0.35	0.036	1.38	0.81	0.046	2.31	0.38	0.043	1.455	0.16	0.041	1.87	0.245	0.070	2.285	0.33	0.042
0.46	0.36	0.036	1.38	0.82	0.047	2.31	0.39	0.043	1.455	0.165	0.040	1.87	0.25	0.068	2.285	0.335	0.044
0.46	0.37	0.037	1.38	0.83	0.046	2.31	0.4	0.043	1.455	0.17	0.039	1.87	0.255	0.063	2.285	0.34	0.049
0.46	0.38	0.039	1.38	0.84	0.044	2.31	0.41	0.042	1.455	0.175	0.039	1.87	0.26	0.053	2.285	0.345	0.056
0.46	0.39	0.043	1.38	0.85	0.042	2.31	0.42	0.041	1.455	0.18	0.045	1.87	0.265	0.045	2.285	0.35	0.060
0.46	0.4	0.045	1.38	0.86	0.042	2.31	0.43	0.039	1.455	0.185	0.049	1.87	0.27	0.045	2.285	0.355	0.061
0.46	0.41	0.045	1.38	0.87	0.043	2.31	0.44	0.038	1.455	0.19	0.047	1.87	0.275	0.050	2.285	0.36	0.060
0.46	0.42	0.042	1.38	0.88	0.046	2.31	0.45	0.036	1.455	0.195	0.041	1.87	0.28	0.053	2.285	0.365	0.056
0.46	0.43	0.039	1.38	0.89	0.049	2.31	0.46	0.035	1.455	0.2	0.036	1.87	0.285	0.051	2.285	0.37	0.049
0.46	0.44	0.037	1.39	0.01	0.036	2.31	0.47	0.035	1.455	0.205	0.038	1.87	0.29	0.050	2.285	0.375	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.46	0.45	0.036	1.39	0.02	0.035	2.31	0.48	0.035	1.455	0.21	0.042	1.87	0.295	0.051	2.285	0.38	0.039
0.46	0.46	0.036	1.39	0.03	0.034	2.31	0.49	0.036	1.455	0.215	0.042	1.87	0.3	0.051	2.285	0.385	0.039
0.46	0.47	0.036	1.39	0.04	0.033	2.31	0.5	0.037	1.455	0.22	0.037	1.87	0.305	0.050	2.285	0.39	0.042
0.46	0.48	0.036	1.39	0.05	0.032	2.31	0.51	0.039	1.455	0.225	0.034	1.87	0.31	0.048	2.285	0.395	0.046
0.46	0.49	0.035	1.39	0.06	0.032	2.31	0.52	0.041	1.455	0.23	0.033	1.87	0.315	0.047	2.285	0.4	0.045
0.46	0.5	0.035	1.39	0.07	0.032	2.31	0.53	0.042	1.455	0.235	0.034	1.87	0.32	0.043	2.285	0.405	0.043
0.46	0.51	0.035	1.39	0.08	0.033	2.31	0.54	0.041	1.455	0.24	0.037	1.87	0.325	0.041	2.285	0.41	0.040
0.46	0.52	0.035	1.39	0.09	0.033	2.31	0.55	0.039	1.455	0.245	0.041	1.87	0.33	0.043	2.285	0.415	0.037
0.46	0.53	0.035	1.39	0.1	0.034	2.31	0.56	0.039	1.455	0.25	0.043	1.87	0.335	0.046	2.285	0.42	0.035
0.46	0.54	0.036	1.39	0.11	0.036	2.31	0.57	0.039	1.455	0.255	0.043	1.87	0.34	0.047	2.285	0.425	0.035
0.46	0.55	0.038	1.39	0.12	0.037	2.31	0.58	0.039	1.455	0.26	0.043	1.87	0.345	0.046	2.285	0.43	0.036
0.46	0.56	0.038	1.39	0.13	0.038	2.31	0.59	0.040	1.455	0.265	0.041	1.87	0.35	0.044	2.285	0.435	0.037
0.46	0.57	0.037	1.39	0.14	0.039	2.31	0.6	0.043	1.455	0.27	0.037	1.87	0.355	0.042	2.285	0.44	0.038
0.46	0.58	0.035	1.39	0.15	0.040	2.31	0.61	0.046	1.455	0.275	0.034	1.87	0.36	0.039	2.285	0.445	0.037
0.46	0.59	0.034	1.39	0.16	0.040	2.31	0.62	0.046	1.455	0.28	0.034	1.87	0.365	0.037	2.285	0.45	0.036
0.46	0.6	0.033	1.39	0.17	0.042	2.31	0.63	0.045	1.455	0.285	0.034	1.87	0.37	0.038	2.285	0.455	0.034
0.46	0.61	0.033	1.39	0.18	0.042	2.31	0.64	0.044	1.455	0.29	0.035	1.87	0.375	0.041	2.285	0.46	0.033
0.46	0.62	0.033	1.39	0.19	0.041	2.31	0.65	0.047	1.455	0.295	0.036	1.87	0.38	0.044	2.285	0.465	0.033
0.46	0.63	0.034	1.39	0.2	0.040	2.31	0.66	0.051	1.455	0.3	0.038	1.87	0.385	0.046	2.285	0.47	0.034
0.46	0.64	0.035	1.39	0.21	0.039	2.31	0.67	0.052	1.455	0.305	0.040	1.87	0.39	0.046	2.285	0.475	0.035
0.46	0.65	0.036	1.39	0.22	0.039	2.31	0.68	0.050	1.455	0.31	0.041	1.87	0.395	0.046	2.285	0.48	0.035
0.46	0.66	0.037	1.39	0.23	0.039	2.31	0.69	0.048	1.455	0.315	0.041	1.87	0.4	0.050	2.285	0.485	0.034
0.46	0.67	0.037	1.39	0.24	0.040	2.31	0.7	0.048	1.455	0.32	0.041	1.87	0.405	0.054	2.285	0.49	0.033
0.46	0.68	0.036	1.39	0.25	0.040	2.31	0.71	0.050	1.455	0.325	0.040	1.87	0.41	0.057	2.285	0.495	0.032
0.46	0.69	0.036	1.39	0.26	0.039	2.31	0.72	0.052	1.455	0.33	0.037	1.87	0.415	0.058	2.29	0.005	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.46	0.7	0.035	1.39	0.27	0.039	2.31	0.73	0.053	1.455	0.335	0.035	1.87	0.42	0.058	2.29	0.01	0.057
0.46	0.71	0.036	1.39	0.28	0.038	2.31	0.74	0.052	1.455	0.34	0.035	1.87	0.425	0.056	2.29	0.015	0.064
0.46	0.72	0.037	1.39	0.29	0.038	2.31	0.75	0.051	1.455	0.345	0.038	1.87	0.43	0.054	2.29	0.02	0.070
0.46	0.73	0.037	1.39	0.3	0.039	2.31	0.76	0.050	1.455	0.35	0.039	1.87	0.435	0.052	2.29	0.025	0.073
0.46	0.74	0.037	1.39	0.31	0.041	2.31	0.77	0.050	1.455	0.355	0.039	1.87	0.44	0.052	2.29	0.03	0.073
0.46	0.75	0.036	1.39	0.32	0.043	2.31	0.78	0.047	1.455	0.36	0.038	1.87	0.445	0.059	2.29	0.035	0.073
0.46	0.76	0.035	1.39	0.33	0.043	2.31	0.79	0.045	1.455	0.365	0.036	1.87	0.45	0.069	2.29	0.04	0.073
0.46	0.77	0.034	1.39	0.34	0.043	2.31	0.8	0.044	1.455	0.37	0.034	1.87	0.455	0.072	2.29	0.045	0.075
0.46	0.78	0.033	1.39	0.35	0.043	2.31	0.81	0.046	1.455	0.375	0.034	1.87	0.46	0.066	2.29	0.05	0.078
0.46	0.79	0.032	1.39	0.36	0.043	2.31	0.82	0.049	1.455	0.38	0.034	1.87	0.465	0.058	2.29	0.055	0.082
0.46	0.8	0.033	1.39	0.37	0.041	2.31	0.83	0.052	1.455	0.385	0.033	1.87	0.47	0.054	2.29	0.06	0.083
0.46	0.81	0.033	1.39	0.38	0.040	2.31	0.84	0.052	1.455	0.39	0.034	1.87	0.475	0.054	2.29	0.065	0.081
0.46	0.82	0.033	1.39	0.39	0.041	2.31	0.85	0.049	1.455	0.395	0.035	1.87	0.48	0.052	2.29	0.07	0.075
0.46	0.83	0.034	1.39	0.4	0.043	2.31	0.86	0.047	1.455	0.4	0.036	1.87	0.485	0.050	2.29	0.075	0.065
0.46	0.84	0.034	1.39	0.41	0.044	2.31	0.87	0.046	1.455	0.405	0.036	1.87	0.49	0.049	2.29	0.08	0.055
0.46	0.85	0.034	1.39	0.42	0.043	2.31	0.88	0.046	1.455	0.41	0.034	1.87	0.495	0.051	2.29	0.085	0.048
0.46	0.86	0.034	1.39	0.43	0.041	2.31	0.89	0.046	1.455	0.415	0.034	1.875	0.005	0.038	2.29	0.09	0.048
0.46	0.87	0.034	1.39	0.44	0.039	2.32	0.01	0.084	1.455	0.42	0.035	1.875	0.01	0.044	2.29	0.095	0.056
0.46	0.88	0.035	1.39	0.45	0.037	2.32	0.02	0.089	1.455	0.425	0.036	1.875	0.015	0.051	2.29	0.1	0.062
0.46	0.89	0.037	1.39	0.46	0.035	2.32	0.03	0.087	1.455	0.43	0.036	1.875	0.02	0.062	2.29	0.105	0.059
0.47	0.01	0.054	1.39	0.47	0.035	2.32	0.04	0.078	1.455	0.435	0.036	1.875	0.025	0.071	2.29	0.11	0.049
0.47	0.02	0.052	1.39	0.48	0.035	2.32	0.05	0.068	1.455	0.44	0.035	1.875	0.03	0.072	2.29	0.115	0.043
0.47	0.03	0.052	1.39	0.49	0.035	2.32	0.06	0.061	1.455	0.445	0.034	1.875	0.035	0.068	2.29	0.12	0.041
0.47	0.04	0.051	1.39	0.5	0.036	2.32	0.07	0.058	1.455	0.45	0.033	1.875	0.04	0.067	2.29	0.125	0.042
0.47	0.05	0.049	1.39	0.51	0.036	2.32	0.08	0.056	1.455	0.455	0.031	1.875	0.045	0.070	2.29	0.13	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.47	0.06	0.047	1.39	0.52	0.037	2.32	0.09	0.055	1.455	0.46	0.030	1.875	0.05	0.072	2.29	0.135	0.045
0.47	0.07	0.045	1.39	0.53	0.038	2.32	0.1	0.056	1.455	0.465	0.030	1.875	0.055	0.072	2.29	0.14	0.043
0.47	0.08	0.044	1.39	0.54	0.039	2.32	0.11	0.057	1.455	0.47	0.030	1.875	0.06	0.071	2.29	0.145	0.042
0.47	0.09	0.044	1.39	0.55	0.040	2.32	0.12	0.057	1.455	0.475	0.031	1.875	0.065	0.069	2.29	0.15	0.042
0.47	0.1	0.043	1.39	0.56	0.040	2.32	0.13	0.055	1.455	0.48	0.032	1.875	0.07	0.069	2.29	0.155	0.043
0.47	0.11	0.041	1.39	0.57	0.042	2.32	0.14	0.052	1.455	0.485	0.035	1.875	0.075	0.072	2.29	0.16	0.040
0.47	0.12	0.040	1.39	0.58	0.044	2.32	0.15	0.051	1.455	0.49	0.037	1.875	0.08	0.076	2.29	0.165	0.034
0.47	0.13	0.041	1.39	0.59	0.044	2.32	0.16	0.051	1.455	0.495	0.038	1.875	0.085	0.078	2.29	0.17	0.032
0.47	0.14	0.042	1.39	0.6	0.044	2.32	0.17	0.054	1.46	0.005	0.042	1.875	0.09	0.079	2.29	0.175	0.033
0.47	0.15	0.041	1.39	0.61	0.041	2.32	0.18	0.056	1.46	0.01	0.042	1.875	0.095	0.077	2.29	0.18	0.037
0.47	0.16	0.040	1.39	0.62	0.039	2.32	0.19	0.056	1.46	0.015	0.042	1.875	0.1	0.074	2.29	0.185	0.044
0.47	0.17	0.038	1.39	0.63	0.039	2.32	0.2	0.054	1.46	0.02	0.040	1.875	0.105	0.070	2.29	0.19	0.052
0.47	0.18	0.036	1.39	0.64	0.039	2.32	0.21	0.050	1.46	0.025	0.040	1.875	0.11	0.068	2.29	0.195	0.054
0.47	0.19	0.036	1.39	0.65	0.040	2.32	0.22	0.046	1.46	0.03	0.039	1.875	0.115	0.069	2.29	0.2	0.052
0.47	0.2	0.037	1.39	0.66	0.041	2.32	0.23	0.044	1.46	0.035	0.040	1.875	0.12	0.071	2.29	0.205	0.049
0.47	0.21	0.039	1.39	0.67	0.042	2.32	0.24	0.042	1.46	0.04	0.040	1.875	0.125	0.072	2.29	0.21	0.045
0.47	0.22	0.040	1.39	0.68	0.042	2.32	0.25	0.040	1.46	0.045	0.039	1.875	0.13	0.071	2.29	0.215	0.042
0.47	0.23	0.039	1.39	0.69	0.042	2.32	0.26	0.039	1.46	0.05	0.038	1.875	0.135	0.068	2.29	0.22	0.041
0.47	0.24	0.037	1.39	0.7	0.041	2.32	0.27	0.041	1.46	0.055	0.037	1.875	0.14	0.065	2.29	0.225	0.043
0.47	0.25	0.034	1.39	0.71	0.042	2.32	0.28	0.045	1.46	0.06	0.036	1.875	0.145	0.063	2.29	0.23	0.045
0.47	0.26	0.033	1.39	0.72	0.043	2.32	0.29	0.046	1.46	0.065	0.037	1.875	0.15	0.060	2.29	0.235	0.044
0.47	0.27	0.033	1.39	0.73	0.044	2.32	0.3	0.045	1.46	0.07	0.038	1.875	0.155	0.055	2.29	0.24	0.042
0.47	0.28	0.034	1.39	0.74	0.043	2.32	0.31	0.045	1.46	0.075	0.042	1.875	0.16	0.053	2.29	0.245	0.039
0.47	0.29	0.035	1.39	0.75	0.042	2.32	0.32	0.044	1.46	0.08	0.045	1.875	0.165	0.054	2.29	0.25	0.036
0.47	0.3	0.036	1.39	0.76	0.042	2.32	0.33	0.043	1.46	0.085	0.044	1.875	0.17	0.056	2.29	0.255	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.47	0.31	0.037	1.39	0.77	0.042	2.32	0.34	0.042	1.46	0.09	0.041	1.875	0.175	0.054	2.29	0.26	0.034
0.47	0.32	0.037	1.39	0.78	0.042	2.32	0.35	0.043	1.46	0.095	0.037	1.875	0.18	0.048	2.29	0.265	0.036
0.47	0.33	0.036	1.39	0.79	0.043	2.32	0.36	0.043	1.46	0.1	0.035	1.875	0.185	0.050	2.29	0.27	0.038
0.47	0.34	0.035	1.39	0.8	0.044	2.32	0.37	0.042	1.46	0.105	0.037	1.875	0.19	0.061	2.29	0.275	0.040
0.47	0.35	0.035	1.39	0.81	0.044	2.32	0.38	0.042	1.46	0.11	0.043	1.875	0.195	0.070	2.29	0.28	0.043
0.47	0.36	0.035	1.39	0.82	0.044	2.32	0.39	0.042	1.46	0.115	0.046	1.875	0.2	0.073	2.29	0.285	0.045
0.47	0.37	0.036	1.39	0.83	0.043	2.32	0.4	0.042	1.46	0.12	0.046	1.875	0.205	0.069	2.29	0.29	0.045
0.47	0.38	0.038	1.39	0.84	0.042	2.32	0.41	0.041	1.46	0.125	0.047	1.875	0.21	0.062	2.29	0.295	0.041
0.47	0.39	0.040	1.39	0.85	0.042	2.32	0.42	0.040	1.46	0.13	0.052	1.875	0.215	0.054	2.29	0.3	0.040
0.47	0.4	0.041	1.39	0.86	0.042	2.32	0.43	0.039	1.46	0.135	0.057	1.875	0.22	0.052	2.29	0.305	0.041
0.47	0.41	0.040	1.39	0.87	0.043	2.32	0.44	0.037	1.46	0.14	0.056	1.875	0.225	0.058	2.29	0.31	0.042
0.47	0.42	0.039	1.39	0.88	0.047	2.32	0.45	0.036	1.46	0.145	0.051	1.875	0.23	0.065	2.29	0.315	0.043
0.47	0.43	0.037	1.39	0.89	0.051	2.32	0.46	0.035	1.46	0.15	0.046	1.875	0.235	0.069	2.29	0.32	0.044
0.47	0.44	0.036	1.4	0.01	0.036	2.32	0.47	0.035	1.46	0.155	0.042	1.875	0.24	0.071	2.29	0.325	0.045
0.47	0.45	0.035	1.4	0.02	0.035	2.32	0.48	0.035	1.46	0.16	0.040	1.875	0.245	0.071	2.29	0.33	0.045
0.47	0.46	0.035	1.4	0.03	0.034	2.32	0.49	0.036	1.46	0.165	0.040	1.875	0.25	0.070	2.29	0.335	0.046
0.47	0.47	0.036	1.4	0.04	0.033	2.32	0.5	0.038	1.46	0.17	0.039	1.875	0.255	0.066	2.29	0.34	0.050
0.47	0.48	0.036	1.4	0.05	0.033	2.32	0.51	0.041	1.46	0.175	0.041	1.875	0.26	0.056	2.29	0.345	0.056
0.47	0.49	0.036	1.4	0.06	0.033	2.32	0.52	0.044	1.46	0.18	0.047	1.875	0.265	0.046	2.29	0.35	0.059
0.47	0.5	0.036	1.4	0.07	0.033	2.32	0.53	0.046	1.46	0.185	0.051	1.875	0.27	0.044	2.29	0.355	0.060
0.47	0.51	0.035	1.4	0.08	0.033	2.32	0.54	0.045	1.46	0.19	0.047	1.875	0.275	0.050	2.29	0.36	0.058
0.47	0.52	0.035	1.4	0.09	0.033	2.32	0.55	0.042	1.46	0.195	0.040	1.875	0.28	0.053	2.29	0.365	0.054
0.47	0.53	0.036	1.4	0.1	0.034	2.32	0.56	0.040	1.46	0.2	0.035	1.875	0.285	0.052	2.29	0.37	0.048
0.47	0.54	0.037	1.4	0.11	0.035	2.32	0.57	0.041	1.46	0.205	0.035	1.875	0.29	0.049	2.29	0.375	0.042
0.47	0.55	0.038	1.4	0.12	0.036	2.32	0.58	0.042	1.46	0.21	0.038	1.875	0.295	0.049	2.29	0.38	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.47	0.56	0.039	1.4	0.13	0.038	2.32	0.59	0.043	1.46	0.215	0.039	1.875	0.3	0.049	2.29	0.385	0.040
0.47	0.57	0.038	1.4	0.14	0.039	2.32	0.6	0.046	1.46	0.22	0.036	1.875	0.305	0.048	2.29	0.39	0.043
0.47	0.58	0.036	1.4	0.15	0.039	2.32	0.61	0.048	1.46	0.225	0.035	1.875	0.31	0.048	2.29	0.395	0.045
0.47	0.59	0.035	1.4	0.16	0.040	2.32	0.62	0.047	1.46	0.23	0.035	1.875	0.315	0.048	2.29	0.4	0.045
0.47	0.6	0.034	1.4	0.17	0.041	2.32	0.63	0.047	1.46	0.235	0.036	1.875	0.32	0.044	2.29	0.405	0.043
0.47	0.61	0.033	1.4	0.18	0.043	2.32	0.64	0.048	1.46	0.24	0.037	1.875	0.325	0.042	2.29	0.41	0.042
0.47	0.62	0.034	1.4	0.19	0.042	2.32	0.65	0.052	1.46	0.245	0.038	1.875	0.33	0.045	2.29	0.415	0.039
0.47	0.63	0.035	1.4	0.2	0.042	2.32	0.66	0.057	1.46	0.25	0.040	1.875	0.335	0.048	2.29	0.42	0.036
0.47	0.64	0.036	1.4	0.21	0.041	2.32	0.67	0.058	1.46	0.255	0.040	1.875	0.34	0.051	2.29	0.425	0.036
0.47	0.65	0.037	1.4	0.22	0.039	2.32	0.68	0.054	1.46	0.26	0.040	1.875	0.345	0.050	2.29	0.43	0.038
0.47	0.66	0.037	1.4	0.23	0.038	2.32	0.69	0.051	1.46	0.265	0.038	1.875	0.35	0.047	2.29	0.435	0.039
0.47	0.67	0.037	1.4	0.24	0.037	2.32	0.7	0.049	1.46	0.27	0.036	1.875	0.355	0.042	2.29	0.44	0.039
0.47	0.68	0.036	1.4	0.25	0.037	2.32	0.71	0.050	1.46	0.275	0.034	1.875	0.36	0.038	2.29	0.445	0.038
0.47	0.69	0.035	1.4	0.26	0.037	2.32	0.72	0.052	1.46	0.28	0.034	1.875	0.365	0.036	2.29	0.45	0.036
0.47	0.7	0.035	1.4	0.27	0.038	2.32	0.73	0.053	1.46	0.285	0.034	1.875	0.37	0.038	2.29	0.455	0.034
0.47	0.71	0.035	1.4	0.28	0.038	2.32	0.74	0.052	1.46	0.29	0.036	1.875	0.375	0.042	2.29	0.46	0.033
0.47	0.72	0.035	1.4	0.29	0.038	2.32	0.75	0.051	1.46	0.295	0.038	1.875	0.38	0.046	2.29	0.465	0.033
0.47	0.73	0.036	1.4	0.3	0.039	2.32	0.76	0.050	1.46	0.3	0.040	1.875	0.385	0.047	2.29	0.47	0.034
0.47	0.74	0.036	1.4	0.31	0.040	2.32	0.77	0.050	1.46	0.305	0.041	1.875	0.39	0.046	2.29	0.475	0.035
0.47	0.75	0.036	1.4	0.32	0.041	2.32	0.78	0.048	1.46	0.31	0.042	1.875	0.395	0.046	2.29	0.48	0.035
0.47	0.76	0.035	1.4	0.33	0.042	2.32	0.79	0.045	1.46	0.315	0.042	1.875	0.4	0.051	2.29	0.485	0.034
0.47	0.77	0.034	1.4	0.34	0.043	2.32	0.8	0.044	1.46	0.32	0.042	1.875	0.405	0.056	2.29	0.49	0.033
0.47	0.78	0.033	1.4	0.35	0.043	2.32	0.81	0.046	1.46	0.325	0.042	1.875	0.41	0.059	2.29	0.495	0.032
0.47	0.79	0.033	1.4	0.36	0.042	2.32	0.82	0.050	1.46	0.33	0.038	1.875	0.415	0.060	2.295	0.005	0.048
0.47	0.8	0.033	1.4	0.37	0.041	2.32	0.83	0.053	1.46	0.335	0.034	1.875	0.42	0.059	2.295	0.01	0.057

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.47	0.81	0.033	1.4	0.38	0.039	2.32	0.84	0.054	1.46	0.34	0.033	1.875	0.425	0.058	2.295	0.015	0.067
0.47	0.82	0.033	1.4	0.39	0.039	2.32	0.85	0.052	1.46	0.345	0.034	1.875	0.43	0.056	2.295	0.02	0.076
0.47	0.83	0.034	1.4	0.4	0.041	2.32	0.86	0.047	1.46	0.35	0.036	1.875	0.435	0.055	2.295	0.025	0.077
0.47	0.84	0.034	1.4	0.41	0.042	2.32	0.87	0.045	1.46	0.355	0.037	1.875	0.44	0.054	2.295	0.03	0.073
0.47	0.85	0.034	1.4	0.42	0.041	2.32	0.88	0.045	1.46	0.36	0.036	1.875	0.445	0.058	2.295	0.035	0.070
0.47	0.86	0.034	1.4	0.43	0.040	2.32	0.89	0.045	1.46	0.365	0.035	1.875	0.45	0.068	2.295	0.04	0.068
0.47	0.87	0.034	1.4	0.44	0.038	2.33	0.01	0.084	1.46	0.37	0.034	1.875	0.455	0.072	2.295	0.045	0.067
0.47	0.88	0.035	1.4	0.45	0.036	2.33	0.02	0.088	1.46	0.375	0.034	1.875	0.46	0.067	2.295	0.05	0.068
0.47	0.89	0.036	1.4	0.46	0.035	2.33	0.03	0.087	1.46	0.38	0.034	1.875	0.465	0.060	2.295	0.055	0.072
0.48	0.01	0.050	1.4	0.47	0.034	2.33	0.04	0.080	1.46	0.385	0.033	1.875	0.47	0.057	2.295	0.06	0.074
0.48	0.02	0.049	1.4	0.48	0.034	2.33	0.05	0.071	1.46	0.39	0.032	1.875	0.475	0.056	2.295	0.065	0.073
0.48	0.03	0.048	1.4	0.49	0.035	2.33	0.06	0.065	1.46	0.395	0.033	1.875	0.48	0.054	2.295	0.07	0.071
0.48	0.04	0.048	1.4	0.5	0.036	2.33	0.07	0.059	1.46	0.4	0.034	1.875	0.485	0.051	2.295	0.075	0.065
0.48	0.05	0.046	1.4	0.51	0.036	2.33	0.08	0.056	1.46	0.405	0.035	1.875	0.49	0.049	2.295	0.08	0.059
0.48	0.06	0.044	1.4	0.52	0.036	2.33	0.09	0.056	1.46	0.41	0.036	1.875	0.495	0.049	2.295	0.085	0.052
0.48	0.07	0.043	1.4	0.53	0.037	2.33	0.1	0.058	1.46	0.415	0.037	1.88	0.005	0.036	2.295	0.09	0.050
0.48	0.08	0.043	1.4	0.54	0.038	2.33	0.11	0.061	1.46	0.42	0.038	1.88	0.01	0.041	2.295	0.095	0.054
0.48	0.09	0.044	1.4	0.55	0.039	2.33	0.12	0.061	1.46	0.425	0.038	1.88	0.015	0.048	2.295	0.1	0.059
0.48	0.1	0.043	1.4	0.56	0.040	2.33	0.13	0.059	1.46	0.43	0.039	1.88	0.02	0.058	2.295	0.105	0.057
0.48	0.11	0.041	1.4	0.57	0.041	2.33	0.14	0.056	1.46	0.435	0.038	1.88	0.025	0.068	2.295	0.11	0.049
0.48	0.12	0.042	1.4	0.58	0.043	2.33	0.15	0.054	1.46	0.44	0.037	1.88	0.03	0.070	2.295	0.115	0.042
0.48	0.13	0.045	1.4	0.59	0.043	2.33	0.16	0.055	1.46	0.445	0.036	1.88	0.035	0.068	2.295	0.12	0.040
0.48	0.14	0.046	1.4	0.6	0.042	2.33	0.17	0.057	1.46	0.45	0.033	1.88	0.04	0.068	2.295	0.125	0.041
0.48	0.15	0.045	1.4	0.61	0.040	2.33	0.18	0.059	1.46	0.455	0.031	1.88	0.045	0.073	2.295	0.13	0.044
0.48	0.16	0.042	1.4	0.62	0.039	2.33	0.19	0.059	1.46	0.46	0.030	1.88	0.05	0.076	2.295	0.135	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.48	0.17	0.039	1.4	0.63	0.039	2.33	0.2	0.056	1.46	0.465	0.030	1.88	0.055	0.076	2.295	0.14	0.045
0.48	0.18	0.036	1.4	0.64	0.040	2.33	0.21	0.051	1.46	0.47	0.030	1.88	0.06	0.074	2.295	0.145	0.043
0.48	0.19	0.036	1.4	0.65	0.040	2.33	0.22	0.047	1.46	0.475	0.031	1.88	0.065	0.071	2.295	0.15	0.042
0.48	0.2	0.037	1.4	0.66	0.041	2.33	0.23	0.046	1.46	0.48	0.032	1.88	0.07	0.068	2.295	0.155	0.043
0.48	0.21	0.039	1.4	0.67	0.041	2.33	0.24	0.045	1.46	0.485	0.035	1.88	0.075	0.069	2.295	0.16	0.040
0.48	0.22	0.039	1.4	0.68	0.041	2.33	0.25	0.043	1.46	0.49	0.037	1.88	0.08	0.072	2.295	0.165	0.036
0.48	0.23	0.038	1.4	0.69	0.040	2.33	0.26	0.042	1.46	0.495	0.038	1.88	0.085	0.074	2.295	0.17	0.035
0.48	0.24	0.036	1.4	0.7	0.039	2.33	0.27	0.042	1.465	0.005	0.042	1.88	0.09	0.074	2.295	0.175	0.036
0.48	0.25	0.034	1.4	0.71	0.039	2.33	0.28	0.044	1.465	0.01	0.042	1.88	0.095	0.073	2.295	0.18	0.039
0.48	0.26	0.034	1.4	0.72	0.041	2.33	0.29	0.045	1.465	0.015	0.042	1.88	0.1	0.071	2.295	0.185	0.045
0.48	0.27	0.033	1.4	0.73	0.043	2.33	0.3	0.045	1.465	0.02	0.041	1.88	0.105	0.070	2.295	0.19	0.052
0.48	0.28	0.034	1.4	0.74	0.042	2.33	0.31	0.044	1.465	0.025	0.040	1.88	0.11	0.071	2.295	0.195	0.054
0.48	0.29	0.034	1.4	0.75	0.041	2.33	0.32	0.042	1.465	0.03	0.039	1.88	0.115	0.072	2.295	0.2	0.052
0.48	0.3	0.034	1.4	0.76	0.040	2.33	0.33	0.041	1.465	0.035	0.039	1.88	0.12	0.074	2.295	0.205	0.048
0.48	0.31	0.035	1.4	0.77	0.041	2.33	0.34	0.041	1.465	0.04	0.038	1.88	0.125	0.075	2.295	0.21	0.043
0.48	0.32	0.035	1.4	0.78	0.041	2.33	0.35	0.042	1.465	0.045	0.038	1.88	0.13	0.074	2.295	0.215	0.038
0.48	0.33	0.035	1.4	0.79	0.042	2.33	0.36	0.042	1.465	0.05	0.038	1.88	0.135	0.070	2.295	0.22	0.037
0.48	0.34	0.035	1.4	0.8	0.043	2.33	0.37	0.042	1.465	0.055	0.037	1.88	0.14	0.064	2.295	0.225	0.039
0.48	0.35	0.034	1.4	0.81	0.044	2.33	0.38	0.042	1.465	0.06	0.037	1.88	0.145	0.061	2.295	0.23	0.042
0.48	0.36	0.034	1.4	0.82	0.044	2.33	0.39	0.042	1.465	0.065	0.037	1.88	0.15	0.058	2.295	0.235	0.043
0.48	0.37	0.035	1.4	0.83	0.044	2.33	0.4	0.042	1.465	0.07	0.039	1.88	0.155	0.053	2.295	0.24	0.042
0.48	0.38	0.036	1.4	0.84	0.043	2.33	0.41	0.041	1.465	0.075	0.042	1.88	0.16	0.052	2.295	0.245	0.040
0.48	0.39	0.037	1.4	0.85	0.042	2.33	0.42	0.040	1.465	0.08	0.044	1.88	0.165	0.054	2.295	0.25	0.037
0.48	0.4	0.037	1.4	0.86	0.043	2.33	0.43	0.039	1.465	0.085	0.043	1.88	0.17	0.058	2.295	0.255	0.035
0.48	0.41	0.036	1.4	0.87	0.044	2.33	0.44	0.038	1.465	0.09	0.041	1.88	0.175	0.058	2.295	0.26	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.48	0.42	0.036	1.4	0.88	0.048	2.33	0.45	0.037	1.465	0.095	0.038	1.88	0.18	0.055	2.295	0.265	0.036
0.48	0.43	0.035	1.4	0.89	0.052	2.33	0.46	0.036	1.465	0.1	0.036	1.88	0.185	0.055	2.295	0.27	0.038
0.48	0.44	0.035	1.41	0.01	0.036	2.33	0.47	0.035	1.465	0.105	0.038	1.88	0.19	0.062	2.295	0.275	0.042
0.48	0.45	0.035	1.41	0.02	0.035	2.33	0.48	0.036	1.465	0.11	0.041	1.88	0.195	0.068	2.295	0.28	0.045
0.48	0.46	0.035	1.41	0.03	0.034	2.33	0.49	0.037	1.465	0.115	0.044	1.88	0.2	0.071	2.295	0.285	0.048
0.48	0.47	0.036	1.41	0.04	0.034	2.33	0.5	0.039	1.465	0.12	0.042	1.88	0.205	0.069	2.295	0.29	0.047
0.48	0.48	0.037	1.41	0.05	0.034	2.33	0.51	0.042	1.465	0.125	0.040	1.88	0.21	0.063	2.295	0.295	0.043
0.48	0.49	0.037	1.41	0.06	0.034	2.33	0.52	0.046	1.465	0.13	0.042	1.88	0.215	0.055	2.295	0.3	0.042
0.48	0.5	0.036	1.41	0.07	0.034	2.33	0.53	0.048	1.465	0.135	0.046	1.88	0.22	0.052	2.295	0.305	0.043
0.48	0.51	0.036	1.41	0.08	0.033	2.33	0.54	0.047	1.465	0.14	0.048	1.88	0.225	0.057	2.295	0.31	0.044
0.48	0.52	0.035	1.41	0.09	0.033	2.33	0.55	0.044	1.465	0.145	0.049	1.88	0.23	0.064	2.295	0.315	0.045
0.48	0.53	0.035	1.41	0.1	0.034	2.33	0.56	0.043	1.465	0.15	0.047	1.88	0.235	0.069	2.295	0.32	0.046
0.48	0.54	0.036	1.41	0.11	0.035	2.33	0.57	0.044	1.465	0.155	0.044	1.88	0.24	0.071	2.295	0.325	0.047
0.48	0.55	0.038	1.41	0.12	0.037	2.33	0.58	0.046	1.465	0.16	0.042	1.88	0.245	0.072	2.295	0.33	0.047
0.48	0.56	0.039	1.41	0.13	0.038	2.33	0.59	0.048	1.465	0.165	0.039	1.88	0.25	0.070	2.295	0.335	0.047
0.48	0.57	0.038	1.41	0.14	0.039	2.33	0.6	0.048	1.465	0.17	0.038	1.88	0.255	0.065	2.295	0.34	0.049
0.48	0.58	0.037	1.41	0.15	0.039	2.33	0.61	0.048	1.465	0.175	0.042	1.88	0.26	0.057	2.295	0.345	0.053
0.48	0.59	0.035	1.41	0.16	0.040	2.33	0.62	0.047	1.465	0.18	0.048	1.88	0.265	0.048	2.295	0.35	0.055
0.48	0.6	0.034	1.41	0.17	0.041	2.33	0.63	0.047	1.465	0.185	0.049	1.88	0.27	0.045	2.295	0.355	0.056
0.48	0.61	0.035	1.41	0.18	0.043	2.33	0.64	0.051	1.465	0.19	0.045	1.88	0.275	0.049	2.295	0.36	0.055
0.48	0.62	0.035	1.41	0.19	0.045	2.33	0.65	0.057	1.465	0.195	0.038	1.88	0.28	0.052	2.295	0.365	0.051
0.48	0.63	0.036	1.41	0.2	0.044	2.33	0.66	0.062	1.465	0.2	0.034	1.88	0.285	0.051	2.295	0.37	0.045
0.48	0.64	0.037	1.41	0.21	0.042	2.33	0.67	0.063	1.465	0.205	0.033	1.88	0.29	0.048	2.295	0.375	0.041
0.48	0.65	0.038	1.41	0.22	0.039	2.33	0.68	0.059	1.465	0.21	0.034	1.88	0.295	0.047	2.295	0.38	0.040
0.48	0.66	0.037	1.41	0.23	0.037	2.33	0.69	0.055	1.465	0.215	0.035	1.88	0.3	0.047	2.295	0.385	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.48	0.67	0.037	1.41	0.24	0.036	2.33	0.7	0.052	1.465	0.22	0.036	1.88	0.305	0.048	2.295	0.39	0.044
0.48	0.68	0.036	1.41	0.25	0.036	2.33	0.71	0.052	1.465	0.225	0.038	1.88	0.31	0.050	2.295	0.395	0.045
0.48	0.69	0.035	1.41	0.26	0.037	2.33	0.72	0.052	1.465	0.23	0.040	1.88	0.315	0.049	2.295	0.4	0.045
0.48	0.7	0.034	1.41	0.27	0.039	2.33	0.73	0.052	1.465	0.235	0.040	1.88	0.32	0.044	2.295	0.405	0.044
0.48	0.71	0.034	1.41	0.28	0.040	2.33	0.74	0.051	1.465	0.24	0.038	1.88	0.325	0.042	2.295	0.41	0.043
0.48	0.72	0.035	1.41	0.29	0.040	2.33	0.75	0.051	1.465	0.245	0.037	1.88	0.33	0.045	2.295	0.415	0.039
0.48	0.73	0.035	1.41	0.3	0.040	2.33	0.76	0.050	1.465	0.25	0.037	1.88	0.335	0.050	2.295	0.42	0.037
0.48	0.74	0.036	1.41	0.31	0.039	2.33	0.77	0.051	1.465	0.255	0.037	1.88	0.34	0.053	2.295	0.425	0.038
0.48	0.75	0.036	1.41	0.32	0.039	2.33	0.78	0.050	1.465	0.26	0.037	1.88	0.345	0.053	2.295	0.43	0.040
0.48	0.76	0.035	1.41	0.33	0.040	2.33	0.79	0.048	1.465	0.265	0.036	1.88	0.35	0.049	2.295	0.435	0.041
0.48	0.77	0.035	1.41	0.34	0.042	2.33	0.8	0.048	1.465	0.27	0.034	1.88	0.355	0.043	2.295	0.44	0.041
0.48	0.78	0.034	1.41	0.35	0.042	2.33	0.81	0.048	1.465	0.275	0.033	1.88	0.36	0.038	2.295	0.445	0.039
0.48	0.79	0.034	1.41	0.36	0.042	2.33	0.82	0.050	1.465	0.28	0.034	1.88	0.365	0.037	2.295	0.45	0.036
0.48	0.8	0.034	1.41	0.37	0.041	2.33	0.83	0.053	1.465	0.285	0.035	1.88	0.37	0.040	2.295	0.455	0.034
0.48	0.81	0.034	1.41	0.38	0.039	2.33	0.84	0.055	1.465	0.29	0.037	1.88	0.375	0.044	2.295	0.46	0.033
0.48	0.82	0.034	1.41	0.39	0.039	2.33	0.85	0.054	1.465	0.295	0.040	1.88	0.38	0.047	2.295	0.465	0.033
0.48	0.83	0.034	1.41	0.4	0.039	2.33	0.86	0.050	1.465	0.3	0.041	1.88	0.385	0.048	2.295	0.47	0.035
0.48	0.84	0.034	1.41	0.41	0.039	2.33	0.87	0.047	1.465	0.305	0.042	1.88	0.39	0.047	2.295	0.475	0.036
0.48	0.85	0.034	1.41	0.42	0.039	2.33	0.88	0.045	1.465	0.31	0.042	1.88	0.395	0.046	2.295	0.48	0.036
0.48	0.86	0.034	1.41	0.43	0.038	2.33	0.89	0.043	1.465	0.315	0.043	1.88	0.4	0.050	2.295	0.485	0.036
0.48	0.87	0.034	1.41	0.44	0.038	2.34	0.01	0.079	1.465	0.32	0.043	1.88	0.405	0.055	2.295	0.49	0.034
0.48	0.88	0.034	1.41	0.45	0.037	2.34	0.02	0.083	1.465	0.325	0.042	1.88	0.41	0.057	2.295	0.495	0.032
0.48	0.89	0.035	1.41	0.46	0.035	2.34	0.03	0.083	1.465	0.33	0.039	1.88	0.415	0.057	2.3	0.005	0.047
0.49	0.01	0.047	1.41	0.47	0.035	2.34	0.04	0.079	1.465	0.335	0.034	1.88	0.42	0.056	2.3	0.01	0.061
0.49	0.02	0.047	1.41	0.48	0.034	2.34	0.05	0.074	1.465	0.34	0.033	1.88	0.425	0.056	2.3	0.015	0.077

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.49	0.03	0.046	1.41	0.49	0.035	2.34	0.06	0.068	1.465	0.345	0.033	1.88	0.43	0.058	2.3	0.02	0.085
0.49	0.04	0.045	1.41	0.5	0.035	2.34	0.07	0.063	1.465	0.35	0.034	1.88	0.435	0.060	2.3	0.025	0.085
0.49	0.05	0.043	1.41	0.51	0.036	2.34	0.08	0.058	1.465	0.355	0.035	1.88	0.44	0.058	2.3	0.03	0.079
0.49	0.06	0.042	1.41	0.52	0.036	2.34	0.09	0.057	1.465	0.36	0.035	1.88	0.445	0.058	2.3	0.035	0.071
0.49	0.07	0.041	1.41	0.53	0.037	2.34	0.1	0.059	1.465	0.365	0.034	1.88	0.45	0.065	2.3	0.04	0.064
0.49	0.08	0.042	1.41	0.54	0.037	2.34	0.11	0.061	1.465	0.37	0.033	1.88	0.455	0.069	2.3	0.045	0.059
0.49	0.09	0.042	1.41	0.55	0.038	2.34	0.12	0.061	1.465	0.375	0.034	1.88	0.46	0.065	2.3	0.05	0.059
0.49	0.1	0.042	1.41	0.56	0.040	2.34	0.13	0.059	1.465	0.38	0.034	1.88	0.465	0.059	2.3	0.055	0.062
0.49	0.11	0.041	1.41	0.57	0.041	2.34	0.14	0.056	1.465	0.385	0.033	1.88	0.47	0.058	2.3	0.06	0.064
0.49	0.12	0.043	1.41	0.58	0.042	2.34	0.15	0.056	1.465	0.39	0.032	1.88	0.475	0.058	2.3	0.065	0.068
0.49	0.13	0.046	1.41	0.59	0.041	2.34	0.16	0.058	1.465	0.395	0.032	1.88	0.48	0.055	2.3	0.07	0.069
0.49	0.14	0.047	1.41	0.6	0.040	2.34	0.17	0.061	1.465	0.4	0.034	1.88	0.485	0.051	2.3	0.075	0.068
0.49	0.15	0.046	1.41	0.61	0.039	2.34	0.18	0.062	1.465	0.405	0.037	1.88	0.49	0.048	2.3	0.08	0.063
0.49	0.16	0.043	1.41	0.62	0.040	2.34	0.19	0.061	1.465	0.41	0.039	1.88	0.495	0.047	2.3	0.085	0.057
0.49	0.17	0.039	1.41	0.63	0.041	2.34	0.2	0.058	1.465	0.415	0.040	1.885	0.005	0.035	2.3	0.09	0.052
0.49	0.18	0.036	1.41	0.64	0.041	2.34	0.21	0.052	1.465	0.42	0.040	1.885	0.01	0.041	2.3	0.095	0.052
0.49	0.19	0.036	1.41	0.65	0.042	2.34	0.22	0.048	1.465	0.425	0.040	1.885	0.015	0.047	2.3	0.1	0.054
0.49	0.2	0.036	1.41	0.66	0.042	2.34	0.23	0.047	1.465	0.43	0.039	1.885	0.02	0.055	2.3	0.105	0.053
0.49	0.21	0.038	1.41	0.67	0.041	2.34	0.24	0.047	1.465	0.435	0.039	1.885	0.025	0.064	2.3	0.11	0.047
0.49	0.22	0.038	1.41	0.68	0.040	2.34	0.25	0.047	1.465	0.44	0.038	1.885	0.03	0.068	2.3	0.115	0.041
0.49	0.23	0.037	1.41	0.69	0.039	2.34	0.26	0.046	1.465	0.445	0.036	1.885	0.035	0.067	2.3	0.12	0.039
0.49	0.24	0.036	1.41	0.7	0.038	2.34	0.27	0.044	1.465	0.45	0.034	1.885	0.04	0.066	2.3	0.125	0.040
0.49	0.25	0.035	1.41	0.71	0.038	2.34	0.28	0.044	1.465	0.455	0.032	1.885	0.045	0.070	2.3	0.13	0.043
0.49	0.26	0.034	1.41	0.72	0.039	2.34	0.29	0.045	1.465	0.46	0.031	1.885	0.05	0.075	2.3	0.135	0.045
0.49	0.27	0.034	1.41	0.73	0.041	2.34	0.3	0.045	1.465	0.465	0.030	1.885	0.055	0.076	2.3	0.14	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.49	0.28	0.033	1.41	0.74	0.041	2.34	0.31	0.044	1.465	0.47	0.030	1.885	0.06	0.074	2.3	0.145	0.042
0.49	0.29	0.033	1.41	0.75	0.041	2.34	0.32	0.042	1.465	0.475	0.031	1.885	0.065	0.071	2.3	0.15	0.041
0.49	0.3	0.033	1.41	0.76	0.041	2.34	0.33	0.041	1.465	0.48	0.032	1.885	0.07	0.065	2.3	0.155	0.041
0.49	0.31	0.033	1.41	0.77	0.041	2.34	0.34	0.041	1.465	0.485	0.034	1.885	0.075	0.063	2.3	0.16	0.040
0.49	0.32	0.034	1.41	0.78	0.040	2.34	0.35	0.041	1.465	0.49	0.036	1.885	0.08	0.063	2.3	0.165	0.039
0.49	0.33	0.034	1.41	0.79	0.040	2.34	0.36	0.042	1.465	0.495	0.036	1.885	0.085	0.064	2.3	0.17	0.040
0.49	0.34	0.034	1.41	0.8	0.041	2.34	0.37	0.042	1.47	0.005	0.042	1.885	0.09	0.064	2.3	0.175	0.041
0.49	0.35	0.034	1.41	0.81	0.043	2.34	0.38	0.042	1.47	0.01	0.042	1.885	0.095	0.063	2.3	0.18	0.044
0.49	0.36	0.034	1.41	0.82	0.045	2.34	0.39	0.042	1.47	0.015	0.042	1.885	0.1	0.066	2.3	0.185	0.047
0.49	0.37	0.034	1.41	0.83	0.046	2.34	0.4	0.041	1.47	0.02	0.041	1.885	0.105	0.071	2.3	0.19	0.052
0.49	0.38	0.034	1.41	0.84	0.045	2.34	0.41	0.041	1.47	0.025	0.040	1.885	0.11	0.074	2.3	0.195	0.053
0.49	0.39	0.035	1.41	0.85	0.044	2.34	0.42	0.040	1.47	0.03	0.039	1.885	0.115	0.075	2.3	0.2	0.051
0.49	0.4	0.034	1.41	0.86	0.044	2.34	0.43	0.039	1.47	0.035	0.039	1.885	0.12	0.076	2.3	0.205	0.047
0.49	0.41	0.034	1.41	0.87	0.045	2.34	0.44	0.039	1.47	0.04	0.038	1.885	0.125	0.077	2.3	0.21	0.040
0.49	0.42	0.034	1.41	0.88	0.048	2.34	0.45	0.039	1.47	0.045	0.038	1.885	0.13	0.076	2.3	0.215	0.035
0.49	0.43	0.034	1.41	0.89	0.051	2.34	0.46	0.038	1.47	0.05	0.038	1.885	0.135	0.072	2.3	0.22	0.033
0.49	0.44	0.035	1.42	0.01	0.036	2.34	0.47	0.037	1.47	0.055	0.037	1.885	0.14	0.064	2.3	0.225	0.035
0.49	0.45	0.036	1.42	0.02	0.035	2.34	0.48	0.037	1.47	0.06	0.037	1.885	0.145	0.059	2.3	0.23	0.038
0.49	0.46	0.036	1.42	0.03	0.035	2.34	0.49	0.038	1.47	0.065	0.037	1.885	0.15	0.055	2.3	0.235	0.041
0.49	0.47	0.036	1.42	0.04	0.035	2.34	0.5	0.040	1.47	0.07	0.038	1.885	0.155	0.050	2.3	0.24	0.041
0.49	0.48	0.036	1.42	0.05	0.036	2.34	0.51	0.042	1.47	0.075	0.040	1.885	0.16	0.051	2.3	0.245	0.040
0.49	0.49	0.036	1.42	0.06	0.036	2.34	0.52	0.045	1.47	0.08	0.041	1.885	0.165	0.055	2.3	0.25	0.037
0.49	0.5	0.036	1.42	0.07	0.035	2.34	0.53	0.048	1.47	0.085	0.041	1.885	0.17	0.060	2.3	0.255	0.035
0.49	0.51	0.035	1.42	0.08	0.034	2.34	0.54	0.048	1.47	0.09	0.039	1.885	0.175	0.062	2.3	0.26	0.035
0.49	0.52	0.035	1.42	0.09	0.034	2.34	0.55	0.046	1.47	0.095	0.038	1.885	0.18	0.061	2.3	0.265	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.49	0.53	0.035	1.42	0.1	0.035	2.34	0.56	0.045	1.47	0.1	0.038	1.885	0.185	0.057	2.3	0.27	0.041
0.49	0.54	0.036	1.42	0.11	0.036	2.34	0.57	0.047	1.47	0.105	0.038	1.885	0.19	0.058	2.3	0.275	0.045
0.49	0.55	0.037	1.42	0.12	0.037	2.34	0.58	0.049	1.47	0.11	0.039	1.885	0.195	0.062	2.3	0.28	0.048
0.49	0.56	0.038	1.42	0.13	0.040	2.34	0.59	0.051	1.47	0.115	0.040	1.885	0.2	0.064	2.3	0.285	0.049
0.49	0.57	0.038	1.42	0.14	0.041	2.34	0.6	0.050	1.47	0.12	0.038	1.885	0.205	0.064	2.3	0.29	0.048
0.49	0.58	0.037	1.42	0.15	0.041	2.34	0.61	0.048	1.47	0.125	0.037	1.885	0.21	0.061	2.3	0.295	0.044
0.49	0.59	0.036	1.42	0.16	0.040	2.34	0.62	0.046	1.47	0.13	0.037	1.885	0.215	0.055	2.3	0.3	0.043
0.49	0.6	0.036	1.42	0.17	0.041	2.34	0.63	0.047	1.47	0.135	0.039	1.885	0.22	0.050	2.3	0.305	0.044
0.49	0.61	0.036	1.42	0.18	0.043	2.34	0.64	0.053	1.47	0.14	0.043	1.885	0.225	0.053	2.3	0.31	0.046
0.49	0.62	0.036	1.42	0.19	0.045	2.34	0.65	0.060	1.47	0.145	0.047	1.885	0.23	0.060	2.3	0.315	0.047
0.49	0.63	0.037	1.42	0.2	0.045	2.34	0.66	0.065	1.47	0.15	0.048	1.885	0.235	0.065	2.3	0.32	0.049
0.49	0.64	0.037	1.42	0.21	0.043	2.34	0.67	0.065	1.47	0.155	0.047	1.885	0.24	0.069	2.3	0.325	0.049
0.49	0.65	0.037	1.42	0.22	0.040	2.34	0.68	0.062	1.47	0.16	0.044	1.885	0.245	0.070	2.3	0.33	0.048
0.49	0.66	0.036	1.42	0.23	0.037	2.34	0.69	0.058	1.47	0.165	0.040	1.885	0.25	0.068	2.3	0.335	0.044
0.49	0.67	0.036	1.42	0.24	0.036	2.34	0.7	0.056	1.47	0.17	0.037	1.885	0.255	0.063	2.3	0.34	0.044
0.49	0.68	0.035	1.42	0.25	0.037	2.34	0.71	0.054	1.47	0.175	0.042	1.885	0.26	0.056	2.3	0.345	0.047
0.49	0.69	0.034	1.42	0.26	0.039	2.34	0.72	0.053	1.47	0.18	0.047	1.885	0.265	0.051	2.3	0.35	0.050
0.49	0.7	0.034	1.42	0.27	0.041	2.34	0.73	0.052	1.47	0.185	0.045	1.885	0.27	0.048	2.3	0.355	0.051
0.49	0.71	0.034	1.42	0.28	0.042	2.34	0.74	0.051	1.47	0.19	0.041	1.885	0.275	0.048	2.3	0.36	0.050
0.49	0.72	0.034	1.42	0.29	0.042	2.34	0.75	0.051	1.47	0.195	0.036	1.885	0.28	0.050	2.3	0.365	0.047
0.49	0.73	0.034	1.42	0.3	0.041	2.34	0.76	0.051	1.47	0.2	0.033	1.885	0.285	0.049	2.3	0.37	0.043
0.49	0.74	0.035	1.42	0.31	0.039	2.34	0.77	0.052	1.47	0.205	0.032	1.885	0.29	0.047	2.3	0.375	0.040
0.49	0.75	0.035	1.42	0.32	0.038	2.34	0.78	0.052	1.47	0.21	0.032	1.885	0.295	0.047	2.3	0.38	0.041
0.49	0.76	0.035	1.42	0.33	0.039	2.34	0.79	0.051	1.47	0.215	0.033	1.885	0.3	0.048	2.3	0.385	0.044
0.49	0.77	0.035	1.42	0.34	0.040	2.34	0.8	0.051	1.47	0.22	0.035	1.885	0.305	0.050	2.3	0.39	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.49	0.78	0.036	1.42	0.35	0.041	2.34	0.81	0.051	1.47	0.225	0.040	1.885	0.31	0.051	2.3	0.395	0.046
0.49	0.79	0.036	1.42	0.36	0.041	2.34	0.82	0.051	1.47	0.23	0.044	1.885	0.315	0.048	2.3	0.4	0.046
0.49	0.8	0.036	1.42	0.37	0.040	2.34	0.83	0.053	1.47	0.235	0.045	1.885	0.32	0.043	2.3	0.405	0.045
0.49	0.81	0.035	1.42	0.38	0.039	2.34	0.84	0.055	1.47	0.24	0.043	1.885	0.325	0.041	2.3	0.41	0.043
0.49	0.82	0.035	1.42	0.39	0.039	2.34	0.85	0.056	1.47	0.245	0.040	1.885	0.33	0.044	2.3	0.415	0.040
0.49	0.83	0.035	1.42	0.4	0.039	2.34	0.86	0.055	1.47	0.25	0.037	1.885	0.335	0.049	2.3	0.42	0.038
0.49	0.84	0.035	1.42	0.41	0.038	2.34	0.87	0.050	1.47	0.255	0.036	1.885	0.34	0.053	2.3	0.425	0.040
0.49	0.85	0.035	1.42	0.42	0.037	2.34	0.88	0.045	1.47	0.26	0.035	1.885	0.345	0.054	2.3	0.43	0.042
0.49	0.86	0.035	1.42	0.43	0.037	2.34	0.89	0.041	1.47	0.265	0.034	1.885	0.35	0.051	2.3	0.435	0.043
0.49	0.87	0.035	1.42	0.44	0.037	2.35	0.01	0.074	1.47	0.27	0.033	1.885	0.355	0.042	2.3	0.44	0.042
0.49	0.88	0.034	1.42	0.45	0.037	2.35	0.02	0.075	1.47	0.275	0.033	1.885	0.36	0.037	2.3	0.445	0.039
0.49	0.89	0.034	1.42	0.46	0.036	2.35	0.03	0.076	1.47	0.28	0.033	1.885	0.365	0.038	2.3	0.45	0.036
0.5	0.01	0.045	1.42	0.47	0.035	2.35	0.04	0.075	1.47	0.285	0.035	1.885	0.37	0.042	2.3	0.455	0.034
0.5	0.02	0.045	1.42	0.48	0.034	2.35	0.05	0.073	1.47	0.29	0.038	1.885	0.375	0.046	2.3	0.46	0.033
0.5	0.03	0.043	1.42	0.49	0.034	2.35	0.06	0.069	1.47	0.295	0.040	1.885	0.38	0.049	2.3	0.465	0.034
0.5	0.04	0.042	1.42	0.5	0.035	2.35	0.07	0.064	1.47	0.3	0.042	1.885	0.385	0.049	2.3	0.47	0.036
0.5	0.05	0.041	1.42	0.51	0.035	2.35	0.08	0.059	1.47	0.305	0.042	1.885	0.39	0.047	2.3	0.475	0.036
0.5	0.06	0.040	1.42	0.52	0.036	2.35	0.09	0.056	1.47	0.31	0.043	1.885	0.395	0.046	2.3	0.48	0.037
0.5	0.07	0.040	1.42	0.53	0.036	2.35	0.1	0.057	1.47	0.315	0.043	1.885	0.4	0.049	2.3	0.485	0.037
0.5	0.08	0.040	1.42	0.54	0.037	2.35	0.11	0.058	1.47	0.32	0.043	1.885	0.405	0.053	2.3	0.49	0.034
0.5	0.09	0.040	1.42	0.55	0.039	2.35	0.12	0.058	1.47	0.325	0.041	1.885	0.41	0.054	2.3	0.495	0.031
0.5	0.1	0.039	1.42	0.56	0.041	2.35	0.13	0.057	1.47	0.33	0.038	1.885	0.415	0.053	2.305	0.005	0.049
0.5	0.11	0.040	1.42	0.57	0.042	2.35	0.14	0.055	1.47	0.335	0.034	1.885	0.42	0.052	2.305	0.01	0.068
0.5	0.12	0.042	1.42	0.58	0.041	2.35	0.15	0.057	1.47	0.34	0.033	1.885	0.425	0.053	2.305	0.015	0.086
0.5	0.13	0.044	1.42	0.59	0.040	2.35	0.16	0.061	1.47	0.345	0.032	1.885	0.43	0.058	2.305	0.02	0.092

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.5	0.14	0.045	1.42	0.6	0.039	2.35	0.17	0.065	1.47	0.35	0.032	1.885	0.435	0.064	2.305	0.025	0.091
0.5	0.15	0.044	1.42	0.61	0.039	2.35	0.18	0.067	1.47	0.355	0.033	1.885	0.44	0.063	2.305	0.03	0.085
0.5	0.16	0.041	1.42	0.62	0.040	2.35	0.19	0.066	1.47	0.36	0.034	1.885	0.445	0.059	2.305	0.035	0.075
0.5	0.17	0.039	1.42	0.63	0.041	2.35	0.2	0.062	1.47	0.365	0.034	1.885	0.45	0.062	2.305	0.04	0.063
0.5	0.18	0.037	1.42	0.64	0.042	2.35	0.21	0.055	1.47	0.37	0.034	1.885	0.455	0.064	2.305	0.045	0.053
0.5	0.19	0.036	1.42	0.65	0.043	2.35	0.22	0.049	1.47	0.375	0.033	1.885	0.46	0.060	2.305	0.05	0.053
0.5	0.2	0.036	1.42	0.66	0.042	2.35	0.23	0.046	1.47	0.38	0.033	1.885	0.465	0.059	2.305	0.055	0.055
0.5	0.21	0.036	1.42	0.67	0.041	2.35	0.24	0.047	1.47	0.385	0.033	1.885	0.47	0.059	2.305	0.06	0.058
0.5	0.22	0.036	1.42	0.68	0.040	2.35	0.25	0.049	1.47	0.39	0.033	1.885	0.475	0.059	2.305	0.065	0.064
0.5	0.23	0.036	1.42	0.69	0.039	2.35	0.26	0.048	1.47	0.395	0.033	1.885	0.48	0.055	2.305	0.07	0.069
0.5	0.24	0.036	1.42	0.7	0.038	2.35	0.27	0.046	1.47	0.4	0.035	1.885	0.485	0.050	2.305	0.075	0.070
0.5	0.25	0.035	1.42	0.71	0.038	2.35	0.28	0.045	1.47	0.405	0.039	1.885	0.49	0.046	2.305	0.08	0.066
0.5	0.26	0.035	1.42	0.72	0.039	2.35	0.29	0.044	1.47	0.41	0.041	1.885	0.495	0.045	2.305	0.085	0.060
0.5	0.27	0.034	1.42	0.73	0.040	2.35	0.3	0.045	1.47	0.415	0.041	1.89	0.005	0.035	2.305	0.09	0.054
0.5	0.28	0.033	1.42	0.74	0.041	2.35	0.31	0.045	1.47	0.42	0.041	1.89	0.01	0.041	2.305	0.095	0.050
0.5	0.29	0.033	1.42	0.75	0.041	2.35	0.32	0.043	1.47	0.425	0.040	1.89	0.015	0.046	2.305	0.1	0.049
0.5	0.3	0.033	1.42	0.76	0.042	2.35	0.33	0.041	1.47	0.43	0.039	1.89	0.02	0.051	2.305	0.105	0.048
0.5	0.31	0.033	1.42	0.77	0.042	2.35	0.34	0.040	1.47	0.435	0.038	1.89	0.025	0.060	2.305	0.11	0.045
0.5	0.32	0.033	1.42	0.78	0.041	2.35	0.35	0.041	1.47	0.44	0.037	1.89	0.03	0.064	2.305	0.115	0.040
0.5	0.33	0.034	1.42	0.79	0.040	2.35	0.36	0.041	1.47	0.445	0.036	1.89	0.035	0.063	2.305	0.12	0.039
0.5	0.34	0.034	1.42	0.8	0.040	2.35	0.37	0.041	1.47	0.45	0.034	1.89	0.04	0.061	2.305	0.125	0.039
0.5	0.35	0.034	1.42	0.81	0.043	2.35	0.38	0.041	1.47	0.455	0.033	1.89	0.045	0.065	2.305	0.13	0.041
0.5	0.36	0.033	1.42	0.82	0.046	2.35	0.39	0.041	1.47	0.46	0.032	1.89	0.05	0.070	2.305	0.135	0.043
0.5	0.37	0.033	1.42	0.83	0.047	2.35	0.4	0.040	1.47	0.465	0.031	1.89	0.055	0.073	2.305	0.14	0.043
0.5	0.38	0.033	1.42	0.84	0.047	2.35	0.41	0.040	1.47	0.47	0.031	1.89	0.06	0.072	2.305	0.145	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.5	0.39	0.033	1.42	0.85	0.045	2.35	0.42	0.040	1.47	0.475	0.031	1.89	0.065	0.069	2.305	0.15	0.040
0.5	0.4	0.032	1.42	0.86	0.044	2.35	0.43	0.040	1.47	0.48	0.032	1.89	0.07	0.065	2.305	0.155	0.040
0.5	0.41	0.032	1.42	0.87	0.045	2.35	0.44	0.040	1.47	0.485	0.033	1.89	0.075	0.059	2.305	0.16	0.041
0.5	0.42	0.033	1.42	0.88	0.046	2.35	0.45	0.040	1.47	0.49	0.034	1.89	0.08	0.055	2.305	0.165	0.043
0.5	0.43	0.034	1.42	0.89	0.049	2.35	0.46	0.040	1.47	0.495	0.035	1.89	0.085	0.053	2.305	0.17	0.045
0.5	0.44	0.036	1.43	0.01	0.037	2.35	0.47	0.041	1.475	0.005	0.042	1.89	0.09	0.054	2.305	0.175	0.047
0.5	0.45	0.037	1.43	0.02	0.036	2.35	0.48	0.041	1.475	0.01	0.042	1.89	0.095	0.055	2.305	0.18	0.049
0.5	0.46	0.038	1.43	0.03	0.036	2.35	0.49	0.041	1.475	0.015	0.042	1.89	0.1	0.061	2.305	0.185	0.051
0.5	0.47	0.037	1.43	0.04	0.036	2.35	0.5	0.042	1.475	0.02	0.040	1.89	0.105	0.070	2.305	0.19	0.053
0.5	0.48	0.036	1.43	0.05	0.037	2.35	0.51	0.043	1.475	0.025	0.039	1.89	0.11	0.075	2.305	0.195	0.054
0.5	0.49	0.035	1.43	0.06	0.036	2.35	0.52	0.045	1.475	0.03	0.039	1.89	0.115	0.076	2.305	0.2	0.052
0.5	0.5	0.034	1.43	0.07	0.036	2.35	0.53	0.048	1.475	0.035	0.039	1.89	0.12	0.077	2.305	0.205	0.047
0.5	0.51	0.034	1.43	0.08	0.036	2.35	0.54	0.049	1.475	0.04	0.039	1.89	0.125	0.078	2.305	0.21	0.040
0.5	0.52	0.034	1.43	0.09	0.035	2.35	0.55	0.047	1.475	0.045	0.038	1.89	0.13	0.076	2.305	0.215	0.034
0.5	0.53	0.035	1.43	0.1	0.035	2.35	0.56	0.047	1.475	0.05	0.037	1.89	0.135	0.071	2.305	0.22	0.032
0.5	0.54	0.036	1.43	0.11	0.037	2.35	0.57	0.048	1.475	0.055	0.036	1.89	0.14	0.062	2.305	0.225	0.033
0.5	0.55	0.037	1.43	0.12	0.039	2.35	0.58	0.050	1.475	0.06	0.036	1.89	0.145	0.055	2.305	0.23	0.037
0.5	0.56	0.038	1.43	0.13	0.042	2.35	0.59	0.051	1.475	0.065	0.036	1.89	0.15	0.049	2.305	0.235	0.039
0.5	0.57	0.038	1.43	0.14	0.043	2.35	0.6	0.050	1.475	0.07	0.037	1.89	0.155	0.045	2.305	0.24	0.040
0.5	0.58	0.039	1.43	0.15	0.043	2.35	0.61	0.048	1.475	0.075	0.038	1.89	0.16	0.049	2.305	0.245	0.039
0.5	0.59	0.038	1.43	0.16	0.042	2.35	0.62	0.046	1.475	0.08	0.039	1.89	0.165	0.055	2.305	0.25	0.037
0.5	0.6	0.038	1.43	0.17	0.041	2.35	0.63	0.048	1.475	0.085	0.040	1.89	0.17	0.060	2.305	0.255	0.035
0.5	0.61	0.037	1.43	0.18	0.042	2.35	0.64	0.053	1.475	0.09	0.041	1.89	0.175	0.062	2.305	0.26	0.036
0.5	0.62	0.037	1.43	0.19	0.044	2.35	0.65	0.060	1.475	0.095	0.041	1.89	0.18	0.060	2.305	0.265	0.039
0.5	0.63	0.037	1.43	0.2	0.044	2.35	0.66	0.063	1.475	0.1	0.040	1.89	0.185	0.054	2.305	0.27	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.5	0.64	0.036	1.43	0.21	0.043	2.35	0.67	0.064	1.475	0.105	0.039	1.89	0.19	0.052	2.305	0.275	0.047
0.5	0.65	0.036	1.43	0.22	0.040	2.35	0.68	0.061	1.475	0.11	0.038	1.89	0.195	0.056	2.305	0.28	0.050
0.5	0.66	0.035	1.43	0.23	0.038	2.35	0.69	0.059	1.475	0.115	0.038	1.89	0.2	0.061	2.305	0.285	0.050
0.5	0.67	0.035	1.43	0.24	0.038	2.35	0.7	0.057	1.475	0.12	0.038	1.89	0.205	0.062	2.305	0.29	0.048
0.5	0.68	0.034	1.43	0.25	0.039	2.35	0.71	0.056	1.475	0.125	0.039	1.89	0.21	0.061	2.305	0.295	0.043
0.5	0.69	0.034	1.43	0.26	0.041	2.35	0.72	0.055	1.475	0.13	0.038	1.89	0.215	0.057	2.305	0.3	0.042
0.5	0.7	0.034	1.43	0.27	0.042	2.35	0.73	0.053	1.475	0.135	0.039	1.89	0.22	0.052	2.305	0.305	0.045
0.5	0.71	0.034	1.43	0.28	0.042	2.35	0.74	0.053	1.475	0.14	0.041	1.89	0.225	0.050	2.305	0.31	0.048
0.5	0.72	0.034	1.43	0.29	0.041	2.35	0.75	0.054	1.475	0.145	0.045	1.89	0.23	0.053	2.305	0.315	0.050
0.5	0.73	0.034	1.43	0.3	0.040	2.35	0.76	0.054	1.475	0.15	0.048	1.89	0.235	0.058	2.305	0.32	0.051
0.5	0.74	0.035	1.43	0.31	0.039	2.35	0.77	0.054	1.475	0.155	0.047	1.89	0.24	0.062	2.305	0.325	0.051
0.5	0.75	0.035	1.43	0.32	0.038	2.35	0.78	0.054	1.475	0.16	0.044	1.89	0.245	0.065	2.305	0.33	0.048
0.5	0.76	0.035	1.43	0.33	0.038	2.35	0.79	0.054	1.475	0.165	0.039	1.89	0.25	0.064	2.305	0.335	0.041
0.5	0.77	0.036	1.43	0.34	0.038	2.35	0.8	0.053	1.475	0.17	0.037	1.89	0.255	0.061	2.305	0.34	0.037
0.5	0.78	0.037	1.43	0.35	0.039	2.35	0.81	0.052	1.475	0.175	0.040	1.89	0.26	0.057	2.305	0.345	0.040
0.5	0.79	0.038	1.43	0.36	0.039	2.35	0.82	0.051	1.475	0.18	0.042	1.89	0.265	0.054	2.305	0.35	0.043
0.5	0.8	0.038	1.43	0.37	0.039	2.35	0.83	0.053	1.475	0.185	0.040	1.89	0.27	0.050	2.305	0.355	0.045
0.5	0.81	0.037	1.43	0.38	0.039	2.35	0.84	0.056	1.475	0.19	0.037	1.89	0.275	0.045	2.305	0.36	0.045
0.5	0.82	0.036	1.43	0.39	0.039	2.35	0.85	0.058	1.475	0.195	0.034	1.89	0.28	0.045	2.305	0.365	0.043
0.5	0.83	0.035	1.43	0.4	0.039	2.35	0.86	0.058	1.475	0.2	0.033	1.89	0.285	0.045	2.305	0.37	0.039
0.5	0.84	0.036	1.43	0.41	0.038	2.35	0.87	0.053	1.475	0.205	0.032	1.89	0.29	0.045	2.305	0.375	0.038
0.5	0.85	0.037	1.43	0.42	0.037	2.35	0.88	0.046	1.475	0.21	0.032	1.89	0.295	0.047	2.305	0.38	0.041
0.5	0.86	0.037	1.43	0.43	0.036	2.35	0.89	0.040	1.475	0.215	0.032	1.89	0.3	0.050	2.305	0.385	0.045
0.5	0.87	0.036	1.43	0.44	0.037	2.36	0.01	0.069	1.475	0.22	0.035	1.89	0.305	0.052	2.305	0.39	0.047
0.5	0.88	0.035	1.43	0.45	0.037	2.36	0.02	0.070	1.475	0.225	0.040	1.89	0.31	0.051	2.305	0.395	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.5	0.89	0.034	1.43	0.46	0.036	2.36	0.03	0.071	1.475	0.23	0.044	1.89	0.315	0.046	2.305	0.4	0.047
0.51	0.01	0.042	1.43	0.47	0.035	2.36	0.04	0.072	1.475	0.235	0.046	1.89	0.32	0.039	2.305	0.405	0.046
0.51	0.02	0.042	1.43	0.48	0.035	2.36	0.05	0.071	1.475	0.24	0.044	1.89	0.325	0.038	2.305	0.41	0.043
0.51	0.03	0.040	1.43	0.49	0.035	2.36	0.06	0.069	1.475	0.245	0.042	1.89	0.33	0.042	2.305	0.415	0.040
0.51	0.04	0.039	1.43	0.5	0.035	2.36	0.07	0.064	1.475	0.25	0.039	1.89	0.335	0.047	2.305	0.42	0.040
0.51	0.05	0.039	1.43	0.51	0.035	2.36	0.08	0.059	1.475	0.255	0.036	1.89	0.34	0.052	2.305	0.425	0.042
0.51	0.06	0.040	1.43	0.52	0.035	2.36	0.09	0.056	1.475	0.26	0.036	1.89	0.345	0.055	2.305	0.43	0.043
0.51	0.07	0.040	1.43	0.53	0.036	2.36	0.1	0.054	1.475	0.265	0.034	1.89	0.35	0.051	2.305	0.435	0.043
0.51	0.08	0.039	1.43	0.54	0.036	2.36	0.11	0.055	1.475	0.27	0.033	1.89	0.355	0.042	2.305	0.44	0.042
0.51	0.09	0.038	1.43	0.55	0.038	2.36	0.12	0.055	1.475	0.275	0.032	1.89	0.36	0.037	2.305	0.445	0.039
0.51	0.1	0.038	1.43	0.56	0.039	2.36	0.13	0.054	1.475	0.28	0.033	1.89	0.365	0.039	2.305	0.45	0.036
0.51	0.11	0.039	1.43	0.57	0.040	2.36	0.14	0.053	1.475	0.285	0.035	1.89	0.37	0.044	2.305	0.455	0.033
0.51	0.12	0.040	1.43	0.58	0.040	2.36	0.15	0.057	1.475	0.29	0.038	1.89	0.375	0.048	2.305	0.46	0.033
0.51	0.13	0.042	1.43	0.59	0.040	2.36	0.16	0.063	1.475	0.295	0.041	1.89	0.38	0.050	2.305	0.465	0.035
0.51	0.14	0.042	1.43	0.6	0.040	2.36	0.17	0.068	1.475	0.3	0.042	1.89	0.385	0.049	2.305	0.47	0.037
0.51	0.15	0.041	1.43	0.61	0.039	2.36	0.18	0.070	1.475	0.305	0.043	1.89	0.39	0.047	2.305	0.475	0.038
0.51	0.16	0.039	1.43	0.62	0.039	2.36	0.19	0.068	1.475	0.31	0.043	1.89	0.395	0.048	2.305	0.48	0.037
0.51	0.17	0.038	1.43	0.63	0.040	2.36	0.2	0.065	1.475	0.315	0.043	1.89	0.4	0.051	2.305	0.485	0.036
0.51	0.18	0.037	1.43	0.64	0.041	2.36	0.21	0.059	1.475	0.32	0.042	1.89	0.405	0.054	2.305	0.49	0.034
0.51	0.19	0.036	1.43	0.65	0.042	2.36	0.22	0.052	1.475	0.325	0.041	1.89	0.41	0.053	2.305	0.495	0.031
0.51	0.2	0.036	1.43	0.66	0.042	2.36	0.23	0.047	1.475	0.33	0.037	1.89	0.415	0.051	2.31	0.005	0.053
0.51	0.21	0.036	1.43	0.67	0.041	2.36	0.24	0.046	1.475	0.335	0.034	1.89	0.42	0.050	2.31	0.01	0.076
0.51	0.22	0.036	1.43	0.68	0.041	2.36	0.25	0.048	1.475	0.34	0.032	1.89	0.425	0.052	2.31	0.015	0.092
0.51	0.23	0.036	1.43	0.69	0.041	2.36	0.26	0.047	1.475	0.345	0.031	1.89	0.43	0.060	2.31	0.02	0.096
0.51	0.24	0.036	1.43	0.7	0.041	2.36	0.27	0.045	1.475	0.35	0.031	1.89	0.435	0.067	2.31	0.025	0.094

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.51	0.25	0.036	1.43	0.71	0.040	2.36	0.28	0.043	1.475	0.355	0.032	1.89	0.44	0.065	2.31	0.03	0.089
0.51	0.26	0.036	1.43	0.72	0.040	2.36	0.29	0.044	1.475	0.36	0.033	1.89	0.445	0.059	2.31	0.035	0.080
0.51	0.27	0.035	1.43	0.73	0.039	2.36	0.3	0.045	1.475	0.365	0.034	1.89	0.45	0.056	2.31	0.04	0.065
0.51	0.28	0.034	1.43	0.74	0.040	2.36	0.31	0.045	1.475	0.37	0.035	1.89	0.455	0.057	2.31	0.045	0.054
0.51	0.29	0.033	1.43	0.75	0.040	2.36	0.32	0.044	1.475	0.375	0.035	1.89	0.46	0.060	2.31	0.05	0.052
0.51	0.3	0.033	1.43	0.76	0.042	2.36	0.33	0.041	1.475	0.38	0.034	1.89	0.465	0.061	2.31	0.055	0.053
0.51	0.31	0.033	1.43	0.77	0.043	2.36	0.34	0.040	1.475	0.385	0.033	1.89	0.47	0.063	2.31	0.06	0.055
0.51	0.32	0.033	1.43	0.78	0.042	2.36	0.35	0.041	1.475	0.39	0.033	1.89	0.475	0.063	2.31	0.065	0.059
0.51	0.33	0.033	1.43	0.79	0.041	2.36	0.36	0.042	1.475	0.395	0.035	1.89	0.48	0.059	2.31	0.07	0.066
0.51	0.34	0.033	1.43	0.8	0.041	2.36	0.37	0.041	1.475	0.4	0.037	1.89	0.485	0.052	2.31	0.075	0.068
0.51	0.35	0.033	1.43	0.81	0.043	2.36	0.38	0.040	1.475	0.405	0.040	1.89	0.49	0.046	2.31	0.08	0.066
0.51	0.36	0.033	1.43	0.82	0.046	2.36	0.39	0.039	1.475	0.41	0.041	1.89	0.495	0.044	2.31	0.085	0.060
0.51	0.37	0.032	1.43	0.83	0.047	2.36	0.4	0.039	1.475	0.415	0.041	1.895	0.005	0.036	2.31	0.09	0.052
0.51	0.38	0.032	1.43	0.84	0.047	2.36	0.41	0.039	1.475	0.42	0.040	1.895	0.01	0.041	2.31	0.095	0.047
0.51	0.39	0.031	1.43	0.85	0.045	2.36	0.42	0.039	1.475	0.425	0.039	1.895	0.015	0.045	2.31	0.1	0.046
0.51	0.4	0.031	1.43	0.86	0.044	2.36	0.43	0.040	1.475	0.43	0.038	1.895	0.02	0.049	2.31	0.105	0.047
0.51	0.41	0.032	1.43	0.87	0.044	2.36	0.44	0.041	1.475	0.435	0.037	1.895	0.025	0.055	2.31	0.11	0.046
0.51	0.42	0.033	1.43	0.88	0.045	2.36	0.45	0.041	1.475	0.44	0.037	1.895	0.03	0.059	2.31	0.115	0.044
0.51	0.43	0.035	1.43	0.89	0.046	2.36	0.46	0.043	1.475	0.445	0.036	1.895	0.035	0.059	2.31	0.12	0.043
0.51	0.44	0.037	1.44	0.01	0.038	2.36	0.47	0.045	1.475	0.45	0.035	1.895	0.04	0.056	2.31	0.125	0.041
0.51	0.45	0.039	1.44	0.02	0.038	2.36	0.48	0.045	1.475	0.455	0.034	1.895	0.045	0.059	2.31	0.13	0.041
0.51	0.46	0.039	1.44	0.03	0.038	2.36	0.49	0.045	1.475	0.46	0.033	1.895	0.05	0.064	2.31	0.135	0.042
0.51	0.47	0.039	1.44	0.04	0.038	2.36	0.5	0.046	1.475	0.465	0.032	1.895	0.055	0.067	2.31	0.14	0.043
0.51	0.48	0.037	1.44	0.05	0.037	2.36	0.51	0.047	1.475	0.47	0.032	1.895	0.06	0.068	2.31	0.145	0.041
0.51	0.49	0.035	1.44	0.06	0.037	2.36	0.52	0.048	1.475	0.475	0.032	1.895	0.065	0.068	2.31	0.15	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.51	0.5	0.034	1.44	0.07	0.037	2.36	0.53	0.049	1.475	0.48	0.032	1.895	0.07	0.065	2.31	0.155	0.041
0.51	0.51	0.033	1.44	0.08	0.037	2.36	0.54	0.049	1.475	0.485	0.032	1.895	0.075	0.058	2.31	0.16	0.045
0.51	0.52	0.033	1.44	0.09	0.037	2.36	0.55	0.048	1.475	0.49	0.033	1.895	0.08	0.051	2.31	0.165	0.048
0.51	0.53	0.034	1.44	0.1	0.037	2.36	0.56	0.047	1.475	0.495	0.033	1.895	0.085	0.048	2.31	0.17	0.051
0.51	0.54	0.036	1.44	0.11	0.039	2.36	0.57	0.047	1.48	0.005	0.042	1.895	0.09	0.048	2.31	0.175	0.053
0.51	0.55	0.037	1.44	0.12	0.042	2.36	0.58	0.047	1.48	0.01	0.042	1.895	0.095	0.051	2.31	0.18	0.054
0.51	0.56	0.039	1.44	0.13	0.045	2.36	0.59	0.048	1.48	0.015	0.041	1.895	0.1	0.056	2.31	0.185	0.056
0.51	0.57	0.040	1.44	0.14	0.047	2.36	0.6	0.050	1.48	0.02	0.040	1.895	0.105	0.066	2.31	0.19	0.057
0.51	0.58	0.040	1.44	0.15	0.045	2.36	0.61	0.050	1.48	0.025	0.039	1.895	0.11	0.072	2.31	0.195	0.057
0.51	0.59	0.041	1.44	0.16	0.043	2.36	0.62	0.050	1.48	0.03	0.039	1.895	0.115	0.075	2.31	0.2	0.056
0.51	0.6	0.040	1.44	0.17	0.041	2.36	0.63	0.051	1.48	0.035	0.039	1.895	0.12	0.076	2.31	0.205	0.051
0.51	0.61	0.039	1.44	0.18	0.041	2.36	0.64	0.053	1.48	0.04	0.039	1.895	0.125	0.076	2.31	0.21	0.043
0.51	0.62	0.037	1.44	0.19	0.042	2.36	0.65	0.057	1.48	0.045	0.038	1.895	0.13	0.074	2.31	0.215	0.036
0.51	0.63	0.037	1.44	0.2	0.042	2.36	0.66	0.059	1.48	0.05	0.037	1.895	0.135	0.067	2.31	0.22	0.034
0.51	0.64	0.036	1.44	0.21	0.041	2.36	0.67	0.060	1.48	0.055	0.036	1.895	0.14	0.057	2.31	0.225	0.035
0.51	0.65	0.035	1.44	0.22	0.039	2.36	0.68	0.059	1.48	0.06	0.036	1.895	0.145	0.051	2.31	0.23	0.039
0.51	0.66	0.035	1.44	0.23	0.038	2.36	0.69	0.058	1.48	0.065	0.035	1.895	0.15	0.045	2.31	0.235	0.042
0.51	0.67	0.034	1.44	0.24	0.039	2.36	0.7	0.057	1.48	0.07	0.036	1.895	0.155	0.042	2.31	0.24	0.041
0.51	0.68	0.034	1.44	0.25	0.041	2.36	0.71	0.057	1.48	0.075	0.037	1.895	0.16	0.045	2.31	0.245	0.038
0.51	0.69	0.034	1.44	0.26	0.042	2.36	0.72	0.057	1.48	0.08	0.039	1.895	0.165	0.051	2.31	0.25	0.035
0.51	0.7	0.035	1.44	0.27	0.041	2.36	0.73	0.056	1.48	0.085	0.043	1.895	0.17	0.056	2.31	0.255	0.034
0.51	0.71	0.035	1.44	0.28	0.040	2.36	0.74	0.056	1.48	0.09	0.045	1.895	0.175	0.058	2.31	0.26	0.035
0.51	0.72	0.035	1.44	0.29	0.039	2.36	0.75	0.057	1.48	0.095	0.045	1.895	0.18	0.056	2.31	0.265	0.039
0.51	0.73	0.035	1.44	0.3	0.039	2.36	0.76	0.057	1.48	0.1	0.043	1.895	0.185	0.051	2.31	0.27	0.045
0.51	0.74	0.035	1.44	0.31	0.038	2.36	0.77	0.056	1.48	0.105	0.040	1.895	0.19	0.048	2.31	0.275	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.51	0.75	0.035	1.44	0.32	0.038	2.36	0.78	0.055	1.48	0.11	0.038	1.895	0.195	0.054	2.31	0.28	0.051
0.51	0.76	0.035	1.44	0.33	0.038	2.36	0.79	0.054	1.48	0.115	0.039	1.895	0.2	0.061	2.31	0.285	0.051
0.51	0.77	0.036	1.44	0.34	0.037	2.36	0.8	0.053	1.48	0.12	0.042	1.895	0.205	0.063	2.31	0.29	0.049
0.51	0.78	0.037	1.44	0.35	0.037	2.36	0.81	0.051	1.48	0.125	0.042	1.895	0.21	0.062	2.31	0.295	0.043
0.51	0.79	0.038	1.44	0.36	0.037	2.36	0.82	0.050	1.48	0.13	0.040	1.895	0.215	0.060	2.31	0.3	0.041
0.51	0.8	0.039	1.44	0.37	0.037	2.36	0.83	0.052	1.48	0.135	0.039	1.895	0.22	0.057	2.31	0.305	0.045
0.51	0.81	0.038	1.44	0.38	0.038	2.36	0.84	0.056	1.48	0.14	0.040	1.895	0.225	0.053	2.31	0.31	0.049
0.51	0.82	0.036	1.44	0.39	0.038	2.36	0.85	0.058	1.48	0.145	0.043	1.895	0.23	0.051	2.31	0.315	0.051
0.51	0.83	0.036	1.44	0.4	0.039	2.36	0.86	0.058	1.48	0.15	0.045	1.895	0.235	0.049	2.31	0.32	0.052
0.51	0.84	0.036	1.44	0.41	0.038	2.36	0.87	0.054	1.48	0.155	0.045	1.895	0.24	0.050	2.31	0.325	0.051
0.51	0.85	0.038	1.44	0.42	0.037	2.36	0.88	0.047	1.48	0.16	0.042	1.895	0.245	0.055	2.31	0.33	0.046
0.51	0.86	0.038	1.44	0.43	0.036	2.36	0.89	0.041	1.48	0.165	0.038	1.895	0.25	0.058	2.31	0.335	0.039
0.51	0.87	0.038	1.44	0.44	0.036	2.37	0.01	0.067	1.48	0.17	0.036	1.895	0.255	0.058	2.31	0.34	0.034
0.51	0.88	0.036	1.44	0.45	0.036	2.37	0.02	0.069	1.48	0.175	0.036	1.895	0.26	0.057	2.31	0.345	0.035
0.51	0.89	0.034	1.44	0.46	0.035	2.37	0.03	0.070	1.48	0.18	0.038	1.895	0.265	0.055	2.31	0.35	0.038
0.52	0.01	0.039	1.44	0.47	0.034	2.37	0.04	0.070	1.48	0.185	0.037	1.895	0.27	0.049	2.31	0.355	0.041
0.52	0.02	0.039	1.44	0.48	0.035	2.37	0.05	0.070	1.48	0.19	0.037	1.895	0.275	0.042	2.31	0.36	0.041
0.52	0.03	0.038	1.44	0.49	0.035	2.37	0.06	0.068	1.48	0.195	0.035	1.895	0.28	0.040	2.31	0.365	0.040
0.52	0.04	0.037	1.44	0.5	0.036	2.37	0.07	0.065	1.48	0.2	0.034	1.895	0.285	0.042	2.31	0.37	0.037
0.52	0.05	0.038	1.44	0.51	0.035	2.37	0.08	0.061	1.48	0.205	0.034	1.895	0.29	0.044	2.31	0.375	0.035
0.52	0.06	0.039	1.44	0.52	0.035	2.37	0.09	0.057	1.48	0.21	0.033	1.895	0.295	0.048	2.31	0.38	0.039
0.52	0.07	0.039	1.44	0.53	0.035	2.37	0.1	0.053	1.48	0.215	0.034	1.895	0.3	0.050	2.31	0.385	0.044
0.52	0.08	0.039	1.44	0.54	0.035	2.37	0.11	0.052	1.48	0.22	0.037	1.895	0.305	0.051	2.31	0.39	0.046
0.52	0.09	0.037	1.44	0.55	0.036	2.37	0.12	0.052	1.48	0.225	0.041	1.895	0.31	0.049	2.31	0.395	0.047
0.52	0.1	0.036	1.44	0.56	0.037	2.37	0.13	0.051	1.48	0.23	0.043	1.895	0.315	0.042	2.31	0.4	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.52	0.11	0.037	1.44	0.57	0.038	2.37	0.14	0.051	1.48	0.235	0.043	1.895	0.32	0.037	2.31	0.405	0.044
0.52	0.12	0.038	1.44	0.58	0.039	2.37	0.15	0.055	1.48	0.24	0.042	1.895	0.325	0.035	2.31	0.41	0.041
0.52	0.13	0.039	1.44	0.59	0.039	2.37	0.16	0.062	1.48	0.245	0.041	1.895	0.33	0.039	2.31	0.415	0.040
0.52	0.14	0.039	1.44	0.6	0.040	2.37	0.17	0.067	1.48	0.25	0.040	1.895	0.335	0.045	2.31	0.42	0.041
0.52	0.15	0.039	1.44	0.61	0.040	2.37	0.18	0.069	1.48	0.255	0.039	1.895	0.34	0.050	2.31	0.425	0.042
0.52	0.16	0.038	1.44	0.62	0.039	2.37	0.19	0.068	1.48	0.26	0.039	1.895	0.345	0.053	2.31	0.43	0.043
0.52	0.17	0.037	1.44	0.63	0.038	2.37	0.2	0.065	1.48	0.265	0.037	1.895	0.35	0.051	2.31	0.435	0.042
0.52	0.18	0.036	1.44	0.64	0.039	2.37	0.21	0.060	1.48	0.27	0.034	1.895	0.355	0.044	2.31	0.44	0.040
0.52	0.19	0.036	1.44	0.65	0.041	2.37	0.22	0.053	1.48	0.275	0.033	1.895	0.36	0.039	2.31	0.445	0.038
0.52	0.2	0.036	1.44	0.66	0.041	2.37	0.23	0.047	1.48	0.28	0.033	1.895	0.365	0.040	2.31	0.45	0.035
0.52	0.21	0.036	1.44	0.67	0.041	2.37	0.24	0.045	1.48	0.285	0.035	1.895	0.37	0.045	2.31	0.455	0.033
0.52	0.22	0.036	1.44	0.68	0.042	2.37	0.25	0.046	1.48	0.29	0.037	1.895	0.375	0.050	2.31	0.46	0.033
0.52	0.23	0.036	1.44	0.69	0.043	2.37	0.26	0.045	1.48	0.295	0.040	1.895	0.38	0.051	2.31	0.465	0.035
0.52	0.24	0.036	1.44	0.7	0.044	2.37	0.27	0.043	1.48	0.3	0.042	1.895	0.385	0.050	2.31	0.47	0.038
0.52	0.25	0.037	1.44	0.71	0.043	2.37	0.28	0.042	1.48	0.305	0.042	1.895	0.39	0.048	2.31	0.475	0.038
0.52	0.26	0.037	1.44	0.72	0.041	2.37	0.29	0.042	1.48	0.31	0.043	1.895	0.395	0.049	2.31	0.48	0.037
0.52	0.27	0.036	1.44	0.73	0.040	2.37	0.3	0.044	1.48	0.315	0.043	1.895	0.4	0.053	2.31	0.485	0.035
0.52	0.28	0.035	1.44	0.74	0.039	2.37	0.31	0.044	1.48	0.32	0.042	1.895	0.405	0.055	2.31	0.49	0.033
0.52	0.29	0.034	1.44	0.75	0.039	2.37	0.32	0.043	1.48	0.325	0.040	1.895	0.41	0.054	2.31	0.495	0.032
0.52	0.3	0.033	1.44	0.76	0.040	2.37	0.33	0.040	1.48	0.33	0.036	1.895	0.415	0.051	2.315	0.005	0.061
0.52	0.31	0.033	1.44	0.77	0.042	2.37	0.34	0.040	1.48	0.335	0.033	1.895	0.42	0.050	2.315	0.01	0.082
0.52	0.32	0.033	1.44	0.78	0.042	2.37	0.35	0.041	1.48	0.34	0.031	1.895	0.425	0.052	2.315	0.015	0.095
0.52	0.33	0.033	1.44	0.79	0.042	2.37	0.36	0.042	1.48	0.345	0.030	1.895	0.43	0.061	2.315	0.02	0.098
0.52	0.34	0.033	1.44	0.8	0.042	2.37	0.37	0.041	1.48	0.35	0.031	1.895	0.435	0.069	2.315	0.025	0.096
0.52	0.35	0.033	1.44	0.81	0.043	2.37	0.38	0.040	1.48	0.355	0.031	1.895	0.44	0.067	2.315	0.03	0.093

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.52	0.36	0.032	1.44	0.82	0.045	2.37	0.39	0.040	1.48	0.36	0.033	1.895	0.445	0.059	2.315	0.035	0.086
0.52	0.37	0.031	1.44	0.83	0.046	2.37	0.4	0.039	1.48	0.365	0.035	1.895	0.45	0.053	2.315	0.04	0.071
0.52	0.38	0.031	1.44	0.84	0.046	2.37	0.41	0.039	1.48	0.37	0.036	1.895	0.455	0.054	2.315	0.045	0.057
0.52	0.39	0.031	1.44	0.85	0.045	2.37	0.42	0.039	1.48	0.375	0.037	1.895	0.46	0.061	2.315	0.05	0.053
0.52	0.4	0.031	1.44	0.86	0.043	2.37	0.43	0.041	1.48	0.38	0.037	1.895	0.465	0.066	2.315	0.055	0.053
0.52	0.41	0.032	1.44	0.87	0.043	2.37	0.44	0.042	1.48	0.385	0.036	1.895	0.47	0.068	2.315	0.06	0.054
0.52	0.42	0.033	1.44	0.88	0.043	2.37	0.45	0.044	1.48	0.39	0.036	1.895	0.475	0.067	2.315	0.065	0.055
0.52	0.43	0.035	1.44	0.89	0.044	2.37	0.46	0.046	1.48	0.395	0.037	1.895	0.48	0.064	2.315	0.07	0.058
0.52	0.44	0.038	1.45	0.01	0.039	2.37	0.47	0.048	1.48	0.4	0.037	1.895	0.485	0.058	2.315	0.075	0.060
0.52	0.45	0.040	1.45	0.02	0.039	2.37	0.48	0.048	1.48	0.405	0.039	1.895	0.49	0.049	2.315	0.08	0.059
0.52	0.46	0.041	1.45	0.03	0.039	2.37	0.49	0.048	1.48	0.41	0.040	1.895	0.495	0.045	2.315	0.085	0.054
0.52	0.47	0.041	1.45	0.04	0.038	2.37	0.5	0.050	1.48	0.415	0.039	1.9	0.005	0.037	2.315	0.09	0.049
0.52	0.48	0.038	1.45	0.05	0.038	2.37	0.51	0.052	1.48	0.42	0.038	1.9	0.01	0.042	2.315	0.095	0.046
0.52	0.49	0.035	1.45	0.06	0.037	2.37	0.52	0.052	1.48	0.425	0.037	1.9	0.015	0.046	2.315	0.1	0.049
0.52	0.5	0.034	1.45	0.07	0.038	2.37	0.53	0.052	1.48	0.43	0.036	1.9	0.02	0.048	2.315	0.105	0.053
0.52	0.51	0.033	1.45	0.08	0.038	2.37	0.54	0.052	1.48	0.435	0.036	1.9	0.025	0.052	2.315	0.11	0.055
0.52	0.52	0.033	1.45	0.09	0.038	2.37	0.55	0.049	1.48	0.44	0.036	1.9	0.03	0.055	2.315	0.115	0.054
0.52	0.53	0.034	1.45	0.1	0.038	2.37	0.56	0.046	1.48	0.445	0.036	1.9	0.035	0.054	2.315	0.12	0.052
0.52	0.54	0.036	1.45	0.11	0.041	2.37	0.57	0.045	1.48	0.45	0.036	1.9	0.04	0.053	2.315	0.125	0.051
0.52	0.55	0.038	1.45	0.12	0.044	2.37	0.58	0.045	1.48	0.455	0.035	1.9	0.045	0.056	2.315	0.13	0.050
0.52	0.56	0.040	1.45	0.13	0.048	2.37	0.59	0.047	1.48	0.46	0.034	1.9	0.05	0.060	2.315	0.135	0.049
0.52	0.57	0.041	1.45	0.14	0.049	2.37	0.6	0.050	1.48	0.465	0.032	1.9	0.055	0.064	2.315	0.14	0.047
0.52	0.58	0.042	1.45	0.15	0.047	2.37	0.61	0.053	1.48	0.47	0.032	1.9	0.06	0.067	2.315	0.145	0.043
0.52	0.59	0.043	1.45	0.16	0.044	2.37	0.62	0.055	1.48	0.475	0.033	1.9	0.065	0.068	2.315	0.15	0.041
0.52	0.6	0.042	1.45	0.17	0.042	2.37	0.63	0.055	1.48	0.48	0.033	1.9	0.07	0.065	2.315	0.155	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.52	0.61	0.040	1.45	0.18	0.041	2.37	0.64	0.054	1.48	0.485	0.032	1.9	0.075	0.057	2.315	0.16	0.049
0.52	0.62	0.038	1.45	0.19	0.041	2.37	0.65	0.055	1.48	0.49	0.032	1.9	0.08	0.049	2.315	0.165	0.053
0.52	0.63	0.038	1.45	0.2	0.040	2.37	0.66	0.055	1.48	0.495	0.032	1.9	0.085	0.046	2.315	0.17	0.056
0.52	0.64	0.037	1.45	0.21	0.040	2.37	0.67	0.056	1.485	0.005	0.041	1.9	0.09	0.047	2.315	0.175	0.057
0.52	0.65	0.036	1.45	0.22	0.039	2.37	0.68	0.057	1.485	0.01	0.041	1.9	0.095	0.049	2.315	0.18	0.059
0.52	0.66	0.034	1.45	0.23	0.038	2.37	0.69	0.057	1.485	0.015	0.040	1.9	0.1	0.054	2.315	0.185	0.060
0.52	0.67	0.034	1.45	0.24	0.040	2.37	0.7	0.056	1.485	0.02	0.041	1.9	0.105	0.061	2.315	0.19	0.061
0.52	0.68	0.034	1.45	0.25	0.041	2.37	0.71	0.057	1.485	0.025	0.040	1.9	0.11	0.068	2.315	0.195	0.061
0.52	0.69	0.035	1.45	0.26	0.041	2.37	0.72	0.058	1.485	0.03	0.039	1.9	0.115	0.071	2.315	0.2	0.060
0.52	0.7	0.035	1.45	0.27	0.040	2.37	0.73	0.059	1.485	0.035	0.039	1.9	0.12	0.072	2.315	0.205	0.056
0.52	0.71	0.035	1.45	0.28	0.039	2.37	0.74	0.059	1.485	0.04	0.039	1.9	0.125	0.071	2.315	0.21	0.049
0.52	0.72	0.035	1.45	0.29	0.038	2.37	0.75	0.059	1.485	0.045	0.038	1.9	0.13	0.068	2.315	0.215	0.042
0.52	0.73	0.035	1.45	0.3	0.039	2.37	0.76	0.058	1.485	0.05	0.037	1.9	0.135	0.062	2.315	0.22	0.039
0.52	0.74	0.035	1.45	0.31	0.039	2.37	0.77	0.056	1.485	0.055	0.037	1.9	0.14	0.055	2.315	0.225	0.040
0.52	0.75	0.035	1.45	0.32	0.039	2.37	0.78	0.053	1.485	0.06	0.037	1.9	0.145	0.051	2.315	0.23	0.045
0.52	0.76	0.035	1.45	0.33	0.038	2.37	0.79	0.052	1.485	0.065	0.039	1.9	0.15	0.048	2.315	0.235	0.047
0.52	0.77	0.035	1.45	0.34	0.037	2.37	0.8	0.050	1.485	0.07	0.040	1.9	0.155	0.046	2.315	0.24	0.045
0.52	0.78	0.036	1.45	0.35	0.036	2.37	0.81	0.048	1.485	0.075	0.041	1.9	0.16	0.046	2.315	0.245	0.039
0.52	0.79	0.037	1.45	0.36	0.036	2.37	0.82	0.047	1.485	0.08	0.042	1.9	0.165	0.046	2.315	0.25	0.034
0.52	0.8	0.038	1.45	0.37	0.035	2.37	0.83	0.049	1.485	0.085	0.046	1.9	0.17	0.049	2.315	0.255	0.032
0.52	0.81	0.038	1.45	0.38	0.036	2.37	0.84	0.053	1.485	0.09	0.048	1.9	0.175	0.052	2.315	0.26	0.033
0.52	0.82	0.036	1.45	0.39	0.037	2.37	0.85	0.055	1.485	0.095	0.048	1.9	0.18	0.055	2.315	0.265	0.036
0.52	0.83	0.035	1.45	0.4	0.038	2.37	0.86	0.056	1.485	0.1	0.047	1.9	0.185	0.053	2.315	0.27	0.043
0.52	0.84	0.036	1.45	0.41	0.038	2.37	0.87	0.054	1.485	0.105	0.044	1.9	0.19	0.049	2.315	0.275	0.049
0.52	0.85	0.037	1.45	0.42	0.037	2.37	0.88	0.049	1.485	0.11	0.041	1.9	0.195	0.054	2.315	0.28	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.52	0.86	0.038	1.45	0.43	0.036	2.37	0.89	0.043	1.485	0.115	0.042	1.9	0.2	0.060	2.315	0.285	0.051
0.52	0.87	0.038	1.45	0.44	0.036	2.38	0.01	0.067	1.485	0.12	0.046	1.9	0.205	0.063	2.315	0.29	0.049
0.52	0.88	0.037	1.45	0.45	0.035	2.38	0.02	0.070	1.485	0.125	0.046	1.9	0.21	0.063	2.315	0.295	0.044
0.52	0.89	0.035	1.45	0.46	0.034	2.38	0.03	0.072	1.485	0.13	0.042	1.9	0.215	0.061	2.315	0.3	0.039
0.53	0.01	0.038	1.45	0.47	0.034	2.38	0.04	0.071	1.485	0.135	0.039	1.9	0.22	0.059	2.315	0.305	0.043
0.53	0.02	0.038	1.45	0.48	0.035	2.38	0.05	0.070	1.485	0.14	0.041	1.9	0.225	0.057	2.315	0.31	0.048
0.53	0.03	0.038	1.45	0.49	0.036	2.38	0.06	0.068	1.485	0.145	0.045	1.9	0.23	0.053	2.315	0.315	0.051
0.53	0.04	0.037	1.45	0.5	0.036	2.38	0.07	0.066	1.485	0.15	0.045	1.9	0.235	0.047	2.315	0.32	0.051
0.53	0.05	0.037	1.45	0.51	0.035	2.38	0.08	0.063	1.485	0.155	0.044	1.9	0.24	0.044	2.315	0.325	0.049
0.53	0.06	0.038	1.45	0.52	0.034	2.38	0.09	0.059	1.485	0.16	0.041	1.9	0.245	0.048	2.315	0.33	0.042
0.53	0.07	0.038	1.45	0.53	0.034	2.38	0.1	0.054	1.485	0.165	0.037	1.9	0.25	0.054	2.315	0.335	0.037
0.53	0.08	0.038	1.45	0.54	0.035	2.38	0.11	0.051	1.485	0.17	0.035	1.9	0.255	0.057	2.315	0.34	0.034
0.53	0.09	0.037	1.45	0.55	0.035	2.38	0.12	0.051	1.485	0.175	0.037	1.9	0.26	0.057	2.315	0.345	0.036
0.53	0.1	0.036	1.45	0.56	0.035	2.38	0.13	0.051	1.485	0.18	0.039	1.9	0.265	0.054	2.315	0.35	0.038
0.53	0.11	0.035	1.45	0.57	0.036	2.38	0.14	0.051	1.485	0.185	0.040	1.9	0.27	0.048	2.315	0.355	0.041
0.53	0.12	0.036	1.45	0.58	0.037	2.38	0.15	0.053	1.485	0.19	0.039	1.9	0.275	0.043	2.315	0.36	0.041
0.53	0.13	0.036	1.45	0.59	0.039	2.38	0.16	0.058	1.485	0.195	0.038	1.9	0.28	0.041	2.315	0.365	0.040
0.53	0.14	0.037	1.45	0.6	0.039	2.38	0.17	0.063	1.485	0.2	0.036	1.9	0.285	0.043	2.315	0.37	0.038
0.53	0.15	0.037	1.45	0.61	0.039	2.38	0.18	0.065	1.485	0.205	0.035	1.9	0.29	0.046	2.315	0.375	0.035
0.53	0.16	0.036	1.45	0.62	0.038	2.38	0.19	0.065	1.485	0.21	0.035	1.9	0.295	0.049	2.315	0.38	0.036
0.53	0.17	0.036	1.45	0.63	0.037	2.38	0.2	0.063	1.485	0.215	0.037	1.9	0.3	0.050	2.315	0.385	0.040
0.53	0.18	0.036	1.45	0.64	0.037	2.38	0.21	0.058	1.485	0.22	0.041	1.9	0.305	0.048	2.315	0.39	0.043
0.53	0.19	0.036	1.45	0.65	0.038	2.38	0.22	0.053	1.485	0.225	0.044	1.9	0.31	0.043	2.315	0.395	0.043
0.53	0.2	0.037	1.45	0.66	0.039	2.38	0.23	0.049	1.485	0.23	0.045	1.9	0.315	0.039	2.315	0.4	0.043
0.53	0.21	0.037	1.45	0.67	0.040	2.38	0.24	0.047	1.485	0.235	0.043	1.9	0.32	0.035	2.315	0.405	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.53	0.22	0.036	1.45	0.68	0.042	2.38	0.25	0.046	1.485	0.24	0.041	1.9	0.325	0.034	2.315	0.41	0.039
0.53	0.23	0.036	1.45	0.69	0.044	2.38	0.26	0.044	1.485	0.245	0.040	1.9	0.33	0.036	2.315	0.415	0.039
0.53	0.24	0.036	1.45	0.7	0.046	2.38	0.27	0.043	1.485	0.25	0.042	1.9	0.335	0.042	2.315	0.42	0.040
0.53	0.25	0.037	1.45	0.71	0.045	2.38	0.28	0.042	1.485	0.255	0.043	1.9	0.34	0.048	2.315	0.425	0.041
0.53	0.26	0.038	1.45	0.72	0.043	2.38	0.29	0.042	1.485	0.26	0.043	1.9	0.345	0.051	2.315	0.43	0.041
0.53	0.27	0.038	1.45	0.73	0.041	2.38	0.3	0.043	1.485	0.265	0.040	1.9	0.35	0.049	2.315	0.435	0.040
0.53	0.28	0.037	1.45	0.74	0.039	2.38	0.31	0.043	1.485	0.27	0.036	1.9	0.355	0.044	2.315	0.44	0.038
0.53	0.29	0.035	1.45	0.75	0.038	2.38	0.32	0.041	1.485	0.275	0.034	1.9	0.36	0.040	2.315	0.445	0.035
0.53	0.3	0.034	1.45	0.76	0.038	2.38	0.33	0.039	1.485	0.28	0.034	1.9	0.365	0.041	2.315	0.45	0.033
0.53	0.31	0.033	1.45	0.77	0.040	2.38	0.34	0.039	1.485	0.285	0.035	1.9	0.37	0.046	2.315	0.455	0.032
0.53	0.32	0.033	1.45	0.78	0.042	2.38	0.35	0.040	1.485	0.29	0.037	1.9	0.375	0.050	2.315	0.46	0.033
0.53	0.33	0.033	1.45	0.79	0.043	2.38	0.36	0.041	1.485	0.295	0.039	1.9	0.38	0.051	2.315	0.465	0.034
0.53	0.34	0.033	1.45	0.8	0.043	2.38	0.37	0.041	1.485	0.3	0.041	1.9	0.385	0.049	2.315	0.47	0.036
0.53	0.35	0.032	1.45	0.81	0.044	2.38	0.38	0.041	1.485	0.305	0.042	1.9	0.39	0.048	2.315	0.475	0.037
0.53	0.36	0.032	1.45	0.82	0.045	2.38	0.39	0.041	1.485	0.31	0.042	1.9	0.395	0.050	2.315	0.48	0.036
0.53	0.37	0.031	1.45	0.83	0.045	2.38	0.4	0.041	1.485	0.315	0.042	1.9	0.4	0.054	2.315	0.485	0.035
0.53	0.38	0.031	1.45	0.84	0.045	2.38	0.41	0.040	1.485	0.32	0.042	1.9	0.405	0.056	2.315	0.49	0.033
0.53	0.39	0.030	1.45	0.85	0.044	2.38	0.42	0.040	1.485	0.325	0.038	1.9	0.41	0.054	2.315	0.495	0.033
0.53	0.4	0.031	1.45	0.86	0.042	2.38	0.43	0.042	1.485	0.33	0.034	1.9	0.415	0.052	2.32	0.005	0.069
0.53	0.41	0.032	1.45	0.87	0.042	2.38	0.44	0.044	1.485	0.335	0.032	1.9	0.42	0.050	2.32	0.01	0.086
0.53	0.42	0.034	1.45	0.88	0.043	2.38	0.45	0.046	1.485	0.34	0.030	1.9	0.425	0.053	2.32	0.015	0.096
0.53	0.43	0.036	1.45	0.89	0.044	2.38	0.46	0.049	1.485	0.345	0.030	1.9	0.43	0.061	2.32	0.02	0.099
0.53	0.44	0.039	1.46	0.01	0.041	2.38	0.47	0.050	1.485	0.35	0.030	1.9	0.435	0.069	2.32	0.025	0.099
0.53	0.45	0.040	1.46	0.02	0.040	2.38	0.48	0.049	1.485	0.355	0.031	1.9	0.44	0.068	2.32	0.03	0.096
0.53	0.46	0.042	1.46	0.03	0.039	2.38	0.49	0.050	1.485	0.36	0.032	1.9	0.445	0.061	2.32	0.035	0.091

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.53	0.47	0.042	1.46	0.04	0.039	2.38	0.5	0.052	1.485	0.365	0.035	1.9	0.45	0.055	2.32	0.04	0.078
0.53	0.48	0.040	1.46	0.05	0.038	2.38	0.51	0.054	1.485	0.37	0.037	1.9	0.455	0.058	2.32	0.045	0.061
0.53	0.49	0.036	1.46	0.06	0.038	2.38	0.52	0.054	1.485	0.375	0.038	1.9	0.46	0.065	2.32	0.05	0.055
0.53	0.5	0.034	1.46	0.07	0.038	2.38	0.53	0.054	1.485	0.38	0.038	1.9	0.465	0.069	2.32	0.055	0.053
0.53	0.51	0.033	1.46	0.08	0.039	2.38	0.54	0.053	1.485	0.385	0.038	1.9	0.47	0.070	2.32	0.06	0.053
0.53	0.52	0.033	1.46	0.09	0.040	2.38	0.55	0.050	1.485	0.39	0.038	1.9	0.475	0.070	2.32	0.065	0.053
0.53	0.53	0.034	1.46	0.1	0.040	2.38	0.56	0.046	1.485	0.395	0.038	1.9	0.48	0.067	2.32	0.07	0.052
0.53	0.54	0.035	1.46	0.11	0.042	2.38	0.57	0.044	1.485	0.4	0.038	1.9	0.485	0.062	2.32	0.075	0.052
0.53	0.55	0.038	1.46	0.12	0.045	2.38	0.58	0.044	1.485	0.405	0.037	1.9	0.49	0.054	2.32	0.08	0.051
0.53	0.56	0.040	1.46	0.13	0.047	2.38	0.59	0.047	1.485	0.41	0.037	1.9	0.495	0.051	2.32	0.085	0.049
0.53	0.57	0.042	1.46	0.14	0.048	2.38	0.6	0.052	1.485	0.415	0.037	1.905	0.005	0.038	2.32	0.09	0.049
0.53	0.58	0.043	1.46	0.15	0.047	2.38	0.61	0.057	1.485	0.42	0.036	1.905	0.01	0.044	2.32	0.095	0.052
0.53	0.59	0.043	1.46	0.16	0.044	2.38	0.62	0.058	1.485	0.425	0.035	1.905	0.015	0.049	2.32	0.1	0.057
0.53	0.6	0.042	1.46	0.17	0.042	2.38	0.63	0.057	1.485	0.43	0.034	1.905	0.02	0.053	2.32	0.105	0.061
0.53	0.61	0.041	1.46	0.18	0.041	2.38	0.64	0.055	1.485	0.435	0.035	1.905	0.025	0.056	2.32	0.11	0.063
0.53	0.62	0.040	1.46	0.19	0.041	2.38	0.65	0.054	1.485	0.44	0.036	1.905	0.03	0.055	2.32	0.115	0.063
0.53	0.63	0.040	1.46	0.2	0.039	2.38	0.66	0.054	1.485	0.445	0.036	1.905	0.035	0.051	2.32	0.12	0.062
0.53	0.64	0.038	1.46	0.21	0.038	2.38	0.67	0.054	1.485	0.45	0.037	1.905	0.04	0.049	2.32	0.125	0.061
0.53	0.65	0.036	1.46	0.22	0.038	2.38	0.68	0.055	1.485	0.455	0.036	1.905	0.045	0.052	2.32	0.13	0.059
0.53	0.66	0.035	1.46	0.23	0.039	2.38	0.69	0.057	1.485	0.46	0.035	1.905	0.05	0.057	2.32	0.135	0.058
0.53	0.67	0.034	1.46	0.24	0.040	2.38	0.7	0.057	1.485	0.465	0.033	1.905	0.055	0.063	2.32	0.14	0.054
0.53	0.68	0.034	1.46	0.25	0.041	2.38	0.71	0.057	1.485	0.47	0.032	1.905	0.06	0.067	2.32	0.145	0.047
0.53	0.69	0.035	1.46	0.26	0.040	2.38	0.72	0.059	1.485	0.475	0.033	1.905	0.065	0.068	2.32	0.15	0.043
0.53	0.7	0.036	1.46	0.27	0.039	2.38	0.73	0.061	1.485	0.48	0.033	1.905	0.07	0.065	2.32	0.155	0.047
0.53	0.71	0.036	1.46	0.28	0.038	2.38	0.74	0.062	1.485	0.485	0.032	1.905	0.075	0.056	2.32	0.16	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.53	0.72	0.036	1.46	0.29	0.038	2.38	0.75	0.061	1.485	0.49	0.032	1.905	0.08	0.049	2.32	0.165	0.056
0.53	0.73	0.035	1.46	0.3	0.039	2.38	0.76	0.057	1.485	0.495	0.032	1.905	0.085	0.047	2.32	0.17	0.058
0.53	0.74	0.035	1.46	0.31	0.040	2.38	0.77	0.054	1.49	0.005	0.040	1.905	0.09	0.047	2.32	0.175	0.059
0.53	0.75	0.035	1.46	0.32	0.040	2.38	0.78	0.051	1.49	0.01	0.040	1.905	0.095	0.049	2.32	0.18	0.060
0.53	0.76	0.035	1.46	0.33	0.038	2.38	0.79	0.048	1.49	0.015	0.041	1.905	0.1	0.053	2.32	0.185	0.061
0.53	0.77	0.035	1.46	0.34	0.036	2.38	0.8	0.046	1.49	0.02	0.041	1.905	0.105	0.059	2.32	0.19	0.062
0.53	0.78	0.035	1.46	0.35	0.036	2.38	0.81	0.045	1.49	0.025	0.040	1.905	0.11	0.064	2.32	0.195	0.063
0.53	0.79	0.036	1.46	0.36	0.035	2.38	0.82	0.044	1.49	0.03	0.038	1.905	0.115	0.067	2.32	0.2	0.062
0.53	0.8	0.037	1.46	0.37	0.035	2.38	0.83	0.046	1.49	0.035	0.038	1.905	0.12	0.067	2.32	0.205	0.059
0.53	0.81	0.036	1.46	0.38	0.035	2.38	0.84	0.049	1.49	0.04	0.038	1.905	0.125	0.065	2.32	0.21	0.052
0.53	0.82	0.035	1.46	0.39	0.036	2.38	0.85	0.051	1.49	0.045	0.038	1.905	0.13	0.063	2.32	0.215	0.045
0.53	0.83	0.035	1.46	0.4	0.037	2.38	0.86	0.054	1.49	0.05	0.037	1.905	0.135	0.060	2.32	0.22	0.043
0.53	0.84	0.035	1.46	0.41	0.038	2.38	0.87	0.055	1.49	0.055	0.038	1.905	0.14	0.059	2.32	0.225	0.045
0.53	0.85	0.036	1.46	0.42	0.038	2.38	0.88	0.052	1.49	0.06	0.041	1.905	0.145	0.058	2.32	0.23	0.049
0.53	0.86	0.037	1.46	0.43	0.037	2.38	0.89	0.046	1.49	0.065	0.044	1.905	0.15	0.056	2.32	0.235	0.051
0.53	0.87	0.037	1.46	0.44	0.036	2.39	0.01	0.066	1.49	0.07	0.047	1.905	0.155	0.055	2.32	0.24	0.048
0.53	0.88	0.037	1.46	0.45	0.035	2.39	0.02	0.070	1.49	0.075	0.047	1.905	0.16	0.051	2.32	0.245	0.040
0.53	0.89	0.036	1.46	0.46	0.034	2.39	0.03	0.072	1.49	0.08	0.046	1.905	0.165	0.046	2.32	0.25	0.034
0.54	0.01	0.038	1.46	0.47	0.034	2.39	0.04	0.072	1.49	0.085	0.048	1.905	0.17	0.043	2.32	0.255	0.032
0.54	0.02	0.038	1.46	0.48	0.035	2.39	0.05	0.069	1.49	0.09	0.049	1.905	0.175	0.049	2.32	0.26	0.032
0.54	0.03	0.039	1.46	0.49	0.035	2.39	0.06	0.066	1.49	0.095	0.050	1.905	0.18	0.057	2.32	0.265	0.034
0.54	0.04	0.039	1.46	0.5	0.035	2.39	0.07	0.064	1.49	0.1	0.049	1.905	0.185	0.060	2.32	0.27	0.040
0.54	0.05	0.038	1.46	0.51	0.035	2.39	0.08	0.063	1.49	0.105	0.046	1.905	0.19	0.056	2.32	0.275	0.047
0.54	0.06	0.038	1.46	0.52	0.034	2.39	0.09	0.061	1.49	0.11	0.043	1.905	0.195	0.054	2.32	0.28	0.050
0.54	0.07	0.038	1.46	0.53	0.034	2.39	0.1	0.057	1.49	0.115	0.045	1.905	0.2	0.057	2.32	0.285	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.54	0.08	0.037	1.46	0.54	0.034	2.39	0.11	0.055	1.49	0.12	0.048	1.905	0.205	0.060	2.32	0.29	0.049
0.54	0.09	0.036	1.46	0.55	0.034	2.39	0.12	0.052	1.49	0.125	0.049	1.905	0.21	0.061	2.32	0.295	0.044
0.54	0.1	0.035	1.46	0.56	0.034	2.39	0.13	0.051	1.49	0.13	0.046	1.905	0.215	0.061	2.32	0.3	0.039
0.54	0.11	0.034	1.46	0.57	0.035	2.39	0.14	0.051	1.49	0.135	0.043	1.905	0.22	0.060	2.32	0.305	0.040
0.54	0.12	0.034	1.46	0.58	0.036	2.39	0.15	0.052	1.49	0.14	0.047	1.905	0.225	0.058	2.32	0.31	0.045
0.54	0.13	0.034	1.46	0.59	0.037	2.39	0.16	0.055	1.49	0.145	0.052	1.905	0.23	0.054	2.32	0.315	0.048
0.54	0.14	0.035	1.46	0.6	0.038	2.39	0.17	0.058	1.49	0.15	0.053	1.905	0.235	0.049	2.32	0.32	0.047
0.54	0.15	0.035	1.46	0.61	0.037	2.39	0.18	0.060	1.49	0.155	0.049	1.905	0.24	0.044	2.32	0.325	0.043
0.54	0.16	0.035	1.46	0.62	0.036	2.39	0.19	0.059	1.49	0.16	0.044	1.905	0.245	0.046	2.32	0.33	0.037
0.54	0.17	0.035	1.46	0.63	0.035	2.39	0.2	0.058	1.49	0.165	0.038	1.905	0.25	0.051	2.32	0.335	0.034
0.54	0.18	0.035	1.46	0.64	0.035	2.39	0.21	0.055	1.49	0.17	0.034	1.905	0.255	0.056	2.32	0.34	0.036
0.54	0.19	0.036	1.46	0.65	0.036	2.39	0.22	0.052	1.49	0.175	0.038	1.905	0.26	0.056	2.32	0.345	0.040
0.54	0.2	0.037	1.46	0.66	0.037	2.39	0.23	0.051	1.49	0.18	0.042	1.905	0.265	0.055	2.32	0.35	0.043
0.54	0.21	0.037	1.46	0.67	0.039	2.39	0.24	0.051	1.49	0.185	0.043	1.905	0.27	0.053	2.32	0.355	0.044
0.54	0.22	0.036	1.46	0.68	0.041	2.39	0.25	0.051	1.49	0.19	0.043	1.905	0.275	0.051	2.32	0.36	0.044
0.54	0.23	0.037	1.46	0.69	0.044	2.39	0.26	0.049	1.49	0.195	0.040	1.905	0.28	0.049	2.32	0.365	0.042
0.54	0.24	0.037	1.46	0.7	0.046	2.39	0.27	0.046	1.49	0.2	0.037	1.905	0.285	0.049	2.32	0.37	0.040
0.54	0.25	0.038	1.46	0.71	0.046	2.39	0.28	0.044	1.49	0.205	0.036	1.905	0.29	0.049	2.32	0.375	0.038
0.54	0.26	0.038	1.46	0.72	0.045	2.39	0.29	0.043	1.49	0.21	0.036	1.905	0.295	0.049	2.32	0.38	0.036
0.54	0.27	0.038	1.46	0.73	0.042	2.39	0.3	0.043	1.49	0.215	0.039	1.905	0.3	0.049	2.32	0.385	0.037
0.54	0.28	0.037	1.46	0.74	0.040	2.39	0.31	0.042	1.49	0.22	0.043	1.905	0.305	0.046	2.32	0.39	0.038
0.54	0.29	0.035	1.46	0.75	0.038	2.39	0.32	0.040	1.49	0.225	0.045	1.905	0.31	0.040	2.32	0.395	0.039
0.54	0.3	0.034	1.46	0.76	0.038	2.39	0.33	0.039	1.49	0.23	0.045	1.905	0.315	0.036	2.32	0.4	0.039
0.54	0.31	0.033	1.46	0.77	0.039	2.39	0.34	0.038	1.49	0.235	0.043	1.905	0.32	0.035	2.32	0.405	0.038
0.54	0.32	0.032	1.46	0.78	0.042	2.39	0.35	0.039	1.49	0.24	0.041	1.905	0.325	0.033	2.32	0.41	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.54	0.33	0.033	1.46	0.79	0.044	2.39	0.36	0.040	1.49	0.245	0.041	1.905	0.33	0.034	2.32	0.415	0.038
0.54	0.34	0.032	1.46	0.8	0.045	2.39	0.37	0.041	1.49	0.25	0.044	1.905	0.335	0.039	2.32	0.42	0.039
0.54	0.35	0.032	1.46	0.81	0.045	2.39	0.38	0.042	1.49	0.255	0.045	1.905	0.34	0.044	2.32	0.425	0.039
0.54	0.36	0.031	1.46	0.82	0.045	2.39	0.39	0.043	1.49	0.26	0.044	1.905	0.345	0.047	2.32	0.43	0.038
0.54	0.37	0.031	1.46	0.83	0.045	2.39	0.4	0.042	1.49	0.265	0.039	1.905	0.35	0.046	2.32	0.435	0.037
0.54	0.38	0.031	1.46	0.84	0.045	2.39	0.41	0.041	1.49	0.27	0.035	1.905	0.355	0.042	2.32	0.44	0.034
0.54	0.39	0.031	1.46	0.85	0.044	2.39	0.42	0.041	1.49	0.275	0.034	1.905	0.36	0.041	2.32	0.445	0.033
0.54	0.4	0.031	1.46	0.86	0.042	2.39	0.43	0.043	1.49	0.28	0.034	1.905	0.365	0.042	2.32	0.45	0.032
0.54	0.41	0.032	1.46	0.87	0.041	2.39	0.44	0.046	1.49	0.285	0.036	1.905	0.37	0.045	2.32	0.455	0.033
0.54	0.42	0.034	1.46	0.88	0.042	2.39	0.45	0.047	1.49	0.29	0.038	1.905	0.375	0.048	2.32	0.46	0.034
0.54	0.43	0.036	1.46	0.89	0.045	2.39	0.46	0.049	1.49	0.295	0.040	1.905	0.38	0.049	2.32	0.465	0.034
0.54	0.44	0.039	1.47	0.01	0.041	2.39	0.47	0.049	1.49	0.3	0.041	1.905	0.385	0.047	2.32	0.47	0.034
0.54	0.45	0.041	1.47	0.02	0.040	2.39	0.48	0.049	1.49	0.305	0.041	1.905	0.39	0.045	2.32	0.475	0.034
0.54	0.46	0.042	1.47	0.03	0.039	2.39	0.49	0.049	1.49	0.31	0.042	1.905	0.395	0.047	2.32	0.48	0.034
0.54	0.47	0.042	1.47	0.04	0.039	2.39	0.5	0.050	1.49	0.315	0.042	1.905	0.4	0.052	2.32	0.485	0.034
0.54	0.48	0.041	1.47	0.05	0.038	2.39	0.51	0.052	1.49	0.32	0.040	1.905	0.405	0.055	2.32	0.49	0.034
0.54	0.49	0.037	1.47	0.06	0.038	2.39	0.52	0.053	1.49	0.325	0.037	1.905	0.41	0.055	2.32	0.495	0.036
0.54	0.5	0.035	1.47	0.07	0.039	2.39	0.53	0.054	1.49	0.33	0.033	1.905	0.415	0.053	2.325	0.005	0.072
0.54	0.51	0.033	1.47	0.08	0.040	2.39	0.54	0.053	1.49	0.335	0.031	1.905	0.42	0.051	2.325	0.01	0.087
0.54	0.52	0.033	1.47	0.09	0.041	2.39	0.55	0.050	1.49	0.34	0.030	1.905	0.425	0.052	2.325	0.015	0.095
0.54	0.53	0.033	1.47	0.1	0.042	2.39	0.56	0.046	1.49	0.345	0.029	1.905	0.43	0.059	2.325	0.02	0.099
0.54	0.54	0.035	1.47	0.11	0.043	2.39	0.57	0.044	1.49	0.35	0.030	1.905	0.435	0.066	2.325	0.025	0.100
0.54	0.55	0.037	1.47	0.12	0.044	2.39	0.58	0.045	1.49	0.355	0.030	1.905	0.44	0.067	2.325	0.03	0.099
0.54	0.56	0.039	1.47	0.13	0.045	2.39	0.59	0.049	1.49	0.36	0.032	1.905	0.445	0.062	2.325	0.035	0.094
0.54	0.57	0.040	1.47	0.14	0.046	2.39	0.6	0.053	1.49	0.365	0.034	1.905	0.45	0.058	2.325	0.04	0.082

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.54	0.58	0.041	1.47	0.15	0.046	2.39	0.61	0.057	1.49	0.37	0.036	1.905	0.455	0.062	2.325	0.045	0.065
0.54	0.59	0.042	1.47	0.16	0.044	2.39	0.62	0.059	1.49	0.375	0.038	1.905	0.46	0.068	2.325	0.05	0.058
0.54	0.6	0.042	1.47	0.17	0.042	2.39	0.63	0.057	1.49	0.38	0.038	1.905	0.465	0.071	2.325	0.055	0.057
0.54	0.61	0.042	1.47	0.18	0.041	2.39	0.64	0.055	1.49	0.385	0.038	1.905	0.47	0.072	2.325	0.06	0.057
0.54	0.62	0.042	1.47	0.19	0.040	2.39	0.65	0.055	1.49	0.39	0.039	1.905	0.475	0.071	2.325	0.065	0.056
0.54	0.63	0.041	1.47	0.2	0.038	2.39	0.66	0.055	1.49	0.395	0.038	1.905	0.48	0.070	2.325	0.07	0.053
0.54	0.64	0.039	1.47	0.21	0.038	2.39	0.67	0.055	1.49	0.4	0.037	1.905	0.485	0.066	2.325	0.075	0.049
0.54	0.65	0.037	1.47	0.22	0.039	2.39	0.68	0.056	1.49	0.405	0.036	1.905	0.49	0.060	2.325	0.08	0.046
0.54	0.66	0.035	1.47	0.23	0.040	2.39	0.69	0.057	1.49	0.41	0.035	1.905	0.495	0.055	2.325	0.085	0.047
0.54	0.67	0.034	1.47	0.24	0.041	2.39	0.7	0.058	1.49	0.415	0.034	1.91	0.005	0.041	2.325	0.09	0.052
0.54	0.68	0.034	1.47	0.25	0.040	2.39	0.71	0.059	1.49	0.42	0.034	1.91	0.01	0.048	2.325	0.095	0.058
0.54	0.69	0.035	1.47	0.26	0.040	2.39	0.72	0.061	1.49	0.425	0.033	1.91	0.015	0.056	2.325	0.1	0.062
0.54	0.7	0.036	1.47	0.27	0.039	2.39	0.73	0.062	1.49	0.43	0.033	1.91	0.02	0.061	2.325	0.105	0.065
0.54	0.71	0.036	1.47	0.28	0.039	2.39	0.74	0.062	1.49	0.435	0.033	1.91	0.025	0.064	2.325	0.11	0.066
0.54	0.72	0.036	1.47	0.29	0.039	2.39	0.75	0.060	1.49	0.44	0.035	1.91	0.03	0.061	2.325	0.115	0.067
0.54	0.73	0.035	1.47	0.3	0.040	2.39	0.76	0.056	1.49	0.445	0.037	1.91	0.035	0.055	2.325	0.12	0.067
0.54	0.74	0.035	1.47	0.31	0.041	2.39	0.77	0.051	1.49	0.45	0.038	1.91	0.04	0.049	2.325	0.125	0.065
0.54	0.75	0.035	1.47	0.32	0.040	2.39	0.78	0.048	1.49	0.455	0.038	1.91	0.045	0.049	2.325	0.13	0.064
0.54	0.76	0.034	1.47	0.33	0.038	2.39	0.79	0.045	1.49	0.46	0.036	1.91	0.05	0.055	2.325	0.135	0.062
0.54	0.77	0.034	1.47	0.34	0.036	2.39	0.8	0.042	1.49	0.465	0.034	1.91	0.055	0.063	2.325	0.14	0.059
0.54	0.78	0.034	1.47	0.35	0.035	2.39	0.81	0.042	1.49	0.47	0.032	1.91	0.06	0.068	2.325	0.145	0.055
0.54	0.79	0.035	1.47	0.36	0.034	2.39	0.82	0.043	1.49	0.475	0.032	1.91	0.065	0.069	2.325	0.15	0.050
0.54	0.8	0.035	1.47	0.37	0.034	2.39	0.83	0.044	1.49	0.48	0.032	1.91	0.07	0.064	2.325	0.155	0.050
0.54	0.81	0.035	1.47	0.38	0.035	2.39	0.84	0.046	1.49	0.485	0.032	1.91	0.075	0.055	2.325	0.16	0.054
0.54	0.82	0.035	1.47	0.39	0.035	2.39	0.85	0.049	1.49	0.49	0.032	1.91	0.08	0.049	2.325	0.165	0.057

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.54	0.83	0.034	1.47	0.4	0.037	2.39	0.86	0.052	1.49	0.495	0.033	1.91	0.085	0.048	2.325	0.17	0.058
0.54	0.84	0.034	1.47	0.41	0.038	2.39	0.87	0.054	1.495	0.005	0.040	1.91	0.09	0.048	2.325	0.175	0.059
0.54	0.85	0.035	1.47	0.42	0.038	2.39	0.88	0.052	1.495	0.01	0.040	1.91	0.095	0.049	2.325	0.18	0.059
0.54	0.86	0.036	1.47	0.43	0.037	2.39	0.89	0.048	1.495	0.015	0.042	1.91	0.1	0.052	2.325	0.185	0.060
0.54	0.87	0.037	1.47	0.44	0.036	2.4	0.01	0.066	1.495	0.02	0.043	1.91	0.105	0.058	2.325	0.19	0.061
0.54	0.88	0.038	1.47	0.45	0.035	2.4	0.02	0.069	1.495	0.025	0.040	1.91	0.11	0.062	2.325	0.195	0.062
0.54	0.89	0.037	1.47	0.46	0.034	2.4	0.03	0.071	1.495	0.03	0.038	1.91	0.115	0.063	2.325	0.2	0.062
0.55	0.01	0.038	1.47	0.47	0.034	2.4	0.04	0.070	1.495	0.035	0.038	1.91	0.12	0.063	2.325	0.205	0.059
0.55	0.02	0.040	1.47	0.48	0.034	2.4	0.05	0.066	1.495	0.04	0.038	1.91	0.125	0.061	2.325	0.21	0.052
0.55	0.03	0.041	1.47	0.49	0.035	2.4	0.06	0.063	1.495	0.045	0.037	1.91	0.13	0.059	2.325	0.215	0.046
0.55	0.04	0.042	1.47	0.5	0.035	2.4	0.07	0.060	1.495	0.05	0.038	1.91	0.135	0.060	2.325	0.22	0.044
0.55	0.05	0.040	1.47	0.51	0.035	2.4	0.08	0.060	1.495	0.055	0.040	1.91	0.14	0.063	2.325	0.225	0.047
0.55	0.06	0.039	1.47	0.52	0.035	2.4	0.09	0.061	1.495	0.06	0.044	1.91	0.145	0.064	2.325	0.23	0.052
0.55	0.07	0.037	1.47	0.53	0.034	2.4	0.1	0.061	1.495	0.065	0.049	1.91	0.15	0.063	2.325	0.235	0.054
0.55	0.08	0.036	1.47	0.54	0.034	2.4	0.11	0.059	1.495	0.07	0.053	1.91	0.155	0.061	2.325	0.24	0.049
0.55	0.09	0.035	1.47	0.55	0.033	2.4	0.12	0.054	1.495	0.075	0.053	1.91	0.16	0.056	2.325	0.245	0.041
0.55	0.1	0.034	1.47	0.56	0.034	2.4	0.13	0.052	1.495	0.08	0.051	1.91	0.165	0.048	2.325	0.25	0.035
0.55	0.11	0.034	1.47	0.57	0.034	2.4	0.14	0.051	1.495	0.085	0.050	1.91	0.17	0.044	2.325	0.255	0.033
0.55	0.12	0.034	1.47	0.58	0.035	2.4	0.15	0.052	1.495	0.09	0.050	1.91	0.175	0.052	2.325	0.26	0.033
0.55	0.13	0.034	1.47	0.59	0.035	2.4	0.16	0.055	1.495	0.095	0.050	1.91	0.18	0.061	2.325	0.265	0.033
0.55	0.14	0.034	1.47	0.6	0.036	2.4	0.17	0.056	1.495	0.1	0.049	1.91	0.185	0.066	2.325	0.27	0.036
0.55	0.15	0.034	1.47	0.61	0.035	2.4	0.18	0.055	1.495	0.105	0.047	1.91	0.19	0.063	2.325	0.275	0.043
0.55	0.16	0.035	1.47	0.62	0.035	2.4	0.19	0.054	1.495	0.11	0.044	1.91	0.195	0.056	2.325	0.28	0.048
0.55	0.17	0.035	1.47	0.63	0.034	2.4	0.2	0.053	1.495	0.115	0.045	1.91	0.2	0.053	2.325	0.285	0.050
0.55	0.18	0.035	1.47	0.64	0.034	2.4	0.21	0.052	1.495	0.12	0.048	1.91	0.205	0.055	2.325	0.29	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.55	0.19	0.035	1.47	0.65	0.035	2.4	0.22	0.052	1.495	0.125	0.049	1.91	0.21	0.057	2.325	0.295	0.043
0.55	0.2	0.036	1.47	0.66	0.036	2.4	0.23	0.054	1.495	0.13	0.050	1.91	0.215	0.058	2.325	0.3	0.039
0.55	0.21	0.036	1.47	0.67	0.037	2.4	0.24	0.056	1.495	0.135	0.052	1.91	0.22	0.059	2.325	0.305	0.039
0.55	0.22	0.037	1.47	0.68	0.039	2.4	0.25	0.056	1.495	0.14	0.054	1.91	0.225	0.057	2.325	0.31	0.041
0.55	0.23	0.037	1.47	0.69	0.042	2.4	0.26	0.054	1.495	0.145	0.055	1.91	0.23	0.053	2.325	0.315	0.042
0.55	0.24	0.038	1.47	0.7	0.044	2.4	0.27	0.051	1.495	0.15	0.053	1.91	0.235	0.048	2.325	0.32	0.041
0.55	0.25	0.038	1.47	0.71	0.046	2.4	0.28	0.048	1.495	0.155	0.048	1.91	0.24	0.045	2.325	0.325	0.038
0.55	0.26	0.037	1.47	0.72	0.045	2.4	0.29	0.044	1.495	0.16	0.042	1.91	0.245	0.046	2.325	0.33	0.034
0.55	0.27	0.037	1.47	0.73	0.044	2.4	0.3	0.042	1.495	0.165	0.036	1.91	0.25	0.052	2.325	0.335	0.035
0.55	0.28	0.036	1.47	0.74	0.042	2.4	0.31	0.040	1.495	0.17	0.034	1.91	0.255	0.057	2.325	0.34	0.039
0.55	0.29	0.035	1.47	0.75	0.040	2.4	0.32	0.039	1.495	0.175	0.038	1.91	0.26	0.059	2.325	0.345	0.044
0.55	0.3	0.034	1.47	0.76	0.039	2.4	0.33	0.037	1.495	0.18	0.043	1.91	0.265	0.059	2.325	0.35	0.046
0.55	0.31	0.033	1.47	0.77	0.039	2.4	0.34	0.037	1.495	0.185	0.045	1.91	0.27	0.058	2.325	0.355	0.046
0.55	0.32	0.032	1.47	0.78	0.042	2.4	0.35	0.038	1.495	0.19	0.045	1.91	0.275	0.058	2.325	0.36	0.046
0.55	0.33	0.032	1.47	0.79	0.045	2.4	0.36	0.040	1.495	0.195	0.041	1.91	0.28	0.057	2.325	0.365	0.045
0.55	0.34	0.032	1.47	0.8	0.046	2.4	0.37	0.041	1.495	0.2	0.037	1.91	0.285	0.056	2.325	0.37	0.043
0.55	0.35	0.032	1.47	0.81	0.046	2.4	0.38	0.043	1.495	0.205	0.037	1.91	0.29	0.054	2.325	0.375	0.040
0.55	0.36	0.031	1.47	0.82	0.046	2.4	0.39	0.044	1.495	0.21	0.039	1.91	0.295	0.051	2.325	0.38	0.038
0.55	0.37	0.031	1.47	0.83	0.046	2.4	0.4	0.045	1.495	0.215	0.041	1.91	0.3	0.047	2.325	0.385	0.037
0.55	0.38	0.031	1.47	0.84	0.045	2.4	0.41	0.043	1.495	0.22	0.043	1.91	0.305	0.044	2.325	0.39	0.038
0.55	0.39	0.031	1.47	0.85	0.044	2.4	0.42	0.043	1.495	0.225	0.043	1.91	0.31	0.040	2.325	0.395	0.039
0.55	0.4	0.032	1.47	0.86	0.041	2.4	0.43	0.044	1.495	0.23	0.041	1.91	0.315	0.037	2.325	0.4	0.039
0.55	0.41	0.033	1.47	0.87	0.041	2.4	0.44	0.046	1.495	0.235	0.041	1.91	0.32	0.034	2.325	0.405	0.039
0.55	0.42	0.035	1.47	0.88	0.043	2.4	0.45	0.047	1.495	0.24	0.041	1.91	0.325	0.033	2.325	0.41	0.039
0.55	0.43	0.037	1.47	0.89	0.047	2.4	0.46	0.047	1.495	0.245	0.043	1.91	0.33	0.034	2.325	0.415	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.55	0.44	0.039	1.48	0.01	0.041	2.4	0.47	0.047	1.495	0.25	0.044	1.91	0.335	0.037	2.325	0.42	0.039
0.55	0.45	0.041	1.48	0.02	0.040	2.4	0.48	0.047	1.495	0.255	0.043	1.91	0.34	0.041	2.325	0.425	0.037
0.55	0.46	0.042	1.48	0.03	0.039	2.4	0.49	0.048	1.495	0.26	0.040	1.91	0.345	0.042	2.325	0.43	0.035
0.55	0.47	0.042	1.48	0.04	0.039	2.4	0.5	0.048	1.495	0.265	0.036	1.91	0.35	0.042	2.325	0.435	0.033
0.55	0.48	0.041	1.48	0.05	0.039	2.4	0.51	0.049	1.495	0.27	0.034	1.91	0.355	0.040	2.325	0.44	0.032
0.55	0.49	0.039	1.48	0.06	0.040	2.4	0.52	0.049	1.495	0.275	0.034	1.91	0.36	0.041	2.325	0.445	0.032
0.55	0.5	0.037	1.48	0.07	0.041	2.4	0.53	0.050	1.495	0.28	0.035	1.91	0.365	0.042	2.325	0.45	0.033
0.55	0.51	0.035	1.48	0.08	0.043	2.4	0.54	0.050	1.495	0.285	0.037	1.91	0.37	0.044	2.325	0.455	0.035
0.55	0.52	0.033	1.48	0.09	0.044	2.4	0.55	0.050	1.495	0.29	0.039	1.91	0.375	0.045	2.325	0.46	0.035
0.55	0.53	0.033	1.48	0.1	0.044	2.4	0.56	0.048	1.495	0.295	0.040	1.91	0.38	0.044	2.325	0.465	0.034
0.55	0.54	0.034	1.48	0.11	0.044	2.4	0.57	0.046	1.495	0.3	0.041	1.91	0.385	0.041	2.325	0.47	0.033
0.55	0.55	0.035	1.48	0.12	0.044	2.4	0.58	0.047	1.495	0.305	0.041	1.91	0.39	0.040	2.325	0.475	0.033
0.55	0.56	0.037	1.48	0.13	0.044	2.4	0.59	0.051	1.495	0.31	0.041	1.91	0.395	0.042	2.325	0.48	0.033
0.55	0.57	0.038	1.48	0.14	0.045	2.4	0.6	0.054	1.495	0.315	0.040	1.91	0.4	0.047	2.325	0.485	0.035
0.55	0.58	0.039	1.48	0.15	0.045	2.4	0.61	0.057	1.495	0.32	0.038	1.91	0.405	0.053	2.325	0.49	0.037
0.55	0.59	0.040	1.48	0.16	0.043	2.4	0.62	0.057	1.495	0.325	0.035	1.91	0.41	0.055	2.325	0.495	0.039
0.55	0.6	0.040	1.48	0.17	0.041	2.4	0.63	0.057	1.495	0.33	0.032	1.91	0.415	0.054	2.33	0.005	0.072
0.55	0.61	0.041	1.48	0.18	0.040	2.4	0.64	0.057	1.495	0.335	0.030	1.91	0.42	0.052	2.33	0.01	0.085
0.55	0.62	0.042	1.48	0.19	0.039	2.4	0.65	0.057	1.495	0.34	0.030	1.91	0.425	0.051	2.33	0.015	0.093
0.55	0.63	0.041	1.48	0.2	0.038	2.4	0.66	0.057	1.495	0.345	0.029	1.91	0.43	0.053	2.33	0.02	0.098
0.55	0.64	0.039	1.48	0.21	0.038	2.4	0.67	0.057	1.495	0.35	0.030	1.91	0.435	0.060	2.33	0.025	0.100
0.55	0.65	0.036	1.48	0.22	0.039	2.4	0.68	0.056	1.495	0.355	0.030	1.91	0.44	0.063	2.33	0.03	0.099
0.55	0.66	0.034	1.48	0.23	0.041	2.4	0.69	0.056	1.495	0.36	0.031	1.91	0.445	0.060	2.33	0.035	0.094
0.55	0.67	0.034	1.48	0.24	0.041	2.4	0.7	0.057	1.495	0.365	0.033	1.91	0.45	0.059	2.33	0.04	0.084
0.55	0.68	0.034	1.48	0.25	0.040	2.4	0.71	0.058	1.495	0.37	0.035	1.91	0.455	0.065	2.33	0.045	0.071

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.55	0.69	0.034	1.48	0.26	0.040	2.4	0.72	0.060	1.495	0.375	0.036	1.91	0.46	0.070	2.33	0.05	0.067
0.55	0.7	0.035	1.48	0.27	0.039	2.4	0.73	0.061	1.495	0.38	0.037	1.91	0.465	0.072	2.33	0.055	0.068
0.55	0.71	0.035	1.48	0.28	0.039	2.4	0.74	0.062	1.495	0.385	0.037	1.91	0.47	0.073	2.33	0.06	0.069
0.55	0.72	0.035	1.48	0.29	0.040	2.4	0.75	0.060	1.495	0.39	0.037	1.91	0.475	0.072	2.33	0.065	0.067
0.55	0.73	0.035	1.48	0.3	0.041	2.4	0.76	0.055	1.495	0.395	0.037	1.91	0.48	0.071	2.33	0.07	0.062
0.55	0.74	0.035	1.48	0.31	0.041	2.4	0.77	0.050	1.495	0.4	0.036	1.91	0.485	0.069	2.33	0.075	0.053
0.55	0.75	0.034	1.48	0.32	0.040	2.4	0.78	0.045	1.495	0.405	0.034	1.91	0.49	0.064	2.33	0.08	0.045
0.55	0.76	0.034	1.48	0.33	0.037	2.4	0.79	0.042	1.495	0.41	0.033	1.91	0.495	0.058	2.33	0.085	0.047
0.55	0.77	0.033	1.48	0.34	0.035	2.4	0.8	0.040	1.495	0.415	0.033	1.915	0.005	0.047	2.33	0.09	0.055
0.55	0.78	0.033	1.48	0.35	0.034	2.4	0.81	0.040	1.495	0.42	0.033	1.915	0.01	0.055	2.33	0.095	0.061
0.55	0.79	0.033	1.48	0.36	0.034	2.4	0.82	0.042	1.495	0.425	0.032	1.915	0.015	0.063	2.33	0.1	0.063
0.55	0.8	0.034	1.48	0.37	0.035	2.4	0.83	0.044	1.495	0.43	0.032	1.915	0.02	0.068	2.33	0.105	0.065
0.55	0.81	0.034	1.48	0.38	0.035	2.4	0.84	0.046	1.495	0.435	0.033	1.915	0.025	0.070	2.33	0.11	0.066
0.55	0.82	0.035	1.48	0.39	0.036	2.4	0.85	0.049	1.495	0.44	0.035	1.915	0.03	0.068	2.33	0.115	0.068
0.55	0.83	0.035	1.48	0.4	0.036	2.4	0.86	0.050	1.495	0.445	0.037	1.915	0.035	0.061	2.33	0.12	0.068
0.55	0.84	0.035	1.48	0.41	0.037	2.4	0.87	0.051	1.495	0.45	0.039	1.915	0.04	0.051	2.33	0.125	0.066
0.55	0.85	0.035	1.48	0.42	0.037	2.4	0.88	0.051	1.495	0.455	0.038	1.915	0.045	0.048	2.33	0.13	0.064
0.55	0.86	0.036	1.48	0.43	0.037	2.4	0.89	0.048	1.495	0.46	0.036	1.915	0.05	0.053	2.33	0.135	0.061
0.55	0.87	0.037	1.48	0.44	0.036	2.41	0.01	0.064	1.495	0.465	0.034	1.915	0.055	0.063	2.33	0.14	0.060
0.55	0.88	0.038	1.48	0.45	0.035	2.41	0.02	0.067	1.495	0.47	0.032	1.915	0.06	0.068	2.33	0.145	0.058
0.55	0.89	0.038	1.48	0.46	0.034	2.41	0.03	0.067	1.495	0.475	0.031	1.915	0.065	0.068	2.33	0.15	0.056
0.56	0.01	0.040	1.48	0.47	0.034	2.41	0.04	0.066	1.495	0.48	0.031	1.915	0.07	0.062	2.33	0.155	0.053
0.56	0.02	0.043	1.48	0.48	0.034	2.41	0.05	0.063	1.495	0.485	0.032	1.915	0.075	0.053	2.33	0.16	0.054
0.56	0.03	0.045	1.48	0.49	0.034	2.41	0.06	0.060	1.495	0.49	0.033	1.915	0.08	0.050	2.33	0.165	0.056
0.56	0.04	0.045	1.48	0.5	0.035	2.41	0.07	0.057	1.495	0.495	0.034	1.915	0.085	0.050	2.33	0.17	0.057

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.56	0.05	0.042	1.48	0.51	0.036	2.41	0.08	0.056	1.5	0.005	0.041	1.915	0.09	0.052	2.33	0.175	0.057
0.56	0.06	0.040	1.48	0.52	0.036	2.41	0.09	0.059	1.5	0.01	0.040	1.915	0.095	0.053	2.33	0.18	0.057
0.56	0.07	0.038	1.48	0.53	0.035	2.41	0.1	0.063	1.5	0.015	0.041	1.915	0.1	0.054	2.33	0.185	0.058
0.56	0.08	0.036	1.48	0.54	0.034	2.41	0.11	0.061	1.5	0.02	0.041	1.915	0.105	0.057	2.33	0.19	0.059
0.56	0.09	0.035	1.48	0.55	0.034	2.41	0.12	0.057	1.5	0.025	0.041	1.915	0.11	0.060	2.33	0.195	0.060
0.56	0.1	0.035	1.48	0.56	0.034	2.41	0.13	0.053	1.5	0.03	0.040	1.915	0.115	0.060	2.33	0.2	0.060
0.56	0.11	0.035	1.48	0.57	0.034	2.41	0.14	0.053	1.5	0.035	0.040	1.915	0.12	0.060	2.33	0.205	0.056
0.56	0.12	0.035	1.48	0.58	0.034	2.41	0.15	0.056	1.5	0.04	0.039	1.915	0.125	0.059	2.33	0.21	0.049
0.56	0.13	0.034	1.48	0.59	0.034	2.41	0.16	0.059	1.5	0.045	0.038	1.915	0.13	0.058	2.33	0.215	0.043
0.56	0.14	0.034	1.48	0.6	0.034	2.41	0.17	0.059	1.5	0.05	0.038	1.915	0.135	0.059	2.33	0.22	0.043
0.56	0.15	0.034	1.48	0.61	0.034	2.41	0.18	0.055	1.5	0.055	0.041	1.915	0.14	0.064	2.33	0.225	0.047
0.56	0.16	0.034	1.48	0.62	0.034	2.41	0.19	0.052	1.5	0.06	0.047	1.915	0.145	0.066	2.33	0.23	0.053
0.56	0.17	0.034	1.48	0.63	0.034	2.41	0.2	0.050	1.5	0.065	0.052	1.915	0.15	0.065	2.33	0.235	0.054
0.56	0.18	0.034	1.48	0.64	0.034	2.41	0.21	0.051	1.5	0.07	0.056	1.915	0.155	0.062	2.33	0.24	0.049
0.56	0.19	0.034	1.48	0.65	0.035	2.41	0.22	0.053	1.5	0.075	0.058	1.915	0.16	0.057	2.33	0.245	0.043
0.56	0.2	0.035	1.48	0.66	0.036	2.41	0.23	0.056	1.5	0.08	0.057	1.915	0.165	0.050	2.33	0.25	0.039
0.56	0.21	0.036	1.48	0.67	0.036	2.41	0.24	0.058	1.5	0.085	0.053	1.915	0.17	0.048	2.33	0.255	0.037
0.56	0.22	0.038	1.48	0.68	0.038	2.41	0.25	0.059	1.5	0.09	0.050	1.915	0.175	0.057	2.33	0.26	0.035
0.56	0.23	0.038	1.48	0.69	0.040	2.41	0.26	0.057	1.5	0.095	0.049	1.915	0.18	0.066	2.33	0.265	0.033
0.56	0.24	0.038	1.48	0.7	0.044	2.41	0.27	0.054	1.5	0.1	0.049	1.915	0.185	0.070	2.33	0.27	0.033
0.56	0.25	0.037	1.48	0.71	0.046	2.41	0.28	0.049	1.5	0.105	0.047	1.915	0.19	0.068	2.33	0.275	0.038
0.56	0.26	0.036	1.48	0.72	0.046	2.41	0.29	0.044	1.5	0.11	0.044	1.915	0.195	0.060	2.33	0.28	0.045
0.56	0.27	0.036	1.48	0.73	0.045	2.41	0.3	0.041	1.5	0.115	0.043	1.915	0.2	0.053	2.33	0.285	0.048
0.56	0.28	0.035	1.48	0.74	0.043	2.41	0.31	0.038	1.5	0.12	0.046	1.915	0.205	0.053	2.33	0.29	0.046
0.56	0.29	0.034	1.48	0.75	0.041	2.41	0.32	0.037	1.5	0.125	0.048	1.915	0.21	0.056	2.33	0.295	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.56	0.3	0.033	1.48	0.76	0.039	2.41	0.33	0.037	1.5	0.13	0.051	1.915	0.215	0.059	2.33	0.3	0.039
0.56	0.31	0.032	1.48	0.77	0.040	2.41	0.34	0.037	1.5	0.135	0.054	1.915	0.22	0.060	2.33	0.305	0.038
0.56	0.32	0.032	1.48	0.78	0.042	2.41	0.35	0.038	1.5	0.14	0.054	1.915	0.225	0.057	2.33	0.31	0.037
0.56	0.33	0.032	1.48	0.79	0.045	2.41	0.36	0.041	1.5	0.145	0.052	1.915	0.23	0.052	2.33	0.315	0.038
0.56	0.34	0.032	1.48	0.8	0.046	2.41	0.37	0.044	1.5	0.15	0.047	1.915	0.235	0.046	2.33	0.32	0.038
0.56	0.35	0.031	1.48	0.81	0.046	2.41	0.38	0.046	1.5	0.155	0.041	1.915	0.24	0.045	2.33	0.325	0.036
0.56	0.36	0.031	1.48	0.82	0.045	2.41	0.39	0.047	1.5	0.16	0.039	1.915	0.245	0.047	2.33	0.33	0.036
0.56	0.37	0.031	1.48	0.83	0.045	2.41	0.4	0.046	1.5	0.165	0.036	1.915	0.25	0.052	2.33	0.335	0.038
0.56	0.38	0.031	1.48	0.84	0.044	2.41	0.41	0.045	1.5	0.17	0.035	1.915	0.255	0.058	2.33	0.34	0.042
0.56	0.39	0.032	1.48	0.85	0.043	2.41	0.42	0.044	1.5	0.175	0.038	1.915	0.26	0.060	2.33	0.345	0.046
0.56	0.4	0.033	1.48	0.86	0.042	2.41	0.43	0.045	1.5	0.18	0.043	1.915	0.265	0.059	2.33	0.35	0.047
0.56	0.41	0.034	1.48	0.87	0.042	2.41	0.44	0.046	1.5	0.185	0.046	1.915	0.27	0.059	2.33	0.355	0.047
0.56	0.42	0.036	1.48	0.88	0.044	2.41	0.45	0.046	1.5	0.19	0.046	1.915	0.275	0.058	2.33	0.36	0.046
0.56	0.43	0.038	1.48	0.89	0.047	2.41	0.46	0.045	1.5	0.195	0.043	1.915	0.28	0.058	2.33	0.365	0.045
0.56	0.44	0.040	1.49	0.01	0.041	2.41	0.47	0.044	1.5	0.2	0.038	1.915	0.285	0.057	2.33	0.37	0.043
0.56	0.45	0.042	1.49	0.02	0.040	2.41	0.48	0.045	1.5	0.205	0.038	1.915	0.29	0.055	2.33	0.375	0.041
0.56	0.46	0.043	1.49	0.03	0.040	2.41	0.49	0.046	1.5	0.21	0.040	1.915	0.295	0.051	2.33	0.38	0.040
0.56	0.47	0.044	1.49	0.04	0.040	2.41	0.5	0.047	1.5	0.215	0.041	1.915	0.3	0.046	2.33	0.385	0.041
0.56	0.48	0.043	1.49	0.05	0.041	2.41	0.51	0.047	1.5	0.22	0.041	1.915	0.305	0.044	2.33	0.39	0.042
0.56	0.49	0.041	1.49	0.06	0.043	2.41	0.52	0.046	1.5	0.225	0.040	1.915	0.31	0.042	2.33	0.395	0.042
0.56	0.5	0.039	1.49	0.07	0.045	2.41	0.53	0.047	1.5	0.23	0.038	1.915	0.315	0.040	2.33	0.4	0.042
0.56	0.51	0.036	1.49	0.08	0.047	2.41	0.54	0.048	1.5	0.235	0.038	1.915	0.32	0.036	2.33	0.405	0.042
0.56	0.52	0.034	1.49	0.09	0.047	2.41	0.55	0.050	1.5	0.24	0.040	1.915	0.325	0.034	2.33	0.41	0.042
0.56	0.53	0.034	1.49	0.1	0.047	2.41	0.56	0.050	1.5	0.245	0.042	1.915	0.33	0.035	2.33	0.415	0.041
0.56	0.54	0.034	1.49	0.11	0.045	2.41	0.57	0.049	1.5	0.25	0.041	1.915	0.335	0.036	2.33	0.42	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.56	0.55	0.034	1.49	0.12	0.045	2.41	0.58	0.051	1.5	0.255	0.038	1.915	0.34	0.038	2.33	0.425	0.036
0.56	0.56	0.035	1.49	0.13	0.045	2.41	0.59	0.053	1.5	0.26	0.035	1.915	0.345	0.039	2.33	0.43	0.034
0.56	0.57	0.036	1.49	0.14	0.045	2.41	0.6	0.055	1.5	0.265	0.033	1.915	0.35	0.039	2.33	0.435	0.032
0.56	0.58	0.037	1.49	0.15	0.045	2.41	0.61	0.055	1.5	0.27	0.033	1.915	0.355	0.040	2.33	0.44	0.033
0.56	0.59	0.038	1.49	0.16	0.042	2.41	0.62	0.055	1.5	0.275	0.034	1.915	0.36	0.041	2.33	0.445	0.034
0.56	0.6	0.039	1.49	0.17	0.040	2.41	0.63	0.057	1.5	0.28	0.036	1.915	0.365	0.043	2.33	0.45	0.036
0.56	0.61	0.039	1.49	0.18	0.040	2.41	0.64	0.059	1.5	0.285	0.038	1.915	0.37	0.043	2.33	0.455	0.038
0.56	0.62	0.040	1.49	0.19	0.040	2.41	0.65	0.060	1.5	0.29	0.040	1.915	0.375	0.043	2.33	0.46	0.037
0.56	0.63	0.039	1.49	0.2	0.039	2.41	0.66	0.059	1.5	0.295	0.042	1.915	0.38	0.041	2.33	0.465	0.035
0.56	0.64	0.037	1.49	0.21	0.039	2.41	0.67	0.058	1.5	0.3	0.043	1.915	0.385	0.037	2.33	0.47	0.033
0.56	0.65	0.035	1.49	0.22	0.040	2.41	0.68	0.057	1.5	0.305	0.042	1.915	0.39	0.035	2.33	0.475	0.032
0.56	0.66	0.034	1.49	0.23	0.041	2.41	0.69	0.055	1.5	0.31	0.041	1.915	0.395	0.036	2.33	0.48	0.034
0.56	0.67	0.033	1.49	0.24	0.041	2.41	0.7	0.056	1.5	0.315	0.039	1.915	0.4	0.041	2.33	0.485	0.036
0.56	0.68	0.033	1.49	0.25	0.040	2.41	0.71	0.057	1.5	0.32	0.037	1.915	0.405	0.049	2.33	0.49	0.038
0.56	0.69	0.033	1.49	0.26	0.040	2.41	0.72	0.058	1.5	0.325	0.034	1.915	0.41	0.053	2.33	0.495	0.040
0.56	0.7	0.033	1.49	0.27	0.039	2.41	0.73	0.059	1.5	0.33	0.031	1.915	0.415	0.054	2.335	0.005	0.071
0.56	0.71	0.034	1.49	0.28	0.039	2.41	0.74	0.060	1.5	0.335	0.030	1.915	0.42	0.052	2.335	0.01	0.081
0.56	0.72	0.034	1.49	0.29	0.040	2.41	0.75	0.059	1.5	0.34	0.030	1.915	0.425	0.049	2.335	0.015	0.090
0.56	0.73	0.034	1.49	0.3	0.041	2.41	0.76	0.055	1.5	0.345	0.030	1.915	0.43	0.047	2.335	0.02	0.095
0.56	0.74	0.034	1.49	0.31	0.040	2.41	0.77	0.050	1.5	0.35	0.030	1.915	0.435	0.051	2.335	0.025	0.098
0.56	0.75	0.034	1.49	0.32	0.039	2.41	0.78	0.046	1.5	0.355	0.030	1.915	0.44	0.056	2.335	0.03	0.097
0.56	0.76	0.033	1.49	0.33	0.036	2.41	0.79	0.042	1.5	0.36	0.031	1.915	0.445	0.056	2.335	0.035	0.092
0.56	0.77	0.033	1.49	0.34	0.035	2.41	0.8	0.040	1.5	0.365	0.032	1.915	0.45	0.058	2.335	0.04	0.083
0.56	0.78	0.033	1.49	0.35	0.034	2.41	0.81	0.040	1.5	0.37	0.033	1.915	0.455	0.066	2.335	0.045	0.075
0.56	0.79	0.033	1.49	0.36	0.034	2.41	0.82	0.041	1.5	0.375	0.034	1.915	0.46	0.071	2.335	0.05	0.074

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.56	0.8	0.033	1.49	0.37	0.034	2.41	0.83	0.044	1.5	0.38	0.035	1.915	0.465	0.073	2.335	0.055	0.076
0.56	0.81	0.034	1.49	0.38	0.035	2.41	0.84	0.047	1.5	0.385	0.035	1.915	0.47	0.074	2.335	0.06	0.078
0.56	0.82	0.035	1.49	0.39	0.036	2.41	0.85	0.048	1.5	0.39	0.035	1.915	0.475	0.074	2.335	0.065	0.076
0.56	0.83	0.036	1.49	0.4	0.036	2.41	0.86	0.048	1.5	0.395	0.035	1.915	0.48	0.073	2.335	0.07	0.070
0.56	0.84	0.036	1.49	0.41	0.036	2.41	0.87	0.048	1.5	0.4	0.034	1.915	0.485	0.071	2.335	0.075	0.060
0.56	0.85	0.037	1.49	0.42	0.036	2.41	0.88	0.048	1.5	0.405	0.032	1.915	0.49	0.066	2.335	0.08	0.052
0.56	0.86	0.038	1.49	0.43	0.036	2.41	0.89	0.048	1.5	0.41	0.032	1.915	0.495	0.059	2.335	0.085	0.049
0.56	0.87	0.039	1.49	0.44	0.036	2.42	0.01	0.063	1.5	0.415	0.032	1.92	0.005	0.053	2.335	0.09	0.055
0.56	0.88	0.039	1.49	0.45	0.035	2.42	0.02	0.065	1.5	0.42	0.032	1.92	0.01	0.062	2.335	0.095	0.060
0.56	0.89	0.039	1.49	0.46	0.035	2.42	0.03	0.063	1.5	0.425	0.031	1.92	0.015	0.069	2.335	0.1	0.062
0.57	0.01	0.041	1.49	0.47	0.034	2.42	0.04	0.061	1.5	0.43	0.031	1.92	0.02	0.073	2.335	0.105	0.064
0.57	0.02	0.046	1.49	0.48	0.034	2.42	0.05	0.060	1.5	0.435	0.032	1.92	0.025	0.074	2.335	0.11	0.066
0.57	0.03	0.048	1.49	0.49	0.034	2.42	0.06	0.058	1.5	0.44	0.034	1.92	0.03	0.072	2.335	0.115	0.067
0.57	0.04	0.046	1.49	0.5	0.036	2.42	0.07	0.056	1.5	0.445	0.036	1.92	0.035	0.066	2.335	0.12	0.067
0.57	0.05	0.043	1.49	0.51	0.037	2.42	0.08	0.055	1.5	0.45	0.038	1.92	0.04	0.057	2.335	0.125	0.065
0.57	0.06	0.040	1.49	0.52	0.037	2.42	0.09	0.059	1.5	0.455	0.038	1.92	0.045	0.051	2.335	0.13	0.062
0.57	0.07	0.038	1.49	0.53	0.037	2.42	0.1	0.062	1.5	0.46	0.036	1.92	0.05	0.055	2.335	0.135	0.058
0.57	0.08	0.037	1.49	0.54	0.036	2.42	0.11	0.062	1.5	0.465	0.033	1.92	0.055	0.063	2.335	0.14	0.056
0.57	0.09	0.036	1.49	0.55	0.034	2.42	0.12	0.058	1.5	0.47	0.031	1.92	0.06	0.068	2.335	0.145	0.056
0.57	0.1	0.035	1.49	0.56	0.034	2.42	0.13	0.055	1.5	0.475	0.030	1.92	0.065	0.067	2.335	0.15	0.056
0.57	0.11	0.036	1.49	0.57	0.033	2.42	0.14	0.055	1.5	0.48	0.031	1.92	0.07	0.059	2.335	0.155	0.053
0.57	0.12	0.035	1.49	0.58	0.033	2.42	0.15	0.060	1.5	0.485	0.032	1.92	0.075	0.052	2.335	0.16	0.052
0.57	0.13	0.034	1.49	0.59	0.033	2.42	0.16	0.064	1.5	0.49	0.034	1.92	0.08	0.052	2.335	0.165	0.053
0.57	0.14	0.033	1.49	0.6	0.033	2.42	0.17	0.063	1.5	0.495	0.036	1.92	0.085	0.057	2.335	0.17	0.055
0.57	0.15	0.033	1.49	0.61	0.033	2.42	0.18	0.057	1.505	0.005	0.040	1.92	0.09	0.063	2.335	0.175	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.57	0.16	0.033	1.49	0.62	0.033	2.42	0.19	0.052	1.505	0.01	0.040	1.92	0.095	0.063	2.335	0.18	0.056
0.57	0.17	0.033	1.49	0.63	0.034	2.42	0.2	0.050	1.505	0.015	0.041	1.92	0.1	0.060	2.335	0.185	0.057
0.57	0.18	0.033	1.49	0.64	0.034	2.42	0.21	0.052	1.505	0.02	0.041	1.92	0.105	0.059	2.335	0.19	0.058
0.57	0.19	0.034	1.49	0.65	0.035	2.42	0.22	0.056	1.505	0.025	0.041	1.92	0.11	0.059	2.335	0.195	0.058
0.57	0.2	0.035	1.49	0.66	0.036	2.42	0.23	0.059	1.505	0.03	0.042	1.92	0.115	0.058	2.335	0.2	0.057
0.57	0.21	0.036	1.49	0.67	0.036	2.42	0.24	0.061	1.505	0.035	0.042	1.92	0.12	0.058	2.335	0.205	0.051
0.57	0.22	0.038	1.49	0.68	0.038	2.42	0.25	0.059	1.505	0.04	0.042	1.92	0.125	0.059	2.335	0.21	0.043
0.57	0.23	0.039	1.49	0.69	0.040	2.42	0.26	0.056	1.505	0.045	0.040	1.92	0.13	0.059	2.335	0.215	0.038
0.57	0.24	0.038	1.49	0.7	0.043	2.42	0.27	0.052	1.505	0.05	0.040	1.92	0.135	0.060	2.335	0.22	0.040
0.57	0.25	0.037	1.49	0.71	0.045	2.42	0.28	0.047	1.505	0.055	0.042	1.92	0.14	0.061	2.335	0.225	0.045
0.57	0.26	0.035	1.49	0.72	0.046	2.42	0.29	0.042	1.505	0.06	0.048	1.92	0.145	0.062	2.335	0.23	0.051
0.57	0.27	0.034	1.49	0.73	0.045	2.42	0.3	0.039	1.505	0.065	0.054	1.92	0.15	0.062	2.335	0.235	0.052
0.57	0.28	0.034	1.49	0.74	0.045	2.42	0.31	0.037	1.505	0.07	0.058	1.92	0.155	0.061	2.335	0.24	0.049
0.57	0.29	0.033	1.49	0.75	0.043	2.42	0.32	0.036	1.505	0.075	0.061	1.92	0.16	0.056	2.335	0.245	0.047
0.57	0.3	0.033	1.49	0.76	0.040	2.42	0.33	0.036	1.505	0.08	0.061	1.92	0.165	0.053	2.335	0.25	0.047
0.57	0.31	0.032	1.49	0.77	0.039	2.42	0.34	0.037	1.505	0.085	0.057	1.92	0.17	0.056	2.335	0.255	0.046
0.57	0.32	0.032	1.49	0.78	0.041	2.42	0.35	0.038	1.505	0.09	0.052	1.92	0.175	0.063	2.335	0.26	0.041
0.57	0.33	0.032	1.49	0.79	0.044	2.42	0.36	0.042	1.505	0.095	0.049	1.92	0.18	0.070	2.335	0.265	0.035
0.57	0.34	0.031	1.49	0.8	0.045	2.42	0.37	0.046	1.505	0.1	0.048	1.92	0.185	0.072	2.335	0.27	0.033
0.57	0.35	0.031	1.49	0.81	0.044	2.42	0.38	0.049	1.505	0.105	0.046	1.92	0.19	0.070	2.335	0.275	0.037
0.57	0.36	0.031	1.49	0.82	0.044	2.42	0.39	0.049	1.505	0.11	0.042	1.92	0.195	0.064	2.335	0.28	0.042
0.57	0.37	0.031	1.49	0.83	0.043	2.42	0.4	0.048	1.505	0.115	0.041	1.92	0.2	0.056	2.335	0.285	0.045
0.57	0.38	0.032	1.49	0.84	0.043	2.42	0.41	0.046	1.505	0.12	0.043	1.92	0.205	0.054	2.335	0.29	0.045
0.57	0.39	0.033	1.49	0.85	0.043	2.42	0.42	0.045	1.505	0.125	0.047	1.92	0.21	0.057	2.335	0.295	0.042
0.57	0.4	0.034	1.49	0.86	0.043	2.42	0.43	0.045	1.505	0.13	0.050	1.92	0.215	0.060	2.335	0.3	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.57	0.41	0.035	1.49	0.87	0.044	2.42	0.44	0.046	1.505	0.135	0.051	1.92	0.22	0.061	2.335	0.305	0.039
0.57	0.42	0.036	1.49	0.88	0.045	2.42	0.45	0.046	1.505	0.14	0.049	1.92	0.225	0.059	2.335	0.31	0.038
0.57	0.43	0.038	1.49	0.89	0.047	2.42	0.46	0.045	1.505	0.145	0.044	1.92	0.23	0.053	2.335	0.315	0.037
0.57	0.44	0.040	1.5	0.01	0.041	2.42	0.47	0.043	1.505	0.15	0.040	1.92	0.235	0.046	2.335	0.32	0.038
0.57	0.45	0.043	1.5	0.02	0.040	2.42	0.48	0.044	1.505	0.155	0.038	1.92	0.24	0.044	2.335	0.325	0.038
0.57	0.46	0.044	1.5	0.03	0.040	2.42	0.49	0.045	1.505	0.16	0.038	1.92	0.245	0.045	2.335	0.33	0.038
0.57	0.47	0.045	1.5	0.04	0.040	2.42	0.5	0.046	1.505	0.165	0.039	1.92	0.25	0.047	2.335	0.335	0.039
0.57	0.48	0.045	1.5	0.05	0.042	2.42	0.51	0.047	1.505	0.17	0.039	1.92	0.255	0.052	2.335	0.34	0.043
0.57	0.49	0.043	1.5	0.06	0.046	2.42	0.52	0.046	1.505	0.175	0.039	1.92	0.26	0.054	2.335	0.345	0.045
0.57	0.5	0.040	1.5	0.07	0.050	2.42	0.53	0.046	1.505	0.18	0.042	1.92	0.265	0.054	2.335	0.35	0.046
0.57	0.51	0.037	1.5	0.08	0.051	2.42	0.54	0.047	1.505	0.185	0.045	1.92	0.27	0.053	2.335	0.355	0.046
0.57	0.52	0.035	1.5	0.09	0.050	2.42	0.55	0.050	1.505	0.19	0.045	1.92	0.275	0.052	2.335	0.36	0.045
0.57	0.53	0.034	1.5	0.1	0.048	2.42	0.56	0.052	1.505	0.195	0.043	1.92	0.28	0.052	2.335	0.365	0.044
0.57	0.54	0.034	1.5	0.11	0.046	2.42	0.57	0.052	1.505	0.2	0.039	1.92	0.285	0.052	2.335	0.37	0.042
0.57	0.55	0.034	1.5	0.12	0.046	2.42	0.58	0.053	1.505	0.205	0.037	1.92	0.29	0.051	2.335	0.375	0.042
0.57	0.56	0.034	1.5	0.13	0.047	2.42	0.59	0.055	1.505	0.21	0.038	1.92	0.295	0.049	2.335	0.38	0.043
0.57	0.57	0.035	1.5	0.14	0.046	2.42	0.6	0.055	1.505	0.215	0.038	1.92	0.3	0.045	2.335	0.385	0.044
0.57	0.58	0.035	1.5	0.15	0.044	2.42	0.61	0.054	1.505	0.22	0.038	1.92	0.305	0.044	2.335	0.39	0.044
0.57	0.59	0.036	1.5	0.16	0.041	2.42	0.62	0.055	1.505	0.225	0.038	1.92	0.31	0.044	2.335	0.395	0.044
0.57	0.6	0.037	1.5	0.17	0.040	2.42	0.63	0.057	1.505	0.23	0.036	1.92	0.315	0.042	2.335	0.4	0.044
0.57	0.61	0.037	1.5	0.18	0.040	2.42	0.64	0.060	1.505	0.235	0.036	1.92	0.32	0.038	2.335	0.405	0.044
0.57	0.62	0.037	1.5	0.19	0.041	2.42	0.65	0.061	1.505	0.24	0.038	1.92	0.325	0.037	2.335	0.41	0.044
0.57	0.63	0.037	1.5	0.2	0.040	2.42	0.66	0.060	1.505	0.245	0.039	1.92	0.33	0.037	2.335	0.415	0.043
0.57	0.64	0.036	1.5	0.21	0.040	2.42	0.67	0.060	1.505	0.25	0.038	1.92	0.335	0.036	2.335	0.42	0.040
0.57	0.65	0.034	1.5	0.22	0.040	2.42	0.68	0.059	1.505	0.255	0.036	1.92	0.34	0.036	2.335	0.425	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.57	0.66	0.033	1.5	0.23	0.040	2.42	0.69	0.057	1.505	0.26	0.035	1.92	0.345	0.037	2.335	0.43	0.035
0.57	0.67	0.033	1.5	0.24	0.040	2.42	0.7	0.056	1.505	0.265	0.034	1.92	0.35	0.039	2.335	0.435	0.035
0.57	0.68	0.032	1.5	0.25	0.040	2.42	0.71	0.056	1.505	0.27	0.034	1.92	0.355	0.041	2.335	0.44	0.036
0.57	0.69	0.032	1.5	0.26	0.039	2.42	0.72	0.056	1.505	0.275	0.034	1.92	0.36	0.044	2.335	0.445	0.038
0.57	0.7	0.033	1.5	0.27	0.039	2.42	0.73	0.057	1.505	0.28	0.036	1.92	0.365	0.046	2.335	0.45	0.040
0.57	0.71	0.033	1.5	0.28	0.040	2.42	0.74	0.058	1.505	0.285	0.039	1.92	0.37	0.045	2.335	0.455	0.040
0.57	0.72	0.033	1.5	0.29	0.040	2.42	0.75	0.056	1.505	0.29	0.041	1.92	0.375	0.042	2.335	0.46	0.038
0.57	0.73	0.033	1.5	0.3	0.041	2.42	0.76	0.053	1.505	0.295	0.042	1.92	0.38	0.039	2.335	0.465	0.036
0.57	0.74	0.033	1.5	0.31	0.040	2.42	0.77	0.050	1.505	0.3	0.044	1.92	0.385	0.035	2.335	0.47	0.034
0.57	0.75	0.033	1.5	0.32	0.038	2.42	0.78	0.047	1.505	0.305	0.043	1.92	0.39	0.033	2.335	0.475	0.033
0.57	0.76	0.033	1.5	0.33	0.036	2.42	0.79	0.044	1.505	0.31	0.041	1.92	0.395	0.034	2.335	0.48	0.034
0.57	0.77	0.033	1.5	0.34	0.035	2.42	0.8	0.042	1.505	0.315	0.039	1.92	0.4	0.037	2.335	0.485	0.037
0.57	0.78	0.033	1.5	0.35	0.034	2.42	0.81	0.041	1.505	0.32	0.037	1.92	0.405	0.043	2.335	0.49	0.038
0.57	0.79	0.033	1.5	0.36	0.034	2.42	0.82	0.041	1.505	0.325	0.034	1.92	0.41	0.049	2.335	0.495	0.039
0.57	0.8	0.033	1.5	0.37	0.034	2.42	0.83	0.043	1.505	0.33	0.032	1.92	0.415	0.051	2.34	0.005	0.069
0.57	0.81	0.035	1.5	0.38	0.035	2.42	0.84	0.046	1.505	0.335	0.031	1.92	0.42	0.050	2.34	0.01	0.077
0.57	0.82	0.036	1.5	0.39	0.035	2.42	0.85	0.047	1.505	0.34	0.030	1.92	0.425	0.047	2.34	0.015	0.085
0.57	0.83	0.037	1.5	0.4	0.035	2.42	0.86	0.046	1.505	0.345	0.030	1.92	0.43	0.045	2.34	0.02	0.090
0.57	0.84	0.038	1.5	0.41	0.035	2.42	0.87	0.046	1.505	0.35	0.030	1.92	0.435	0.046	2.34	0.025	0.092
0.57	0.85	0.039	1.5	0.42	0.035	2.42	0.88	0.047	1.505	0.355	0.030	1.92	0.44	0.051	2.34	0.03	0.090
0.57	0.86	0.040	1.5	0.43	0.035	2.42	0.89	0.050	1.505	0.36	0.031	1.92	0.445	0.054	2.34	0.035	0.085
0.57	0.87	0.040	1.5	0.44	0.035	2.43	0.01	0.063	1.505	0.365	0.031	1.92	0.45	0.058	2.34	0.04	0.078
0.57	0.88	0.040	1.5	0.45	0.035	2.43	0.02	0.064	1.505	0.37	0.031	1.92	0.455	0.065	2.34	0.045	0.076
0.57	0.89	0.040	1.5	0.46	0.034	2.43	0.03	0.062	1.505	0.375	0.032	1.92	0.46	0.071	2.34	0.05	0.077
0.58	0.01	0.043	1.5	0.47	0.033	2.43	0.04	0.059	1.505	0.38	0.032	1.92	0.465	0.074	2.34	0.055	0.080

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.58	0.02	0.048	1.5	0.48	0.033	2.43	0.05	0.057	1.505	0.385	0.033	1.92	0.47	0.075	2.34	0.06	0.080
0.58	0.03	0.049	1.5	0.49	0.034	2.43	0.06	0.056	1.505	0.39	0.033	1.92	0.475	0.075	2.34	0.065	0.078
0.58	0.04	0.045	1.5	0.5	0.036	2.43	0.07	0.054	1.505	0.395	0.033	1.92	0.48	0.074	2.34	0.07	0.072
0.58	0.05	0.042	1.5	0.51	0.038	2.43	0.08	0.056	1.505	0.4	0.033	1.92	0.485	0.072	2.34	0.075	0.064
0.58	0.06	0.040	1.5	0.52	0.040	2.43	0.09	0.059	1.505	0.405	0.032	1.92	0.49	0.067	2.34	0.08	0.057
0.58	0.07	0.039	1.5	0.53	0.039	2.43	0.1	0.062	1.505	0.41	0.032	1.92	0.495	0.060	2.34	0.085	0.054
0.58	0.08	0.038	1.5	0.54	0.037	2.43	0.11	0.061	1.505	0.415	0.031	1.925	0.005	0.057	2.34	0.09	0.056
0.58	0.09	0.037	1.5	0.55	0.035	2.43	0.12	0.058	1.505	0.42	0.031	1.925	0.01	0.066	2.34	0.095	0.059
0.58	0.1	0.036	1.5	0.56	0.033	2.43	0.13	0.056	1.505	0.425	0.031	1.925	0.015	0.072	2.34	0.1	0.061
0.58	0.11	0.035	1.5	0.57	0.032	2.43	0.14	0.058	1.505	0.43	0.032	1.925	0.02	0.076	2.34	0.105	0.062
0.58	0.12	0.034	1.5	0.58	0.032	2.43	0.15	0.063	1.505	0.435	0.032	1.925	0.025	0.076	2.34	0.11	0.065
0.58	0.13	0.034	1.5	0.59	0.032	2.43	0.16	0.066	1.505	0.44	0.033	1.925	0.03	0.075	2.34	0.115	0.066
0.58	0.14	0.033	1.5	0.6	0.033	2.43	0.17	0.063	1.505	0.445	0.034	1.925	0.035	0.069	2.34	0.12	0.066
0.58	0.15	0.033	1.5	0.61	0.033	2.43	0.18	0.057	1.505	0.45	0.035	1.925	0.04	0.060	2.34	0.125	0.063
0.58	0.16	0.033	1.5	0.62	0.034	2.43	0.19	0.052	1.505	0.455	0.036	1.925	0.045	0.055	2.34	0.13	0.059
0.58	0.17	0.033	1.5	0.63	0.034	2.43	0.2	0.051	1.505	0.46	0.034	1.925	0.05	0.057	2.34	0.135	0.054
0.58	0.18	0.033	1.5	0.64	0.035	2.43	0.21	0.054	1.505	0.465	0.032	1.925	0.055	0.063	2.34	0.14	0.051
0.58	0.19	0.034	1.5	0.65	0.036	2.43	0.22	0.059	1.505	0.47	0.031	1.925	0.06	0.067	2.34	0.145	0.051
0.58	0.2	0.034	1.5	0.66	0.036	2.43	0.23	0.063	1.505	0.475	0.030	1.925	0.065	0.065	2.34	0.15	0.052
0.58	0.21	0.035	1.5	0.67	0.037	2.43	0.24	0.063	1.505	0.48	0.030	1.925	0.07	0.059	2.34	0.155	0.051
0.58	0.22	0.037	1.5	0.68	0.038	2.43	0.25	0.059	1.505	0.485	0.032	1.925	0.075	0.055	2.34	0.16	0.049
0.58	0.23	0.038	1.5	0.69	0.040	2.43	0.26	0.053	1.505	0.49	0.034	1.925	0.08	0.058	2.34	0.165	0.053
0.58	0.24	0.037	1.5	0.7	0.042	2.43	0.27	0.047	1.505	0.495	0.037	1.925	0.085	0.066	2.34	0.17	0.056
0.58	0.25	0.036	1.5	0.71	0.044	2.43	0.28	0.043	1.51	0.005	0.041	1.925	0.09	0.073	2.34	0.175	0.057
0.58	0.26	0.035	1.5	0.72	0.044	2.43	0.29	0.040	1.51	0.01	0.041	1.925	0.095	0.073	2.34	0.18	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.58	0.27	0.034	1.5	0.73	0.044	2.43	0.3	0.038	1.51	0.015	0.041	1.925	0.1	0.069	2.34	0.185	0.058
0.58	0.28	0.033	1.5	0.74	0.044	2.43	0.31	0.037	1.51	0.02	0.042	1.925	0.105	0.064	2.34	0.19	0.059
0.58	0.29	0.033	1.5	0.75	0.043	2.43	0.32	0.036	1.51	0.025	0.042	1.925	0.11	0.060	2.34	0.195	0.059
0.58	0.3	0.032	1.5	0.76	0.040	2.43	0.33	0.035	1.51	0.03	0.042	1.925	0.115	0.058	2.34	0.2	0.055
0.58	0.31	0.032	1.5	0.77	0.039	2.43	0.34	0.036	1.51	0.035	0.042	1.925	0.12	0.058	2.34	0.205	0.047
0.58	0.32	0.032	1.5	0.78	0.040	2.43	0.35	0.038	1.51	0.04	0.043	1.925	0.125	0.060	2.34	0.21	0.039
0.58	0.33	0.032	1.5	0.79	0.042	2.43	0.36	0.041	1.51	0.045	0.042	1.925	0.13	0.062	2.34	0.215	0.035
0.58	0.34	0.031	1.5	0.8	0.043	2.43	0.37	0.046	1.51	0.05	0.041	1.925	0.135	0.062	2.34	0.22	0.037
0.58	0.35	0.031	1.5	0.81	0.043	2.43	0.38	0.049	1.51	0.055	0.043	1.925	0.14	0.061	2.34	0.225	0.043
0.58	0.36	0.032	1.5	0.82	0.042	2.43	0.39	0.049	1.51	0.06	0.048	1.925	0.145	0.061	2.34	0.23	0.048
0.58	0.37	0.032	1.5	0.83	0.042	2.43	0.4	0.048	1.51	0.065	0.054	1.925	0.15	0.062	2.34	0.235	0.049
0.58	0.38	0.033	1.5	0.84	0.043	2.43	0.41	0.047	1.51	0.07	0.059	1.925	0.155	0.063	2.34	0.24	0.048
0.58	0.39	0.034	1.5	0.85	0.044	2.43	0.42	0.046	1.51	0.075	0.062	1.925	0.16	0.060	2.34	0.245	0.050
0.58	0.4	0.035	1.5	0.86	0.047	2.43	0.43	0.046	1.51	0.08	0.063	1.925	0.165	0.057	2.34	0.25	0.054
0.58	0.41	0.036	1.5	0.87	0.047	2.43	0.44	0.047	1.51	0.085	0.060	1.925	0.17	0.061	2.34	0.255	0.054
0.58	0.42	0.037	1.5	0.88	0.046	2.43	0.45	0.047	1.51	0.09	0.055	1.925	0.175	0.068	2.34	0.26	0.049
0.58	0.43	0.039	1.5	0.89	0.046	2.43	0.46	0.045	1.51	0.095	0.048	1.925	0.18	0.072	2.34	0.265	0.041
0.58	0.44	0.041	1.51	0.01	0.042	2.43	0.47	0.044	1.51	0.1	0.045	1.925	0.185	0.073	2.34	0.27	0.037
0.58	0.45	0.043	1.51	0.02	0.041	2.43	0.48	0.044	1.51	0.105	0.042	1.925	0.19	0.071	2.34	0.275	0.039
0.58	0.46	0.045	1.51	0.03	0.040	2.43	0.49	0.044	1.51	0.11	0.038	1.925	0.195	0.066	2.34	0.28	0.042
0.58	0.47	0.046	1.51	0.04	0.040	2.43	0.5	0.045	1.51	0.115	0.037	1.925	0.2	0.059	2.34	0.285	0.043
0.58	0.48	0.045	1.51	0.05	0.042	2.43	0.51	0.047	1.51	0.12	0.041	1.925	0.205	0.055	2.34	0.29	0.044
0.58	0.49	0.044	1.51	0.06	0.047	2.43	0.52	0.047	1.51	0.125	0.046	1.925	0.21	0.056	2.34	0.295	0.043
0.58	0.5	0.041	1.51	0.07	0.052	2.43	0.53	0.046	1.51	0.13	0.048	1.925	0.215	0.059	2.34	0.3	0.043
0.58	0.51	0.038	1.51	0.08	0.055	2.43	0.54	0.046	1.51	0.135	0.047	1.925	0.22	0.060	2.34	0.305	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.58	0.52	0.036	1.51	0.09	0.053	2.43	0.55	0.049	1.51	0.14	0.045	1.925	0.225	0.059	2.34	0.31	0.041
0.58	0.53	0.035	1.51	0.1	0.048	2.43	0.56	0.051	1.51	0.145	0.041	1.925	0.23	0.054	2.34	0.315	0.040
0.58	0.54	0.034	1.51	0.11	0.046	2.43	0.57	0.051	1.51	0.15	0.039	1.925	0.235	0.047	2.34	0.32	0.040
0.58	0.55	0.034	1.51	0.12	0.046	2.43	0.58	0.053	1.51	0.155	0.038	1.925	0.24	0.042	2.34	0.325	0.039
0.58	0.56	0.034	1.51	0.13	0.047	2.43	0.59	0.054	1.51	0.16	0.038	1.925	0.245	0.041	2.34	0.33	0.038
0.58	0.57	0.035	1.51	0.14	0.046	2.43	0.6	0.053	1.51	0.165	0.039	1.925	0.25	0.041	2.34	0.335	0.037
0.58	0.58	0.035	1.51	0.15	0.043	2.43	0.61	0.053	1.51	0.17	0.040	1.925	0.255	0.045	2.34	0.34	0.040
0.58	0.59	0.035	1.51	0.16	0.040	2.43	0.62	0.054	1.51	0.175	0.040	1.925	0.26	0.050	2.34	0.345	0.042
0.58	0.6	0.036	1.51	0.17	0.039	2.43	0.63	0.057	1.51	0.18	0.043	1.925	0.265	0.052	2.34	0.35	0.043
0.58	0.61	0.036	1.51	0.18	0.040	2.43	0.64	0.060	1.51	0.185	0.044	1.925	0.27	0.051	2.34	0.355	0.043
0.58	0.62	0.035	1.51	0.19	0.041	2.43	0.65	0.060	1.51	0.19	0.043	1.925	0.275	0.050	2.34	0.36	0.042
0.58	0.63	0.035	1.51	0.2	0.041	2.43	0.66	0.059	1.51	0.195	0.040	1.925	0.28	0.050	2.34	0.365	0.041
0.58	0.64	0.034	1.51	0.21	0.040	2.43	0.67	0.058	1.51	0.2	0.038	1.925	0.285	0.051	2.34	0.37	0.042
0.58	0.65	0.033	1.51	0.22	0.039	2.43	0.68	0.059	1.51	0.205	0.037	1.925	0.29	0.050	2.34	0.375	0.043
0.58	0.66	0.032	1.51	0.23	0.039	2.43	0.69	0.059	1.51	0.21	0.036	1.925	0.295	0.048	2.34	0.38	0.045
0.58	0.67	0.032	1.51	0.24	0.039	2.43	0.7	0.058	1.51	0.215	0.036	1.925	0.3	0.045	2.34	0.385	0.045
0.58	0.68	0.032	1.51	0.25	0.040	2.43	0.71	0.058	1.51	0.22	0.035	1.925	0.305	0.044	2.34	0.39	0.045
0.58	0.69	0.032	1.51	0.26	0.040	2.43	0.72	0.057	1.51	0.225	0.035	1.925	0.31	0.044	2.34	0.395	0.045
0.58	0.7	0.032	1.51	0.27	0.040	2.43	0.73	0.056	1.51	0.23	0.035	1.925	0.315	0.042	2.34	0.4	0.045
0.58	0.71	0.033	1.51	0.28	0.039	2.43	0.74	0.055	1.51	0.235	0.035	1.925	0.32	0.038	2.34	0.405	0.045
0.58	0.72	0.033	1.51	0.29	0.040	2.43	0.75	0.053	1.51	0.24	0.036	1.925	0.325	0.039	2.34	0.41	0.044
0.58	0.73	0.033	1.51	0.3	0.040	2.43	0.76	0.051	1.51	0.245	0.037	1.925	0.33	0.039	2.34	0.415	0.043
0.58	0.74	0.033	1.51	0.31	0.040	2.43	0.77	0.050	1.51	0.25	0.038	1.925	0.335	0.037	2.34	0.42	0.041
0.58	0.75	0.033	1.51	0.32	0.039	2.43	0.78	0.049	1.51	0.255	0.038	1.925	0.34	0.035	2.34	0.425	0.039
0.58	0.76	0.033	1.51	0.33	0.037	2.43	0.79	0.046	1.51	0.26	0.039	1.925	0.345	0.035	2.34	0.43	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.58	0.77	0.033	1.51	0.34	0.036	2.43	0.8	0.043	1.51	0.265	0.039	1.925	0.35	0.038	2.34	0.435	0.039
0.58	0.78	0.033	1.51	0.35	0.035	2.43	0.81	0.041	1.51	0.27	0.037	1.925	0.355	0.041	2.34	0.44	0.041
0.58	0.79	0.033	1.51	0.36	0.034	2.43	0.82	0.040	1.51	0.275	0.036	1.925	0.36	0.044	2.34	0.445	0.043
0.58	0.8	0.034	1.51	0.37	0.034	2.43	0.83	0.042	1.51	0.28	0.037	1.925	0.365	0.046	2.34	0.45	0.042
0.58	0.81	0.035	1.51	0.38	0.034	2.43	0.84	0.045	1.51	0.285	0.039	1.925	0.37	0.046	2.34	0.455	0.041
0.58	0.82	0.037	1.51	0.39	0.035	2.43	0.85	0.047	1.51	0.29	0.041	1.925	0.375	0.044	2.34	0.46	0.039
0.58	0.83	0.039	1.51	0.4	0.035	2.43	0.86	0.046	1.51	0.295	0.042	1.925	0.38	0.039	2.34	0.465	0.038
0.58	0.84	0.040	1.51	0.41	0.035	2.43	0.87	0.046	1.51	0.3	0.043	1.925	0.385	0.035	2.34	0.47	0.036
0.58	0.85	0.041	1.51	0.42	0.035	2.43	0.88	0.048	1.51	0.305	0.043	1.925	0.39	0.034	2.34	0.475	0.034
0.58	0.86	0.042	1.51	0.43	0.035	2.43	0.89	0.053	1.51	0.31	0.042	1.925	0.395	0.035	2.34	0.48	0.034
0.58	0.87	0.042	1.51	0.44	0.035	2.44	0.01	0.063	1.51	0.315	0.041	1.925	0.4	0.036	2.34	0.485	0.036
0.58	0.88	0.042	1.51	0.45	0.035	2.44	0.02	0.064	1.51	0.32	0.039	1.925	0.405	0.038	2.34	0.49	0.037
0.58	0.89	0.040	1.51	0.46	0.034	2.44	0.03	0.062	1.51	0.325	0.036	1.925	0.41	0.043	2.34	0.495	0.038
0.59	0.01	0.043	1.51	0.47	0.033	2.44	0.04	0.059	1.51	0.33	0.034	1.925	0.415	0.047	2.345	0.005	0.066
0.59	0.02	0.047	1.51	0.48	0.033	2.44	0.05	0.056	1.51	0.335	0.032	1.925	0.42	0.049	2.345	0.01	0.072
0.59	0.03	0.047	1.51	0.49	0.034	2.44	0.06	0.054	1.51	0.34	0.031	1.925	0.425	0.048	2.345	0.015	0.077
0.59	0.04	0.044	1.51	0.5	0.036	2.44	0.07	0.053	1.51	0.345	0.031	1.925	0.43	0.047	2.345	0.02	0.081
0.59	0.05	0.040	1.51	0.51	0.039	2.44	0.08	0.055	1.51	0.35	0.031	1.925	0.435	0.046	2.345	0.025	0.082
0.59	0.06	0.039	1.51	0.52	0.041	2.44	0.09	0.058	1.51	0.355	0.031	1.925	0.44	0.050	2.345	0.03	0.079
0.59	0.07	0.039	1.51	0.53	0.040	2.44	0.1	0.061	1.51	0.36	0.031	1.925	0.445	0.054	2.345	0.035	0.076
0.59	0.08	0.039	1.51	0.54	0.038	2.44	0.11	0.061	1.51	0.365	0.031	1.925	0.45	0.059	2.345	0.04	0.073
0.59	0.09	0.038	1.51	0.55	0.035	2.44	0.12	0.060	1.51	0.37	0.031	1.925	0.455	0.063	2.345	0.045	0.075
0.59	0.1	0.036	1.51	0.56	0.033	2.44	0.13	0.059	1.51	0.375	0.031	1.925	0.46	0.068	2.345	0.05	0.078
0.59	0.11	0.035	1.51	0.57	0.032	2.44	0.14	0.060	1.51	0.38	0.031	1.925	0.465	0.071	2.345	0.055	0.079
0.59	0.12	0.034	1.51	0.58	0.032	2.44	0.15	0.063	1.51	0.385	0.032	1.925	0.47	0.074	2.345	0.06	0.078

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.59	0.13	0.033	1.51	0.59	0.032	2.44	0.16	0.065	1.51	0.39	0.032	1.925	0.475	0.074	2.345	0.065	0.075
0.59	0.14	0.033	1.51	0.6	0.033	2.44	0.17	0.061	1.51	0.395	0.033	1.925	0.48	0.074	2.345	0.07	0.070
0.59	0.15	0.033	1.51	0.61	0.034	2.44	0.18	0.056	1.51	0.4	0.033	1.925	0.485	0.071	2.345	0.075	0.064
0.59	0.16	0.032	1.51	0.62	0.035	2.44	0.19	0.053	1.51	0.405	0.033	1.925	0.49	0.066	2.345	0.08	0.058
0.59	0.17	0.033	1.51	0.63	0.036	2.44	0.2	0.053	1.51	0.41	0.032	1.925	0.495	0.059	2.345	0.085	0.055
0.59	0.18	0.033	1.51	0.64	0.036	2.44	0.21	0.056	1.51	0.415	0.032	1.93	0.005	0.057	2.345	0.09	0.055
0.59	0.19	0.033	1.51	0.65	0.037	2.44	0.22	0.060	1.51	0.42	0.032	1.93	0.01	0.068	2.345	0.095	0.057
0.59	0.2	0.034	1.51	0.66	0.037	2.44	0.23	0.064	1.51	0.425	0.032	1.93	0.015	0.074	2.345	0.1	0.059
0.59	0.21	0.034	1.51	0.67	0.038	2.44	0.24	0.063	1.51	0.43	0.032	1.93	0.02	0.077	2.345	0.105	0.061
0.59	0.22	0.035	1.51	0.68	0.040	2.44	0.25	0.058	1.51	0.435	0.033	1.93	0.025	0.077	2.345	0.11	0.063
0.59	0.23	0.036	1.51	0.69	0.042	2.44	0.26	0.050	1.51	0.44	0.033	1.93	0.03	0.075	2.345	0.115	0.064
0.59	0.24	0.035	1.51	0.7	0.042	2.44	0.27	0.043	1.51	0.445	0.033	1.93	0.035	0.070	2.345	0.12	0.064
0.59	0.25	0.035	1.51	0.71	0.042	2.44	0.28	0.039	1.51	0.45	0.033	1.93	0.04	0.061	2.345	0.125	0.061
0.59	0.26	0.034	1.51	0.72	0.042	2.44	0.29	0.037	1.51	0.455	0.034	1.93	0.045	0.055	2.345	0.13	0.055
0.59	0.27	0.034	1.51	0.73	0.043	2.44	0.3	0.037	1.51	0.46	0.033	1.93	0.05	0.056	2.345	0.135	0.050
0.59	0.28	0.033	1.51	0.74	0.043	2.44	0.31	0.037	1.51	0.465	0.031	1.93	0.055	0.062	2.345	0.14	0.046
0.59	0.29	0.033	1.51	0.75	0.041	2.44	0.32	0.036	1.51	0.47	0.030	1.93	0.06	0.065	2.345	0.145	0.047
0.59	0.3	0.032	1.51	0.76	0.040	2.44	0.33	0.035	1.51	0.475	0.030	1.93	0.065	0.064	2.345	0.15	0.049
0.59	0.31	0.032	1.51	0.77	0.040	2.44	0.34	0.036	1.51	0.48	0.030	1.93	0.07	0.061	2.345	0.155	0.051
0.59	0.32	0.032	1.51	0.78	0.040	2.44	0.35	0.037	1.51	0.485	0.031	1.93	0.075	0.063	2.345	0.16	0.053
0.59	0.33	0.032	1.51	0.79	0.042	2.44	0.36	0.040	1.51	0.49	0.033	1.93	0.08	0.066	2.345	0.165	0.058
0.59	0.34	0.032	1.51	0.8	0.043	2.44	0.37	0.044	1.51	0.495	0.036	1.93	0.085	0.072	2.345	0.17	0.063
0.59	0.35	0.032	1.51	0.81	0.042	2.44	0.38	0.046	1.515	0.005	0.041	1.93	0.09	0.080	2.345	0.175	0.064
0.59	0.36	0.032	1.51	0.82	0.041	2.44	0.39	0.047	1.515	0.01	0.042	1.93	0.095	0.080	2.345	0.18	0.064
0.59	0.37	0.033	1.51	0.83	0.042	2.44	0.4	0.046	1.515	0.015	0.043	1.93	0.1	0.076	2.345	0.185	0.064

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.59	0.38	0.035	1.51	0.84	0.044	2.44	0.41	0.046	1.515	0.02	0.043	1.93	0.105	0.070	2.345	0.19	0.064
0.59	0.39	0.036	1.51	0.85	0.046	2.44	0.42	0.047	1.515	0.025	0.043	1.93	0.11	0.063	2.345	0.195	0.063
0.59	0.4	0.037	1.51	0.86	0.049	2.44	0.43	0.046	1.515	0.03	0.042	1.93	0.115	0.059	2.345	0.2	0.059
0.59	0.41	0.037	1.51	0.87	0.049	2.44	0.44	0.046	1.515	0.035	0.041	1.93	0.12	0.058	2.345	0.205	0.051
0.59	0.42	0.038	1.51	0.88	0.047	2.44	0.45	0.046	1.515	0.04	0.041	1.93	0.125	0.060	2.345	0.21	0.042
0.59	0.43	0.039	1.51	0.89	0.045	2.44	0.46	0.045	1.515	0.045	0.040	1.93	0.13	0.062	2.345	0.215	0.037
0.59	0.44	0.041	1.52	0.01	0.042	2.44	0.47	0.044	1.515	0.05	0.040	1.93	0.135	0.062	2.345	0.22	0.036
0.59	0.45	0.043	1.52	0.02	0.042	2.44	0.48	0.044	1.515	0.055	0.041	1.93	0.14	0.061	2.345	0.225	0.039
0.59	0.46	0.044	1.52	0.03	0.041	2.44	0.49	0.043	1.515	0.06	0.046	1.93	0.145	0.062	2.345	0.23	0.043
0.59	0.47	0.045	1.52	0.04	0.040	2.44	0.5	0.044	1.515	0.065	0.053	1.93	0.15	0.065	2.345	0.235	0.046
0.59	0.48	0.044	1.52	0.05	0.042	2.44	0.51	0.045	1.515	0.07	0.058	1.93	0.155	0.067	2.345	0.24	0.048
0.59	0.49	0.043	1.52	0.06	0.046	2.44	0.52	0.046	1.515	0.075	0.061	1.93	0.16	0.064	2.345	0.245	0.053
0.59	0.5	0.040	1.52	0.07	0.053	2.44	0.53	0.046	1.515	0.08	0.063	1.93	0.165	0.062	2.345	0.25	0.057
0.59	0.51	0.038	1.52	0.08	0.056	2.44	0.54	0.046	1.515	0.085	0.062	1.93	0.17	0.064	2.345	0.255	0.058
0.59	0.52	0.037	1.52	0.09	0.053	2.44	0.55	0.047	1.515	0.09	0.056	1.93	0.175	0.071	2.345	0.26	0.055
0.59	0.53	0.036	1.52	0.1	0.048	2.44	0.56	0.048	1.515	0.095	0.047	1.93	0.18	0.074	2.345	0.265	0.049
0.59	0.54	0.035	1.52	0.11	0.046	2.44	0.57	0.050	1.515	0.1	0.041	1.93	0.185	0.073	2.345	0.27	0.044
0.59	0.55	0.035	1.52	0.12	0.047	2.44	0.58	0.051	1.515	0.105	0.038	1.93	0.19	0.071	2.345	0.275	0.042
0.59	0.56	0.035	1.52	0.13	0.049	2.44	0.59	0.052	1.515	0.11	0.036	1.93	0.195	0.067	2.345	0.28	0.043
0.59	0.57	0.035	1.52	0.14	0.046	2.44	0.6	0.052	1.515	0.115	0.036	1.93	0.2	0.061	2.345	0.285	0.044
0.59	0.58	0.035	1.52	0.15	0.042	2.44	0.61	0.052	1.515	0.12	0.041	1.93	0.205	0.054	2.345	0.29	0.044
0.59	0.59	0.035	1.52	0.16	0.039	2.44	0.62	0.054	1.515	0.125	0.049	1.93	0.21	0.053	2.345	0.295	0.044
0.59	0.6	0.035	1.52	0.17	0.039	2.44	0.63	0.057	1.515	0.13	0.052	1.93	0.215	0.056	2.345	0.3	0.045
0.59	0.61	0.034	1.52	0.18	0.041	2.44	0.64	0.058	1.515	0.135	0.050	1.93	0.22	0.057	2.345	0.305	0.046
0.59	0.62	0.034	1.52	0.19	0.041	2.44	0.65	0.057	1.515	0.14	0.046	1.93	0.225	0.056	2.345	0.31	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.59	0.63	0.033	1.52	0.2	0.042	2.44	0.66	0.056	1.515	0.145	0.043	1.93	0.23	0.053	2.345	0.315	0.046
0.59	0.64	0.033	1.52	0.21	0.041	2.44	0.67	0.056	1.515	0.15	0.039	1.93	0.235	0.047	2.345	0.32	0.044
0.59	0.65	0.032	1.52	0.22	0.040	2.44	0.68	0.057	1.515	0.155	0.037	1.93	0.24	0.041	2.345	0.325	0.041
0.59	0.66	0.032	1.52	0.23	0.039	2.44	0.69	0.059	1.515	0.16	0.036	1.93	0.245	0.039	2.345	0.33	0.038
0.59	0.67	0.032	1.52	0.24	0.039	2.44	0.7	0.060	1.515	0.165	0.036	1.93	0.25	0.039	2.345	0.335	0.035
0.59	0.68	0.032	1.52	0.25	0.041	2.44	0.71	0.061	1.515	0.17	0.037	1.93	0.255	0.041	2.345	0.34	0.035
0.59	0.69	0.032	1.52	0.26	0.042	2.44	0.72	0.060	1.515	0.175	0.040	1.93	0.26	0.049	2.345	0.345	0.037
0.59	0.7	0.032	1.52	0.27	0.041	2.44	0.73	0.057	1.515	0.18	0.045	1.93	0.265	0.054	2.345	0.35	0.039
0.59	0.71	0.032	1.52	0.28	0.039	2.44	0.74	0.054	1.515	0.185	0.044	1.93	0.27	0.055	2.345	0.355	0.040
0.59	0.72	0.033	1.52	0.29	0.039	2.44	0.75	0.052	1.515	0.19	0.040	1.93	0.275	0.055	2.345	0.36	0.040
0.59	0.73	0.033	1.52	0.3	0.039	2.44	0.76	0.051	1.515	0.195	0.039	1.93	0.28	0.055	2.345	0.365	0.040
0.59	0.74	0.033	1.52	0.31	0.040	2.44	0.77	0.052	1.515	0.2	0.040	1.93	0.285	0.055	2.345	0.37	0.041
0.59	0.75	0.034	1.52	0.32	0.040	2.44	0.78	0.051	1.515	0.205	0.040	1.93	0.29	0.054	2.345	0.375	0.043
0.59	0.76	0.034	1.52	0.33	0.040	2.44	0.79	0.048	1.515	0.21	0.039	1.93	0.295	0.050	2.345	0.38	0.044
0.59	0.77	0.034	1.52	0.34	0.038	2.44	0.8	0.045	1.515	0.215	0.037	1.93	0.3	0.045	2.345	0.385	0.045
0.59	0.78	0.034	1.52	0.35	0.037	2.44	0.81	0.042	1.515	0.22	0.036	1.93	0.305	0.043	2.345	0.39	0.044
0.59	0.79	0.034	1.52	0.36	0.036	2.44	0.82	0.041	1.515	0.225	0.035	1.93	0.31	0.042	2.345	0.395	0.044
0.59	0.8	0.035	1.52	0.37	0.035	2.44	0.83	0.042	1.515	0.23	0.035	1.93	0.315	0.041	2.345	0.4	0.044
0.59	0.81	0.036	1.52	0.38	0.035	2.44	0.84	0.045	1.515	0.235	0.035	1.93	0.32	0.038	2.345	0.405	0.043
0.59	0.82	0.037	1.52	0.39	0.035	2.44	0.85	0.046	1.515	0.24	0.035	1.93	0.325	0.038	2.345	0.41	0.042
0.59	0.83	0.039	1.52	0.4	0.035	2.44	0.86	0.046	1.515	0.245	0.037	1.93	0.33	0.038	2.345	0.415	0.040
0.59	0.84	0.040	1.52	0.41	0.036	2.44	0.87	0.046	1.515	0.25	0.040	1.93	0.335	0.037	2.345	0.42	0.039
0.59	0.85	0.041	1.52	0.42	0.036	2.44	0.88	0.049	1.515	0.255	0.042	1.93	0.34	0.034	2.345	0.425	0.040
0.59	0.86	0.042	1.52	0.43	0.036	2.44	0.89	0.055	1.515	0.26	0.044	1.93	0.345	0.034	2.345	0.43	0.042
0.59	0.87	0.043	1.52	0.44	0.036	2.45	0.01	0.064	1.515	0.265	0.044	1.93	0.35	0.035	2.345	0.435	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.59	0.88	0.042	1.52	0.45	0.036	2.45	0.02	0.066	1.515	0.27	0.042	1.93	0.355	0.038	2.345	0.44	0.045
0.59	0.89	0.040	1.52	0.46	0.034	2.45	0.03	0.065	1.515	0.275	0.039	1.93	0.36	0.041	2.345	0.445	0.044
0.6	0.01	0.042	1.52	0.47	0.033	2.45	0.04	0.062	1.515	0.28	0.037	1.93	0.365	0.044	2.345	0.45	0.042
0.6	0.02	0.044	1.52	0.48	0.033	2.45	0.05	0.058	1.515	0.285	0.038	1.93	0.37	0.045	2.345	0.455	0.040
0.6	0.03	0.044	1.52	0.49	0.033	2.45	0.06	0.054	1.515	0.29	0.040	1.93	0.375	0.044	2.345	0.46	0.040
0.6	0.04	0.042	1.52	0.5	0.036	2.45	0.07	0.053	1.515	0.295	0.041	1.93	0.38	0.041	2.345	0.465	0.040
0.6	0.05	0.040	1.52	0.51	0.039	2.45	0.08	0.054	1.515	0.3	0.042	1.93	0.385	0.040	2.345	0.47	0.038
0.6	0.06	0.039	1.52	0.52	0.041	2.45	0.09	0.057	1.515	0.305	0.043	1.93	0.39	0.041	2.345	0.475	0.037
0.6	0.07	0.039	1.52	0.53	0.040	2.45	0.1	0.060	1.515	0.31	0.042	1.93	0.395	0.041	2.345	0.48	0.036
0.6	0.08	0.039	1.52	0.54	0.038	2.45	0.11	0.063	1.515	0.315	0.042	1.93	0.4	0.040	2.345	0.485	0.036
0.6	0.09	0.038	1.52	0.55	0.035	2.45	0.12	0.063	1.515	0.32	0.040	1.93	0.405	0.039	2.345	0.49	0.037
0.6	0.1	0.036	1.52	0.56	0.033	2.45	0.13	0.062	1.515	0.325	0.038	1.93	0.41	0.042	2.345	0.495	0.037
0.6	0.11	0.034	1.52	0.57	0.032	2.45	0.14	0.062	1.515	0.33	0.036	1.93	0.415	0.046	2.35	0.005	0.066
0.6	0.12	0.033	1.52	0.58	0.033	2.45	0.15	0.062	1.515	0.335	0.034	1.93	0.42	0.050	2.35	0.01	0.067
0.6	0.13	0.033	1.52	0.59	0.034	2.45	0.16	0.062	1.515	0.34	0.033	1.93	0.425	0.051	2.35	0.015	0.069
0.6	0.14	0.032	1.52	0.6	0.035	2.45	0.17	0.060	1.515	0.345	0.032	1.93	0.43	0.050	2.35	0.02	0.070
0.6	0.15	0.032	1.52	0.61	0.036	2.45	0.18	0.056	1.515	0.35	0.032	1.93	0.435	0.048	2.35	0.025	0.070
0.6	0.16	0.032	1.52	0.62	0.038	2.45	0.19	0.054	1.515	0.355	0.032	1.93	0.44	0.050	2.35	0.03	0.068
0.6	0.17	0.032	1.52	0.63	0.037	2.45	0.2	0.054	1.515	0.36	0.032	1.93	0.445	0.055	2.35	0.035	0.068
0.6	0.18	0.033	1.52	0.64	0.037	2.45	0.21	0.056	1.515	0.365	0.033	1.93	0.45	0.058	2.35	0.04	0.070
0.6	0.19	0.033	1.52	0.65	0.037	2.45	0.22	0.059	1.515	0.37	0.033	1.93	0.455	0.060	2.35	0.045	0.074
0.6	0.2	0.033	1.52	0.66	0.038	2.45	0.23	0.061	1.515	0.375	0.033	1.93	0.46	0.062	2.35	0.05	0.077
0.6	0.21	0.033	1.52	0.67	0.039	2.45	0.24	0.060	1.515	0.38	0.032	1.93	0.465	0.065	2.35	0.055	0.077
0.6	0.22	0.034	1.52	0.68	0.041	2.45	0.25	0.055	1.515	0.385	0.031	1.93	0.47	0.068	2.35	0.06	0.075
0.6	0.23	0.034	1.52	0.69	0.043	2.45	0.26	0.048	1.515	0.39	0.033	1.93	0.475	0.070	2.35	0.065	0.071

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.6	0.24	0.034	1.52	0.7	0.043	2.45	0.27	0.042	1.515	0.395	0.035	1.93	0.48	0.069	2.35	0.07	0.067
0.6	0.25	0.034	1.52	0.71	0.042	2.45	0.28	0.038	1.515	0.4	0.035	1.93	0.485	0.067	2.35	0.075	0.063
0.6	0.26	0.034	1.52	0.72	0.042	2.45	0.29	0.036	1.515	0.405	0.034	1.93	0.49	0.062	2.35	0.08	0.057
0.6	0.27	0.034	1.52	0.73	0.042	2.45	0.3	0.037	1.515	0.41	0.033	1.93	0.495	0.058	2.35	0.085	0.053
0.6	0.28	0.033	1.52	0.74	0.042	2.45	0.31	0.037	1.515	0.415	0.034	1.935	0.005	0.056	2.35	0.09	0.051
0.6	0.29	0.033	1.52	0.75	0.041	2.45	0.32	0.037	1.515	0.42	0.034	1.935	0.01	0.067	2.35	0.095	0.053
0.6	0.3	0.033	1.52	0.76	0.041	2.45	0.33	0.036	1.515	0.425	0.034	1.935	0.015	0.073	2.35	0.1	0.057
0.6	0.31	0.033	1.52	0.77	0.041	2.45	0.34	0.036	1.515	0.43	0.034	1.935	0.02	0.076	2.35	0.105	0.059
0.6	0.32	0.032	1.52	0.78	0.042	2.45	0.35	0.037	1.515	0.435	0.033	1.935	0.025	0.077	2.35	0.11	0.061
0.6	0.33	0.032	1.52	0.79	0.043	2.45	0.36	0.039	1.515	0.44	0.034	1.935	0.03	0.074	2.35	0.115	0.062
0.6	0.34	0.032	1.52	0.8	0.044	2.45	0.37	0.041	1.515	0.445	0.034	1.935	0.035	0.069	2.35	0.12	0.062
0.6	0.35	0.032	1.52	0.81	0.042	2.45	0.38	0.042	1.515	0.45	0.034	1.935	0.04	0.059	2.35	0.125	0.060
0.6	0.36	0.033	1.52	0.82	0.042	2.45	0.39	0.044	1.515	0.455	0.034	1.935	0.045	0.053	2.35	0.13	0.057
0.6	0.37	0.034	1.52	0.83	0.044	2.45	0.4	0.044	1.515	0.46	0.032	1.935	0.05	0.054	2.35	0.135	0.052
0.6	0.38	0.036	1.52	0.84	0.046	2.45	0.41	0.046	1.515	0.465	0.031	1.935	0.055	0.059	2.35	0.14	0.048
0.6	0.39	0.037	1.52	0.85	0.046	2.45	0.42	0.046	1.515	0.47	0.030	1.935	0.06	0.062	2.35	0.145	0.046
0.6	0.4	0.038	1.52	0.86	0.048	2.45	0.43	0.047	1.515	0.475	0.030	1.935	0.065	0.063	2.35	0.15	0.050
0.6	0.41	0.038	1.52	0.87	0.049	2.45	0.44	0.046	1.515	0.48	0.030	1.935	0.07	0.065	2.35	0.155	0.057
0.6	0.42	0.038	1.52	0.88	0.047	2.45	0.45	0.045	1.515	0.485	0.031	1.935	0.075	0.069	2.35	0.16	0.063
0.6	0.43	0.038	1.52	0.89	0.044	2.45	0.46	0.045	1.515	0.49	0.033	1.935	0.08	0.072	2.35	0.165	0.067
0.6	0.44	0.039	1.53	0.01	0.042	2.45	0.47	0.045	1.515	0.495	0.034	1.935	0.085	0.075	2.35	0.17	0.069
0.6	0.45	0.041	1.53	0.02	0.042	2.45	0.48	0.045	1.52	0.005	0.042	1.935	0.09	0.081	2.35	0.175	0.070
0.6	0.46	0.042	1.53	0.03	0.041	2.45	0.49	0.044	1.52	0.01	0.042	1.935	0.095	0.083	2.35	0.18	0.069
0.6	0.47	0.042	1.53	0.04	0.041	2.45	0.5	0.045	1.52	0.015	0.044	1.935	0.1	0.080	2.35	0.185	0.069
0.6	0.48	0.041	1.53	0.05	0.043	2.45	0.51	0.046	1.52	0.02	0.044	1.935	0.105	0.075	2.35	0.19	0.068

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.6	0.49	0.040	1.53	0.06	0.046	2.45	0.52	0.046	1.52	0.025	0.044	1.935	0.11	0.068	2.35	0.195	0.067
0.6	0.5	0.038	1.53	0.07	0.051	2.45	0.53	0.045	1.52	0.03	0.043	1.935	0.115	0.061	2.35	0.2	0.064
0.6	0.51	0.037	1.53	0.08	0.053	2.45	0.54	0.046	1.52	0.035	0.040	1.935	0.12	0.058	2.35	0.205	0.060
0.6	0.52	0.037	1.53	0.09	0.052	2.45	0.55	0.047	1.52	0.04	0.039	1.935	0.125	0.060	2.35	0.21	0.052
0.6	0.53	0.036	1.53	0.1	0.049	2.45	0.56	0.048	1.52	0.045	0.038	1.935	0.13	0.061	2.35	0.215	0.043
0.6	0.54	0.036	1.53	0.11	0.047	2.45	0.57	0.049	1.52	0.05	0.037	1.935	0.135	0.060	2.35	0.22	0.038
0.6	0.55	0.035	1.53	0.12	0.047	2.45	0.58	0.049	1.52	0.055	0.038	1.935	0.14	0.060	2.35	0.225	0.037
0.6	0.56	0.035	1.53	0.13	0.048	2.45	0.59	0.049	1.52	0.06	0.040	1.935	0.145	0.063	2.35	0.23	0.038
0.6	0.57	0.035	1.53	0.14	0.046	2.45	0.6	0.050	1.52	0.065	0.049	1.935	0.15	0.068	2.35	0.235	0.042
0.6	0.58	0.035	1.53	0.15	0.042	2.45	0.61	0.052	1.52	0.07	0.056	1.935	0.155	0.070	2.35	0.24	0.049
0.6	0.59	0.035	1.53	0.16	0.039	2.45	0.62	0.055	1.52	0.075	0.060	1.935	0.16	0.067	2.35	0.245	0.055
0.6	0.6	0.034	1.53	0.17	0.039	2.45	0.63	0.056	1.52	0.08	0.062	1.935	0.165	0.064	2.35	0.25	0.058
0.6	0.61	0.034	1.53	0.18	0.041	2.45	0.64	0.055	1.52	0.085	0.062	1.935	0.17	0.066	2.35	0.255	0.058
0.6	0.62	0.033	1.53	0.19	0.042	2.45	0.65	0.053	1.52	0.09	0.057	1.935	0.175	0.072	2.35	0.26	0.057
0.6	0.63	0.032	1.53	0.2	0.042	2.45	0.66	0.053	1.52	0.095	0.047	1.935	0.18	0.075	2.35	0.265	0.054
0.6	0.64	0.032	1.53	0.21	0.042	2.45	0.67	0.054	1.52	0.1	0.040	1.935	0.185	0.074	2.35	0.27	0.049
0.6	0.65	0.031	1.53	0.22	0.040	2.45	0.68	0.056	1.52	0.105	0.038	1.935	0.19	0.071	2.35	0.275	0.045
0.6	0.66	0.031	1.53	0.23	0.039	2.45	0.69	0.059	1.52	0.11	0.038	1.935	0.195	0.067	2.35	0.28	0.045
0.6	0.67	0.031	1.53	0.24	0.039	2.45	0.7	0.062	1.52	0.115	0.039	1.935	0.2	0.060	2.35	0.285	0.046
0.6	0.68	0.032	1.53	0.25	0.040	2.45	0.71	0.064	1.52	0.12	0.045	1.935	0.205	0.052	2.35	0.29	0.045
0.6	0.69	0.032	1.53	0.26	0.042	2.45	0.72	0.062	1.52	0.125	0.054	1.935	0.21	0.049	2.35	0.295	0.044
0.6	0.7	0.032	1.53	0.27	0.041	2.45	0.73	0.059	1.52	0.13	0.056	1.935	0.215	0.051	2.35	0.3	0.046
0.6	0.71	0.033	1.53	0.28	0.039	2.45	0.74	0.055	1.52	0.135	0.053	1.935	0.22	0.053	2.35	0.305	0.049
0.6	0.72	0.033	1.53	0.29	0.038	2.45	0.75	0.053	1.52	0.14	0.049	1.935	0.225	0.053	2.35	0.31	0.050
0.6	0.73	0.033	1.53	0.3	0.039	2.45	0.76	0.053	1.52	0.145	0.045	1.935	0.23	0.053	2.35	0.315	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.6	0.74	0.034	1.53	0.31	0.041	2.45	0.77	0.054	1.52	0.15	0.040	1.935	0.235	0.050	2.35	0.32	0.048
0.6	0.75	0.034	1.53	0.32	0.042	2.45	0.78	0.053	1.52	0.155	0.035	1.935	0.24	0.045	2.35	0.325	0.043
0.6	0.76	0.035	1.53	0.33	0.042	2.45	0.79	0.049	1.52	0.16	0.033	1.935	0.245	0.041	2.35	0.33	0.039
0.6	0.77	0.035	1.53	0.34	0.040	2.45	0.8	0.046	1.52	0.165	0.033	1.935	0.25	0.039	2.35	0.335	0.034
0.6	0.78	0.036	1.53	0.35	0.039	2.45	0.81	0.043	1.52	0.17	0.035	1.935	0.255	0.041	2.35	0.34	0.033
0.6	0.79	0.036	1.53	0.36	0.038	2.45	0.82	0.042	1.52	0.175	0.041	1.935	0.26	0.048	2.35	0.345	0.035
0.6	0.8	0.036	1.53	0.37	0.037	2.45	0.83	0.043	1.52	0.18	0.048	1.935	0.265	0.056	2.35	0.35	0.037
0.6	0.81	0.037	1.53	0.38	0.035	2.45	0.84	0.045	1.52	0.185	0.044	1.935	0.27	0.060	2.35	0.355	0.040
0.6	0.82	0.037	1.53	0.39	0.035	2.45	0.85	0.045	1.52	0.19	0.038	1.935	0.275	0.062	2.35	0.36	0.041
0.6	0.83	0.038	1.53	0.4	0.036	2.45	0.86	0.045	1.52	0.195	0.040	1.935	0.28	0.061	2.35	0.365	0.041
0.6	0.84	0.039	1.53	0.41	0.037	2.45	0.87	0.045	1.52	0.2	0.044	1.935	0.285	0.060	2.35	0.37	0.040
0.6	0.85	0.040	1.53	0.42	0.038	2.45	0.88	0.047	1.52	0.205	0.045	1.935	0.29	0.056	2.35	0.375	0.041
0.6	0.86	0.042	1.53	0.43	0.037	2.45	0.89	0.053	1.52	0.21	0.043	1.935	0.295	0.050	2.35	0.38	0.041
0.6	0.87	0.042	1.53	0.44	0.037	2.46	0.01	0.063	1.52	0.215	0.041	1.935	0.3	0.044	2.35	0.385	0.042
0.6	0.88	0.041	1.53	0.45	0.037	2.46	0.02	0.067	1.52	0.22	0.039	1.935	0.305	0.040	2.35	0.39	0.042
0.6	0.89	0.039	1.53	0.46	0.035	2.46	0.03	0.068	1.52	0.225	0.036	1.935	0.31	0.039	2.35	0.395	0.042
0.61	0.01	0.040	1.53	0.47	0.034	2.46	0.04	0.066	1.52	0.23	0.036	1.935	0.315	0.039	2.35	0.4	0.041
0.61	0.02	0.042	1.53	0.48	0.033	2.46	0.05	0.063	1.52	0.235	0.036	1.935	0.32	0.037	2.35	0.405	0.039
0.61	0.03	0.043	1.53	0.49	0.033	2.46	0.06	0.059	1.52	0.24	0.035	1.935	0.325	0.037	2.35	0.41	0.037
0.61	0.04	0.042	1.53	0.5	0.035	2.46	0.07	0.056	1.52	0.245	0.037	1.935	0.33	0.037	2.35	0.415	0.036
0.61	0.05	0.041	1.53	0.51	0.037	2.46	0.08	0.054	1.52	0.25	0.041	1.935	0.335	0.036	2.35	0.42	0.037
0.61	0.06	0.041	1.53	0.52	0.039	2.46	0.09	0.056	1.52	0.255	0.045	1.935	0.34	0.034	2.35	0.425	0.040
0.61	0.07	0.040	1.53	0.53	0.039	2.46	0.1	0.058	1.52	0.26	0.047	1.935	0.345	0.033	2.35	0.43	0.043
0.61	0.08	0.040	1.53	0.54	0.037	2.46	0.11	0.062	1.52	0.265	0.047	1.935	0.35	0.033	2.35	0.435	0.046
0.61	0.09	0.038	1.53	0.55	0.035	2.46	0.12	0.064	1.52	0.27	0.045	1.935	0.355	0.035	2.35	0.44	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.61	0.1	0.036	1.53	0.56	0.034	2.46	0.13	0.065	1.52	0.275	0.039	1.935	0.36	0.038	2.35	0.445	0.042
0.61	0.11	0.034	1.53	0.57	0.034	2.46	0.14	0.063	1.52	0.28	0.036	1.935	0.365	0.041	2.35	0.45	0.039
0.61	0.12	0.033	1.53	0.58	0.035	2.46	0.15	0.061	1.52	0.285	0.037	1.935	0.37	0.042	2.35	0.455	0.039
0.61	0.13	0.032	1.53	0.59	0.037	2.46	0.16	0.060	1.52	0.29	0.039	1.935	0.375	0.042	2.35	0.46	0.040
0.61	0.14	0.032	1.53	0.6	0.038	2.46	0.17	0.059	1.52	0.295	0.040	1.935	0.38	0.043	2.35	0.465	0.041
0.61	0.15	0.032	1.53	0.61	0.039	2.46	0.18	0.058	1.52	0.3	0.041	1.935	0.385	0.045	2.35	0.47	0.041
0.61	0.16	0.032	1.53	0.62	0.040	2.46	0.19	0.057	1.52	0.305	0.041	1.935	0.39	0.047	2.35	0.475	0.041
0.61	0.17	0.032	1.53	0.63	0.039	2.46	0.2	0.056	1.52	0.31	0.041	1.935	0.395	0.047	2.35	0.48	0.039
0.61	0.18	0.032	1.53	0.64	0.038	2.46	0.21	0.056	1.52	0.315	0.041	1.935	0.4	0.046	2.35	0.485	0.037
0.61	0.19	0.033	1.53	0.65	0.037	2.46	0.22	0.056	1.52	0.32	0.041	1.935	0.405	0.044	2.35	0.49	0.036
0.61	0.2	0.033	1.53	0.66	0.038	2.46	0.23	0.056	1.52	0.325	0.040	1.935	0.41	0.045	2.35	0.495	0.037
0.61	0.21	0.033	1.53	0.67	0.039	2.46	0.24	0.055	1.52	0.33	0.038	1.935	0.415	0.049	2.355	0.005	0.067
0.61	0.22	0.034	1.53	0.68	0.041	2.46	0.25	0.052	1.52	0.335	0.036	1.935	0.42	0.052	2.355	0.01	0.067
0.61	0.23	0.034	1.53	0.69	0.042	2.46	0.26	0.047	1.52	0.34	0.035	1.935	0.425	0.053	2.355	0.015	0.065
0.61	0.24	0.034	1.53	0.7	0.042	2.46	0.27	0.041	1.52	0.345	0.034	1.935	0.43	0.052	2.355	0.02	0.062
0.61	0.25	0.034	1.53	0.71	0.042	2.46	0.28	0.038	1.52	0.35	0.033	1.935	0.435	0.050	2.355	0.025	0.060
0.61	0.26	0.034	1.53	0.72	0.044	2.46	0.29	0.036	1.52	0.355	0.033	1.935	0.44	0.051	2.355	0.03	0.062
0.61	0.27	0.034	1.53	0.73	0.045	2.46	0.3	0.037	1.52	0.36	0.034	1.935	0.445	0.054	2.355	0.035	0.066
0.61	0.28	0.034	1.53	0.74	0.045	2.46	0.31	0.038	1.52	0.365	0.035	1.935	0.45	0.056	2.355	0.04	0.069
0.61	0.29	0.034	1.53	0.75	0.044	2.46	0.32	0.038	1.52	0.37	0.036	1.935	0.455	0.055	2.355	0.045	0.071
0.61	0.3	0.034	1.53	0.76	0.043	2.46	0.33	0.037	1.52	0.375	0.035	1.935	0.46	0.054	2.355	0.05	0.073
0.61	0.31	0.033	1.53	0.77	0.044	2.46	0.34	0.037	1.52	0.38	0.032	1.935	0.465	0.056	2.355	0.055	0.073
0.61	0.32	0.032	1.53	0.78	0.044	2.46	0.35	0.037	1.52	0.385	0.031	1.935	0.47	0.058	2.355	0.06	0.071
0.61	0.33	0.032	1.53	0.79	0.044	2.46	0.36	0.038	1.52	0.39	0.033	1.935	0.475	0.060	2.355	0.065	0.068
0.61	0.34	0.032	1.53	0.8	0.044	2.46	0.37	0.038	1.52	0.395	0.036	1.935	0.48	0.059	2.355	0.07	0.064

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.61	0.35	0.032	1.53	0.81	0.043	2.46	0.38	0.039	1.52	0.4	0.037	1.935	0.485	0.058	2.355	0.075	0.059
0.61	0.36	0.033	1.53	0.82	0.043	2.46	0.39	0.041	1.52	0.405	0.035	1.935	0.49	0.057	2.355	0.08	0.055
0.61	0.37	0.034	1.53	0.83	0.044	2.46	0.4	0.043	1.52	0.41	0.034	1.935	0.495	0.058	2.355	0.085	0.050
0.61	0.38	0.036	1.53	0.84	0.045	2.46	0.41	0.045	1.52	0.415	0.035	1.94	0.005	0.056	2.355	0.09	0.047
0.61	0.39	0.037	1.53	0.85	0.045	2.46	0.42	0.046	1.52	0.42	0.037	1.94	0.01	0.064	2.355	0.095	0.050
0.61	0.4	0.038	1.53	0.86	0.046	2.46	0.43	0.046	1.52	0.425	0.037	1.94	0.015	0.070	2.355	0.1	0.054
0.61	0.41	0.038	1.53	0.87	0.048	2.46	0.44	0.046	1.52	0.43	0.035	1.94	0.02	0.074	2.355	0.105	0.058
0.61	0.42	0.037	1.53	0.88	0.047	2.46	0.45	0.045	1.52	0.435	0.033	1.94	0.025	0.074	2.355	0.11	0.061
0.61	0.43	0.037	1.53	0.89	0.046	2.46	0.46	0.046	1.52	0.44	0.036	1.94	0.03	0.072	2.355	0.115	0.063
0.61	0.44	0.038	1.54	0.01	0.041	2.46	0.47	0.047	1.52	0.445	0.037	1.94	0.035	0.068	2.355	0.12	0.063
0.61	0.45	0.040	1.54	0.02	0.041	2.46	0.48	0.048	1.52	0.45	0.037	1.94	0.04	0.062	2.355	0.125	0.062
0.61	0.46	0.040	1.54	0.03	0.042	2.46	0.49	0.048	1.52	0.455	0.036	1.94	0.045	0.057	2.355	0.13	0.059
0.61	0.47	0.040	1.54	0.04	0.043	2.46	0.5	0.047	1.52	0.46	0.034	1.94	0.05	0.057	2.355	0.135	0.055
0.61	0.48	0.038	1.54	0.05	0.046	2.46	0.51	0.048	1.52	0.465	0.031	1.94	0.055	0.058	2.355	0.14	0.051
0.61	0.49	0.037	1.54	0.06	0.048	2.46	0.52	0.047	1.52	0.47	0.030	1.94	0.06	0.058	2.355	0.145	0.048
0.61	0.5	0.037	1.54	0.07	0.049	2.46	0.53	0.046	1.52	0.475	0.029	1.94	0.065	0.059	2.355	0.15	0.054
0.61	0.51	0.037	1.54	0.08	0.050	2.46	0.54	0.047	1.52	0.48	0.030	1.94	0.07	0.065	2.355	0.155	0.064
0.61	0.52	0.037	1.54	0.09	0.050	2.46	0.55	0.049	1.52	0.485	0.030	1.94	0.075	0.072	2.355	0.16	0.069
0.61	0.53	0.036	1.54	0.1	0.048	2.46	0.56	0.050	1.52	0.49	0.032	1.94	0.08	0.075	2.355	0.165	0.072
0.61	0.54	0.036	1.54	0.11	0.047	2.46	0.57	0.050	1.52	0.495	0.034	1.94	0.085	0.076	2.355	0.17	0.072
0.61	0.55	0.036	1.54	0.12	0.047	2.46	0.58	0.049	1.525	0.005	0.042	1.94	0.09	0.080	2.355	0.175	0.072
0.61	0.56	0.036	1.54	0.13	0.046	2.46	0.59	0.048	1.525	0.01	0.043	1.94	0.095	0.082	2.355	0.18	0.071
0.61	0.57	0.036	1.54	0.14	0.045	2.46	0.6	0.049	1.525	0.015	0.043	1.94	0.1	0.082	2.355	0.185	0.070
0.61	0.58	0.035	1.54	0.15	0.043	2.46	0.61	0.052	1.525	0.02	0.045	1.94	0.105	0.079	2.355	0.19	0.069
0.61	0.59	0.035	1.54	0.16	0.041	2.46	0.62	0.054	1.525	0.025	0.044	1.94	0.11	0.073	2.355	0.195	0.068

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.61	0.6	0.034	1.54	0.17	0.041	2.46	0.63	0.055	1.525	0.03	0.041	1.94	0.115	0.065	2.355	0.2	0.067
0.61	0.61	0.033	1.54	0.18	0.041	2.46	0.64	0.053	1.525	0.035	0.039	1.94	0.12	0.063	2.355	0.205	0.065
0.61	0.62	0.033	1.54	0.19	0.042	2.46	0.65	0.052	1.525	0.04	0.038	1.94	0.125	0.063	2.355	0.21	0.062
0.61	0.63	0.032	1.54	0.2	0.042	2.46	0.66	0.052	1.525	0.045	0.037	1.94	0.13	0.060	2.355	0.215	0.055
0.61	0.64	0.031	1.54	0.21	0.041	2.46	0.67	0.055	1.525	0.05	0.036	1.94	0.135	0.057	2.355	0.22	0.046
0.61	0.65	0.031	1.54	0.22	0.040	2.46	0.68	0.058	1.525	0.055	0.036	1.94	0.14	0.059	2.355	0.225	0.039
0.61	0.66	0.031	1.54	0.23	0.039	2.46	0.69	0.060	1.525	0.06	0.038	1.94	0.145	0.066	2.355	0.23	0.037
0.61	0.67	0.031	1.54	0.24	0.039	2.46	0.7	0.062	1.525	0.065	0.044	1.94	0.15	0.071	2.355	0.235	0.041
0.61	0.68	0.032	1.54	0.25	0.040	2.46	0.71	0.062	1.525	0.07	0.053	1.94	0.155	0.071	2.355	0.24	0.050
0.61	0.69	0.032	1.54	0.26	0.042	2.46	0.72	0.061	1.525	0.075	0.058	1.94	0.16	0.068	2.355	0.245	0.055
0.61	0.7	0.033	1.54	0.27	0.042	2.46	0.73	0.059	1.525	0.08	0.061	1.94	0.165	0.065	2.355	0.25	0.057
0.61	0.71	0.033	1.54	0.28	0.040	2.46	0.74	0.056	1.525	0.085	0.060	1.94	0.17	0.065	2.355	0.255	0.057
0.61	0.72	0.033	1.54	0.29	0.039	2.46	0.75	0.055	1.525	0.09	0.057	1.94	0.175	0.070	2.355	0.26	0.056
0.61	0.73	0.034	1.54	0.3	0.040	2.46	0.76	0.055	1.525	0.095	0.049	1.94	0.18	0.074	2.355	0.265	0.055
0.61	0.74	0.034	1.54	0.31	0.042	2.46	0.77	0.055	1.525	0.1	0.044	1.94	0.185	0.073	2.355	0.27	0.050
0.61	0.75	0.034	1.54	0.32	0.044	2.46	0.78	0.054	1.525	0.105	0.042	1.94	0.19	0.070	2.355	0.275	0.046
0.61	0.76	0.035	1.54	0.33	0.043	2.46	0.79	0.051	1.525	0.11	0.042	1.94	0.195	0.065	2.355	0.28	0.045
0.61	0.77	0.036	1.54	0.34	0.042	2.46	0.8	0.048	1.525	0.115	0.043	1.94	0.2	0.057	2.355	0.285	0.046
0.61	0.78	0.037	1.54	0.35	0.040	2.46	0.81	0.046	1.525	0.12	0.049	1.94	0.205	0.050	2.355	0.29	0.045
0.61	0.79	0.038	1.54	0.36	0.039	2.46	0.82	0.045	1.525	0.125	0.056	1.94	0.21	0.048	2.355	0.295	0.044
0.61	0.8	0.038	1.54	0.37	0.038	2.46	0.83	0.045	1.525	0.13	0.057	1.94	0.215	0.050	2.355	0.3	0.046
0.61	0.81	0.038	1.54	0.38	0.036	2.46	0.84	0.046	1.525	0.135	0.053	1.94	0.22	0.052	2.355	0.305	0.050
0.61	0.82	0.038	1.54	0.39	0.035	2.46	0.85	0.045	1.525	0.14	0.049	1.94	0.225	0.054	2.355	0.31	0.052
0.61	0.83	0.038	1.54	0.4	0.036	2.46	0.86	0.044	1.525	0.145	0.044	1.94	0.23	0.055	2.355	0.315	0.052
0.61	0.84	0.039	1.54	0.41	0.037	2.46	0.87	0.044	1.525	0.15	0.039	1.94	0.235	0.056	2.355	0.32	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.61	0.85	0.040	1.54	0.42	0.038	2.46	0.88	0.046	1.525	0.155	0.035	1.94	0.24	0.053	2.355	0.325	0.045
0.61	0.86	0.041	1.54	0.43	0.038	2.46	0.89	0.052	1.525	0.16	0.033	1.94	0.245	0.048	2.355	0.33	0.040
0.61	0.87	0.042	1.54	0.44	0.038	2.47	0.01	0.061	1.525	0.165	0.033	1.94	0.25	0.044	2.355	0.335	0.036
0.61	0.88	0.041	1.54	0.45	0.037	2.47	0.02	0.067	1.525	0.17	0.035	1.94	0.255	0.042	2.355	0.34	0.035
0.61	0.89	0.039	1.54	0.46	0.036	2.47	0.03	0.071	1.525	0.175	0.042	1.94	0.26	0.047	2.355	0.345	0.037
0.62	0.01	0.039	1.54	0.47	0.035	2.47	0.04	0.072	1.525	0.18	0.048	1.94	0.265	0.056	2.355	0.35	0.039
0.62	0.02	0.041	1.54	0.48	0.034	2.47	0.05	0.070	1.525	0.185	0.043	1.94	0.27	0.062	2.355	0.355	0.041
0.62	0.03	0.043	1.54	0.49	0.033	2.47	0.06	0.066	1.525	0.19	0.038	1.94	0.275	0.064	2.355	0.36	0.043
0.62	0.04	0.044	1.54	0.5	0.034	2.47	0.07	0.061	1.525	0.195	0.042	1.94	0.28	0.063	2.355	0.365	0.043
0.62	0.05	0.045	1.54	0.51	0.036	2.47	0.08	0.057	1.525	0.2	0.046	1.94	0.285	0.060	2.355	0.37	0.040
0.62	0.06	0.045	1.54	0.52	0.037	2.47	0.09	0.057	1.525	0.205	0.047	1.94	0.29	0.055	2.355	0.375	0.038
0.62	0.07	0.044	1.54	0.53	0.038	2.47	0.1	0.058	1.525	0.21	0.045	1.94	0.295	0.048	2.355	0.38	0.038
0.62	0.08	0.041	1.54	0.54	0.038	2.47	0.11	0.060	1.525	0.215	0.044	1.94	0.3	0.041	2.355	0.385	0.038
0.62	0.09	0.039	1.54	0.55	0.037	2.47	0.12	0.063	1.525	0.22	0.041	1.94	0.305	0.038	2.355	0.39	0.038
0.62	0.1	0.037	1.54	0.56	0.037	2.47	0.13	0.065	1.525	0.225	0.038	1.94	0.31	0.037	2.355	0.395	0.039
0.62	0.11	0.035	1.54	0.57	0.038	2.47	0.14	0.065	1.525	0.23	0.038	1.94	0.315	0.037	2.355	0.4	0.038
0.62	0.12	0.034	1.54	0.58	0.039	2.47	0.15	0.062	1.525	0.235	0.038	1.94	0.32	0.037	2.355	0.405	0.036
0.62	0.13	0.033	1.54	0.59	0.040	2.47	0.16	0.060	1.525	0.24	0.036	1.94	0.325	0.038	2.355	0.41	0.034
0.62	0.14	0.032	1.54	0.6	0.042	2.47	0.17	0.059	1.525	0.245	0.037	1.94	0.33	0.038	2.355	0.415	0.034
0.62	0.15	0.032	1.54	0.61	0.043	2.47	0.18	0.059	1.525	0.25	0.041	1.94	0.335	0.037	2.355	0.42	0.035
0.62	0.16	0.032	1.54	0.62	0.042	2.47	0.19	0.058	1.525	0.255	0.045	1.94	0.34	0.036	2.355	0.425	0.038
0.62	0.17	0.032	1.54	0.63	0.041	2.47	0.2	0.057	1.525	0.26	0.047	1.94	0.345	0.035	2.355	0.43	0.041
0.62	0.18	0.033	1.54	0.64	0.040	2.47	0.21	0.057	1.525	0.265	0.047	1.94	0.35	0.034	2.355	0.435	0.043
0.62	0.19	0.033	1.54	0.65	0.039	2.47	0.22	0.056	1.525	0.27	0.044	1.94	0.355	0.034	2.355	0.44	0.042
0.62	0.2	0.034	1.54	0.66	0.039	2.47	0.23	0.054	1.525	0.275	0.039	1.94	0.36	0.036	2.355	0.445	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.62	0.21	0.034	1.54	0.67	0.041	2.47	0.24	0.052	1.525	0.28	0.034	1.94	0.365	0.038	2.355	0.45	0.036
0.62	0.22	0.034	1.54	0.68	0.041	2.47	0.25	0.050	1.525	0.285	0.035	1.94	0.37	0.039	2.355	0.455	0.038
0.62	0.23	0.034	1.54	0.69	0.041	2.47	0.26	0.047	1.525	0.29	0.037	1.94	0.375	0.041	2.355	0.46	0.040
0.62	0.24	0.034	1.54	0.7	0.040	2.47	0.27	0.042	1.525	0.295	0.038	1.94	0.38	0.044	2.355	0.465	0.043
0.62	0.25	0.034	1.54	0.71	0.042	2.47	0.28	0.038	1.525	0.3	0.038	1.94	0.385	0.048	2.355	0.47	0.045
0.62	0.26	0.034	1.54	0.72	0.045	2.47	0.29	0.037	1.525	0.305	0.037	1.94	0.39	0.050	2.355	0.475	0.045
0.62	0.27	0.034	1.54	0.73	0.047	2.47	0.3	0.037	1.525	0.31	0.038	1.94	0.395	0.051	2.355	0.48	0.042
0.62	0.28	0.034	1.54	0.74	0.048	2.47	0.31	0.038	1.525	0.315	0.040	1.94	0.4	0.050	2.355	0.485	0.038
0.62	0.29	0.035	1.54	0.75	0.048	2.47	0.32	0.039	1.525	0.32	0.041	1.94	0.405	0.048	2.355	0.49	0.037
0.62	0.3	0.035	1.54	0.76	0.047	2.47	0.33	0.039	1.525	0.325	0.041	1.94	0.41	0.048	2.355	0.495	0.039
0.62	0.31	0.034	1.54	0.77	0.047	2.47	0.34	0.038	1.525	0.33	0.040	1.94	0.415	0.050	2.36	0.005	0.069
0.62	0.32	0.033	1.54	0.78	0.047	2.47	0.35	0.038	1.525	0.335	0.038	1.94	0.42	0.052	2.36	0.01	0.068
0.62	0.33	0.032	1.54	0.79	0.046	2.47	0.36	0.037	1.525	0.34	0.036	1.94	0.425	0.053	2.36	0.015	0.065
0.62	0.34	0.032	1.54	0.8	0.045	2.47	0.37	0.037	1.525	0.345	0.035	1.94	0.43	0.052	2.36	0.02	0.057
0.62	0.35	0.033	1.54	0.81	0.045	2.47	0.38	0.038	1.525	0.35	0.035	1.94	0.435	0.049	2.36	0.025	0.055
0.62	0.36	0.034	1.54	0.82	0.044	2.47	0.39	0.040	1.525	0.355	0.035	1.94	0.44	0.049	2.36	0.03	0.062
0.62	0.37	0.035	1.54	0.83	0.044	2.47	0.4	0.042	1.525	0.36	0.036	1.94	0.445	0.050	2.36	0.035	0.068
0.62	0.38	0.035	1.54	0.84	0.043	2.47	0.41	0.044	1.525	0.365	0.038	1.94	0.45	0.051	2.36	0.04	0.069
0.62	0.39	0.036	1.54	0.85	0.043	2.47	0.42	0.045	1.525	0.37	0.039	1.94	0.455	0.050	2.36	0.045	0.067
0.62	0.4	0.037	1.54	0.86	0.044	2.47	0.43	0.046	1.525	0.375	0.037	1.94	0.46	0.049	2.36	0.05	0.067
0.62	0.41	0.037	1.54	0.87	0.046	2.47	0.44	0.046	1.525	0.38	0.033	1.94	0.465	0.050	2.36	0.055	0.069
0.62	0.42	0.037	1.54	0.88	0.046	2.47	0.45	0.047	1.525	0.385	0.032	1.94	0.47	0.050	2.36	0.06	0.068
0.62	0.43	0.037	1.54	0.89	0.047	2.47	0.46	0.047	1.525	0.39	0.033	1.94	0.475	0.049	2.36	0.065	0.064
0.62	0.44	0.038	1.55	0.01	0.039	2.47	0.47	0.049	1.525	0.395	0.036	1.94	0.48	0.048	2.36	0.07	0.059
0.62	0.45	0.039	1.55	0.02	0.040	2.47	0.48	0.050	1.525	0.4	0.037	1.94	0.485	0.049	2.36	0.075	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.62	0.46	0.039	1.55	0.03	0.042	2.47	0.49	0.051	1.525	0.405	0.036	1.94	0.49	0.052	2.36	0.08	0.052
0.62	0.47	0.039	1.55	0.04	0.045	2.47	0.5	0.050	1.525	0.41	0.035	1.94	0.495	0.058	2.36	0.085	0.051
0.62	0.48	0.039	1.55	0.05	0.048	2.47	0.51	0.049	1.525	0.415	0.038	1.945	0.005	0.057	2.36	0.09	0.050
0.62	0.49	0.038	1.55	0.06	0.050	2.47	0.52	0.048	1.525	0.42	0.040	1.945	0.01	0.061	2.36	0.095	0.049
0.62	0.5	0.037	1.55	0.07	0.050	2.47	0.53	0.048	1.525	0.425	0.040	1.945	0.015	0.067	2.36	0.1	0.052
0.62	0.51	0.037	1.55	0.08	0.050	2.47	0.54	0.049	1.525	0.43	0.037	1.945	0.02	0.070	2.36	0.105	0.056
0.62	0.52	0.037	1.55	0.09	0.048	2.47	0.55	0.052	1.525	0.435	0.034	1.945	0.025	0.071	2.36	0.11	0.060
0.62	0.53	0.037	1.55	0.1	0.047	2.47	0.56	0.053	1.525	0.44	0.036	1.945	0.03	0.071	2.36	0.115	0.062
0.62	0.54	0.037	1.55	0.11	0.046	2.47	0.57	0.053	1.525	0.445	0.039	1.945	0.035	0.071	2.36	0.12	0.062
0.62	0.55	0.038	1.55	0.12	0.046	2.47	0.58	0.051	1.525	0.45	0.039	1.945	0.04	0.071	2.36	0.125	0.060
0.62	0.56	0.037	1.55	0.13	0.045	2.47	0.59	0.048	1.525	0.455	0.038	1.945	0.045	0.070	2.36	0.13	0.056
0.62	0.57	0.036	1.55	0.14	0.045	2.47	0.6	0.048	1.525	0.46	0.036	1.945	0.05	0.069	2.36	0.135	0.050
0.62	0.58	0.035	1.55	0.15	0.045	2.47	0.61	0.051	1.525	0.465	0.033	1.945	0.055	0.063	2.36	0.14	0.047
0.62	0.59	0.035	1.55	0.16	0.044	2.47	0.62	0.054	1.525	0.47	0.031	1.945	0.06	0.056	2.36	0.145	0.047
0.62	0.6	0.034	1.55	0.17	0.043	2.47	0.63	0.054	1.525	0.475	0.029	1.945	0.065	0.054	2.36	0.15	0.056
0.62	0.61	0.033	1.55	0.18	0.043	2.47	0.64	0.053	1.525	0.48	0.029	1.945	0.07	0.060	2.36	0.155	0.066
0.62	0.62	0.032	1.55	0.19	0.043	2.47	0.65	0.053	1.525	0.485	0.030	1.945	0.075	0.069	2.36	0.16	0.072
0.62	0.63	0.032	1.55	0.2	0.042	2.47	0.66	0.054	1.525	0.49	0.032	1.945	0.08	0.076	2.36	0.165	0.073
0.62	0.64	0.031	1.55	0.21	0.042	2.47	0.67	0.058	1.525	0.495	0.033	1.945	0.085	0.077	2.36	0.17	0.073
0.62	0.65	0.031	1.55	0.22	0.040	2.47	0.68	0.060	1.53	0.005	0.042	1.945	0.09	0.078	2.36	0.175	0.072
0.62	0.66	0.031	1.55	0.23	0.039	2.47	0.69	0.060	1.53	0.01	0.043	1.945	0.095	0.080	2.36	0.18	0.071
0.62	0.67	0.032	1.55	0.24	0.040	2.47	0.7	0.059	1.53	0.015	0.043	1.945	0.1	0.080	2.36	0.185	0.071
0.62	0.68	0.032	1.55	0.25	0.041	2.47	0.71	0.058	1.53	0.02	0.044	1.945	0.105	0.078	2.36	0.19	0.069
0.62	0.69	0.033	1.55	0.26	0.043	2.47	0.72	0.057	1.53	0.025	0.043	1.945	0.11	0.074	2.36	0.195	0.068
0.62	0.7	0.034	1.55	0.27	0.044	2.47	0.73	0.056	1.53	0.03	0.040	1.945	0.115	0.069	2.36	0.2	0.068

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.62	0.71	0.034	1.55	0.28	0.042	2.47	0.74	0.057	1.53	0.035	0.038	1.945	0.12	0.069	2.36	0.205	0.067
0.62	0.72	0.034	1.55	0.29	0.041	2.47	0.75	0.057	1.53	0.04	0.037	1.945	0.125	0.068	2.36	0.21	0.066
0.62	0.73	0.034	1.55	0.3	0.042	2.47	0.76	0.057	1.53	0.045	0.037	1.945	0.13	0.064	2.36	0.215	0.063
0.62	0.74	0.034	1.55	0.31	0.044	2.47	0.77	0.056	1.53	0.05	0.036	1.945	0.135	0.058	2.36	0.22	0.054
0.62	0.75	0.035	1.55	0.32	0.045	2.47	0.78	0.054	1.53	0.055	0.036	1.945	0.14	0.060	2.36	0.225	0.043
0.62	0.76	0.035	1.55	0.33	0.044	2.47	0.79	0.051	1.53	0.06	0.038	1.945	0.145	0.067	2.36	0.23	0.038
0.62	0.77	0.037	1.55	0.34	0.043	2.47	0.8	0.050	1.53	0.065	0.041	1.945	0.15	0.072	2.36	0.235	0.041
0.62	0.78	0.038	1.55	0.35	0.041	2.47	0.81	0.050	1.53	0.07	0.048	1.945	0.155	0.072	2.36	0.24	0.049
0.62	0.79	0.039	1.55	0.36	0.040	2.47	0.82	0.050	1.53	0.075	0.054	1.945	0.16	0.069	2.36	0.245	0.054
0.62	0.8	0.039	1.55	0.37	0.038	2.47	0.83	0.049	1.53	0.08	0.058	1.945	0.165	0.064	2.36	0.25	0.055
0.62	0.81	0.039	1.55	0.38	0.037	2.47	0.84	0.049	1.53	0.085	0.058	1.945	0.17	0.061	2.36	0.255	0.055
0.62	0.82	0.039	1.55	0.39	0.036	2.47	0.85	0.048	1.53	0.09	0.055	1.945	0.175	0.064	2.36	0.26	0.055
0.62	0.83	0.039	1.55	0.4	0.036	2.47	0.86	0.046	1.53	0.095	0.050	1.945	0.18	0.069	2.36	0.265	0.053
0.62	0.84	0.040	1.55	0.41	0.037	2.47	0.87	0.045	1.53	0.1	0.047	1.945	0.185	0.070	2.36	0.27	0.049
0.62	0.85	0.042	1.55	0.42	0.039	2.47	0.88	0.048	1.53	0.105	0.047	1.945	0.19	0.068	2.36	0.275	0.044
0.62	0.86	0.043	1.55	0.43	0.040	2.47	0.89	0.054	1.53	0.11	0.046	1.945	0.195	0.062	2.36	0.28	0.044
0.62	0.87	0.043	1.55	0.44	0.040	2.48	0.01	0.059	1.53	0.115	0.046	1.945	0.2	0.055	2.36	0.285	0.045
0.62	0.88	0.042	1.55	0.45	0.039	2.48	0.02	0.065	1.53	0.12	0.049	1.945	0.205	0.051	2.36	0.29	0.044
0.62	0.89	0.040	1.55	0.46	0.037	2.48	0.03	0.071	1.53	0.125	0.053	1.945	0.21	0.051	2.36	0.295	0.043
0.63	0.01	0.037	1.55	0.47	0.036	2.48	0.04	0.075	1.53	0.13	0.054	1.945	0.215	0.053	2.36	0.3	0.045
0.63	0.02	0.040	1.55	0.48	0.035	2.48	0.05	0.075	1.53	0.135	0.051	1.945	0.22	0.055	2.36	0.305	0.049
0.63	0.03	0.043	1.55	0.49	0.034	2.48	0.06	0.071	1.53	0.14	0.046	1.945	0.225	0.056	2.36	0.31	0.051
0.63	0.04	0.046	1.55	0.5	0.035	2.48	0.07	0.065	1.53	0.145	0.042	1.945	0.23	0.058	2.36	0.315	0.051
0.63	0.05	0.048	1.55	0.51	0.036	2.48	0.08	0.061	1.53	0.15	0.039	1.945	0.235	0.060	2.36	0.32	0.049
0.63	0.06	0.049	1.55	0.52	0.038	2.48	0.09	0.060	1.53	0.155	0.037	1.945	0.24	0.060	2.36	0.325	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.63	0.07	0.047	1.55	0.53	0.039	2.48	0.1	0.060	1.53	0.16	0.035	1.945	0.245	0.057	2.36	0.33	0.039
0.63	0.08	0.044	1.55	0.54	0.039	2.48	0.11	0.059	1.53	0.165	0.034	1.945	0.25	0.051	2.36	0.335	0.038
0.63	0.09	0.041	1.55	0.55	0.040	2.48	0.12	0.062	1.53	0.17	0.036	1.945	0.255	0.046	2.36	0.34	0.038
0.63	0.1	0.039	1.55	0.56	0.042	2.48	0.13	0.067	1.53	0.175	0.041	1.945	0.26	0.046	2.36	0.345	0.040
0.63	0.11	0.037	1.55	0.57	0.043	2.48	0.14	0.068	1.53	0.18	0.043	1.945	0.265	0.053	2.36	0.35	0.042
0.63	0.12	0.035	1.55	0.58	0.044	2.48	0.15	0.066	1.53	0.185	0.041	1.945	0.27	0.059	2.36	0.355	0.044
0.63	0.13	0.034	1.55	0.59	0.044	2.48	0.16	0.062	1.53	0.19	0.039	1.945	0.275	0.061	2.36	0.36	0.046
0.63	0.14	0.033	1.55	0.6	0.045	2.48	0.17	0.059	1.53	0.195	0.043	1.945	0.28	0.060	2.36	0.365	0.044
0.63	0.15	0.033	1.55	0.61	0.045	2.48	0.18	0.058	1.53	0.2	0.046	1.945	0.285	0.056	2.36	0.37	0.040
0.63	0.16	0.033	1.55	0.62	0.045	2.48	0.19	0.057	1.53	0.205	0.046	1.945	0.29	0.050	2.36	0.375	0.036
0.63	0.17	0.033	1.55	0.63	0.044	2.48	0.2	0.057	1.53	0.21	0.045	1.945	0.295	0.043	2.36	0.38	0.034
0.63	0.18	0.034	1.55	0.64	0.043	2.48	0.21	0.057	1.53	0.215	0.043	1.945	0.3	0.038	2.36	0.385	0.034
0.63	0.19	0.035	1.55	0.65	0.041	2.48	0.22	0.056	1.53	0.22	0.041	1.945	0.305	0.036	2.36	0.39	0.035
0.63	0.2	0.036	1.55	0.66	0.041	2.48	0.23	0.053	1.53	0.225	0.039	1.945	0.31	0.037	2.36	0.395	0.036
0.63	0.21	0.037	1.55	0.67	0.042	2.48	0.24	0.051	1.53	0.23	0.039	1.945	0.315	0.038	2.36	0.4	0.036
0.63	0.22	0.037	1.55	0.68	0.042	2.48	0.25	0.050	1.53	0.235	0.040	1.945	0.32	0.039	2.36	0.405	0.035
0.63	0.23	0.036	1.55	0.69	0.041	2.48	0.26	0.047	1.53	0.24	0.039	1.945	0.325	0.041	2.36	0.41	0.034
0.63	0.24	0.035	1.55	0.7	0.040	2.48	0.27	0.044	1.53	0.245	0.037	1.945	0.33	0.041	2.36	0.415	0.034
0.63	0.25	0.035	1.55	0.71	0.041	2.48	0.28	0.039	1.53	0.25	0.039	1.945	0.335	0.041	2.36	0.42	0.035
0.63	0.26	0.034	1.55	0.72	0.044	2.48	0.29	0.037	1.53	0.255	0.043	1.945	0.34	0.040	2.36	0.425	0.038
0.63	0.27	0.034	1.55	0.73	0.048	2.48	0.3	0.036	1.53	0.26	0.046	1.945	0.345	0.038	2.36	0.43	0.040
0.63	0.28	0.035	1.55	0.74	0.050	2.48	0.31	0.037	1.53	0.265	0.045	1.945	0.35	0.036	2.36	0.435	0.042
0.63	0.29	0.035	1.55	0.75	0.050	2.48	0.32	0.038	1.53	0.27	0.042	1.945	0.355	0.035	2.36	0.44	0.040
0.63	0.3	0.035	1.55	0.76	0.049	2.48	0.33	0.038	1.53	0.275	0.038	1.945	0.36	0.036	2.36	0.445	0.036
0.63	0.31	0.034	1.55	0.77	0.048	2.48	0.34	0.039	1.53	0.28	0.034	1.945	0.365	0.037	2.36	0.45	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.63	0.32	0.033	1.55	0.78	0.048	2.48	0.35	0.039	1.53	0.285	0.034	1.945	0.37	0.037	2.36	0.455	0.036
0.63	0.33	0.033	1.55	0.79	0.048	2.48	0.36	0.038	1.53	0.29	0.035	1.945	0.375	0.039	2.36	0.46	0.041
0.63	0.34	0.033	1.55	0.8	0.048	2.48	0.37	0.037	1.53	0.295	0.036	1.945	0.38	0.044	2.36	0.465	0.046
0.63	0.35	0.034	1.55	0.81	0.048	2.48	0.38	0.037	1.53	0.3	0.036	1.945	0.385	0.048	2.36	0.47	0.049
0.63	0.36	0.035	1.55	0.82	0.047	2.48	0.39	0.038	1.53	0.305	0.036	1.945	0.39	0.051	2.36	0.475	0.048
0.63	0.37	0.035	1.55	0.83	0.044	2.48	0.4	0.040	1.53	0.31	0.039	1.945	0.395	0.052	2.36	0.48	0.045
0.63	0.38	0.036	1.55	0.84	0.042	2.48	0.41	0.042	1.53	0.315	0.042	1.945	0.4	0.051	2.36	0.485	0.041
0.63	0.39	0.037	1.55	0.85	0.041	2.48	0.42	0.044	1.53	0.32	0.044	1.945	0.405	0.050	2.36	0.49	0.041
0.63	0.4	0.037	1.55	0.86	0.042	2.48	0.43	0.046	1.53	0.325	0.044	1.945	0.41	0.048	2.36	0.495	0.044
0.63	0.41	0.037	1.55	0.87	0.045	2.48	0.44	0.048	1.53	0.33	0.043	1.945	0.415	0.047	2.365	0.005	0.068
0.63	0.42	0.037	1.55	0.88	0.047	2.48	0.45	0.048	1.53	0.335	0.040	1.945	0.42	0.050	2.365	0.01	0.068
0.63	0.43	0.037	1.55	0.89	0.050	2.48	0.46	0.047	1.53	0.34	0.037	1.945	0.425	0.051	2.365	0.015	0.066
0.63	0.44	0.038	1.56	0.01	0.038	2.48	0.47	0.048	1.53	0.345	0.036	1.945	0.43	0.049	2.365	0.02	0.062
0.63	0.45	0.040	1.56	0.02	0.039	2.48	0.48	0.049	1.53	0.35	0.036	1.945	0.435	0.045	2.365	0.025	0.062
0.63	0.46	0.041	1.56	0.03	0.041	2.48	0.49	0.049	1.53	0.355	0.037	1.945	0.44	0.044	2.365	0.03	0.068
0.63	0.47	0.041	1.56	0.04	0.045	2.48	0.5	0.049	1.53	0.36	0.038	1.945	0.445	0.046	2.365	0.035	0.071
0.63	0.48	0.042	1.56	0.05	0.049	2.48	0.51	0.048	1.53	0.365	0.039	1.945	0.45	0.048	2.365	0.04	0.068
0.63	0.49	0.041	1.56	0.06	0.051	2.48	0.52	0.049	1.53	0.37	0.040	1.945	0.455	0.049	2.365	0.045	0.063
0.63	0.5	0.039	1.56	0.07	0.051	2.48	0.53	0.050	1.53	0.375	0.038	1.945	0.46	0.049	2.365	0.05	0.063
0.63	0.51	0.037	1.56	0.08	0.050	2.48	0.54	0.052	1.53	0.38	0.034	1.945	0.465	0.048	2.365	0.055	0.066
0.63	0.52	0.037	1.56	0.09	0.049	2.48	0.55	0.053	1.53	0.385	0.033	1.945	0.47	0.045	2.365	0.06	0.067
0.63	0.53	0.037	1.56	0.1	0.047	2.48	0.56	0.054	1.53	0.39	0.034	1.945	0.475	0.043	2.365	0.065	0.062
0.63	0.54	0.038	1.56	0.11	0.045	2.48	0.57	0.054	1.53	0.395	0.036	1.945	0.48	0.042	2.365	0.07	0.055
0.63	0.55	0.039	1.56	0.12	0.045	2.48	0.58	0.052	1.53	0.4	0.037	1.945	0.485	0.044	2.365	0.075	0.051
0.63	0.56	0.038	1.56	0.13	0.045	2.48	0.59	0.050	1.53	0.405	0.036	1.945	0.49	0.049	2.365	0.08	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.63	0.57	0.036	1.56	0.14	0.045	2.48	0.6	0.049	1.53	0.41	0.037	1.945	0.495	0.058	2.365	0.085	0.055
0.63	0.58	0.035	1.56	0.15	0.045	2.48	0.61	0.052	1.53	0.415	0.041	1.95	0.005	0.061	2.365	0.09	0.055
0.63	0.59	0.034	1.56	0.16	0.045	2.48	0.62	0.055	1.53	0.42	0.043	1.95	0.01	0.064	2.365	0.095	0.050
0.63	0.6	0.034	1.56	0.17	0.045	2.48	0.63	0.055	1.53	0.425	0.041	1.95	0.015	0.067	2.365	0.1	0.048
0.63	0.61	0.033	1.56	0.18	0.045	2.48	0.64	0.055	1.53	0.43	0.038	1.95	0.02	0.070	2.365	0.105	0.050
0.63	0.62	0.033	1.56	0.19	0.044	2.48	0.65	0.055	1.53	0.435	0.035	1.95	0.025	0.072	2.365	0.11	0.054
0.63	0.63	0.032	1.56	0.2	0.044	2.48	0.66	0.056	1.53	0.44	0.035	1.95	0.03	0.074	2.365	0.115	0.056
0.63	0.64	0.031	1.56	0.21	0.043	2.48	0.67	0.059	1.53	0.445	0.038	1.95	0.035	0.077	2.365	0.12	0.056
0.63	0.65	0.032	1.56	0.22	0.042	2.48	0.68	0.060	1.53	0.45	0.040	1.95	0.04	0.081	2.365	0.125	0.053
0.63	0.66	0.032	1.56	0.23	0.041	2.48	0.69	0.058	1.53	0.455	0.039	1.95	0.045	0.084	2.365	0.13	0.049
0.63	0.67	0.033	1.56	0.24	0.042	2.48	0.7	0.055	1.53	0.46	0.037	1.95	0.05	0.083	2.365	0.135	0.043
0.63	0.68	0.033	1.56	0.25	0.043	2.48	0.71	0.052	1.53	0.465	0.034	1.95	0.055	0.076	2.365	0.14	0.039
0.63	0.69	0.034	1.56	0.26	0.045	2.48	0.72	0.051	1.53	0.47	0.031	1.95	0.06	0.062	2.365	0.145	0.043
0.63	0.7	0.035	1.56	0.27	0.045	2.48	0.73	0.053	1.53	0.475	0.030	1.95	0.065	0.055	2.365	0.15	0.054
0.63	0.71	0.036	1.56	0.28	0.044	2.48	0.74	0.056	1.53	0.48	0.030	1.95	0.07	0.057	2.365	0.155	0.066
0.63	0.72	0.036	1.56	0.29	0.043	2.48	0.75	0.057	1.53	0.485	0.030	1.95	0.075	0.065	2.365	0.16	0.072
0.63	0.73	0.035	1.56	0.3	0.044	2.48	0.76	0.057	1.53	0.49	0.031	1.95	0.08	0.074	2.365	0.165	0.073
0.63	0.74	0.035	1.56	0.31	0.045	2.48	0.77	0.056	1.53	0.495	0.032	1.95	0.085	0.077	2.365	0.17	0.073
0.63	0.75	0.035	1.56	0.32	0.044	2.48	0.78	0.053	1.535	0.005	0.042	1.95	0.09	0.075	2.365	0.175	0.072
0.63	0.76	0.035	1.56	0.33	0.044	2.48	0.79	0.052	1.535	0.01	0.042	1.95	0.095	0.073	2.365	0.18	0.071
0.63	0.77	0.037	1.56	0.34	0.043	2.48	0.8	0.052	1.535	0.015	0.043	1.95	0.1	0.073	2.365	0.185	0.070
0.63	0.78	0.039	1.56	0.35	0.041	2.48	0.81	0.053	1.535	0.02	0.044	1.95	0.105	0.073	2.365	0.19	0.069
0.63	0.79	0.040	1.56	0.36	0.039	2.48	0.82	0.053	1.535	0.025	0.044	1.95	0.11	0.072	2.365	0.195	0.069
0.63	0.8	0.041	1.56	0.37	0.039	2.48	0.83	0.053	1.535	0.03	0.042	1.95	0.115	0.072	2.365	0.2	0.068
0.63	0.81	0.041	1.56	0.38	0.038	2.48	0.84	0.053	1.535	0.035	0.039	1.95	0.12	0.073	2.365	0.205	0.068

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.63	0.82	0.041	1.56	0.39	0.037	2.48	0.85	0.051	1.535	0.04	0.037	1.95	0.125	0.071	2.365	0.21	0.067
0.63	0.83	0.041	1.56	0.4	0.038	2.48	0.86	0.047	1.535	0.045	0.037	1.95	0.13	0.066	2.365	0.215	0.066
0.63	0.84	0.042	1.56	0.41	0.039	2.48	0.87	0.047	1.535	0.05	0.039	1.95	0.135	0.061	2.365	0.22	0.059
0.63	0.85	0.044	1.56	0.42	0.041	2.48	0.88	0.051	1.535	0.055	0.041	1.95	0.14	0.062	2.365	0.225	0.047
0.63	0.86	0.045	1.56	0.43	0.042	2.48	0.89	0.058	1.535	0.06	0.040	1.95	0.145	0.067	2.365	0.23	0.040
0.63	0.87	0.045	1.56	0.44	0.042	2.49	0.01	0.058	1.535	0.065	0.041	1.95	0.15	0.071	2.365	0.235	0.039
0.63	0.88	0.043	1.56	0.45	0.041	2.49	0.02	0.065	1.535	0.07	0.043	1.95	0.155	0.071	2.365	0.24	0.044
0.63	0.89	0.040	1.56	0.46	0.039	2.49	0.03	0.070	1.535	0.075	0.047	1.95	0.16	0.068	2.365	0.245	0.050
0.64	0.01	0.036	1.56	0.47	0.037	2.49	0.04	0.074	1.535	0.08	0.051	1.95	0.165	0.062	2.365	0.25	0.053
0.64	0.02	0.039	1.56	0.48	0.036	2.49	0.05	0.075	1.535	0.085	0.053	1.95	0.17	0.056	2.365	0.255	0.053
0.64	0.03	0.042	1.56	0.49	0.036	2.49	0.06	0.073	1.535	0.09	0.052	1.95	0.175	0.055	2.365	0.26	0.052
0.64	0.04	0.046	1.56	0.5	0.037	2.49	0.07	0.070	1.535	0.095	0.050	1.95	0.18	0.061	2.365	0.265	0.049
0.64	0.05	0.050	1.56	0.51	0.038	2.49	0.08	0.066	1.535	0.1	0.049	1.95	0.185	0.064	2.365	0.27	0.044
0.64	0.06	0.052	1.56	0.52	0.039	2.49	0.09	0.064	1.535	0.105	0.048	1.95	0.19	0.061	2.365	0.275	0.039
0.64	0.07	0.050	1.56	0.53	0.041	2.49	0.1	0.062	1.535	0.11	0.048	1.95	0.195	0.057	2.365	0.28	0.039
0.64	0.08	0.046	1.56	0.54	0.043	2.49	0.11	0.061	1.535	0.115	0.047	1.95	0.2	0.055	2.365	0.285	0.041
0.64	0.09	0.044	1.56	0.55	0.045	2.49	0.12	0.064	1.535	0.12	0.047	1.95	0.205	0.055	2.365	0.29	0.041
0.64	0.1	0.041	1.56	0.56	0.046	2.49	0.13	0.069	1.535	0.125	0.049	1.95	0.21	0.057	2.365	0.295	0.041
0.64	0.11	0.039	1.56	0.57	0.048	2.49	0.14	0.073	1.535	0.13	0.049	1.95	0.215	0.058	2.365	0.3	0.044
0.64	0.12	0.037	1.56	0.58	0.047	2.49	0.15	0.071	1.535	0.135	0.046	1.95	0.22	0.058	2.365	0.305	0.047
0.64	0.13	0.036	1.56	0.59	0.046	2.49	0.16	0.066	1.535	0.14	0.043	1.95	0.225	0.058	2.365	0.31	0.050
0.64	0.14	0.035	1.56	0.6	0.045	2.49	0.17	0.060	1.535	0.145	0.041	1.95	0.23	0.059	2.365	0.315	0.049
0.64	0.15	0.035	1.56	0.61	0.046	2.49	0.18	0.056	1.535	0.15	0.040	1.95	0.235	0.061	2.365	0.32	0.046
0.64	0.16	0.035	1.56	0.62	0.047	2.49	0.19	0.054	1.535	0.155	0.040	1.95	0.24	0.062	2.365	0.325	0.040
0.64	0.17	0.035	1.56	0.63	0.047	2.49	0.2	0.054	1.535	0.16	0.039	1.95	0.245	0.061	2.365	0.33	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.64	0.18	0.036	1.56	0.64	0.046	2.49	0.21	0.055	1.535	0.165	0.037	1.95	0.25	0.058	2.365	0.335	0.037
0.64	0.19	0.038	1.56	0.65	0.043	2.49	0.22	0.055	1.535	0.17	0.036	1.95	0.255	0.053	2.365	0.34	0.039
0.64	0.2	0.040	1.56	0.66	0.042	2.49	0.23	0.054	1.535	0.175	0.038	1.95	0.26	0.049	2.365	0.345	0.042
0.64	0.21	0.040	1.56	0.67	0.042	2.49	0.24	0.052	1.535	0.18	0.038	1.95	0.265	0.050	2.365	0.35	0.044
0.64	0.22	0.039	1.56	0.68	0.041	2.49	0.25	0.051	1.535	0.185	0.038	1.95	0.27	0.053	2.365	0.355	0.046
0.64	0.23	0.037	1.56	0.69	0.040	2.49	0.26	0.049	1.535	0.19	0.039	1.95	0.275	0.055	2.365	0.36	0.047
0.64	0.24	0.036	1.56	0.7	0.040	2.49	0.27	0.045	1.535	0.195	0.041	1.95	0.28	0.053	2.365	0.365	0.046
0.64	0.25	0.035	1.56	0.71	0.042	2.49	0.28	0.040	1.535	0.2	0.043	1.95	0.285	0.048	2.365	0.37	0.040
0.64	0.26	0.035	1.56	0.72	0.044	2.49	0.29	0.037	1.535	0.205	0.043	1.95	0.29	0.045	2.365	0.375	0.035
0.64	0.27	0.035	1.56	0.73	0.047	2.49	0.3	0.036	1.535	0.21	0.042	1.95	0.295	0.041	2.365	0.38	0.033
0.64	0.28	0.035	1.56	0.74	0.048	2.49	0.31	0.036	1.535	0.215	0.040	1.95	0.3	0.037	2.365	0.385	0.033
0.64	0.29	0.036	1.56	0.75	0.048	2.49	0.32	0.037	1.535	0.22	0.038	1.95	0.305	0.036	2.365	0.39	0.034
0.64	0.3	0.035	1.56	0.76	0.047	2.49	0.33	0.038	1.535	0.225	0.037	1.95	0.31	0.038	2.365	0.395	0.036
0.64	0.31	0.034	1.56	0.77	0.047	2.49	0.34	0.039	1.535	0.23	0.039	1.95	0.315	0.040	2.365	0.4	0.036
0.64	0.32	0.034	1.56	0.78	0.047	2.49	0.35	0.039	1.535	0.235	0.041	1.95	0.32	0.042	2.365	0.405	0.036
0.64	0.33	0.034	1.56	0.79	0.048	2.49	0.36	0.037	1.535	0.24	0.040	1.95	0.325	0.043	2.365	0.41	0.036
0.64	0.34	0.035	1.56	0.8	0.050	2.49	0.37	0.036	1.535	0.245	0.037	1.95	0.33	0.044	2.365	0.415	0.036
0.64	0.35	0.035	1.56	0.81	0.050	2.49	0.38	0.035	1.535	0.25	0.036	1.95	0.335	0.044	2.365	0.42	0.037
0.64	0.36	0.036	1.56	0.82	0.049	2.49	0.39	0.036	1.535	0.255	0.040	1.95	0.34	0.043	2.365	0.425	0.040
0.64	0.37	0.036	1.56	0.83	0.045	2.49	0.4	0.038	1.535	0.26	0.042	1.95	0.345	0.041	2.365	0.43	0.042
0.64	0.38	0.037	1.56	0.84	0.041	2.49	0.41	0.040	1.535	0.265	0.042	1.95	0.35	0.038	2.365	0.435	0.043
0.64	0.39	0.038	1.56	0.85	0.040	2.49	0.42	0.043	1.535	0.27	0.041	1.95	0.355	0.038	2.365	0.44	0.040
0.64	0.4	0.039	1.56	0.86	0.041	2.49	0.43	0.046	1.535	0.275	0.039	1.95	0.36	0.039	2.365	0.445	0.036
0.64	0.41	0.038	1.56	0.87	0.044	2.49	0.44	0.048	1.535	0.28	0.037	1.95	0.365	0.039	2.365	0.45	0.035
0.64	0.42	0.037	1.56	0.88	0.049	2.49	0.45	0.048	1.535	0.285	0.035	1.95	0.37	0.037	2.365	0.455	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.64	0.43	0.037	1.56	0.89	0.054	2.49	0.46	0.046	1.535	0.29	0.034	1.95	0.375	0.038	2.365	0.46	0.045
0.64	0.44	0.039	1.57	0.01	0.037	2.49	0.47	0.045	1.535	0.295	0.035	1.95	0.38	0.042	2.365	0.465	0.050
0.64	0.45	0.042	1.57	0.02	0.038	2.49	0.48	0.044	1.535	0.3	0.037	1.95	0.385	0.047	2.365	0.47	0.052
0.64	0.46	0.044	1.57	0.03	0.041	2.49	0.49	0.044	1.535	0.305	0.039	1.95	0.39	0.050	2.365	0.475	0.050
0.64	0.47	0.045	1.57	0.04	0.044	2.49	0.5	0.045	1.535	0.31	0.042	1.95	0.395	0.051	2.365	0.48	0.046
0.64	0.48	0.045	1.57	0.05	0.047	2.49	0.51	0.046	1.535	0.315	0.045	1.95	0.4	0.051	2.365	0.485	0.043
0.64	0.49	0.044	1.57	0.06	0.050	2.49	0.52	0.049	1.535	0.32	0.047	1.95	0.405	0.049	2.365	0.49	0.045
0.64	0.5	0.041	1.57	0.07	0.052	2.49	0.53	0.051	1.535	0.325	0.046	1.95	0.41	0.046	2.365	0.495	0.050
0.64	0.51	0.038	1.57	0.08	0.051	2.49	0.54	0.052	1.535	0.33	0.044	1.95	0.415	0.042	2.37	0.005	0.065
0.64	0.52	0.037	1.57	0.09	0.050	2.49	0.55	0.052	1.535	0.335	0.041	1.95	0.42	0.044	2.37	0.01	0.066
0.64	0.53	0.037	1.57	0.1	0.048	2.49	0.56	0.052	1.535	0.34	0.038	1.95	0.425	0.045	2.37	0.015	0.066
0.64	0.54	0.038	1.57	0.11	0.045	2.49	0.57	0.052	1.535	0.345	0.037	1.95	0.43	0.043	2.37	0.02	0.067
0.64	0.55	0.038	1.57	0.12	0.044	2.49	0.58	0.051	1.535	0.35	0.037	1.95	0.435	0.039	2.37	0.025	0.070
0.64	0.56	0.038	1.57	0.13	0.044	2.49	0.59	0.051	1.535	0.355	0.039	1.95	0.44	0.040	2.37	0.03	0.073
0.64	0.57	0.036	1.57	0.14	0.045	2.49	0.6	0.052	1.535	0.36	0.039	1.95	0.445	0.044	2.37	0.035	0.073
0.64	0.58	0.035	1.57	0.15	0.045	2.49	0.61	0.055	1.535	0.365	0.039	1.95	0.45	0.048	2.37	0.04	0.067
0.64	0.59	0.034	1.57	0.16	0.045	2.49	0.62	0.057	1.535	0.37	0.040	1.95	0.455	0.051	2.37	0.045	0.060
0.64	0.6	0.034	1.57	0.17	0.046	2.49	0.63	0.058	1.535	0.375	0.038	1.95	0.46	0.053	2.37	0.05	0.063
0.64	0.61	0.033	1.57	0.18	0.046	2.49	0.64	0.058	1.535	0.38	0.034	1.95	0.465	0.051	2.37	0.055	0.068
0.64	0.62	0.033	1.57	0.19	0.046	2.49	0.65	0.059	1.535	0.385	0.033	1.95	0.47	0.046	2.37	0.06	0.068
0.64	0.63	0.032	1.57	0.2	0.046	2.49	0.66	0.058	1.535	0.39	0.033	1.95	0.475	0.041	2.37	0.065	0.063
0.64	0.64	0.032	1.57	0.21	0.045	2.49	0.67	0.058	1.535	0.395	0.034	1.95	0.48	0.040	2.37	0.07	0.056
0.64	0.65	0.032	1.57	0.22	0.044	2.49	0.68	0.058	1.535	0.4	0.035	1.95	0.485	0.041	2.37	0.075	0.056
0.64	0.66	0.033	1.57	0.23	0.044	2.49	0.69	0.056	1.535	0.405	0.036	1.95	0.49	0.047	2.37	0.08	0.059
0.64	0.67	0.034	1.57	0.24	0.044	2.49	0.7	0.052	1.535	0.41	0.039	1.95	0.495	0.057	2.37	0.085	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.64	0.68	0.035	1.57	0.25	0.045	2.49	0.71	0.049	1.535	0.415	0.042	1.955	0.005	0.066	2.37	0.09	0.059
0.64	0.69	0.036	1.57	0.26	0.045	2.49	0.72	0.049	1.535	0.42	0.043	1.955	0.01	0.069	2.37	0.095	0.050
0.64	0.7	0.037	1.57	0.27	0.045	2.49	0.73	0.052	1.535	0.425	0.042	1.955	0.015	0.073	2.37	0.1	0.044
0.64	0.71	0.037	1.57	0.28	0.045	2.49	0.74	0.055	1.535	0.43	0.039	1.955	0.02	0.075	2.37	0.105	0.044
0.64	0.72	0.037	1.57	0.29	0.045	2.49	0.75	0.057	1.535	0.435	0.036	1.955	0.025	0.078	2.37	0.11	0.047
0.64	0.73	0.036	1.57	0.3	0.046	2.49	0.76	0.056	1.535	0.44	0.034	1.955	0.03	0.081	2.37	0.115	0.050
0.64	0.74	0.035	1.57	0.31	0.045	2.49	0.77	0.055	1.535	0.445	0.036	1.955	0.035	0.084	2.37	0.12	0.052
0.64	0.75	0.035	1.57	0.32	0.044	2.49	0.78	0.053	1.535	0.45	0.039	1.955	0.04	0.088	2.37	0.125	0.051
0.64	0.76	0.035	1.57	0.33	0.042	2.49	0.79	0.052	1.535	0.455	0.039	1.955	0.045	0.091	2.37	0.13	0.047
0.64	0.77	0.037	1.57	0.34	0.042	2.49	0.8	0.053	1.535	0.46	0.037	1.955	0.05	0.091	2.37	0.135	0.043
0.64	0.78	0.039	1.57	0.35	0.040	2.49	0.81	0.055	1.535	0.465	0.035	1.955	0.055	0.084	2.37	0.14	0.039
0.64	0.79	0.041	1.57	0.36	0.039	2.49	0.82	0.056	1.535	0.47	0.032	1.955	0.06	0.069	2.37	0.145	0.040
0.64	0.8	0.043	1.57	0.37	0.040	2.49	0.83	0.056	1.535	0.475	0.031	1.955	0.065	0.058	2.37	0.15	0.050
0.64	0.81	0.044	1.57	0.38	0.040	2.49	0.84	0.055	1.535	0.48	0.031	1.955	0.07	0.055	2.37	0.155	0.062
0.64	0.82	0.043	1.57	0.39	0.039	2.49	0.85	0.052	1.535	0.485	0.031	1.955	0.075	0.061	2.37	0.16	0.070
0.64	0.83	0.043	1.57	0.4	0.040	2.49	0.86	0.048	1.535	0.49	0.031	1.955	0.08	0.070	2.37	0.165	0.072
0.64	0.84	0.044	1.57	0.41	0.042	2.49	0.87	0.048	1.535	0.495	0.032	1.955	0.085	0.072	2.37	0.17	0.072
0.64	0.85	0.045	1.57	0.42	0.044	2.49	0.88	0.053	1.54	0.005	0.040	1.955	0.09	0.070	2.37	0.175	0.072
0.64	0.86	0.046	1.57	0.43	0.046	2.49	0.89	0.062	1.54	0.01	0.041	1.955	0.095	0.066	2.37	0.18	0.071
0.64	0.87	0.045	1.57	0.44	0.045	1.12	0.425	0.038	1.54	0.015	0.042	1.955	0.1	0.065	2.37	0.185	0.070
0.64	0.88	0.042	1.57	0.45	0.043	1.12	0.43	0.043	1.54	0.02	0.044	1.955	0.105	0.065	2.37	0.19	0.070
0.64	0.89	0.039	1.57	0.46	0.041	1.12	0.435	0.046	1.54	0.025	0.045	1.955	0.11	0.066	2.37	0.195	0.069
0.65	0.01	0.036	1.57	0.47	0.039	1.12	0.44	0.048	1.54	0.03	0.044	1.955	0.115	0.069	2.37	0.2	0.068
0.65	0.02	0.038	1.57	0.48	0.039	1.12	0.445	0.048	1.54	0.035	0.040	1.955	0.12	0.072	2.37	0.205	0.068
0.65	0.03	0.041	1.57	0.49	0.039	1.12	0.45	0.048	1.54	0.04	0.038	1.955	0.125	0.071	2.37	0.21	0.067

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.65	0.04	0.046	1.57	0.5	0.040	1.12	0.455	0.048	1.54	0.045	0.041	1.955	0.13	0.066	2.37	0.215	0.065
0.65	0.05	0.051	1.57	0.51	0.041	1.12	0.46	0.048	1.54	0.05	0.046	1.955	0.135	0.061	2.37	0.22	0.059
0.65	0.06	0.053	1.57	0.52	0.042	1.12	0.465	0.048	1.54	0.055	0.048	1.955	0.14	0.061	2.37	0.225	0.048
0.65	0.07	0.050	1.57	0.53	0.044	1.12	0.47	0.045	1.54	0.06	0.045	1.955	0.145	0.065	2.37	0.23	0.040
0.65	0.08	0.047	1.57	0.54	0.046	1.12	0.475	0.040	1.54	0.065	0.041	1.955	0.15	0.067	2.37	0.235	0.037
0.65	0.09	0.045	1.57	0.55	0.048	1.12	0.48	0.038	1.54	0.07	0.041	1.955	0.155	0.068	2.37	0.24	0.039
0.65	0.1	0.043	1.57	0.56	0.048	1.12	0.485	0.042	1.54	0.075	0.042	1.955	0.16	0.066	2.37	0.245	0.044
0.65	0.11	0.041	1.57	0.57	0.049	1.12	0.49	0.047	1.54	0.08	0.045	1.955	0.165	0.061	2.37	0.25	0.048
0.65	0.12	0.040	1.57	0.58	0.048	1.12	0.495	0.049	1.54	0.085	0.047	1.955	0.17	0.053	2.37	0.255	0.049
0.65	0.13	0.039	1.57	0.59	0.046	1.125	0.005	0.033	1.54	0.09	0.047	1.955	0.175	0.049	2.37	0.26	0.047
0.65	0.14	0.038	1.57	0.6	0.044	1.125	0.01	0.034	1.54	0.095	0.046	1.955	0.18	0.052	2.37	0.265	0.042
0.65	0.15	0.038	1.57	0.61	0.046	1.125	0.015	0.034	1.54	0.1	0.046	1.955	0.185	0.053	2.37	0.27	0.037
0.65	0.16	0.038	1.57	0.62	0.047	1.125	0.02	0.033	1.54	0.105	0.045	1.955	0.19	0.051	2.37	0.275	0.034
0.65	0.17	0.038	1.57	0.63	0.048	1.125	0.025	0.032	1.54	0.11	0.046	1.955	0.195	0.053	2.37	0.28	0.034
0.65	0.18	0.039	1.57	0.64	0.046	1.125	0.03	0.032	1.54	0.115	0.047	1.955	0.2	0.056	2.37	0.285	0.035
0.65	0.19	0.041	1.57	0.65	0.044	1.125	0.035	0.032	1.54	0.12	0.047	1.955	0.205	0.059	2.37	0.29	0.037
0.65	0.2	0.043	1.57	0.66	0.042	1.125	0.04	0.033	1.54	0.125	0.046	1.955	0.21	0.061	2.37	0.295	0.040
0.65	0.21	0.044	1.57	0.67	0.041	1.125	0.045	0.033	1.54	0.13	0.044	1.955	0.215	0.061	2.37	0.3	0.043
0.65	0.22	0.042	1.57	0.68	0.040	1.125	0.05	0.034	1.54	0.135	0.041	1.955	0.22	0.060	2.37	0.305	0.046
0.65	0.23	0.039	1.57	0.69	0.040	1.125	0.055	0.035	1.54	0.14	0.040	1.955	0.225	0.058	2.37	0.31	0.047
0.65	0.24	0.037	1.57	0.7	0.041	1.125	0.06	0.037	1.54	0.145	0.041	1.955	0.23	0.058	2.37	0.315	0.046
0.65	0.25	0.036	1.57	0.71	0.043	1.125	0.065	0.038	1.54	0.15	0.043	1.955	0.235	0.060	2.37	0.32	0.042
0.65	0.26	0.036	1.57	0.72	0.045	1.125	0.07	0.038	1.54	0.155	0.043	1.955	0.24	0.062	2.37	0.325	0.037
0.65	0.27	0.036	1.57	0.73	0.045	1.125	0.075	0.037	1.54	0.16	0.042	1.955	0.245	0.062	2.37	0.33	0.034
0.65	0.28	0.036	1.57	0.74	0.045	1.125	0.08	0.037	1.54	0.165	0.039	1.955	0.25	0.061	2.37	0.335	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.65	0.29	0.036	1.57	0.75	0.045	1.125	0.085	0.038	1.54	0.17	0.037	1.955	0.255	0.058	2.37	0.34	0.038
0.65	0.3	0.036	1.57	0.76	0.045	1.125	0.09	0.038	1.54	0.175	0.038	1.955	0.26	0.054	2.37	0.345	0.042
0.65	0.31	0.035	1.57	0.77	0.045	1.125	0.095	0.039	1.54	0.18	0.038	1.955	0.265	0.050	2.37	0.35	0.044
0.65	0.32	0.035	1.57	0.78	0.045	1.125	0.1	0.040	1.54	0.185	0.038	1.955	0.27	0.048	2.37	0.355	0.047
0.65	0.33	0.035	1.57	0.79	0.047	1.125	0.105	0.039	1.54	0.19	0.039	1.955	0.275	0.048	2.37	0.36	0.048
0.65	0.34	0.036	1.57	0.8	0.049	1.125	0.11	0.039	1.54	0.195	0.040	1.955	0.28	0.046	2.37	0.365	0.046
0.65	0.35	0.036	1.57	0.81	0.050	1.125	0.115	0.042	1.54	0.2	0.040	1.955	0.285	0.043	2.37	0.37	0.040
0.65	0.36	0.036	1.57	0.82	0.049	1.125	0.12	0.049	1.54	0.205	0.039	1.955	0.29	0.042	2.37	0.375	0.035
0.65	0.37	0.037	1.57	0.83	0.045	1.125	0.125	0.052	1.54	0.21	0.037	1.955	0.295	0.041	2.37	0.38	0.034
0.65	0.38	0.038	1.57	0.84	0.042	1.125	0.13	0.049	1.54	0.215	0.036	1.955	0.3	0.038	2.37	0.385	0.036
0.65	0.39	0.040	1.57	0.85	0.040	1.125	0.135	0.043	1.54	0.22	0.035	1.955	0.305	0.037	2.37	0.39	0.036
0.65	0.4	0.041	1.57	0.86	0.041	1.125	0.14	0.040	1.54	0.225	0.035	1.955	0.31	0.038	2.37	0.395	0.037
0.65	0.41	0.041	1.57	0.87	0.045	1.125	0.145	0.043	1.54	0.23	0.037	1.955	0.315	0.041	2.37	0.4	0.038
0.65	0.42	0.039	1.57	0.88	0.051	1.125	0.15	0.044	1.54	0.235	0.039	1.955	0.32	0.043	2.37	0.405	0.039
0.65	0.43	0.038	1.57	0.89	0.056	1.125	0.155	0.042	1.54	0.24	0.038	1.955	0.325	0.045	2.37	0.41	0.038
0.65	0.44	0.040	1.58	0.01	0.037	1.125	0.16	0.043	1.54	0.245	0.036	1.955	0.33	0.046	2.37	0.415	0.037
0.65	0.45	0.042	1.58	0.02	0.039	1.125	0.165	0.048	1.54	0.25	0.035	1.955	0.335	0.046	2.37	0.42	0.037
0.65	0.46	0.044	1.58	0.03	0.041	1.125	0.17	0.052	1.54	0.255	0.037	1.955	0.34	0.045	2.37	0.425	0.041
0.65	0.47	0.045	1.58	0.04	0.043	1.125	0.175	0.052	1.54	0.26	0.040	1.955	0.345	0.043	2.37	0.43	0.044
0.65	0.48	0.045	1.58	0.05	0.046	1.125	0.18	0.048	1.54	0.265	0.042	1.955	0.35	0.040	2.37	0.435	0.044
0.65	0.49	0.043	1.58	0.06	0.049	1.125	0.185	0.041	1.54	0.27	0.042	1.955	0.355	0.039	2.37	0.44	0.040
0.65	0.5	0.040	1.58	0.07	0.051	1.125	0.19	0.038	1.54	0.275	0.041	1.955	0.36	0.041	2.37	0.445	0.036
0.65	0.51	0.037	1.58	0.08	0.052	1.125	0.195	0.037	1.54	0.28	0.039	1.955	0.365	0.040	2.37	0.45	0.036
0.65	0.52	0.036	1.58	0.09	0.051	1.125	0.2	0.037	1.54	0.285	0.037	1.955	0.37	0.038	2.37	0.455	0.042
0.65	0.53	0.036	1.58	0.1	0.049	1.125	0.205	0.038	1.54	0.29	0.034	1.955	0.375	0.038	2.37	0.46	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.65	0.54	0.037	1.58	0.11	0.046	1.125	0.21	0.040	1.54	0.295	0.035	1.955	0.38	0.041	2.37	0.465	0.053
0.65	0.55	0.037	1.58	0.12	0.044	1.125	0.215	0.039	1.54	0.3	0.038	1.955	0.385	0.045	2.37	0.47	0.054
0.65	0.56	0.036	1.58	0.13	0.043	1.125	0.22	0.037	1.54	0.305	0.042	1.955	0.39	0.048	2.37	0.475	0.050
0.65	0.57	0.036	1.58	0.14	0.044	1.125	0.225	0.034	1.54	0.31	0.045	1.955	0.395	0.049	2.37	0.48	0.045
0.65	0.58	0.035	1.58	0.15	0.044	1.125	0.23	0.032	1.54	0.315	0.048	1.955	0.4	0.049	2.37	0.485	0.043
0.65	0.59	0.035	1.58	0.16	0.045	1.125	0.235	0.033	1.54	0.32	0.048	1.955	0.405	0.048	2.37	0.49	0.046
0.65	0.6	0.034	1.58	0.17	0.047	1.125	0.24	0.036	1.54	0.325	0.047	1.955	0.41	0.046	2.37	0.495	0.052
0.65	0.61	0.033	1.58	0.18	0.048	1.125	0.245	0.043	1.54	0.33	0.044	1.955	0.415	0.044	2.375	0.005	0.061
0.65	0.62	0.033	1.58	0.19	0.048	1.125	0.25	0.054	1.54	0.335	0.042	1.955	0.42	0.043	2.375	0.01	0.064
0.65	0.63	0.033	1.58	0.2	0.047	1.125	0.255	0.061	1.54	0.34	0.039	1.955	0.425	0.040	2.375	0.015	0.067
0.65	0.64	0.033	1.58	0.21	0.046	1.125	0.26	0.063	1.54	0.345	0.038	1.955	0.43	0.038	2.375	0.02	0.070
0.65	0.65	0.034	1.58	0.22	0.045	1.125	0.265	0.062	1.54	0.35	0.038	1.955	0.435	0.036	2.375	0.025	0.074
0.65	0.66	0.035	1.58	0.23	0.045	1.125	0.27	0.059	1.54	0.355	0.040	1.955	0.44	0.038	2.375	0.03	0.076
0.65	0.67	0.036	1.58	0.24	0.046	1.125	0.275	0.053	1.54	0.36	0.040	1.955	0.445	0.043	2.375	0.035	0.074
0.65	0.68	0.037	1.58	0.25	0.045	1.125	0.28	0.049	1.54	0.365	0.039	1.955	0.45	0.049	2.375	0.04	0.068
0.65	0.69	0.038	1.58	0.26	0.044	1.125	0.285	0.052	1.54	0.37	0.039	1.955	0.455	0.053	2.375	0.045	0.063
0.65	0.7	0.038	1.58	0.27	0.044	1.125	0.29	0.057	1.54	0.375	0.038	1.955	0.46	0.056	2.375	0.05	0.067
0.65	0.71	0.039	1.58	0.28	0.044	1.125	0.295	0.060	1.54	0.38	0.035	1.955	0.465	0.056	2.375	0.055	0.071
0.65	0.72	0.038	1.58	0.29	0.046	1.125	0.3	0.060	1.54	0.385	0.033	1.955	0.47	0.050	2.375	0.06	0.071
0.65	0.73	0.036	1.58	0.3	0.047	1.125	0.305	0.058	1.54	0.39	0.032	1.955	0.475	0.042	2.375	0.065	0.067
0.65	0.74	0.035	1.58	0.31	0.046	1.125	0.31	0.057	1.54	0.395	0.032	1.955	0.48	0.039	2.375	0.07	0.063
0.65	0.75	0.035	1.58	0.32	0.043	1.125	0.315	0.054	1.54	0.4	0.034	1.955	0.485	0.040	2.375	0.075	0.063
0.65	0.76	0.035	1.58	0.33	0.041	1.125	0.32	0.050	1.54	0.405	0.035	1.955	0.49	0.047	2.375	0.08	0.067
0.65	0.77	0.037	1.58	0.34	0.040	1.125	0.325	0.045	1.54	0.41	0.038	1.955	0.495	0.054	2.375	0.085	0.067
0.65	0.78	0.039	1.58	0.35	0.039	1.125	0.33	0.043	1.54	0.415	0.041	1.96	0.005	0.070	2.375	0.09	0.061

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.65	0.79	0.042	1.58	0.36	0.040	1.125	0.335	0.042	1.54	0.42	0.042	1.96	0.01	0.075	2.375	0.095	0.050
0.65	0.8	0.044	1.58	0.37	0.041	1.125	0.34	0.042	1.54	0.425	0.041	1.96	0.015	0.079	2.375	0.1	0.042
0.65	0.81	0.046	1.58	0.38	0.041	1.125	0.345	0.047	1.54	0.43	0.038	1.96	0.02	0.081	2.375	0.105	0.041
0.65	0.82	0.045	1.58	0.39	0.041	1.125	0.35	0.057	1.54	0.435	0.035	1.96	0.025	0.084	2.375	0.11	0.043
0.65	0.83	0.044	1.58	0.4	0.042	1.125	0.355	0.061	1.54	0.44	0.034	1.96	0.03	0.086	2.375	0.115	0.048
0.65	0.84	0.044	1.58	0.41	0.044	1.125	0.36	0.057	1.54	0.445	0.035	1.96	0.035	0.088	2.375	0.12	0.052
0.65	0.85	0.044	1.58	0.42	0.047	1.125	0.365	0.050	1.54	0.45	0.037	1.96	0.04	0.091	2.375	0.125	0.052
0.65	0.86	0.044	1.58	0.43	0.048	1.125	0.37	0.043	1.54	0.455	0.038	1.96	0.045	0.093	2.375	0.13	0.051
0.65	0.87	0.042	1.58	0.44	0.047	1.125	0.375	0.038	1.54	0.46	0.036	1.96	0.05	0.092	2.375	0.135	0.048
0.65	0.88	0.040	1.58	0.45	0.045	1.125	0.38	0.036	1.54	0.465	0.034	1.96	0.055	0.085	2.375	0.14	0.044
0.65	0.89	0.038	1.58	0.46	0.043	1.125	0.385	0.035	1.54	0.47	0.032	1.96	0.06	0.070	2.375	0.145	0.042
0.66	0.01	0.036	1.58	0.47	0.042	1.125	0.39	0.035	1.54	0.475	0.032	1.96	0.065	0.058	2.375	0.15	0.046
0.66	0.02	0.037	1.58	0.48	0.042	1.125	0.395	0.036	1.54	0.48	0.033	1.96	0.07	0.055	2.375	0.155	0.057
0.66	0.03	0.039	1.58	0.49	0.043	1.125	0.4	0.038	1.54	0.485	0.033	1.96	0.075	0.057	2.375	0.16	0.067
0.66	0.04	0.044	1.58	0.5	0.044	1.125	0.405	0.041	1.54	0.49	0.033	1.96	0.08	0.064	2.375	0.165	0.071
0.66	0.05	0.049	1.58	0.51	0.044	1.125	0.41	0.043	1.54	0.495	0.032	1.96	0.085	0.066	2.375	0.17	0.072
0.66	0.06	0.051	1.58	0.52	0.044	1.125	0.415	0.042	1.545	0.005	0.040	1.96	0.09	0.065	2.375	0.175	0.071
0.66	0.07	0.049	1.58	0.53	0.045	1.125	0.42	0.040	1.545	0.01	0.040	1.96	0.095	0.063	2.375	0.18	0.071
0.66	0.08	0.046	1.58	0.54	0.047	1.125	0.425	0.040	1.545	0.015	0.041	1.96	0.1	0.061	2.375	0.185	0.070
0.66	0.09	0.045	1.58	0.55	0.048	1.125	0.43	0.042	1.545	0.02	0.042	1.96	0.105	0.060	2.375	0.19	0.070
0.66	0.1	0.043	1.58	0.56	0.047	1.125	0.435	0.045	1.545	0.025	0.044	1.96	0.11	0.060	2.375	0.195	0.069
0.66	0.11	0.042	1.58	0.57	0.047	1.125	0.44	0.047	1.545	0.03	0.043	1.96	0.115	0.062	2.375	0.2	0.068
0.66	0.12	0.041	1.58	0.58	0.046	1.125	0.445	0.048	1.545	0.035	0.042	1.96	0.12	0.066	2.375	0.205	0.067
0.66	0.13	0.041	1.58	0.59	0.044	1.125	0.45	0.049	1.545	0.04	0.042	1.96	0.125	0.067	2.375	0.21	0.066
0.66	0.14	0.042	1.58	0.6	0.043	1.125	0.455	0.050	1.545	0.045	0.047	1.96	0.13	0.064	2.375	0.215	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.66	0.15	0.042	1.58	0.61	0.044	1.125	0.46	0.050	1.545	0.05	0.053	1.96	0.135	0.060	2.375	0.22	0.055
0.66	0.16	0.043	1.58	0.62	0.046	1.125	0.465	0.049	1.545	0.055	0.054	1.96	0.14	0.059	2.375	0.225	0.046
0.66	0.17	0.042	1.58	0.63	0.046	1.125	0.47	0.045	1.545	0.06	0.049	1.96	0.145	0.060	2.375	0.23	0.040
0.66	0.18	0.042	1.58	0.64	0.045	1.125	0.475	0.039	1.545	0.065	0.044	1.96	0.15	0.062	2.375	0.235	0.037
0.66	0.19	0.044	1.58	0.65	0.044	1.125	0.48	0.036	1.545	0.07	0.042	1.96	0.155	0.063	2.375	0.24	0.037
0.66	0.2	0.045	1.58	0.66	0.042	1.125	0.485	0.039	1.545	0.075	0.043	1.96	0.16	0.062	2.375	0.245	0.040
0.66	0.21	0.045	1.58	0.67	0.040	1.125	0.49	0.045	1.545	0.08	0.044	1.96	0.165	0.059	2.375	0.25	0.042
0.66	0.22	0.043	1.58	0.68	0.039	1.125	0.495	0.049	1.545	0.085	0.043	1.96	0.17	0.054	2.375	0.255	0.041
0.66	0.23	0.039	1.58	0.69	0.040	1.13	0.005	0.033	1.545	0.09	0.043	1.96	0.175	0.050	2.375	0.26	0.039
0.66	0.24	0.037	1.58	0.7	0.042	1.13	0.01	0.034	1.545	0.095	0.042	1.96	0.18	0.046	2.375	0.265	0.036
0.66	0.25	0.037	1.58	0.71	0.044	1.13	0.015	0.034	1.545	0.1	0.041	1.96	0.185	0.044	2.375	0.27	0.034
0.66	0.26	0.036	1.58	0.72	0.045	1.13	0.02	0.034	1.545	0.105	0.040	1.96	0.19	0.044	2.375	0.275	0.033
0.66	0.27	0.036	1.58	0.73	0.044	1.13	0.025	0.033	1.545	0.11	0.042	1.96	0.195	0.051	2.375	0.28	0.033
0.66	0.28	0.037	1.58	0.74	0.043	1.13	0.03	0.033	1.545	0.115	0.047	1.96	0.2	0.058	2.375	0.285	0.033
0.66	0.29	0.037	1.58	0.75	0.043	1.13	0.035	0.033	1.545	0.12	0.049	1.96	0.205	0.061	2.375	0.29	0.036
0.66	0.3	0.037	1.58	0.76	0.044	1.13	0.04	0.034	1.545	0.125	0.046	1.96	0.21	0.062	2.375	0.295	0.041
0.66	0.31	0.036	1.58	0.77	0.044	1.13	0.045	0.034	1.545	0.13	0.043	1.96	0.215	0.061	2.375	0.3	0.044
0.66	0.32	0.036	1.58	0.78	0.043	1.13	0.05	0.034	1.545	0.135	0.041	1.96	0.22	0.059	2.375	0.305	0.045
0.66	0.33	0.037	1.58	0.79	0.044	1.13	0.055	0.035	1.545	0.14	0.041	1.96	0.225	0.056	2.375	0.31	0.045
0.66	0.34	0.037	1.58	0.8	0.046	1.13	0.06	0.036	1.545	0.145	0.043	1.96	0.23	0.055	2.375	0.315	0.043
0.66	0.35	0.037	1.58	0.81	0.047	1.13	0.065	0.038	1.545	0.15	0.045	1.96	0.235	0.057	2.375	0.32	0.040
0.66	0.36	0.036	1.58	0.82	0.047	1.13	0.07	0.039	1.545	0.155	0.045	1.96	0.24	0.059	2.375	0.325	0.035
0.66	0.37	0.037	1.58	0.83	0.044	1.13	0.075	0.039	1.545	0.16	0.044	1.96	0.245	0.061	2.375	0.33	0.033
0.66	0.38	0.038	1.58	0.84	0.042	1.13	0.08	0.039	1.545	0.165	0.041	1.96	0.25	0.062	2.375	0.335	0.034
0.66	0.39	0.040	1.58	0.85	0.041	1.13	0.085	0.040	1.545	0.17	0.040	1.96	0.255	0.061	2.375	0.34	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.66	0.4	0.043	1.58	0.86	0.043	1.13	0.09	0.041	1.545	0.175	0.041	1.96	0.26	0.058	2.375	0.345	0.040
0.66	0.41	0.043	1.58	0.87	0.047	1.13	0.095	0.043	1.545	0.18	0.041	1.96	0.265	0.053	2.375	0.35	0.044
0.66	0.42	0.041	1.58	0.88	0.051	1.13	0.1	0.044	1.545	0.185	0.040	1.96	0.27	0.049	2.375	0.355	0.048
0.66	0.43	0.039	1.58	0.89	0.055	1.13	0.105	0.044	1.545	0.19	0.040	1.96	0.275	0.045	2.375	0.36	0.048
0.66	0.44	0.039	1.59	0.01	0.038	1.13	0.11	0.043	1.545	0.195	0.041	1.96	0.28	0.044	2.375	0.365	0.045
0.66	0.45	0.040	1.59	0.02	0.040	1.13	0.115	0.044	1.545	0.2	0.040	1.96	0.285	0.042	2.375	0.37	0.040
0.66	0.46	0.042	1.59	0.03	0.043	1.13	0.12	0.048	1.545	0.205	0.039	1.96	0.29	0.042	2.375	0.375	0.036
0.66	0.47	0.043	1.59	0.04	0.045	1.13	0.125	0.049	1.545	0.21	0.037	1.96	0.295	0.042	2.375	0.38	0.038
0.66	0.48	0.043	1.59	0.05	0.047	1.13	0.13	0.047	1.545	0.215	0.035	1.96	0.3	0.040	2.375	0.385	0.041
0.66	0.49	0.041	1.59	0.06	0.049	1.13	0.135	0.043	1.545	0.22	0.034	1.96	0.305	0.037	2.375	0.39	0.042
0.66	0.5	0.039	1.59	0.07	0.052	1.13	0.14	0.041	1.545	0.225	0.034	1.96	0.31	0.038	2.375	0.395	0.042
0.66	0.51	0.037	1.59	0.08	0.053	1.13	0.145	0.042	1.545	0.23	0.034	1.96	0.315	0.041	2.375	0.4	0.042
0.66	0.52	0.036	1.59	0.09	0.053	1.13	0.15	0.043	1.545	0.235	0.036	1.96	0.32	0.044	2.375	0.405	0.042
0.66	0.53	0.035	1.59	0.1	0.051	1.13	0.155	0.041	1.545	0.24	0.035	1.96	0.325	0.046	2.375	0.41	0.040
0.66	0.54	0.035	1.59	0.11	0.049	1.13	0.16	0.043	1.545	0.245	0.034	1.96	0.33	0.047	2.375	0.415	0.038
0.66	0.55	0.035	1.59	0.12	0.046	1.13	0.165	0.048	1.545	0.25	0.035	1.96	0.335	0.047	2.375	0.42	0.037
0.66	0.56	0.035	1.59	0.13	0.044	1.13	0.17	0.051	1.545	0.255	0.038	1.96	0.34	0.046	2.375	0.425	0.041
0.66	0.57	0.035	1.59	0.14	0.043	1.13	0.175	0.052	1.545	0.26	0.042	1.96	0.345	0.043	2.375	0.43	0.044
0.66	0.58	0.035	1.59	0.15	0.044	1.13	0.18	0.048	1.545	0.265	0.045	1.96	0.35	0.041	2.375	0.435	0.044
0.66	0.59	0.035	1.59	0.16	0.046	1.13	0.185	0.042	1.545	0.27	0.045	1.96	0.355	0.040	2.375	0.44	0.041
0.66	0.6	0.035	1.59	0.17	0.050	1.13	0.19	0.039	1.545	0.275	0.043	1.96	0.36	0.041	2.375	0.445	0.037
0.66	0.61	0.034	1.59	0.18	0.051	1.13	0.195	0.037	1.545	0.28	0.041	1.96	0.365	0.042	2.375	0.45	0.038
0.66	0.62	0.034	1.59	0.19	0.050	1.13	0.2	0.037	1.545	0.285	0.038	1.96	0.37	0.040	2.375	0.455	0.046
0.66	0.63	0.034	1.59	0.2	0.049	1.13	0.205	0.042	1.545	0.29	0.035	1.96	0.375	0.039	2.375	0.46	0.052
0.66	0.64	0.034	1.59	0.21	0.047	1.13	0.21	0.046	1.545	0.295	0.036	1.96	0.38	0.041	2.375	0.465	0.055

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.66	0.65	0.035	1.59	0.22	0.046	1.13	0.215	0.045	1.545	0.3	0.040	1.96	0.385	0.045	2.375	0.47	0.054
0.66	0.66	0.036	1.59	0.23	0.045	1.13	0.22	0.042	1.545	0.305	0.044	1.96	0.39	0.048	2.375	0.475	0.050
0.66	0.67	0.037	1.59	0.24	0.045	1.13	0.225	0.038	1.545	0.31	0.048	1.96	0.395	0.049	2.375	0.48	0.044
0.66	0.68	0.038	1.59	0.25	0.045	1.13	0.23	0.035	1.545	0.315	0.049	1.96	0.4	0.048	2.375	0.485	0.043
0.66	0.69	0.040	1.59	0.26	0.043	1.13	0.235	0.034	1.545	0.32	0.049	1.96	0.405	0.047	2.375	0.49	0.045
0.66	0.7	0.040	1.59	0.27	0.042	1.13	0.24	0.036	1.545	0.325	0.046	1.96	0.41	0.047	2.375	0.495	0.051
0.66	0.71	0.040	1.59	0.28	0.043	1.13	0.245	0.042	1.545	0.33	0.044	1.96	0.415	0.047	2.38	0.005	0.059
0.66	0.72	0.038	1.59	0.29	0.046	1.13	0.25	0.051	1.545	0.335	0.042	1.96	0.42	0.046	2.38	0.01	0.064
0.66	0.73	0.037	1.59	0.3	0.047	1.13	0.255	0.056	1.545	0.34	0.042	1.96	0.425	0.042	2.38	0.015	0.068
0.66	0.74	0.035	1.59	0.31	0.046	1.13	0.26	0.059	1.545	0.345	0.040	1.96	0.43	0.038	2.38	0.02	0.072
0.66	0.75	0.035	1.59	0.32	0.043	1.13	0.265	0.058	1.545	0.35	0.039	1.96	0.435	0.036	2.38	0.025	0.075
0.66	0.76	0.036	1.59	0.33	0.041	1.13	0.27	0.055	1.545	0.355	0.041	1.96	0.44	0.038	2.38	0.03	0.076
0.66	0.77	0.037	1.59	0.34	0.039	1.13	0.275	0.050	1.545	0.36	0.042	1.96	0.445	0.044	2.38	0.035	0.075
0.66	0.78	0.039	1.59	0.35	0.039	1.13	0.28	0.047	1.545	0.365	0.041	1.96	0.45	0.049	2.38	0.04	0.072
0.66	0.79	0.041	1.59	0.36	0.040	1.13	0.285	0.049	1.545	0.37	0.039	1.96	0.455	0.054	2.38	0.045	0.069
0.66	0.8	0.044	1.59	0.37	0.041	1.13	0.29	0.055	1.545	0.375	0.038	1.96	0.46	0.057	2.38	0.05	0.071
0.66	0.81	0.046	1.59	0.38	0.043	1.13	0.295	0.060	1.545	0.38	0.035	1.96	0.465	0.059	2.38	0.055	0.072
0.66	0.82	0.046	1.59	0.39	0.043	1.13	0.3	0.060	1.545	0.385	0.032	1.96	0.47	0.055	2.38	0.06	0.072
0.66	0.83	0.045	1.59	0.4	0.044	1.13	0.305	0.059	1.545	0.39	0.032	1.96	0.475	0.046	2.38	0.065	0.070
0.66	0.84	0.043	1.59	0.41	0.046	1.13	0.31	0.057	1.545	0.395	0.032	1.96	0.48	0.039	2.38	0.07	0.069
0.66	0.85	0.041	1.59	0.42	0.048	1.13	0.315	0.053	1.545	0.4	0.033	1.96	0.485	0.040	2.38	0.075	0.071
0.66	0.86	0.041	1.59	0.43	0.049	1.13	0.32	0.047	1.545	0.405	0.034	1.96	0.49	0.047	2.38	0.08	0.072
0.66	0.87	0.039	1.59	0.44	0.048	1.13	0.325	0.042	1.545	0.41	0.036	1.96	0.495	0.053	2.38	0.085	0.070
0.66	0.88	0.038	1.59	0.45	0.046	1.13	0.33	0.040	1.545	0.415	0.037	1.965	0.005	0.072	2.38	0.09	0.061
0.66	0.89	0.036	1.59	0.46	0.045	1.13	0.335	0.042	1.545	0.42	0.039	1.965	0.01	0.078	2.38	0.095	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.67	0.01	0.038	1.59	0.47	0.045	1.13	0.34	0.047	1.545	0.425	0.038	1.965	0.015	0.082	2.38	0.1	0.043
0.67	0.02	0.038	1.59	0.48	0.046	1.13	0.345	0.053	1.545	0.43	0.036	1.965	0.02	0.084	2.38	0.105	0.042
0.67	0.03	0.039	1.59	0.49	0.047	1.13	0.35	0.062	1.545	0.435	0.035	1.965	0.025	0.086	2.38	0.11	0.044
0.67	0.04	0.042	1.59	0.5	0.048	1.13	0.355	0.065	1.545	0.44	0.035	1.965	0.03	0.088	2.38	0.115	0.049
0.67	0.05	0.046	1.59	0.51	0.047	1.13	0.36	0.062	1.545	0.445	0.037	1.965	0.035	0.089	2.38	0.12	0.053
0.67	0.06	0.048	1.59	0.52	0.046	1.13	0.365	0.055	1.545	0.45	0.038	1.965	0.04	0.090	2.38	0.125	0.055
0.67	0.07	0.048	1.59	0.53	0.045	1.13	0.37	0.047	1.545	0.455	0.037	1.965	0.045	0.090	2.38	0.13	0.054
0.67	0.08	0.046	1.59	0.54	0.045	1.13	0.375	0.040	1.545	0.46	0.035	1.965	0.05	0.086	2.38	0.135	0.052
0.67	0.09	0.044	1.59	0.55	0.045	1.13	0.38	0.037	1.545	0.465	0.033	1.965	0.055	0.078	2.38	0.14	0.049
0.67	0.1	0.042	1.59	0.56	0.046	1.13	0.385	0.036	1.545	0.47	0.033	1.965	0.06	0.066	2.38	0.145	0.046
0.67	0.11	0.042	1.59	0.57	0.046	1.13	0.39	0.035	1.545	0.475	0.034	1.965	0.065	0.058	2.38	0.15	0.046
0.67	0.12	0.042	1.59	0.58	0.045	1.13	0.395	0.035	1.545	0.48	0.036	1.965	0.07	0.056	2.38	0.155	0.053
0.67	0.13	0.043	1.59	0.59	0.043	1.13	0.4	0.036	1.545	0.485	0.036	1.965	0.075	0.057	2.38	0.16	0.063
0.67	0.14	0.045	1.59	0.6	0.043	1.13	0.405	0.039	1.545	0.49	0.035	1.965	0.08	0.063	2.38	0.165	0.068
0.67	0.15	0.047	1.59	0.61	0.043	1.13	0.41	0.043	1.545	0.495	0.033	1.965	0.085	0.067	2.38	0.17	0.070
0.67	0.16	0.047	1.59	0.62	0.045	1.13	0.415	0.046	1.55	0.005	0.039	1.965	0.09	0.067	2.38	0.175	0.070
0.67	0.17	0.046	1.59	0.63	0.045	1.13	0.42	0.047	1.55	0.01	0.039	1.965	0.095	0.065	2.38	0.18	0.069
0.67	0.18	0.044	1.59	0.64	0.044	1.13	0.425	0.046	1.55	0.015	0.040	1.965	0.1	0.062	2.38	0.185	0.069
0.67	0.19	0.045	1.59	0.65	0.043	1.13	0.43	0.044	1.55	0.02	0.041	1.965	0.105	0.059	2.38	0.19	0.068
0.67	0.2	0.045	1.59	0.66	0.042	1.13	0.435	0.045	1.55	0.025	0.042	1.965	0.11	0.058	2.38	0.195	0.067
0.67	0.21	0.045	1.59	0.67	0.040	1.13	0.44	0.047	1.55	0.03	0.042	1.965	0.115	0.059	2.38	0.2	0.066
0.67	0.22	0.042	1.59	0.68	0.039	1.13	0.445	0.049	1.55	0.035	0.042	1.965	0.12	0.060	2.38	0.205	0.065
0.67	0.23	0.040	1.59	0.69	0.040	1.13	0.45	0.050	1.55	0.04	0.046	1.965	0.125	0.061	2.38	0.21	0.062
0.67	0.24	0.038	1.59	0.7	0.043	1.13	0.455	0.050	1.55	0.045	0.052	1.965	0.13	0.062	2.38	0.215	0.056
0.67	0.25	0.037	1.59	0.71	0.045	1.13	0.46	0.050	1.55	0.05	0.057	1.965	0.135	0.062	2.38	0.22	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.67	0.26	0.037	1.59	0.72	0.046	1.13	0.465	0.047	1.55	0.055	0.057	1.965	0.14	0.059	2.38	0.225	0.042
0.67	0.27	0.037	1.59	0.73	0.046	1.13	0.47	0.043	1.55	0.06	0.053	1.965	0.145	0.055	2.38	0.23	0.040
0.67	0.28	0.038	1.59	0.74	0.045	1.13	0.475	0.038	1.55	0.065	0.049	1.965	0.15	0.055	2.38	0.235	0.040
0.67	0.29	0.039	1.59	0.75	0.044	1.13	0.48	0.035	1.55	0.07	0.049	1.965	0.155	0.058	2.38	0.24	0.041
0.67	0.3	0.039	1.59	0.76	0.043	1.13	0.485	0.036	1.55	0.075	0.048	1.965	0.16	0.059	2.38	0.245	0.041
0.67	0.31	0.038	1.59	0.77	0.043	1.13	0.49	0.042	1.55	0.08	0.048	1.965	0.165	0.059	2.38	0.25	0.040
0.67	0.32	0.038	1.59	0.78	0.043	1.13	0.495	0.047	1.55	0.085	0.047	1.965	0.17	0.057	2.38	0.255	0.038
0.67	0.33	0.038	1.59	0.79	0.043	1.135	0.005	0.032	1.55	0.09	0.043	1.965	0.175	0.053	2.38	0.26	0.036
0.67	0.34	0.037	1.59	0.8	0.045	1.135	0.01	0.033	1.55	0.095	0.041	1.965	0.18	0.045	2.38	0.265	0.035
0.67	0.35	0.037	1.59	0.81	0.046	1.135	0.015	0.034	1.55	0.1	0.041	1.965	0.185	0.039	2.38	0.27	0.035
0.67	0.36	0.036	1.59	0.82	0.045	1.135	0.02	0.033	1.55	0.105	0.041	1.965	0.19	0.040	2.38	0.275	0.035
0.67	0.37	0.036	1.59	0.83	0.043	1.135	0.025	0.033	1.55	0.11	0.043	1.965	0.195	0.050	2.38	0.28	0.035
0.67	0.38	0.038	1.59	0.84	0.042	1.135	0.03	0.033	1.55	0.115	0.048	1.965	0.2	0.058	2.38	0.285	0.035
0.67	0.39	0.040	1.59	0.85	0.043	1.135	0.035	0.033	1.55	0.12	0.050	1.965	0.205	0.061	2.38	0.29	0.038
0.67	0.4	0.043	1.59	0.86	0.045	1.135	0.04	0.033	1.55	0.125	0.048	1.965	0.21	0.060	2.38	0.295	0.043
0.67	0.41	0.044	1.59	0.87	0.047	1.135	0.045	0.034	1.55	0.13	0.044	1.965	0.215	0.058	2.38	0.3	0.046
0.67	0.42	0.043	1.59	0.88	0.049	1.135	0.05	0.035	1.55	0.135	0.043	1.965	0.22	0.055	2.38	0.305	0.046
0.67	0.43	0.040	1.59	0.89	0.051	1.135	0.055	0.035	1.55	0.14	0.044	1.965	0.225	0.052	2.38	0.31	0.045
0.67	0.44	0.038	1.6	0.01	0.041	1.135	0.06	0.036	1.55	0.145	0.046	1.965	0.23	0.051	2.38	0.315	0.044
0.67	0.45	0.038	1.6	0.02	0.044	1.135	0.065	0.038	1.55	0.15	0.048	1.965	0.235	0.053	2.38	0.32	0.042
0.67	0.46	0.039	1.6	0.03	0.046	1.135	0.07	0.040	1.55	0.155	0.047	1.965	0.24	0.056	2.38	0.325	0.038
0.67	0.47	0.040	1.6	0.04	0.048	1.135	0.075	0.041	1.55	0.16	0.044	1.965	0.245	0.059	2.38	0.33	0.035
0.67	0.48	0.041	1.6	0.05	0.050	1.135	0.08	0.041	1.55	0.165	0.043	1.965	0.25	0.061	2.38	0.335	0.033
0.67	0.49	0.040	1.6	0.06	0.051	1.135	0.085	0.041	1.55	0.17	0.044	1.965	0.255	0.061	2.38	0.34	0.035
0.67	0.5	0.038	1.6	0.07	0.053	1.135	0.09	0.043	1.55	0.175	0.045	1.965	0.26	0.059	2.38	0.345	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.67	0.51	0.037	1.6	0.08	0.054	1.135	0.095	0.045	1.55	0.18	0.044	1.965	0.265	0.056	2.38	0.35	0.042
0.67	0.52	0.036	1.6	0.09	0.054	1.135	0.1	0.046	1.55	0.185	0.043	1.965	0.27	0.052	2.38	0.355	0.045
0.67	0.53	0.035	1.6	0.1	0.053	1.135	0.105	0.046	1.55	0.19	0.042	1.965	0.275	0.047	2.38	0.36	0.046
0.67	0.54	0.035	1.6	0.11	0.050	1.135	0.11	0.045	1.55	0.195	0.042	1.965	0.28	0.045	2.38	0.365	0.043
0.67	0.55	0.035	1.6	0.12	0.047	1.135	0.115	0.044	1.55	0.2	0.041	1.965	0.285	0.046	2.38	0.37	0.040
0.67	0.56	0.035	1.6	0.13	0.044	1.135	0.12	0.044	1.55	0.205	0.041	1.965	0.29	0.047	2.38	0.375	0.040
0.67	0.57	0.035	1.6	0.14	0.043	1.135	0.125	0.045	1.55	0.21	0.041	1.965	0.295	0.045	2.38	0.38	0.043
0.67	0.58	0.035	1.6	0.15	0.045	1.135	0.13	0.045	1.55	0.215	0.039	1.965	0.3	0.042	2.38	0.385	0.046
0.67	0.59	0.035	1.6	0.16	0.049	1.135	0.135	0.045	1.55	0.22	0.036	1.965	0.305	0.039	2.38	0.39	0.046
0.67	0.6	0.036	1.6	0.17	0.053	1.135	0.14	0.046	1.55	0.225	0.033	1.965	0.31	0.037	2.38	0.395	0.046
0.67	0.61	0.036	1.6	0.18	0.055	1.135	0.145	0.046	1.55	0.23	0.033	1.965	0.315	0.039	2.38	0.4	0.045
0.67	0.62	0.036	1.6	0.19	0.053	1.135	0.15	0.046	1.55	0.235	0.033	1.965	0.32	0.042	2.38	0.405	0.043
0.67	0.63	0.036	1.6	0.2	0.051	1.135	0.155	0.044	1.55	0.24	0.033	1.965	0.325	0.045	2.38	0.41	0.041
0.67	0.64	0.036	1.6	0.21	0.050	1.135	0.16	0.043	1.55	0.245	0.033	1.965	0.33	0.047	2.38	0.415	0.038
0.67	0.65	0.037	1.6	0.22	0.048	1.135	0.165	0.046	1.55	0.25	0.036	1.965	0.335	0.047	2.38	0.42	0.036
0.67	0.66	0.037	1.6	0.23	0.047	1.135	0.17	0.048	1.55	0.255	0.041	1.965	0.34	0.045	2.38	0.425	0.038
0.67	0.67	0.038	1.6	0.24	0.046	1.135	0.175	0.047	1.55	0.26	0.046	1.965	0.345	0.043	2.38	0.43	0.041
0.67	0.68	0.039	1.6	0.25	0.045	1.135	0.18	0.044	1.55	0.265	0.048	1.965	0.35	0.041	2.38	0.435	0.042
0.67	0.69	0.040	1.6	0.26	0.043	1.135	0.185	0.040	1.55	0.27	0.047	1.965	0.355	0.042	2.38	0.44	0.041
0.67	0.7	0.040	1.6	0.27	0.042	1.135	0.19	0.037	1.55	0.275	0.045	1.965	0.36	0.043	2.38	0.445	0.040
0.67	0.71	0.040	1.6	0.28	0.043	1.135	0.195	0.035	1.55	0.28	0.042	1.965	0.365	0.043	2.38	0.45	0.042
0.67	0.72	0.038	1.6	0.29	0.046	1.135	0.2	0.037	1.55	0.285	0.038	1.965	0.37	0.042	2.38	0.455	0.049
0.67	0.73	0.037	1.6	0.3	0.049	1.135	0.205	0.044	1.55	0.29	0.036	1.965	0.375	0.042	2.38	0.46	0.055
0.67	0.74	0.036	1.6	0.31	0.048	1.135	0.21	0.050	1.55	0.295	0.036	1.965	0.38	0.043	2.38	0.465	0.056
0.67	0.75	0.036	1.6	0.32	0.045	1.135	0.215	0.049	1.55	0.3	0.041	1.965	0.385	0.045	2.38	0.47	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.67	0.76	0.036	1.6	0.33	0.041	1.135	0.22	0.046	1.55	0.305	0.045	1.965	0.39	0.047	2.38	0.475	0.049
0.67	0.77	0.037	1.6	0.34	0.039	1.135	0.225	0.043	1.55	0.31	0.048	1.965	0.395	0.048	2.38	0.48	0.046
0.67	0.78	0.038	1.6	0.35	0.039	1.135	0.23	0.039	1.55	0.315	0.048	1.965	0.4	0.047	2.38	0.485	0.046
0.67	0.79	0.041	1.6	0.36	0.040	1.135	0.235	0.036	1.55	0.32	0.047	1.965	0.405	0.047	2.38	0.49	0.047
0.67	0.8	0.043	1.6	0.37	0.042	1.135	0.24	0.037	1.55	0.325	0.044	1.965	0.41	0.049	2.38	0.495	0.049
0.67	0.81	0.045	1.6	0.38	0.043	1.135	0.245	0.042	1.55	0.33	0.042	1.965	0.415	0.050	2.385	0.005	0.058
0.67	0.82	0.045	1.6	0.39	0.044	1.135	0.25	0.048	1.55	0.335	0.043	1.965	0.42	0.049	2.385	0.01	0.065
0.67	0.83	0.044	1.6	0.4	0.045	1.135	0.255	0.054	1.55	0.34	0.044	1.965	0.425	0.046	2.385	0.015	0.070
0.67	0.84	0.041	1.6	0.41	0.047	1.135	0.26	0.056	1.55	0.345	0.042	1.965	0.43	0.042	2.385	0.02	0.073
0.67	0.85	0.039	1.6	0.42	0.049	1.135	0.265	0.055	1.55	0.35	0.040	1.965	0.435	0.039	2.385	0.025	0.075
0.67	0.86	0.039	1.6	0.43	0.050	1.135	0.27	0.052	1.55	0.355	0.042	1.965	0.44	0.039	2.385	0.03	0.076
0.67	0.87	0.037	1.6	0.44	0.048	1.135	0.275	0.048	1.55	0.36	0.043	1.965	0.445	0.044	2.385	0.035	0.076
0.67	0.88	0.036	1.6	0.45	0.046	1.135	0.28	0.046	1.55	0.365	0.042	1.965	0.45	0.049	2.385	0.04	0.074
0.67	0.89	0.035	1.6	0.46	0.046	1.135	0.285	0.047	1.55	0.37	0.039	1.965	0.455	0.053	2.385	0.045	0.072
0.68	0.01	0.039	1.6	0.47	0.047	1.135	0.29	0.050	1.55	0.375	0.037	1.965	0.46	0.057	2.385	0.05	0.072
0.68	0.02	0.040	1.6	0.48	0.048	1.135	0.295	0.054	1.55	0.38	0.035	1.965	0.465	0.060	2.385	0.055	0.071
0.68	0.03	0.041	1.6	0.49	0.049	1.135	0.3	0.057	1.55	0.385	0.033	1.965	0.47	0.059	2.385	0.06	0.071
0.68	0.04	0.042	1.6	0.5	0.050	1.135	0.305	0.057	1.55	0.39	0.032	1.965	0.475	0.052	2.385	0.065	0.070
0.68	0.05	0.044	1.6	0.51	0.049	1.135	0.31	0.054	1.55	0.395	0.033	1.965	0.48	0.043	2.385	0.07	0.072
0.68	0.06	0.047	1.6	0.52	0.047	1.135	0.315	0.050	1.55	0.4	0.034	1.965	0.485	0.042	2.385	0.075	0.074
0.68	0.07	0.048	1.6	0.53	0.045	1.135	0.32	0.044	1.55	0.405	0.035	1.965	0.49	0.047	2.385	0.08	0.075
0.68	0.08	0.046	1.6	0.54	0.044	1.135	0.325	0.039	1.55	0.41	0.035	1.965	0.495	0.051	2.385	0.085	0.071
0.68	0.09	0.043	1.6	0.55	0.044	1.135	0.33	0.040	1.55	0.415	0.034	1.97	0.005	0.072	2.385	0.09	0.062
0.68	0.1	0.041	1.6	0.56	0.044	1.135	0.335	0.047	1.55	0.42	0.035	1.97	0.01	0.078	2.385	0.095	0.050
0.68	0.11	0.041	1.6	0.57	0.045	1.135	0.34	0.052	1.55	0.425	0.034	1.97	0.015	0.082	2.385	0.1	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.68	0.12	0.043	1.6	0.58	0.044	1.135	0.345	0.057	1.55	0.43	0.034	1.97	0.02	0.084	2.385	0.105	0.049
0.68	0.13	0.045	1.6	0.59	0.043	1.135	0.35	0.062	1.55	0.435	0.037	1.97	0.025	0.085	2.385	0.11	0.049
0.68	0.14	0.048	1.6	0.6	0.043	1.135	0.355	0.063	1.55	0.44	0.039	1.97	0.03	0.086	2.385	0.115	0.051
0.68	0.15	0.050	1.6	0.61	0.044	1.135	0.36	0.059	1.55	0.445	0.041	1.97	0.035	0.086	2.385	0.12	0.054
0.68	0.16	0.050	1.6	0.62	0.045	1.135	0.365	0.055	1.55	0.45	0.041	1.97	0.04	0.085	2.385	0.125	0.056
0.68	0.17	0.048	1.6	0.63	0.045	1.135	0.37	0.050	1.55	0.455	0.039	1.97	0.045	0.082	2.385	0.13	0.056
0.68	0.18	0.045	1.6	0.64	0.044	1.135	0.375	0.045	1.55	0.46	0.036	1.97	0.05	0.075	2.385	0.135	0.055
0.68	0.19	0.044	1.6	0.65	0.044	1.135	0.38	0.042	1.55	0.465	0.033	1.97	0.055	0.068	2.385	0.14	0.052
0.68	0.2	0.044	1.6	0.66	0.043	1.135	0.385	0.041	1.55	0.47	0.033	1.97	0.06	0.062	2.385	0.145	0.049
0.68	0.21	0.043	1.6	0.67	0.042	1.135	0.39	0.038	1.55	0.475	0.035	1.97	0.065	0.061	2.385	0.15	0.047
0.68	0.22	0.041	1.6	0.68	0.040	1.135	0.395	0.037	1.55	0.48	0.037	1.97	0.07	0.064	2.385	0.155	0.050
0.68	0.23	0.039	1.6	0.69	0.040	1.135	0.4	0.037	1.55	0.485	0.038	1.97	0.075	0.066	2.385	0.16	0.057
0.68	0.24	0.038	1.6	0.7	0.043	1.135	0.405	0.040	1.55	0.49	0.036	1.97	0.08	0.070	2.385	0.165	0.062
0.68	0.25	0.037	1.6	0.71	0.046	1.135	0.41	0.045	1.55	0.495	0.033	1.97	0.085	0.073	2.385	0.17	0.065
0.68	0.26	0.038	1.6	0.72	0.048	1.135	0.415	0.050	1.555	0.005	0.039	1.97	0.09	0.073	2.385	0.175	0.065
0.68	0.27	0.039	1.6	0.73	0.050	1.135	0.42	0.052	1.555	0.01	0.039	1.97	0.095	0.071	2.385	0.18	0.065
0.68	0.28	0.039	1.6	0.74	0.050	1.135	0.425	0.051	1.555	0.015	0.039	1.97	0.1	0.069	2.385	0.185	0.064
0.68	0.29	0.040	1.6	0.75	0.048	1.135	0.43	0.048	1.555	0.02	0.040	1.97	0.105	0.064	2.385	0.19	0.064
0.68	0.3	0.041	1.6	0.76	0.046	1.135	0.435	0.046	1.555	0.025	0.040	1.97	0.11	0.060	2.385	0.195	0.064
0.68	0.31	0.041	1.6	0.77	0.043	1.135	0.44	0.046	1.555	0.03	0.040	1.97	0.115	0.059	2.385	0.2	0.062
0.68	0.32	0.041	1.6	0.78	0.043	1.135	0.445	0.047	1.555	0.035	0.041	1.97	0.12	0.059	2.385	0.205	0.060
0.68	0.33	0.040	1.6	0.79	0.045	1.135	0.45	0.048	1.555	0.04	0.047	1.97	0.125	0.059	2.385	0.21	0.057
0.68	0.34	0.038	1.6	0.8	0.048	1.135	0.455	0.047	1.555	0.045	0.054	1.97	0.13	0.061	2.385	0.215	0.052
0.68	0.35	0.037	1.6	0.81	0.049	1.135	0.46	0.046	1.555	0.05	0.057	1.97	0.135	0.064	2.385	0.22	0.045
0.68	0.36	0.036	1.6	0.82	0.048	1.135	0.465	0.043	1.555	0.055	0.057	1.97	0.14	0.061	2.385	0.225	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.68	0.37	0.036	1.6	0.83	0.045	1.135	0.47	0.040	1.555	0.06	0.055	1.97	0.145	0.053	2.385	0.23	0.043
0.68	0.38	0.037	1.6	0.84	0.044	1.135	0.475	0.037	1.555	0.065	0.054	1.97	0.15	0.051	2.385	0.235	0.048
0.68	0.39	0.040	1.6	0.85	0.045	1.135	0.48	0.034	1.555	0.07	0.054	1.97	0.155	0.056	2.385	0.24	0.051
0.68	0.4	0.042	1.6	0.86	0.046	1.135	0.485	0.034	1.555	0.075	0.053	1.97	0.16	0.060	2.385	0.245	0.050
0.68	0.41	0.044	1.6	0.87	0.046	1.135	0.49	0.039	1.555	0.08	0.052	1.97	0.165	0.062	2.385	0.25	0.046
0.68	0.42	0.043	1.6	0.88	0.047	1.135	0.495	0.045	1.555	0.085	0.049	1.97	0.17	0.059	2.385	0.255	0.041
0.68	0.43	0.040	1.6	0.89	0.048	1.14	0.005	0.032	1.555	0.09	0.046	1.97	0.175	0.052	2.385	0.26	0.039
0.68	0.44	0.038	1.61	0.01	0.045	1.14	0.01	0.033	1.555	0.095	0.044	1.97	0.18	0.041	2.385	0.265	0.039
0.68	0.45	0.037	1.61	0.02	0.049	1.14	0.015	0.033	1.555	0.1	0.045	1.97	0.185	0.036	2.385	0.27	0.039
0.68	0.46	0.037	1.61	0.03	0.052	1.14	0.02	0.033	1.555	0.105	0.045	1.97	0.19	0.039	2.385	0.275	0.039
0.68	0.47	0.038	1.61	0.04	0.053	1.14	0.025	0.033	1.555	0.11	0.045	1.97	0.195	0.049	2.385	0.28	0.038
0.68	0.48	0.039	1.61	0.05	0.053	1.14	0.03	0.033	1.555	0.115	0.047	1.97	0.2	0.055	2.385	0.285	0.038
0.68	0.49	0.039	1.61	0.06	0.053	1.14	0.035	0.033	1.555	0.12	0.049	1.97	0.205	0.057	2.385	0.29	0.040
0.68	0.5	0.039	1.61	0.07	0.054	1.14	0.04	0.033	1.555	0.125	0.048	1.97	0.21	0.057	2.385	0.295	0.044
0.68	0.51	0.038	1.61	0.08	0.055	1.14	0.045	0.033	1.555	0.13	0.046	1.97	0.215	0.055	2.385	0.3	0.047
0.68	0.52	0.037	1.61	0.09	0.054	1.14	0.05	0.034	1.555	0.135	0.046	1.97	0.22	0.052	2.385	0.305	0.047
0.68	0.53	0.036	1.61	0.1	0.053	1.14	0.055	0.035	1.555	0.14	0.047	1.97	0.225	0.049	2.385	0.31	0.046
0.68	0.54	0.035	1.61	0.11	0.052	1.14	0.06	0.036	1.555	0.145	0.048	1.97	0.23	0.050	2.385	0.315	0.045
0.68	0.55	0.035	1.61	0.12	0.049	1.14	0.065	0.038	1.555	0.15	0.049	1.97	0.235	0.051	2.385	0.32	0.044
0.68	0.56	0.035	1.61	0.13	0.046	1.14	0.07	0.040	1.555	0.155	0.047	1.97	0.24	0.052	2.385	0.325	0.042
0.68	0.57	0.036	1.61	0.14	0.045	1.14	0.075	0.041	1.555	0.16	0.045	1.97	0.245	0.055	2.385	0.33	0.038
0.68	0.58	0.036	1.61	0.15	0.047	1.14	0.08	0.041	1.555	0.165	0.045	1.97	0.25	0.058	2.385	0.335	0.034
0.68	0.59	0.037	1.61	0.16	0.052	1.14	0.085	0.040	1.555	0.17	0.048	1.97	0.255	0.059	2.385	0.34	0.034
0.68	0.6	0.037	1.61	0.17	0.056	1.14	0.09	0.041	1.555	0.175	0.049	1.97	0.26	0.059	2.385	0.345	0.037
0.68	0.61	0.038	1.61	0.18	0.057	1.14	0.095	0.043	1.555	0.18	0.046	1.97	0.265	0.057	2.385	0.35	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.68	0.62	0.038	1.61	0.19	0.055	1.14	0.1	0.044	1.555	0.185	0.044	1.97	0.27	0.054	2.385	0.355	0.041
0.68	0.63	0.038	1.61	0.2	0.053	1.14	0.105	0.044	1.555	0.19	0.044	1.97	0.275	0.050	2.385	0.36	0.041
0.68	0.64	0.038	1.61	0.21	0.051	1.14	0.11	0.044	1.555	0.195	0.043	1.97	0.28	0.048	2.385	0.365	0.039
0.68	0.65	0.038	1.61	0.22	0.050	1.14	0.115	0.043	1.555	0.2	0.043	1.97	0.285	0.050	2.385	0.37	0.040
0.68	0.66	0.038	1.61	0.23	0.049	1.14	0.12	0.040	1.555	0.205	0.044	1.97	0.29	0.053	2.385	0.375	0.042
0.68	0.67	0.038	1.61	0.24	0.049	1.14	0.125	0.040	1.555	0.21	0.045	1.97	0.295	0.051	2.385	0.38	0.045
0.68	0.68	0.039	1.61	0.25	0.048	1.14	0.13	0.042	1.555	0.215	0.045	1.97	0.3	0.046	2.385	0.385	0.047
0.68	0.69	0.039	1.61	0.26	0.046	1.14	0.135	0.045	1.555	0.22	0.041	1.97	0.305	0.042	2.385	0.39	0.047
0.68	0.7	0.039	1.61	0.27	0.045	1.14	0.14	0.047	1.555	0.225	0.036	1.97	0.31	0.039	2.385	0.395	0.046
0.68	0.71	0.039	1.61	0.28	0.046	1.14	0.145	0.048	1.555	0.23	0.033	1.97	0.315	0.039	2.385	0.4	0.045
0.68	0.72	0.038	1.61	0.29	0.049	1.14	0.15	0.048	1.555	0.235	0.032	1.97	0.32	0.041	2.385	0.405	0.043
0.68	0.73	0.038	1.61	0.3	0.052	1.14	0.155	0.046	1.555	0.24	0.033	1.97	0.325	0.043	2.385	0.41	0.040
0.68	0.74	0.037	1.61	0.31	0.051	1.14	0.16	0.045	1.555	0.245	0.034	1.97	0.33	0.045	2.385	0.415	0.037
0.68	0.75	0.037	1.61	0.32	0.047	1.14	0.165	0.044	1.555	0.25	0.037	1.97	0.335	0.045	2.385	0.42	0.035
0.68	0.76	0.037	1.61	0.33	0.043	1.14	0.17	0.042	1.555	0.255	0.042	1.97	0.34	0.044	2.385	0.425	0.036
0.68	0.77	0.038	1.61	0.34	0.040	1.14	0.175	0.041	1.555	0.26	0.047	1.97	0.345	0.042	2.385	0.43	0.038
0.68	0.78	0.039	1.61	0.35	0.040	1.14	0.18	0.039	1.555	0.265	0.050	1.97	0.35	0.042	2.385	0.435	0.042
0.68	0.79	0.041	1.61	0.36	0.041	1.14	0.185	0.036	1.555	0.27	0.049	1.97	0.355	0.044	2.385	0.44	0.045
0.68	0.8	0.042	1.61	0.37	0.042	1.14	0.19	0.035	1.555	0.275	0.046	1.97	0.36	0.045	2.385	0.445	0.046
0.68	0.81	0.043	1.61	0.38	0.043	1.14	0.195	0.034	1.555	0.28	0.043	1.97	0.365	0.045	2.385	0.45	0.047
0.68	0.82	0.043	1.61	0.39	0.043	1.14	0.2	0.036	1.555	0.285	0.039	1.97	0.37	0.043	2.385	0.455	0.052
0.68	0.83	0.041	1.61	0.4	0.045	1.14	0.205	0.044	1.555	0.29	0.037	1.97	0.375	0.043	2.385	0.46	0.055
0.68	0.84	0.039	1.61	0.41	0.048	1.14	0.21	0.049	1.555	0.295	0.038	1.97	0.38	0.044	2.385	0.465	0.056
0.68	0.85	0.037	1.61	0.42	0.051	1.14	0.215	0.050	1.555	0.3	0.043	1.97	0.385	0.045	2.385	0.47	0.054
0.68	0.86	0.036	1.61	0.43	0.052	1.14	0.22	0.047	1.555	0.305	0.047	1.97	0.39	0.046	2.385	0.475	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.68	0.87	0.036	1.61	0.44	0.050	1.14	0.225	0.044	1.555	0.31	0.047	1.97	0.395	0.046	2.385	0.48	0.047
0.68	0.88	0.035	1.61	0.45	0.048	1.14	0.23	0.041	1.555	0.315	0.046	1.97	0.4	0.045	2.385	0.485	0.049
0.68	0.89	0.034	1.61	0.46	0.047	1.14	0.235	0.038	1.555	0.32	0.043	1.97	0.405	0.046	2.385	0.49	0.050
0.69	0.01	0.040	1.61	0.47	0.047	1.14	0.24	0.038	1.555	0.325	0.041	1.97	0.41	0.049	2.385	0.495	0.048
0.69	0.02	0.042	1.61	0.48	0.048	1.14	0.245	0.041	1.555	0.33	0.041	1.97	0.415	0.051	2.39	0.005	0.060
0.69	0.03	0.044	1.61	0.49	0.049	1.14	0.25	0.045	1.555	0.335	0.044	1.97	0.42	0.051	2.39	0.01	0.067
0.69	0.04	0.045	1.61	0.5	0.050	1.14	0.255	0.050	1.555	0.34	0.046	1.97	0.425	0.049	2.39	0.015	0.071
0.69	0.05	0.046	1.61	0.51	0.050	1.14	0.26	0.051	1.555	0.345	0.044	1.97	0.43	0.046	2.39	0.02	0.073
0.69	0.06	0.048	1.61	0.52	0.049	1.14	0.265	0.051	1.555	0.35	0.040	1.97	0.435	0.042	2.39	0.025	0.075
0.69	0.07	0.049	1.61	0.53	0.046	1.14	0.27	0.048	1.555	0.355	0.040	1.97	0.44	0.040	2.39	0.03	0.077
0.69	0.08	0.047	1.61	0.54	0.044	1.14	0.275	0.047	1.555	0.36	0.041	1.97	0.445	0.043	2.39	0.035	0.077
0.69	0.09	0.043	1.61	0.55	0.043	1.14	0.28	0.048	1.555	0.365	0.040	1.97	0.45	0.048	2.39	0.04	0.075
0.69	0.1	0.040	1.61	0.56	0.043	1.14	0.285	0.048	1.555	0.37	0.039	1.97	0.455	0.053	2.39	0.045	0.073
0.69	0.11	0.041	1.61	0.57	0.043	1.14	0.29	0.047	1.555	0.375	0.037	1.97	0.46	0.057	2.39	0.05	0.071
0.69	0.12	0.043	1.61	0.58	0.043	1.14	0.295	0.046	1.555	0.38	0.035	1.97	0.465	0.060	2.39	0.055	0.069
0.69	0.13	0.046	1.61	0.59	0.044	1.14	0.3	0.047	1.555	0.385	0.034	1.97	0.47	0.061	2.39	0.06	0.067
0.69	0.14	0.049	1.61	0.6	0.046	1.14	0.305	0.049	1.555	0.39	0.033	1.97	0.475	0.058	2.39	0.065	0.067
0.69	0.15	0.050	1.61	0.61	0.047	1.14	0.31	0.049	1.555	0.395	0.033	1.97	0.48	0.051	2.39	0.07	0.070
0.69	0.16	0.049	1.61	0.62	0.047	1.14	0.315	0.046	1.555	0.4	0.035	1.97	0.485	0.045	2.39	0.075	0.073
0.69	0.17	0.047	1.61	0.63	0.047	1.14	0.32	0.042	1.555	0.405	0.035	1.97	0.49	0.046	2.39	0.08	0.072
0.69	0.18	0.045	1.61	0.64	0.047	1.14	0.325	0.043	1.555	0.41	0.035	1.97	0.495	0.048	2.39	0.085	0.069
0.69	0.19	0.044	1.61	0.65	0.047	1.14	0.33	0.048	1.555	0.415	0.034	1.975	0.005	0.067	2.39	0.09	0.063
0.69	0.2	0.043	1.61	0.66	0.047	1.14	0.335	0.052	1.555	0.42	0.035	1.975	0.01	0.074	2.39	0.095	0.059
0.69	0.21	0.042	1.61	0.67	0.045	1.14	0.34	0.054	1.555	0.425	0.036	1.975	0.015	0.079	2.39	0.1	0.058
0.69	0.22	0.041	1.61	0.68	0.042	1.14	0.345	0.053	1.555	0.43	0.037	1.975	0.02	0.081	2.39	0.105	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.69	0.23	0.039	1.61	0.69	0.041	1.14	0.35	0.052	1.555	0.435	0.039	1.975	0.025	0.082	2.39	0.11	0.056
0.69	0.24	0.038	1.61	0.7	0.042	1.14	0.355	0.053	1.555	0.44	0.043	1.975	0.03	0.081	2.39	0.115	0.053
0.69	0.25	0.038	1.61	0.71	0.046	1.14	0.36	0.054	1.555	0.445	0.044	1.975	0.035	0.080	2.39	0.12	0.052
0.69	0.26	0.039	1.61	0.72	0.050	1.14	0.365	0.055	1.555	0.45	0.044	1.975	0.04	0.076	2.39	0.125	0.054
0.69	0.27	0.040	1.61	0.73	0.054	1.14	0.37	0.054	1.555	0.455	0.041	1.975	0.045	0.071	2.39	0.13	0.055
0.69	0.28	0.041	1.61	0.74	0.055	1.14	0.375	0.052	1.555	0.46	0.037	1.975	0.05	0.065	2.39	0.135	0.055
0.69	0.29	0.042	1.61	0.75	0.053	1.14	0.38	0.051	1.555	0.465	0.034	1.975	0.055	0.062	2.39	0.14	0.054
0.69	0.3	0.043	1.61	0.76	0.048	1.14	0.385	0.049	1.555	0.47	0.033	1.975	0.06	0.064	2.39	0.145	0.051
0.69	0.31	0.044	1.61	0.77	0.045	1.14	0.39	0.045	1.555	0.475	0.034	1.975	0.065	0.068	2.39	0.15	0.048
0.69	0.32	0.044	1.61	0.78	0.044	1.14	0.395	0.041	1.555	0.48	0.036	1.975	0.07	0.073	2.39	0.155	0.047
0.69	0.33	0.042	1.61	0.79	0.048	1.14	0.4	0.039	1.555	0.485	0.037	1.975	0.075	0.076	2.39	0.16	0.049
0.69	0.34	0.040	1.61	0.8	0.051	1.14	0.405	0.042	1.555	0.49	0.035	1.975	0.08	0.077	2.39	0.165	0.052
0.69	0.35	0.037	1.61	0.81	0.053	1.14	0.41	0.047	1.555	0.495	0.033	1.975	0.085	0.078	2.39	0.17	0.055
0.69	0.36	0.036	1.61	0.82	0.052	1.14	0.415	0.052	1.56	0.005	0.039	1.975	0.09	0.077	2.39	0.175	0.055
0.69	0.37	0.036	1.61	0.83	0.050	1.14	0.42	0.055	1.56	0.01	0.039	1.975	0.095	0.076	2.39	0.18	0.055
0.69	0.38	0.037	1.61	0.84	0.047	1.14	0.425	0.055	1.56	0.015	0.040	1.975	0.1	0.074	2.39	0.185	0.054
0.69	0.39	0.039	1.61	0.85	0.046	1.14	0.43	0.051	1.56	0.02	0.040	1.975	0.105	0.071	2.39	0.19	0.056
0.69	0.4	0.041	1.61	0.86	0.046	1.14	0.435	0.046	1.56	0.025	0.038	1.975	0.11	0.066	2.39	0.195	0.057
0.69	0.41	0.042	1.61	0.87	0.045	1.14	0.44	0.045	1.56	0.03	0.038	1.975	0.115	0.062	2.39	0.2	0.058
0.69	0.42	0.041	1.61	0.88	0.046	1.14	0.445	0.044	1.56	0.035	0.041	1.975	0.12	0.061	2.39	0.205	0.057
0.69	0.43	0.039	1.61	0.89	0.048	1.14	0.45	0.043	1.56	0.04	0.047	1.975	0.125	0.061	2.39	0.21	0.054
0.69	0.44	0.037	1.62	0.01	0.048	1.14	0.455	0.042	1.56	0.045	0.053	1.975	0.13	0.061	2.39	0.215	0.050
0.69	0.45	0.036	1.62	0.02	0.054	1.14	0.46	0.041	1.56	0.05	0.055	1.975	0.135	0.063	2.39	0.22	0.046
0.69	0.46	0.037	1.62	0.03	0.058	1.14	0.465	0.038	1.56	0.055	0.055	1.975	0.14	0.060	2.39	0.225	0.047
0.69	0.47	0.038	1.62	0.04	0.059	1.14	0.47	0.036	1.56	0.06	0.055	1.975	0.145	0.052	2.39	0.23	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.69	0.48	0.039	1.62	0.05	0.056	1.14	0.475	0.035	1.56	0.065	0.056	1.975	0.15	0.050	2.39	0.235	0.056
0.69	0.49	0.040	1.62	0.06	0.054	1.14	0.48	0.033	1.56	0.07	0.056	1.975	0.155	0.056	2.39	0.24	0.058
0.69	0.5	0.040	1.62	0.07	0.055	1.14	0.485	0.034	1.56	0.075	0.056	1.975	0.16	0.061	2.39	0.245	0.058
0.69	0.51	0.040	1.62	0.08	0.055	1.14	0.49	0.038	1.56	0.08	0.054	1.975	0.165	0.062	2.39	0.25	0.055
0.69	0.52	0.038	1.62	0.09	0.054	1.14	0.495	0.043	1.56	0.085	0.051	1.975	0.17	0.058	2.39	0.255	0.051
0.69	0.53	0.037	1.62	0.1	0.053	1.145	0.005	0.032	1.56	0.09	0.047	1.975	0.175	0.049	2.39	0.26	0.048
0.69	0.54	0.036	1.62	0.11	0.053	1.145	0.01	0.032	1.56	0.095	0.046	1.975	0.18	0.039	2.39	0.265	0.047
0.69	0.55	0.036	1.62	0.12	0.052	1.145	0.015	0.032	1.56	0.1	0.049	1.975	0.185	0.034	2.39	0.27	0.044
0.69	0.56	0.037	1.62	0.13	0.049	1.145	0.02	0.032	1.56	0.105	0.048	1.975	0.19	0.037	2.39	0.275	0.042
0.69	0.57	0.038	1.62	0.14	0.048	1.145	0.025	0.032	1.56	0.11	0.045	1.975	0.195	0.044	2.39	0.28	0.040
0.69	0.58	0.039	1.62	0.15	0.050	1.145	0.03	0.032	1.56	0.115	0.045	1.975	0.2	0.049	2.39	0.285	0.039
0.69	0.59	0.040	1.62	0.16	0.054	1.145	0.035	0.032	1.56	0.12	0.046	1.975	0.205	0.051	2.39	0.29	0.041
0.69	0.6	0.040	1.62	0.17	0.056	1.145	0.04	0.032	1.56	0.125	0.045	1.975	0.21	0.053	2.39	0.295	0.043
0.69	0.61	0.040	1.62	0.18	0.057	1.145	0.045	0.033	1.56	0.13	0.045	1.975	0.215	0.055	2.39	0.3	0.045
0.69	0.62	0.040	1.62	0.19	0.055	1.145	0.05	0.033	1.56	0.135	0.048	1.975	0.22	0.055	2.39	0.305	0.045
0.69	0.63	0.039	1.62	0.2	0.054	1.145	0.055	0.034	1.56	0.14	0.049	1.975	0.225	0.053	2.39	0.31	0.045
0.69	0.64	0.039	1.62	0.21	0.053	1.145	0.06	0.035	1.56	0.145	0.049	1.975	0.23	0.052	2.39	0.315	0.044
0.69	0.65	0.038	1.62	0.22	0.053	1.145	0.065	0.037	1.56	0.15	0.049	1.975	0.235	0.050	2.39	0.32	0.043
0.69	0.66	0.038	1.62	0.23	0.054	1.145	0.07	0.040	1.56	0.155	0.046	1.975	0.24	0.048	2.39	0.325	0.042
0.69	0.67	0.038	1.62	0.24	0.054	1.145	0.075	0.040	1.56	0.16	0.044	1.975	0.245	0.050	2.39	0.33	0.039
0.69	0.68	0.038	1.62	0.25	0.053	1.145	0.08	0.039	1.56	0.165	0.046	1.975	0.25	0.053	2.39	0.335	0.035
0.69	0.69	0.038	1.62	0.26	0.052	1.145	0.085	0.038	1.56	0.17	0.050	1.975	0.255	0.056	2.39	0.34	0.034
0.69	0.7	0.038	1.62	0.27	0.050	1.145	0.09	0.038	1.56	0.175	0.051	1.975	0.26	0.057	2.39	0.345	0.037
0.69	0.71	0.038	1.62	0.28	0.050	1.145	0.095	0.039	1.56	0.18	0.048	1.975	0.265	0.056	2.39	0.35	0.039
0.69	0.72	0.038	1.62	0.29	0.052	1.145	0.1	0.039	1.56	0.185	0.045	1.975	0.27	0.055	2.39	0.355	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.69	0.73	0.038	1.62	0.3	0.054	1.145	0.105	0.040	1.56	0.19	0.044	1.975	0.275	0.052	2.39	0.36	0.037
0.69	0.74	0.038	1.62	0.31	0.053	1.145	0.11	0.041	1.56	0.195	0.044	1.975	0.28	0.049	2.39	0.365	0.036
0.69	0.75	0.038	1.62	0.32	0.049	1.145	0.115	0.041	1.56	0.2	0.044	1.975	0.285	0.051	2.39	0.37	0.038
0.69	0.76	0.038	1.62	0.33	0.044	1.145	0.12	0.040	1.56	0.205	0.046	1.975	0.29	0.054	2.39	0.375	0.042
0.69	0.77	0.039	1.62	0.34	0.041	1.145	0.125	0.039	1.56	0.21	0.047	1.975	0.295	0.054	2.39	0.38	0.044
0.69	0.78	0.040	1.62	0.35	0.041	1.145	0.13	0.040	1.56	0.215	0.048	1.975	0.3	0.051	2.39	0.385	0.045
0.69	0.79	0.041	1.62	0.36	0.041	1.145	0.135	0.043	1.56	0.22	0.045	1.975	0.305	0.048	2.39	0.39	0.044
0.69	0.8	0.042	1.62	0.37	0.042	1.145	0.14	0.046	1.56	0.225	0.040	1.975	0.31	0.044	2.39	0.395	0.045
0.69	0.81	0.042	1.62	0.38	0.042	1.145	0.145	0.048	1.56	0.23	0.036	1.975	0.315	0.042	2.39	0.4	0.044
0.69	0.82	0.041	1.62	0.39	0.042	1.145	0.15	0.048	1.56	0.235	0.035	1.975	0.32	0.041	2.39	0.405	0.041
0.69	0.83	0.039	1.62	0.4	0.043	1.145	0.155	0.046	1.56	0.24	0.037	1.975	0.325	0.042	2.39	0.41	0.037
0.69	0.84	0.038	1.62	0.41	0.047	1.145	0.16	0.045	1.56	0.245	0.038	1.975	0.33	0.043	2.39	0.415	0.034
0.69	0.85	0.036	1.62	0.42	0.051	1.145	0.165	0.042	1.56	0.25	0.038	1.975	0.335	0.043	2.39	0.42	0.035
0.69	0.86	0.035	1.62	0.43	0.053	1.145	0.17	0.038	1.56	0.255	0.042	1.975	0.34	0.041	2.39	0.425	0.038
0.69	0.87	0.035	1.62	0.44	0.053	1.145	0.175	0.036	1.56	0.26	0.048	1.975	0.345	0.041	2.39	0.43	0.042
0.69	0.88	0.035	1.62	0.45	0.051	1.145	0.18	0.034	1.56	0.265	0.050	1.975	0.35	0.043	2.39	0.435	0.046
0.69	0.89	0.035	1.62	0.46	0.049	1.145	0.185	0.033	1.56	0.27	0.050	1.975	0.355	0.046	2.39	0.44	0.049
0.7	0.01	0.039	1.62	0.47	0.047	1.145	0.19	0.032	1.56	0.275	0.047	1.975	0.36	0.047	2.39	0.445	0.051
0.7	0.02	0.043	1.62	0.48	0.046	1.145	0.195	0.033	1.56	0.28	0.044	1.975	0.365	0.046	2.39	0.45	0.051
0.7	0.03	0.047	1.62	0.49	0.048	1.145	0.2	0.037	1.56	0.285	0.041	1.975	0.37	0.043	2.39	0.455	0.052
0.7	0.04	0.049	1.62	0.5	0.049	1.145	0.205	0.042	1.56	0.29	0.039	1.975	0.375	0.042	2.39	0.46	0.055
0.7	0.05	0.050	1.62	0.51	0.050	1.145	0.21	0.046	1.56	0.295	0.040	1.975	0.38	0.042	2.39	0.465	0.055
0.7	0.06	0.051	1.62	0.52	0.049	1.145	0.215	0.046	1.56	0.3	0.046	1.975	0.385	0.044	2.39	0.47	0.053
0.7	0.07	0.050	1.62	0.53	0.047	1.145	0.22	0.045	1.56	0.305	0.049	1.975	0.39	0.043	2.39	0.475	0.049
0.7	0.08	0.047	1.62	0.54	0.045	1.145	0.225	0.042	1.56	0.31	0.047	1.975	0.395	0.042	2.39	0.48	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.7	0.09	0.043	1.62	0.55	0.045	1.145	0.23	0.039	1.56	0.315	0.044	1.975	0.4	0.042	2.39	0.485	0.050
0.7	0.1	0.041	1.62	0.56	0.044	1.145	0.235	0.038	1.56	0.32	0.041	1.975	0.405	0.045	2.39	0.49	0.051
0.7	0.11	0.041	1.62	0.57	0.043	1.145	0.24	0.040	1.56	0.325	0.038	1.975	0.41	0.049	2.39	0.495	0.049
0.7	0.12	0.044	1.62	0.58	0.044	1.145	0.245	0.041	1.56	0.33	0.040	1.975	0.415	0.051	2.395	0.005	0.062
0.7	0.13	0.047	1.62	0.59	0.047	1.145	0.25	0.042	1.56	0.335	0.045	1.975	0.42	0.053	2.395	0.01	0.067
0.7	0.14	0.048	1.62	0.6	0.050	1.145	0.255	0.043	1.56	0.34	0.047	1.975	0.425	0.052	2.395	0.015	0.071
0.7	0.15	0.048	1.62	0.61	0.051	1.145	0.26	0.043	1.56	0.345	0.045	1.975	0.43	0.049	2.395	0.02	0.073
0.7	0.16	0.047	1.62	0.62	0.049	1.145	0.265	0.043	1.56	0.35	0.040	1.975	0.435	0.044	2.395	0.025	0.075
0.7	0.17	0.046	1.62	0.63	0.048	1.145	0.27	0.045	1.56	0.355	0.037	1.975	0.44	0.040	2.395	0.03	0.077
0.7	0.18	0.045	1.62	0.64	0.049	1.145	0.275	0.048	1.56	0.36	0.036	1.975	0.445	0.042	2.395	0.035	0.078
0.7	0.19	0.045	1.62	0.65	0.051	1.145	0.28	0.050	1.56	0.365	0.036	1.975	0.45	0.047	2.395	0.04	0.076
0.7	0.2	0.044	1.62	0.66	0.050	1.145	0.285	0.050	1.56	0.37	0.037	1.975	0.455	0.052	2.395	0.045	0.072
0.7	0.21	0.043	1.62	0.67	0.048	1.145	0.29	0.047	1.56	0.375	0.037	1.975	0.46	0.056	2.395	0.05	0.069
0.7	0.22	0.042	1.62	0.68	0.045	1.145	0.295	0.043	1.56	0.38	0.037	1.975	0.465	0.059	2.395	0.055	0.065
0.7	0.23	0.041	1.62	0.69	0.042	1.145	0.3	0.041	1.56	0.385	0.036	1.975	0.47	0.061	2.395	0.06	0.061
0.7	0.24	0.039	1.62	0.7	0.042	1.145	0.305	0.042	1.56	0.39	0.034	1.975	0.475	0.060	2.395	0.065	0.060
0.7	0.25	0.039	1.62	0.71	0.046	1.145	0.31	0.044	1.56	0.395	0.034	1.975	0.48	0.056	2.395	0.07	0.063
0.7	0.26	0.040	1.62	0.72	0.052	1.145	0.315	0.044	1.56	0.4	0.034	1.975	0.485	0.049	2.395	0.075	0.065
0.7	0.27	0.041	1.62	0.73	0.056	1.145	0.32	0.044	1.56	0.405	0.036	1.975	0.49	0.045	2.395	0.08	0.065
0.7	0.28	0.042	1.62	0.74	0.057	1.145	0.325	0.047	1.56	0.41	0.037	1.975	0.495	0.044	2.395	0.085	0.063
0.7	0.29	0.043	1.62	0.75	0.055	1.145	0.33	0.051	1.56	0.415	0.038	1.98	0.005	0.061	2.395	0.09	0.064
0.7	0.3	0.045	1.62	0.76	0.051	1.145	0.335	0.052	1.56	0.42	0.039	1.98	0.01	0.067	2.395	0.095	0.065
0.7	0.31	0.046	1.62	0.77	0.047	1.145	0.34	0.049	1.56	0.425	0.040	1.98	0.015	0.072	2.395	0.1	0.066
0.7	0.32	0.046	1.62	0.78	0.047	1.145	0.345	0.044	1.56	0.43	0.041	1.98	0.02	0.075	2.395	0.105	0.065
0.7	0.33	0.045	1.62	0.79	0.049	1.145	0.35	0.041	1.56	0.435	0.042	1.98	0.025	0.076	2.395	0.11	0.061

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.7	0.34	0.042	1.62	0.8	0.053	1.145	0.355	0.043	1.56	0.44	0.044	1.98	0.03	0.075	2.395	0.115	0.055
0.7	0.35	0.038	1.62	0.81	0.055	1.145	0.36	0.051	1.56	0.445	0.044	1.98	0.035	0.072	2.395	0.12	0.050
0.7	0.36	0.036	1.62	0.82	0.055	1.145	0.365	0.056	1.56	0.45	0.043	1.98	0.04	0.067	2.395	0.125	0.049
0.7	0.37	0.036	1.62	0.83	0.053	1.145	0.37	0.058	1.56	0.455	0.041	1.98	0.045	0.062	2.395	0.13	0.051
0.7	0.38	0.036	1.62	0.84	0.049	1.145	0.375	0.058	1.56	0.46	0.038	1.98	0.05	0.060	2.395	0.135	0.054
0.7	0.39	0.038	1.62	0.85	0.046	1.145	0.38	0.057	1.56	0.465	0.034	1.98	0.055	0.063	2.395	0.14	0.054
0.7	0.4	0.040	1.62	0.86	0.045	1.145	0.385	0.055	1.56	0.47	0.033	1.98	0.06	0.071	2.395	0.145	0.051
0.7	0.41	0.041	1.62	0.87	0.045	1.145	0.39	0.052	1.56	0.475	0.034	1.98	0.065	0.077	2.395	0.15	0.048
0.7	0.42	0.040	1.62	0.88	0.047	1.145	0.395	0.047	1.56	0.48	0.034	1.98	0.07	0.080	2.395	0.155	0.045
0.7	0.43	0.039	1.62	0.89	0.050	1.145	0.4	0.043	1.56	0.485	0.035	1.98	0.075	0.081	2.395	0.16	0.044
0.7	0.44	0.037	1.63	0.01	0.050	1.145	0.405	0.044	1.56	0.49	0.034	1.98	0.08	0.081	2.395	0.165	0.045
0.7	0.45	0.036	1.63	0.02	0.057	1.145	0.41	0.048	1.56	0.495	0.033	1.98	0.085	0.080	2.395	0.17	0.046
0.7	0.46	0.036	1.63	0.03	0.062	1.145	0.415	0.053	1.565	0.005	0.038	1.98	0.09	0.080	2.395	0.175	0.046
0.7	0.47	0.038	1.63	0.04	0.063	1.145	0.42	0.056	1.565	0.01	0.039	1.98	0.095	0.079	2.395	0.18	0.046
0.7	0.48	0.040	1.63	0.05	0.060	1.145	0.425	0.056	1.565	0.015	0.040	1.98	0.1	0.078	2.395	0.185	0.048
0.7	0.49	0.042	1.63	0.06	0.056	1.145	0.43	0.053	1.565	0.02	0.040	1.98	0.105	0.076	2.395	0.19	0.051
0.7	0.5	0.043	1.63	0.07	0.055	1.145	0.435	0.048	1.565	0.025	0.038	1.98	0.11	0.072	2.395	0.195	0.054
0.7	0.51	0.042	1.63	0.08	0.055	1.145	0.44	0.049	1.565	0.03	0.037	1.98	0.115	0.067	2.395	0.2	0.056
0.7	0.52	0.039	1.63	0.09	0.054	1.145	0.445	0.049	1.565	0.035	0.040	1.98	0.12	0.064	2.395	0.205	0.056
0.7	0.53	0.037	1.63	0.1	0.053	1.145	0.45	0.047	1.565	0.04	0.045	1.98	0.125	0.063	2.395	0.21	0.053
0.7	0.54	0.036	1.63	0.11	0.053	1.145	0.455	0.043	1.565	0.045	0.050	1.98	0.13	0.060	2.395	0.215	0.049
0.7	0.55	0.038	1.63	0.12	0.054	1.145	0.46	0.040	1.565	0.05	0.051	1.98	0.135	0.057	2.395	0.22	0.048
0.7	0.56	0.040	1.63	0.13	0.052	1.145	0.465	0.036	1.565	0.055	0.051	1.98	0.14	0.054	2.395	0.225	0.051
0.7	0.57	0.043	1.63	0.14	0.051	1.145	0.47	0.035	1.565	0.06	0.052	1.98	0.145	0.050	2.395	0.23	0.057
0.7	0.58	0.044	1.63	0.15	0.053	1.145	0.475	0.033	1.565	0.065	0.055	1.98	0.15	0.049	2.395	0.235	0.061

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.7	0.59	0.045	1.63	0.16	0.056	1.145	0.48	0.033	1.565	0.07	0.056	1.98	0.155	0.055	2.395	0.24	0.062
0.7	0.6	0.044	1.63	0.17	0.057	1.145	0.485	0.035	1.565	0.075	0.056	1.98	0.16	0.060	2.395	0.245	0.061
0.7	0.61	0.042	1.63	0.18	0.057	1.145	0.49	0.039	1.565	0.08	0.054	1.98	0.165	0.061	2.395	0.25	0.059
0.7	0.62	0.041	1.63	0.19	0.056	1.145	0.495	0.044	1.565	0.085	0.052	1.98	0.17	0.054	2.395	0.255	0.057
0.7	0.63	0.040	1.63	0.2	0.056	1.15	0.005	0.031	1.565	0.09	0.049	1.98	0.175	0.044	2.395	0.26	0.055
0.7	0.64	0.039	1.63	0.21	0.057	1.15	0.01	0.031	1.565	0.095	0.048	1.98	0.18	0.037	2.395	0.265	0.054
0.7	0.65	0.038	1.63	0.22	0.057	1.15	0.015	0.031	1.565	0.1	0.049	1.98	0.185	0.035	2.395	0.27	0.051
0.7	0.66	0.038	1.63	0.23	0.058	1.15	0.02	0.032	1.565	0.105	0.048	1.98	0.19	0.036	2.395	0.275	0.048
0.7	0.67	0.038	1.63	0.24	0.059	1.15	0.025	0.032	1.565	0.11	0.043	1.98	0.195	0.037	2.395	0.28	0.045
0.7	0.68	0.037	1.63	0.25	0.058	1.15	0.03	0.032	1.565	0.115	0.041	1.98	0.2	0.039	2.395	0.285	0.042
0.7	0.69	0.037	1.63	0.26	0.056	1.15	0.035	0.032	1.565	0.12	0.040	1.98	0.205	0.043	2.395	0.29	0.042
0.7	0.7	0.037	1.63	0.27	0.054	1.15	0.04	0.033	1.565	0.125	0.039	1.98	0.21	0.051	2.395	0.295	0.042
0.7	0.71	0.037	1.63	0.28	0.053	1.15	0.045	0.033	1.565	0.13	0.042	1.98	0.215	0.057	2.395	0.3	0.043
0.7	0.72	0.038	1.63	0.29	0.054	1.15	0.05	0.033	1.565	0.135	0.046	1.98	0.22	0.059	2.395	0.305	0.043
0.7	0.73	0.039	1.63	0.3	0.054	1.15	0.055	0.034	1.565	0.14	0.050	1.98	0.225	0.058	2.395	0.31	0.042
0.7	0.74	0.039	1.63	0.31	0.052	1.15	0.06	0.035	1.565	0.145	0.051	1.98	0.23	0.055	2.395	0.315	0.041
0.7	0.75	0.040	1.63	0.32	0.048	1.15	0.065	0.037	1.565	0.15	0.050	1.98	0.235	0.051	2.395	0.32	0.041
0.7	0.76	0.039	1.63	0.33	0.044	1.15	0.07	0.038	1.565	0.155	0.047	1.98	0.24	0.047	2.395	0.325	0.040
0.7	0.77	0.040	1.63	0.34	0.041	1.15	0.075	0.039	1.565	0.16	0.045	1.98	0.245	0.045	2.395	0.33	0.037
0.7	0.78	0.040	1.63	0.35	0.041	1.15	0.08	0.037	1.565	0.165	0.046	1.98	0.25	0.046	2.395	0.335	0.035
0.7	0.79	0.040	1.63	0.36	0.041	1.15	0.085	0.036	1.565	0.17	0.049	1.98	0.255	0.050	2.395	0.34	0.034
0.7	0.8	0.040	1.63	0.37	0.041	1.15	0.09	0.037	1.565	0.175	0.050	1.98	0.26	0.053	2.395	0.345	0.037
0.7	0.81	0.040	1.63	0.38	0.041	1.15	0.095	0.037	1.565	0.18	0.048	1.98	0.265	0.054	2.395	0.35	0.040
0.7	0.82	0.040	1.63	0.39	0.041	1.15	0.1	0.036	1.565	0.185	0.046	1.98	0.27	0.053	2.395	0.355	0.040
0.7	0.83	0.039	1.63	0.4	0.042	1.15	0.105	0.037	1.565	0.19	0.044	1.98	0.275	0.051	2.395	0.36	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.7	0.84	0.038	1.63	0.41	0.045	1.15	0.11	0.039	1.565	0.195	0.044	1.98	0.28	0.048	2.395	0.365	0.036
0.7	0.85	0.037	1.63	0.42	0.049	1.15	0.115	0.041	1.565	0.2	0.045	1.98	0.285	0.048	2.395	0.37	0.036
0.7	0.86	0.036	1.63	0.43	0.053	1.15	0.12	0.041	1.565	0.205	0.047	1.98	0.29	0.051	2.395	0.375	0.040
0.7	0.87	0.035	1.63	0.44	0.054	1.15	0.125	0.041	1.565	0.21	0.048	1.98	0.295	0.054	2.395	0.38	0.041
0.7	0.88	0.036	1.63	0.45	0.052	1.15	0.13	0.041	1.565	0.215	0.049	1.98	0.3	0.055	2.395	0.385	0.042
0.7	0.89	0.036	1.63	0.46	0.049	1.15	0.135	0.042	1.565	0.22	0.047	1.98	0.305	0.054	2.395	0.39	0.044
0.71	0.01	0.037	1.63	0.47	0.046	1.15	0.14	0.044	1.565	0.225	0.042	1.98	0.31	0.051	2.395	0.395	0.045
0.71	0.02	0.043	1.63	0.48	0.045	1.15	0.145	0.045	1.565	0.23	0.039	1.98	0.315	0.049	2.395	0.4	0.045
0.71	0.03	0.049	1.63	0.49	0.046	1.15	0.15	0.046	1.565	0.235	0.041	1.98	0.32	0.045	2.395	0.405	0.041
0.71	0.04	0.053	1.63	0.5	0.047	1.15	0.155	0.045	1.565	0.24	0.043	1.98	0.325	0.042	2.395	0.41	0.036
0.71	0.05	0.055	1.63	0.51	0.048	1.15	0.16	0.043	1.565	0.245	0.043	1.98	0.33	0.040	2.395	0.415	0.034
0.71	0.06	0.055	1.63	0.52	0.049	1.15	0.165	0.039	1.565	0.25	0.042	1.98	0.335	0.039	2.395	0.42	0.036
0.71	0.07	0.052	1.63	0.53	0.047	1.15	0.17	0.035	1.565	0.255	0.042	1.98	0.34	0.038	2.395	0.425	0.041
0.71	0.08	0.047	1.63	0.54	0.046	1.15	0.175	0.033	1.565	0.26	0.047	1.98	0.345	0.039	2.395	0.43	0.047
0.71	0.09	0.043	1.63	0.55	0.046	1.15	0.18	0.032	1.565	0.265	0.050	1.98	0.35	0.043	2.395	0.435	0.051
0.71	0.1	0.041	1.63	0.56	0.046	1.15	0.185	0.031	1.565	0.27	0.051	1.98	0.355	0.047	2.395	0.44	0.052
0.71	0.11	0.043	1.63	0.57	0.045	1.15	0.19	0.031	1.565	0.275	0.049	1.98	0.36	0.048	2.395	0.445	0.052
0.71	0.12	0.045	1.63	0.58	0.047	1.15	0.195	0.033	1.565	0.28	0.046	1.98	0.365	0.045	2.395	0.45	0.051
0.71	0.13	0.046	1.63	0.59	0.051	1.15	0.2	0.035	1.565	0.285	0.042	1.98	0.37	0.042	2.395	0.455	0.050
0.71	0.14	0.046	1.63	0.6	0.054	1.15	0.205	0.039	1.565	0.29	0.041	1.98	0.375	0.039	2.395	0.46	0.052
0.71	0.15	0.045	1.63	0.61	0.055	1.15	0.21	0.042	1.565	0.295	0.043	1.98	0.38	0.040	2.395	0.465	0.052
0.71	0.16	0.044	1.63	0.62	0.053	1.15	0.215	0.046	1.565	0.3	0.049	1.98	0.385	0.041	2.395	0.47	0.051
0.71	0.17	0.044	1.63	0.63	0.051	1.15	0.22	0.046	1.565	0.305	0.050	1.98	0.39	0.041	2.395	0.475	0.048
0.71	0.18	0.045	1.63	0.64	0.051	1.15	0.225	0.044	1.565	0.31	0.048	1.98	0.395	0.040	2.395	0.48	0.047
0.71	0.19	0.047	1.63	0.65	0.052	1.15	0.23	0.042	1.565	0.315	0.044	1.98	0.4	0.040	2.395	0.485	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.71	0.2	0.047	1.63	0.66	0.052	1.15	0.235	0.040	1.565	0.32	0.040	1.98	0.405	0.044	2.395	0.49	0.050
0.71	0.21	0.046	1.63	0.67	0.050	1.15	0.24	0.040	1.565	0.325	0.038	1.98	0.41	0.048	2.395	0.495	0.050
0.71	0.22	0.044	1.63	0.68	0.046	1.15	0.245	0.040	1.565	0.33	0.040	1.98	0.415	0.051	2.4	0.005	0.062
0.71	0.23	0.042	1.63	0.69	0.043	1.15	0.25	0.041	1.565	0.335	0.045	1.98	0.42	0.053	2.4	0.01	0.066
0.71	0.24	0.041	1.63	0.7	0.043	1.15	0.255	0.040	1.565	0.34	0.047	1.98	0.425	0.053	2.4	0.015	0.070
0.71	0.25	0.040	1.63	0.71	0.045	1.15	0.26	0.040	1.565	0.345	0.045	1.98	0.43	0.050	2.4	0.02	0.073
0.71	0.26	0.041	1.63	0.72	0.050	1.15	0.265	0.039	1.565	0.35	0.039	1.98	0.435	0.044	2.4	0.025	0.075
0.71	0.27	0.041	1.63	0.73	0.054	1.15	0.27	0.042	1.565	0.355	0.035	1.98	0.44	0.040	2.4	0.03	0.077
0.71	0.28	0.042	1.63	0.74	0.056	1.15	0.275	0.047	1.565	0.36	0.034	1.98	0.445	0.040	2.4	0.035	0.079
0.71	0.29	0.043	1.63	0.75	0.055	1.15	0.28	0.050	1.565	0.365	0.035	1.98	0.45	0.046	2.4	0.04	0.076
0.71	0.3	0.044	1.63	0.76	0.052	1.15	0.285	0.052	1.565	0.37	0.038	1.98	0.455	0.051	2.4	0.045	0.071
0.71	0.31	0.046	1.63	0.77	0.051	1.15	0.29	0.052	1.565	0.375	0.039	1.98	0.46	0.056	2.4	0.05	0.065
0.71	0.32	0.046	1.63	0.78	0.050	1.15	0.295	0.048	1.565	0.38	0.040	1.98	0.465	0.059	2.4	0.055	0.060
0.71	0.33	0.045	1.63	0.79	0.051	1.15	0.3	0.042	1.565	0.385	0.040	1.98	0.47	0.061	2.4	0.06	0.056
0.71	0.34	0.042	1.63	0.8	0.053	1.15	0.305	0.041	1.565	0.39	0.036	1.98	0.475	0.061	2.4	0.065	0.054
0.71	0.35	0.040	1.63	0.81	0.054	1.15	0.31	0.042	1.565	0.395	0.033	1.98	0.48	0.057	2.4	0.07	0.054
0.71	0.36	0.037	1.63	0.82	0.055	1.15	0.315	0.043	1.565	0.4	0.034	1.98	0.485	0.050	2.4	0.075	0.055
0.71	0.37	0.036	1.63	0.83	0.054	1.15	0.32	0.044	1.565	0.405	0.036	1.98	0.49	0.044	2.4	0.08	0.053
0.71	0.38	0.037	1.63	0.84	0.051	1.15	0.325	0.046	1.565	0.41	0.039	1.98	0.495	0.042	2.4	0.085	0.055
0.71	0.39	0.038	1.63	0.85	0.048	1.15	0.33	0.048	1.565	0.415	0.042	1.985	0.005	0.057	2.4	0.09	0.062
0.71	0.4	0.039	1.63	0.86	0.047	1.15	0.335	0.046	1.565	0.42	0.045	1.985	0.01	0.061	2.4	0.095	0.068
0.71	0.41	0.039	1.63	0.87	0.048	1.15	0.34	0.042	1.565	0.425	0.046	1.985	0.015	0.064	2.4	0.1	0.071
0.71	0.42	0.039	1.63	0.88	0.049	1.15	0.345	0.038	1.565	0.43	0.046	1.985	0.02	0.068	2.4	0.105	0.069
0.71	0.43	0.038	1.63	0.89	0.052	1.15	0.35	0.036	1.565	0.435	0.046	1.985	0.025	0.071	2.4	0.11	0.064
0.71	0.44	0.037	1.64	0.01	0.049	1.15	0.355	0.042	1.565	0.44	0.045	1.985	0.03	0.071	2.4	0.115	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.71	0.45	0.036	1.64	0.02	0.055	1.15	0.36	0.052	1.565	0.445	0.043	1.985	0.035	0.068	2.4	0.12	0.049
0.71	0.46	0.036	1.64	0.03	0.061	1.15	0.365	0.058	1.565	0.45	0.041	1.985	0.04	0.064	2.4	0.125	0.044
0.71	0.47	0.038	1.64	0.04	0.063	1.15	0.37	0.060	1.565	0.455	0.039	1.985	0.045	0.060	2.4	0.13	0.045
0.71	0.48	0.040	1.64	0.05	0.062	1.15	0.375	0.061	1.565	0.46	0.036	1.985	0.05	0.059	2.4	0.135	0.049
0.71	0.49	0.043	1.64	0.06	0.060	1.15	0.38	0.060	1.565	0.465	0.034	1.985	0.055	0.067	2.4	0.14	0.052
0.71	0.5	0.045	1.64	0.07	0.058	1.15	0.385	0.059	1.565	0.47	0.034	1.985	0.06	0.077	2.4	0.145	0.050
0.71	0.51	0.043	1.64	0.08	0.057	1.15	0.39	0.056	1.565	0.475	0.034	1.985	0.065	0.083	2.4	0.15	0.045
0.71	0.52	0.039	1.64	0.09	0.055	1.15	0.395	0.052	1.565	0.48	0.034	1.985	0.07	0.085	2.4	0.155	0.043
0.71	0.53	0.037	1.64	0.1	0.055	1.15	0.4	0.047	1.565	0.485	0.034	1.985	0.075	0.084	2.4	0.16	0.045
0.71	0.54	0.037	1.64	0.11	0.054	1.15	0.405	0.046	1.565	0.49	0.034	1.985	0.08	0.083	2.4	0.165	0.047
0.71	0.55	0.040	1.64	0.12	0.055	1.15	0.41	0.049	1.565	0.495	0.035	1.985	0.085	0.082	2.4	0.17	0.047
0.71	0.56	0.044	1.64	0.13	0.054	1.15	0.415	0.053	1.57	0.005	0.036	1.985	0.09	0.081	2.4	0.175	0.044
0.71	0.57	0.048	1.64	0.14	0.053	1.15	0.42	0.056	1.57	0.01	0.038	1.985	0.095	0.080	2.4	0.18	0.044
0.71	0.58	0.050	1.64	0.15	0.055	1.15	0.425	0.056	1.57	0.015	0.039	1.985	0.1	0.079	2.4	0.185	0.046
0.71	0.59	0.050	1.64	0.16	0.058	1.15	0.43	0.054	1.57	0.02	0.039	1.985	0.105	0.078	2.4	0.19	0.050
0.71	0.6	0.048	1.64	0.17	0.060	1.15	0.435	0.051	1.57	0.025	0.037	1.985	0.11	0.075	2.4	0.195	0.054
0.71	0.61	0.044	1.64	0.18	0.059	1.15	0.44	0.053	1.57	0.03	0.037	1.985	0.115	0.071	2.4	0.2	0.056
0.71	0.62	0.041	1.64	0.19	0.059	1.15	0.445	0.054	1.57	0.035	0.038	1.985	0.12	0.066	2.4	0.205	0.055
0.71	0.63	0.039	1.64	0.2	0.061	1.15	0.45	0.052	1.57	0.04	0.042	1.985	0.125	0.063	2.4	0.21	0.051
0.71	0.64	0.038	1.64	0.21	0.061	1.15	0.455	0.049	1.57	0.045	0.046	1.985	0.13	0.057	2.4	0.215	0.047
0.71	0.65	0.039	1.64	0.22	0.060	1.15	0.46	0.044	1.57	0.05	0.047	1.985	0.135	0.051	2.4	0.22	0.047
0.71	0.66	0.039	1.64	0.23	0.061	1.15	0.465	0.039	1.57	0.055	0.046	1.985	0.14	0.049	2.4	0.225	0.052
0.71	0.67	0.039	1.64	0.24	0.061	1.15	0.47	0.036	1.57	0.06	0.046	1.985	0.145	0.048	2.4	0.23	0.058
0.71	0.68	0.038	1.64	0.25	0.061	1.15	0.475	0.034	1.57	0.065	0.051	1.985	0.15	0.048	2.4	0.235	0.061
0.71	0.69	0.036	1.64	0.26	0.059	1.15	0.48	0.035	1.57	0.07	0.055	1.985	0.155	0.053	2.4	0.24	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.71	0.7	0.036	1.64	0.27	0.056	1.15	0.485	0.039	1.57	0.075	0.055	1.985	0.16	0.059	2.4	0.245	0.061
0.71	0.71	0.037	1.64	0.28	0.055	1.15	0.49	0.043	1.57	0.08	0.054	1.985	0.165	0.060	2.4	0.25	0.060
0.71	0.72	0.038	1.64	0.29	0.054	1.15	0.495	0.046	1.57	0.085	0.052	1.985	0.17	0.055	2.4	0.255	0.059
0.71	0.73	0.039	1.64	0.3	0.054	1.155	0.005	0.031	1.57	0.09	0.049	1.985	0.175	0.045	2.4	0.26	0.058
0.71	0.74	0.040	1.64	0.31	0.050	1.155	0.01	0.031	1.57	0.095	0.049	1.985	0.18	0.041	2.4	0.265	0.057
0.71	0.75	0.040	1.64	0.32	0.047	1.155	0.015	0.032	1.57	0.1	0.049	1.985	0.185	0.041	2.4	0.27	0.055
0.71	0.76	0.040	1.64	0.33	0.044	1.155	0.02	0.032	1.57	0.105	0.047	1.985	0.19	0.040	2.4	0.275	0.053
0.71	0.77	0.040	1.64	0.34	0.042	1.155	0.025	0.033	1.57	0.11	0.042	1.985	0.195	0.036	2.4	0.28	0.050
0.71	0.78	0.040	1.64	0.35	0.041	1.155	0.03	0.033	1.57	0.115	0.039	1.985	0.2	0.034	2.4	0.285	0.046
0.71	0.79	0.039	1.64	0.36	0.041	1.155	0.035	0.033	1.57	0.12	0.037	1.985	0.205	0.037	2.4	0.29	0.045
0.71	0.8	0.039	1.64	0.37	0.041	1.155	0.04	0.033	1.57	0.125	0.037	1.985	0.21	0.049	2.4	0.295	0.043
0.71	0.81	0.039	1.64	0.38	0.040	1.155	0.045	0.033	1.57	0.13	0.041	1.985	0.215	0.058	2.4	0.3	0.042
0.71	0.82	0.039	1.64	0.39	0.040	1.155	0.05	0.033	1.57	0.135	0.044	1.985	0.22	0.060	2.4	0.305	0.040
0.71	0.83	0.039	1.64	0.4	0.041	1.155	0.055	0.034	1.57	0.14	0.047	1.985	0.225	0.059	2.4	0.31	0.039
0.71	0.84	0.039	1.64	0.41	0.043	1.155	0.06	0.035	1.57	0.145	0.049	1.985	0.23	0.056	2.4	0.315	0.039
0.71	0.85	0.038	1.64	0.42	0.046	1.155	0.065	0.036	1.57	0.15	0.049	1.985	0.235	0.051	2.4	0.32	0.038
0.71	0.86	0.037	1.64	0.43	0.050	1.155	0.07	0.037	1.57	0.155	0.046	1.985	0.24	0.047	2.4	0.325	0.037
0.71	0.87	0.037	1.64	0.44	0.051	1.155	0.075	0.038	1.57	0.16	0.043	1.985	0.245	0.043	2.4	0.33	0.035
0.71	0.88	0.037	1.64	0.45	0.050	1.155	0.08	0.038	1.57	0.165	0.044	1.985	0.25	0.041	2.4	0.335	0.034
0.71	0.89	0.038	1.64	0.46	0.048	1.155	0.085	0.039	1.57	0.17	0.046	1.985	0.255	0.043	2.4	0.34	0.033
0.72	0.01	0.037	1.64	0.47	0.046	1.155	0.09	0.040	1.57	0.175	0.048	1.985	0.26	0.047	2.4	0.345	0.035
0.72	0.02	0.044	1.64	0.48	0.045	1.155	0.095	0.039	1.57	0.18	0.047	1.985	0.265	0.050	2.4	0.35	0.040
0.72	0.03	0.052	1.64	0.49	0.045	1.155	0.1	0.037	1.57	0.185	0.046	1.985	0.27	0.050	2.4	0.355	0.041
0.72	0.04	0.058	1.64	0.5	0.046	1.155	0.105	0.037	1.57	0.19	0.045	1.985	0.275	0.048	2.4	0.36	0.039
0.72	0.05	0.060	1.64	0.51	0.046	1.155	0.11	0.038	1.57	0.195	0.046	1.985	0.28	0.045	2.4	0.365	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.72	0.06	0.058	1.64	0.52	0.046	1.155	0.115	0.040	1.57	0.2	0.046	1.985	0.285	0.043	2.4	0.37	0.036
0.72	0.07	0.053	1.64	0.53	0.046	1.155	0.12	0.041	1.57	0.205	0.048	1.985	0.29	0.046	2.4	0.375	0.036
0.72	0.08	0.047	1.64	0.54	0.047	1.155	0.125	0.041	1.57	0.21	0.049	1.985	0.295	0.051	2.4	0.38	0.038
0.72	0.09	0.043	1.64	0.55	0.048	1.155	0.13	0.042	1.57	0.215	0.049	1.985	0.3	0.055	2.4	0.385	0.041
0.72	0.1	0.041	1.64	0.56	0.049	1.155	0.135	0.044	1.57	0.22	0.047	1.985	0.305	0.057	2.4	0.39	0.044
0.72	0.11	0.043	1.64	0.57	0.048	1.155	0.14	0.046	1.57	0.225	0.044	1.985	0.31	0.056	2.4	0.395	0.047
0.72	0.12	0.044	1.64	0.58	0.050	1.155	0.145	0.045	1.57	0.23	0.044	1.985	0.315	0.054	2.4	0.4	0.048
0.72	0.13	0.044	1.64	0.59	0.054	1.155	0.15	0.044	1.57	0.235	0.046	1.985	0.32	0.050	2.4	0.405	0.046
0.72	0.14	0.043	1.64	0.6	0.057	1.155	0.155	0.043	1.57	0.24	0.048	1.985	0.325	0.044	2.4	0.41	0.042
0.72	0.15	0.043	1.64	0.61	0.058	1.155	0.16	0.040	1.57	0.245	0.048	1.985	0.33	0.039	2.4	0.415	0.037
0.72	0.16	0.042	1.64	0.62	0.057	1.155	0.165	0.036	1.57	0.25	0.046	1.985	0.335	0.037	2.4	0.42	0.037
0.72	0.17	0.043	1.64	0.63	0.054	1.155	0.17	0.033	1.57	0.255	0.044	1.985	0.34	0.036	2.4	0.425	0.042
0.72	0.18	0.045	1.64	0.64	0.053	1.155	0.175	0.032	1.57	0.26	0.046	1.985	0.345	0.037	2.4	0.43	0.048
0.72	0.19	0.048	1.64	0.65	0.053	1.155	0.18	0.031	1.57	0.265	0.049	1.985	0.35	0.042	2.4	0.435	0.051
0.72	0.2	0.049	1.64	0.66	0.052	1.155	0.185	0.032	1.57	0.27	0.051	1.985	0.355	0.046	2.4	0.44	0.052
0.72	0.21	0.047	1.64	0.67	0.050	1.155	0.19	0.032	1.57	0.275	0.050	1.985	0.36	0.046	2.4	0.445	0.051
0.72	0.22	0.045	1.64	0.68	0.046	1.155	0.195	0.034	1.57	0.28	0.047	1.985	0.365	0.044	2.4	0.45	0.049
0.72	0.23	0.043	1.64	0.69	0.043	1.155	0.2	0.036	1.57	0.285	0.043	1.985	0.37	0.040	2.4	0.455	0.046
0.72	0.24	0.042	1.64	0.7	0.042	1.155	0.205	0.040	1.57	0.29	0.043	1.985	0.375	0.039	2.4	0.46	0.045
0.72	0.25	0.042	1.64	0.71	0.044	1.155	0.21	0.046	1.57	0.295	0.047	1.985	0.38	0.041	2.4	0.465	0.047
0.72	0.26	0.042	1.64	0.72	0.047	1.155	0.215	0.048	1.57	0.3	0.051	1.985	0.385	0.043	2.4	0.47	0.047
0.72	0.27	0.043	1.64	0.73	0.050	1.155	0.22	0.049	1.57	0.305	0.050	1.985	0.39	0.044	2.4	0.475	0.045
0.72	0.28	0.044	1.64	0.74	0.051	1.155	0.225	0.047	1.57	0.31	0.048	1.985	0.395	0.043	2.4	0.48	0.045
0.72	0.29	0.043	1.64	0.75	0.052	1.155	0.23	0.045	1.57	0.315	0.044	1.985	0.4	0.042	2.4	0.485	0.046
0.72	0.3	0.043	1.64	0.76	0.053	1.155	0.235	0.041	1.57	0.32	0.041	1.985	0.405	0.043	2.4	0.49	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.72	0.31	0.043	1.64	0.77	0.053	1.155	0.24	0.038	1.57	0.325	0.039	1.985	0.41	0.046	2.4	0.495	0.049
0.72	0.32	0.044	1.64	0.78	0.053	1.155	0.245	0.038	1.57	0.33	0.040	1.985	0.415	0.049	2.405	0.005	0.060
0.72	0.33	0.043	1.64	0.79	0.051	1.155	0.25	0.040	1.57	0.335	0.044	1.985	0.42	0.052	2.405	0.01	0.064
0.72	0.34	0.042	1.64	0.8	0.051	1.155	0.255	0.042	1.57	0.34	0.046	1.985	0.425	0.052	2.405	0.015	0.068
0.72	0.35	0.041	1.64	0.81	0.051	1.155	0.26	0.042	1.57	0.345	0.042	1.985	0.43	0.049	2.405	0.02	0.071
0.72	0.36	0.039	1.64	0.82	0.052	1.155	0.265	0.041	1.57	0.35	0.037	1.985	0.435	0.043	2.405	0.025	0.073
0.72	0.37	0.039	1.64	0.83	0.052	1.155	0.27	0.042	1.57	0.355	0.035	1.985	0.44	0.039	2.405	0.03	0.075
0.72	0.38	0.038	1.64	0.84	0.050	1.155	0.275	0.044	1.57	0.36	0.035	1.985	0.445	0.039	2.405	0.035	0.076
0.72	0.39	0.039	1.64	0.85	0.050	1.155	0.28	0.048	1.57	0.365	0.038	1.985	0.45	0.044	2.405	0.04	0.073
0.72	0.4	0.039	1.64	0.86	0.051	1.155	0.285	0.055	1.57	0.37	0.040	1.985	0.455	0.050	2.405	0.045	0.067
0.72	0.41	0.039	1.64	0.87	0.052	1.155	0.29	0.058	1.57	0.375	0.042	1.985	0.46	0.054	2.405	0.05	0.062
0.72	0.42	0.039	1.64	0.88	0.052	1.155	0.295	0.055	1.57	0.38	0.044	1.985	0.465	0.057	2.405	0.055	0.058
0.72	0.43	0.038	1.64	0.89	0.052	1.155	0.3	0.049	1.57	0.385	0.043	1.985	0.47	0.058	2.405	0.06	0.056
0.72	0.44	0.037	1.65	0.01	0.049	1.155	0.305	0.044	1.57	0.39	0.038	1.985	0.475	0.057	2.405	0.065	0.053
0.72	0.45	0.036	1.65	0.02	0.052	1.155	0.31	0.041	1.57	0.395	0.034	1.985	0.48	0.054	2.405	0.07	0.049
0.72	0.46	0.037	1.65	0.03	0.056	1.155	0.315	0.042	1.57	0.4	0.034	1.985	0.485	0.047	2.405	0.075	0.047
0.72	0.47	0.038	1.65	0.04	0.060	1.155	0.32	0.042	1.57	0.405	0.038	1.985	0.49	0.044	2.405	0.08	0.046
0.72	0.48	0.041	1.65	0.05	0.063	1.155	0.325	0.042	1.57	0.41	0.042	1.985	0.495	0.043	2.405	0.085	0.048
0.72	0.49	0.044	1.65	0.06	0.064	1.155	0.33	0.042	1.57	0.415	0.046	1.99	0.005	0.056	2.405	0.09	0.058
0.72	0.5	0.044	1.65	0.07	0.063	1.155	0.335	0.041	1.57	0.42	0.049	1.99	0.01	0.060	2.405	0.095	0.068
0.72	0.51	0.041	1.65	0.08	0.061	1.155	0.34	0.039	1.57	0.425	0.050	1.99	0.015	0.064	2.405	0.1	0.072
0.72	0.52	0.038	1.65	0.09	0.060	1.155	0.345	0.036	1.57	0.43	0.050	1.99	0.02	0.068	2.405	0.105	0.071
0.72	0.53	0.036	1.65	0.1	0.059	1.155	0.35	0.036	1.57	0.435	0.049	1.99	0.025	0.070	2.405	0.11	0.067
0.72	0.54	0.037	1.65	0.11	0.058	1.155	0.355	0.043	1.57	0.44	0.047	1.99	0.03	0.070	2.405	0.115	0.060
0.72	0.55	0.041	1.65	0.12	0.058	1.155	0.36	0.053	1.57	0.445	0.043	1.99	0.035	0.068	2.405	0.12	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.72	0.56	0.046	1.65	0.13	0.057	1.155	0.365	0.059	1.57	0.45	0.039	1.99	0.04	0.064	2.405	0.125	0.043
0.72	0.57	0.051	1.65	0.14	0.056	1.155	0.37	0.061	1.57	0.455	0.036	1.99	0.045	0.060	2.405	0.13	0.041
0.72	0.58	0.053	1.65	0.15	0.057	1.155	0.375	0.061	1.57	0.46	0.035	1.99	0.05	0.059	2.405	0.135	0.044
0.72	0.59	0.053	1.65	0.16	0.061	1.155	0.38	0.061	1.57	0.465	0.035	1.99	0.055	0.068	2.405	0.14	0.048
0.72	0.6	0.050	1.65	0.17	0.064	1.155	0.385	0.060	1.57	0.47	0.036	1.99	0.06	0.080	2.405	0.145	0.047
0.72	0.61	0.045	1.65	0.18	0.064	1.155	0.39	0.058	1.57	0.475	0.035	1.99	0.065	0.086	2.405	0.15	0.044
0.72	0.62	0.041	1.65	0.19	0.064	1.155	0.395	0.054	1.57	0.48	0.035	1.99	0.07	0.087	2.405	0.155	0.047
0.72	0.63	0.038	1.65	0.2	0.065	1.155	0.4	0.049	1.57	0.485	0.035	1.99	0.075	0.086	2.405	0.16	0.055
0.72	0.64	0.038	1.65	0.21	0.065	1.155	0.405	0.047	1.57	0.49	0.037	1.99	0.08	0.085	2.405	0.165	0.059
0.72	0.65	0.040	1.65	0.22	0.063	1.155	0.41	0.050	1.57	0.495	0.038	1.99	0.085	0.084	2.405	0.17	0.058
0.72	0.66	0.041	1.65	0.23	0.062	1.155	0.415	0.054	1.575	0.005	0.035	1.99	0.09	0.083	2.405	0.175	0.051
0.72	0.67	0.041	1.65	0.24	0.061	1.155	0.42	0.057	1.575	0.01	0.037	1.99	0.095	0.082	2.405	0.18	0.046
0.72	0.68	0.040	1.65	0.25	0.060	1.155	0.425	0.056	1.575	0.015	0.038	1.99	0.1	0.080	2.405	0.185	0.046
0.72	0.69	0.037	1.65	0.26	0.058	1.155	0.43	0.053	1.575	0.02	0.038	1.99	0.105	0.078	2.405	0.19	0.049
0.72	0.7	0.036	1.65	0.27	0.055	1.155	0.435	0.052	1.575	0.025	0.037	1.99	0.11	0.074	2.405	0.195	0.053
0.72	0.71	0.037	1.65	0.28	0.053	1.155	0.44	0.054	1.575	0.03	0.038	1.99	0.115	0.069	2.405	0.2	0.054
0.72	0.72	0.038	1.65	0.29	0.052	1.155	0.445	0.055	1.575	0.035	0.039	1.99	0.12	0.065	2.405	0.205	0.053
0.72	0.73	0.039	1.65	0.3	0.051	1.155	0.45	0.055	1.575	0.04	0.040	1.99	0.125	0.061	2.405	0.21	0.047
0.72	0.74	0.040	1.65	0.31	0.049	1.155	0.455	0.052	1.575	0.045	0.042	1.99	0.13	0.055	2.405	0.215	0.044
0.72	0.75	0.040	1.65	0.32	0.046	1.155	0.46	0.048	1.575	0.05	0.043	1.99	0.135	0.050	2.405	0.22	0.045
0.72	0.76	0.039	1.65	0.33	0.045	1.155	0.465	0.043	1.575	0.055	0.043	1.99	0.14	0.050	2.405	0.225	0.051
0.72	0.77	0.039	1.65	0.34	0.043	1.155	0.47	0.039	1.575	0.06	0.043	1.99	0.145	0.051	2.405	0.23	0.056
0.72	0.78	0.038	1.65	0.35	0.043	1.155	0.475	0.037	1.575	0.065	0.047	1.99	0.15	0.051	2.405	0.235	0.060
0.72	0.79	0.038	1.65	0.36	0.043	1.155	0.48	0.040	1.575	0.07	0.052	1.99	0.155	0.056	2.405	0.24	0.061
0.72	0.8	0.039	1.65	0.37	0.042	1.155	0.485	0.044	1.575	0.075	0.053	1.99	0.16	0.062	2.405	0.245	0.061

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.72	0.81	0.039	1.65	0.38	0.040	1.155	0.49	0.047	1.575	0.08	0.053	1.99	0.165	0.064	2.405	0.25	0.060
0.72	0.82	0.039	1.65	0.39	0.041	1.155	0.495	0.048	1.575	0.085	0.051	1.99	0.17	0.061	2.405	0.255	0.060
0.72	0.83	0.039	1.65	0.4	0.042	1.16	0.005	0.032	1.575	0.09	0.048	1.99	0.175	0.055	2.405	0.26	0.059
0.72	0.84	0.039	1.65	0.41	0.043	1.16	0.01	0.032	1.575	0.095	0.048	1.99	0.18	0.050	2.405	0.265	0.058
0.72	0.85	0.039	1.65	0.42	0.045	1.16	0.015	0.032	1.575	0.1	0.049	1.99	0.185	0.049	2.405	0.27	0.057
0.72	0.86	0.038	1.65	0.43	0.046	1.16	0.02	0.033	1.575	0.105	0.046	1.99	0.19	0.048	2.405	0.275	0.056
0.72	0.87	0.038	1.65	0.44	0.048	1.16	0.025	0.033	1.575	0.11	0.041	1.99	0.195	0.042	2.405	0.28	0.053
0.72	0.88	0.038	1.65	0.45	0.048	1.16	0.03	0.033	1.575	0.115	0.039	1.99	0.2	0.035	2.405	0.285	0.049
0.72	0.89	0.039	1.65	0.46	0.048	1.16	0.035	0.033	1.575	0.12	0.038	1.99	0.205	0.037	2.405	0.29	0.047
0.73	0.01	0.037	1.65	0.47	0.047	1.16	0.04	0.033	1.575	0.125	0.038	1.99	0.21	0.047	2.405	0.295	0.045
0.73	0.02	0.046	1.65	0.48	0.046	1.16	0.045	0.033	1.575	0.13	0.042	1.99	0.215	0.056	2.405	0.3	0.042
0.73	0.03	0.055	1.65	0.49	0.045	1.16	0.05	0.033	1.575	0.135	0.044	1.99	0.22	0.059	2.405	0.305	0.038
0.73	0.04	0.060	1.65	0.5	0.045	1.16	0.055	0.034	1.575	0.14	0.045	1.99	0.225	0.057	2.405	0.31	0.037
0.73	0.05	0.061	1.65	0.51	0.045	1.16	0.06	0.035	1.575	0.145	0.045	1.99	0.23	0.053	2.405	0.315	0.038
0.73	0.06	0.058	1.65	0.52	0.044	1.16	0.065	0.036	1.575	0.15	0.045	1.99	0.235	0.048	2.405	0.32	0.038
0.73	0.07	0.052	1.65	0.53	0.045	1.16	0.07	0.036	1.575	0.155	0.042	1.99	0.24	0.044	2.405	0.325	0.036
0.73	0.08	0.047	1.65	0.54	0.046	1.16	0.075	0.037	1.575	0.16	0.040	1.99	0.245	0.042	2.405	0.33	0.034
0.73	0.09	0.044	1.65	0.55	0.048	1.16	0.08	0.039	1.575	0.165	0.041	1.99	0.25	0.041	2.405	0.335	0.034
0.73	0.1	0.042	1.65	0.56	0.049	1.16	0.085	0.042	1.575	0.17	0.043	1.99	0.255	0.041	2.405	0.34	0.035
0.73	0.11	0.042	1.65	0.57	0.050	1.16	0.09	0.043	1.575	0.175	0.045	1.99	0.26	0.044	2.405	0.345	0.036
0.73	0.12	0.043	1.65	0.58	0.051	1.16	0.095	0.042	1.575	0.18	0.046	1.99	0.265	0.045	2.405	0.35	0.038
0.73	0.13	0.042	1.65	0.59	0.055	1.16	0.1	0.039	1.575	0.185	0.046	1.99	0.27	0.045	2.405	0.355	0.040
0.73	0.14	0.042	1.65	0.6	0.059	1.16	0.105	0.037	1.575	0.19	0.048	1.99	0.275	0.044	2.405	0.36	0.040
0.73	0.15	0.042	1.65	0.61	0.060	1.16	0.11	0.037	1.575	0.195	0.049	1.99	0.28	0.041	2.405	0.365	0.039
0.73	0.16	0.042	1.65	0.62	0.060	1.16	0.115	0.039	1.575	0.2	0.048	1.99	0.285	0.039	2.405	0.37	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.73	0.17	0.043	1.65	0.63	0.057	1.16	0.12	0.039	1.575	0.205	0.047	1.99	0.29	0.041	2.405	0.375	0.037
0.73	0.18	0.046	1.65	0.64	0.054	1.16	0.125	0.040	1.575	0.21	0.047	1.99	0.295	0.046	2.405	0.38	0.038
0.73	0.19	0.048	1.65	0.65	0.052	1.16	0.13	0.043	1.575	0.215	0.046	1.99	0.3	0.052	2.405	0.385	0.041
0.73	0.2	0.048	1.65	0.66	0.051	1.16	0.135	0.047	1.575	0.22	0.046	1.99	0.305	0.055	2.405	0.39	0.045
0.73	0.21	0.047	1.65	0.67	0.049	1.16	0.14	0.049	1.575	0.225	0.045	1.99	0.31	0.056	2.405	0.395	0.047
0.73	0.22	0.045	1.65	0.68	0.045	1.16	0.145	0.048	1.575	0.23	0.047	1.99	0.315	0.054	2.405	0.4	0.048
0.73	0.23	0.044	1.65	0.69	0.042	1.16	0.15	0.046	1.575	0.235	0.050	1.99	0.32	0.050	2.405	0.405	0.048
0.73	0.24	0.043	1.65	0.7	0.041	1.16	0.155	0.042	1.575	0.24	0.052	1.99	0.325	0.044	2.405	0.41	0.046
0.73	0.25	0.043	1.65	0.71	0.042	1.16	0.16	0.038	1.575	0.245	0.052	1.99	0.33	0.040	2.405	0.415	0.042
0.73	0.26	0.043	1.65	0.72	0.044	1.16	0.165	0.035	1.575	0.25	0.050	1.99	0.335	0.038	2.405	0.42	0.039
0.73	0.27	0.044	1.65	0.73	0.045	1.16	0.17	0.033	1.575	0.255	0.046	1.99	0.34	0.038	2.405	0.425	0.041
0.73	0.28	0.045	1.65	0.74	0.047	1.16	0.175	0.032	1.575	0.26	0.044	1.99	0.345	0.039	2.405	0.43	0.045
0.73	0.29	0.044	1.65	0.75	0.049	1.16	0.18	0.032	1.575	0.265	0.047	1.99	0.35	0.041	2.405	0.435	0.049
0.73	0.3	0.042	1.65	0.76	0.052	1.16	0.185	0.034	1.575	0.27	0.049	1.99	0.355	0.044	2.405	0.44	0.050
0.73	0.31	0.041	1.65	0.77	0.053	1.16	0.19	0.035	1.575	0.275	0.049	1.99	0.36	0.044	2.405	0.445	0.049
0.73	0.32	0.040	1.65	0.78	0.052	1.16	0.195	0.037	1.575	0.28	0.046	1.99	0.365	0.042	2.405	0.45	0.046
0.73	0.33	0.041	1.65	0.79	0.049	1.16	0.2	0.040	1.575	0.285	0.044	1.99	0.37	0.040	2.405	0.455	0.041
0.73	0.34	0.041	1.65	0.8	0.047	1.16	0.205	0.045	1.575	0.29	0.045	1.99	0.375	0.042	2.405	0.46	0.039
0.73	0.35	0.043	1.65	0.81	0.047	1.16	0.21	0.050	1.575	0.295	0.050	1.99	0.38	0.045	2.405	0.465	0.040
0.73	0.36	0.043	1.65	0.82	0.049	1.16	0.215	0.051	1.575	0.3	0.052	1.99	0.385	0.048	2.405	0.47	0.043
0.73	0.37	0.043	1.65	0.83	0.050	1.16	0.22	0.050	1.575	0.305	0.050	1.99	0.39	0.048	2.405	0.475	0.043
0.73	0.38	0.042	1.65	0.84	0.050	1.16	0.225	0.049	1.575	0.31	0.048	1.99	0.395	0.048	2.405	0.48	0.043
0.73	0.39	0.040	1.65	0.85	0.051	1.16	0.23	0.046	1.575	0.315	0.045	1.99	0.4	0.045	2.405	0.485	0.044
0.73	0.4	0.040	1.65	0.86	0.053	1.16	0.235	0.041	1.575	0.32	0.042	1.99	0.405	0.043	2.405	0.49	0.044
0.73	0.41	0.040	1.65	0.87	0.055	1.16	0.24	0.036	1.575	0.325	0.040	1.99	0.41	0.044	2.405	0.495	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.73	0.42	0.039	1.65	0.88	0.055	1.16	0.245	0.037	1.575	0.33	0.040	1.99	0.415	0.045	2.41	0.005	0.057
0.73	0.43	0.038	1.65	0.89	0.054	1.16	0.25	0.043	1.575	0.335	0.043	1.99	0.42	0.047	2.41	0.01	0.061
0.73	0.44	0.038	1.66	0.01	0.048	1.16	0.255	0.048	1.575	0.34	0.043	1.99	0.425	0.047	2.41	0.015	0.064
0.73	0.45	0.038	1.66	0.02	0.049	1.16	0.26	0.048	1.575	0.345	0.039	1.99	0.43	0.046	2.41	0.02	0.068
0.73	0.46	0.038	1.66	0.03	0.052	1.16	0.265	0.046	1.575	0.35	0.036	1.99	0.435	0.043	2.41	0.025	0.069
0.73	0.47	0.039	1.66	0.04	0.056	1.16	0.27	0.044	1.575	0.355	0.036	1.99	0.44	0.039	2.41	0.03	0.069
0.73	0.48	0.041	1.66	0.05	0.062	1.16	0.275	0.043	1.575	0.36	0.038	1.99	0.445	0.038	2.41	0.035	0.067
0.73	0.49	0.043	1.66	0.06	0.066	1.16	0.28	0.046	1.575	0.365	0.041	1.99	0.45	0.040	2.41	0.04	0.065
0.73	0.5	0.042	1.66	0.07	0.068	1.16	0.285	0.054	1.575	0.37	0.043	1.99	0.455	0.046	2.41	0.045	0.063
0.73	0.51	0.039	1.66	0.08	0.067	1.16	0.29	0.060	1.575	0.375	0.045	1.99	0.46	0.051	2.41	0.05	0.063
0.73	0.52	0.037	1.66	0.09	0.067	1.16	0.295	0.060	1.575	0.38	0.045	1.99	0.465	0.053	2.41	0.055	0.062
0.73	0.53	0.036	1.66	0.1	0.066	1.16	0.3	0.055	1.575	0.385	0.044	1.99	0.47	0.054	2.41	0.06	0.061
0.73	0.54	0.038	1.66	0.11	0.065	1.16	0.305	0.049	1.575	0.39	0.040	1.99	0.475	0.051	2.41	0.065	0.058
0.73	0.55	0.041	1.66	0.12	0.064	1.16	0.31	0.044	1.575	0.395	0.035	1.99	0.48	0.046	2.41	0.07	0.052
0.73	0.56	0.045	1.66	0.13	0.062	1.16	0.315	0.041	1.575	0.4	0.034	1.99	0.485	0.044	2.41	0.075	0.046
0.73	0.57	0.050	1.66	0.14	0.062	1.16	0.32	0.041	1.575	0.405	0.039	1.99	0.49	0.044	2.41	0.08	0.043
0.73	0.58	0.053	1.66	0.15	0.062	1.16	0.325	0.041	1.575	0.41	0.044	1.99	0.495	0.044	2.41	0.085	0.044
0.73	0.59	0.053	1.66	0.16	0.065	1.16	0.33	0.042	1.575	0.415	0.048	1.995	0.005	0.058	2.41	0.09	0.054
0.73	0.6	0.050	1.66	0.17	0.068	1.16	0.335	0.041	1.575	0.42	0.050	1.995	0.01	0.062	2.41	0.095	0.067
0.73	0.61	0.045	1.66	0.18	0.068	1.16	0.34	0.040	1.575	0.425	0.051	1.995	0.015	0.067	2.41	0.1	0.073
0.73	0.62	0.040	1.66	0.19	0.068	1.16	0.345	0.038	1.575	0.43	0.051	1.995	0.02	0.071	2.41	0.105	0.073
0.73	0.63	0.038	1.66	0.2	0.067	1.16	0.35	0.038	1.575	0.435	0.051	1.995	0.025	0.072	2.41	0.11	0.070
0.73	0.64	0.038	1.66	0.21	0.067	1.16	0.355	0.043	1.575	0.44	0.049	1.995	0.03	0.071	2.41	0.115	0.063
0.73	0.65	0.040	1.66	0.22	0.065	1.16	0.36	0.052	1.575	0.445	0.046	1.995	0.035	0.068	2.41	0.12	0.054
0.73	0.66	0.042	1.66	0.23	0.062	1.16	0.365	0.058	1.575	0.45	0.041	1.995	0.04	0.064	2.41	0.125	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.73	0.67	0.043	1.66	0.24	0.060	1.16	0.37	0.060	1.575	0.455	0.038	1.995	0.045	0.061	2.41	0.13	0.042
0.73	0.68	0.041	1.66	0.25	0.059	1.16	0.375	0.060	1.575	0.46	0.037	1.995	0.05	0.061	2.41	0.135	0.042
0.73	0.69	0.038	1.66	0.26	0.057	1.16	0.38	0.060	1.575	0.465	0.039	1.995	0.055	0.067	2.41	0.14	0.044
0.73	0.7	0.037	1.66	0.27	0.054	1.16	0.385	0.059	1.575	0.47	0.039	1.995	0.06	0.078	2.41	0.145	0.045
0.73	0.71	0.037	1.66	0.28	0.051	1.16	0.39	0.056	1.575	0.475	0.038	1.995	0.065	0.085	2.41	0.15	0.050
0.73	0.72	0.038	1.66	0.29	0.049	1.16	0.395	0.052	1.575	0.48	0.037	1.995	0.07	0.087	2.41	0.155	0.058
0.73	0.73	0.039	1.66	0.3	0.048	1.16	0.4	0.048	1.575	0.485	0.037	1.995	0.075	0.087	2.41	0.16	0.066
0.73	0.74	0.040	1.66	0.31	0.047	1.16	0.405	0.047	1.575	0.49	0.040	1.995	0.08	0.086	2.41	0.165	0.071
0.73	0.75	0.040	1.66	0.32	0.046	1.16	0.41	0.051	1.575	0.495	0.042	1.995	0.085	0.085	2.41	0.17	0.069
0.73	0.76	0.039	1.66	0.33	0.045	1.16	0.415	0.055	1.58	0.005	0.033	1.995	0.09	0.084	2.41	0.175	0.061
0.73	0.77	0.038	1.66	0.34	0.045	1.16	0.42	0.057	1.58	0.01	0.035	1.995	0.095	0.083	2.41	0.18	0.051
0.73	0.78	0.037	1.66	0.35	0.045	1.16	0.425	0.056	1.58	0.015	0.037	1.995	0.1	0.080	2.41	0.185	0.047
0.73	0.79	0.037	1.66	0.36	0.045	1.16	0.43	0.052	1.58	0.02	0.037	1.995	0.105	0.075	2.41	0.19	0.047
0.73	0.8	0.038	1.66	0.37	0.043	1.16	0.435	0.049	1.58	0.025	0.038	1.995	0.11	0.068	2.41	0.195	0.049
0.73	0.81	0.038	1.66	0.38	0.041	1.16	0.44	0.051	1.58	0.03	0.039	1.995	0.115	0.062	2.41	0.2	0.050
0.73	0.82	0.038	1.66	0.39	0.041	1.16	0.445	0.054	1.58	0.035	0.040	1.995	0.12	0.060	2.41	0.205	0.046
0.73	0.83	0.038	1.66	0.4	0.043	1.16	0.45	0.055	1.58	0.04	0.041	1.995	0.125	0.056	2.41	0.21	0.043
0.73	0.84	0.039	1.66	0.41	0.044	1.16	0.455	0.053	1.58	0.045	0.042	1.995	0.13	0.053	2.41	0.215	0.042
0.73	0.85	0.040	1.66	0.42	0.044	1.16	0.46	0.050	1.58	0.05	0.042	1.995	0.135	0.052	2.41	0.22	0.046
0.73	0.86	0.039	1.66	0.43	0.044	1.16	0.465	0.045	1.58	0.055	0.042	1.995	0.14	0.055	2.41	0.225	0.050
0.73	0.87	0.038	1.66	0.44	0.046	1.16	0.47	0.041	1.58	0.06	0.042	1.995	0.145	0.057	2.41	0.23	0.054
0.73	0.88	0.039	1.66	0.45	0.047	1.16	0.475	0.041	1.58	0.065	0.044	1.995	0.15	0.060	2.41	0.235	0.056
0.73	0.89	0.040	1.66	0.46	0.048	1.16	0.48	0.045	1.58	0.07	0.047	1.995	0.155	0.064	2.41	0.24	0.058
0.74	0.01	0.039	1.66	0.47	0.048	1.16	0.485	0.048	1.58	0.075	0.049	1.995	0.16	0.067	2.41	0.245	0.059
0.74	0.02	0.048	1.66	0.48	0.046	1.16	0.49	0.049	1.58	0.08	0.050	1.995	0.165	0.069	2.41	0.25	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.74	0.03	0.056	1.66	0.49	0.045	1.16	0.495	0.049	1.58	0.085	0.050	1.995	0.17	0.068	2.41	0.255	0.060
0.74	0.04	0.060	1.66	0.5	0.045	1.165	0.005	0.033	1.58	0.09	0.048	1.995	0.175	0.064	2.41	0.26	0.060
0.74	0.05	0.059	1.66	0.51	0.044	1.165	0.01	0.032	1.58	0.095	0.050	1.995	0.18	0.059	2.41	0.265	0.060
0.74	0.06	0.054	1.66	0.52	0.044	1.165	0.015	0.032	1.58	0.1	0.050	1.995	0.185	0.055	2.41	0.27	0.059
0.74	0.07	0.049	1.66	0.53	0.045	1.165	0.02	0.033	1.58	0.105	0.047	1.995	0.19	0.053	2.41	0.275	0.057
0.74	0.08	0.046	1.66	0.54	0.047	1.165	0.025	0.033	1.58	0.11	0.043	1.995	0.195	0.049	2.41	0.28	0.055
0.74	0.09	0.045	1.66	0.55	0.048	1.165	0.03	0.033	1.58	0.115	0.041	1.995	0.2	0.041	2.41	0.285	0.050
0.74	0.1	0.044	1.66	0.56	0.049	1.165	0.035	0.033	1.58	0.12	0.040	1.995	0.205	0.039	2.41	0.29	0.047
0.74	0.11	0.044	1.66	0.57	0.049	1.165	0.04	0.033	1.58	0.125	0.041	1.995	0.21	0.045	2.41	0.295	0.045
0.74	0.12	0.044	1.66	0.58	0.051	1.165	0.045	0.033	1.58	0.13	0.045	1.995	0.215	0.052	2.41	0.3	0.041
0.74	0.13	0.043	1.66	0.59	0.056	1.165	0.05	0.034	1.58	0.135	0.046	1.995	0.22	0.054	2.41	0.305	0.037
0.74	0.14	0.043	1.66	0.6	0.059	1.165	0.055	0.034	1.58	0.14	0.045	1.995	0.225	0.052	2.41	0.31	0.035
0.74	0.15	0.042	1.66	0.61	0.061	1.165	0.06	0.035	1.58	0.145	0.043	1.995	0.23	0.048	2.41	0.315	0.038
0.74	0.16	0.042	1.66	0.62	0.061	1.165	0.065	0.035	1.58	0.15	0.041	1.995	0.235	0.044	2.41	0.32	0.039
0.74	0.17	0.043	1.66	0.63	0.059	1.165	0.07	0.035	1.58	0.155	0.038	1.995	0.24	0.042	2.41	0.325	0.037
0.74	0.18	0.046	1.66	0.64	0.054	1.165	0.075	0.036	1.58	0.16	0.037	1.995	0.245	0.042	2.41	0.33	0.036
0.74	0.19	0.047	1.66	0.65	0.051	1.165	0.08	0.038	1.58	0.165	0.039	1.995	0.25	0.043	2.41	0.335	0.037
0.74	0.2	0.047	1.66	0.66	0.049	1.165	0.085	0.041	1.58	0.17	0.042	1.995	0.255	0.043	2.41	0.34	0.037
0.74	0.21	0.045	1.66	0.67	0.048	1.165	0.09	0.042	1.58	0.175	0.045	1.995	0.26	0.044	2.41	0.345	0.036
0.74	0.22	0.045	1.66	0.68	0.045	1.165	0.095	0.041	1.58	0.18	0.046	1.995	0.265	0.043	2.41	0.35	0.036
0.74	0.23	0.044	1.66	0.69	0.043	1.165	0.1	0.039	1.58	0.185	0.047	1.995	0.27	0.042	2.41	0.355	0.038
0.74	0.24	0.043	1.66	0.7	0.041	1.165	0.105	0.037	1.58	0.19	0.050	1.995	0.275	0.040	2.41	0.36	0.040
0.74	0.25	0.044	1.66	0.71	0.042	1.165	0.11	0.036	1.58	0.195	0.051	1.995	0.28	0.038	2.41	0.365	0.042
0.74	0.26	0.044	1.66	0.72	0.042	1.165	0.115	0.036	1.58	0.2	0.050	1.995	0.285	0.038	2.41	0.37	0.043
0.74	0.27	0.044	1.66	0.73	0.044	1.165	0.12	0.037	1.58	0.205	0.046	1.995	0.29	0.040	2.41	0.375	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.74	0.28	0.045	1.66	0.74	0.045	1.165	0.125	0.040	1.58	0.21	0.043	1.995	0.295	0.043	2.41	0.38	0.042
0.74	0.29	0.044	1.66	0.75	0.048	1.165	0.13	0.045	1.58	0.215	0.041	1.995	0.3	0.047	2.41	0.385	0.043
0.74	0.3	0.041	1.66	0.76	0.050	1.165	0.135	0.049	1.58	0.22	0.042	1.995	0.305	0.051	2.41	0.39	0.045
0.74	0.31	0.039	1.66	0.77	0.051	1.165	0.14	0.051	1.58	0.225	0.044	1.995	0.31	0.051	2.41	0.395	0.047
0.74	0.32	0.038	1.66	0.78	0.048	1.165	0.145	0.050	1.58	0.23	0.048	1.995	0.315	0.050	2.41	0.4	0.048
0.74	0.33	0.039	1.66	0.79	0.045	1.165	0.15	0.046	1.58	0.235	0.051	1.995	0.32	0.046	2.41	0.405	0.048
0.74	0.34	0.042	1.66	0.8	0.043	1.165	0.155	0.041	1.58	0.24	0.053	1.995	0.325	0.043	2.41	0.41	0.047
0.74	0.35	0.045	1.66	0.81	0.045	1.165	0.16	0.036	1.58	0.245	0.053	1.995	0.33	0.042	2.41	0.415	0.044
0.74	0.36	0.047	1.66	0.82	0.048	1.165	0.165	0.034	1.58	0.25	0.052	1.995	0.335	0.043	2.41	0.42	0.042
0.74	0.37	0.047	1.66	0.83	0.050	1.165	0.17	0.033	1.58	0.255	0.048	1.995	0.34	0.043	2.41	0.425	0.040
0.74	0.38	0.045	1.66	0.84	0.050	1.165	0.175	0.033	1.58	0.26	0.043	1.995	0.345	0.041	2.41	0.43	0.041
0.74	0.39	0.042	1.66	0.85	0.052	1.165	0.18	0.035	1.58	0.265	0.043	1.995	0.35	0.040	2.41	0.435	0.044
0.74	0.4	0.040	1.66	0.86	0.054	1.165	0.185	0.037	1.58	0.27	0.044	1.995	0.355	0.042	2.41	0.44	0.046
0.74	0.41	0.039	1.66	0.87	0.056	1.165	0.19	0.039	1.58	0.275	0.044	1.995	0.36	0.043	2.41	0.445	0.046
0.74	0.42	0.039	1.66	0.88	0.056	1.165	0.195	0.041	1.58	0.28	0.043	1.995	0.365	0.041	2.41	0.45	0.044
0.74	0.43	0.038	1.66	0.89	0.056	1.165	0.2	0.046	1.58	0.285	0.043	1.995	0.37	0.041	2.41	0.455	0.039
0.74	0.44	0.039	1.67	0.01	0.049	1.165	0.205	0.050	1.58	0.29	0.048	1.995	0.375	0.043	2.41	0.46	0.036
0.74	0.45	0.040	1.67	0.02	0.049	1.165	0.21	0.052	1.58	0.295	0.052	1.995	0.38	0.048	2.41	0.465	0.037
0.74	0.46	0.040	1.67	0.03	0.050	1.165	0.215	0.052	1.58	0.3	0.052	1.995	0.385	0.051	2.41	0.47	0.040
0.74	0.47	0.041	1.67	0.04	0.054	1.165	0.22	0.051	1.58	0.305	0.050	1.995	0.39	0.051	2.41	0.475	0.042
0.74	0.48	0.042	1.67	0.05	0.060	1.165	0.225	0.050	1.58	0.31	0.048	1.995	0.395	0.051	2.41	0.48	0.044
0.74	0.49	0.042	1.67	0.06	0.065	1.165	0.23	0.045	1.58	0.315	0.045	1.995	0.4	0.047	2.41	0.485	0.043
0.74	0.5	0.040	1.67	0.07	0.069	1.165	0.235	0.039	1.58	0.32	0.044	1.995	0.405	0.043	2.41	0.49	0.042
0.74	0.51	0.039	1.67	0.08	0.072	1.165	0.24	0.035	1.58	0.325	0.041	1.995	0.41	0.040	2.41	0.495	0.044
0.74	0.52	0.038	1.67	0.09	0.075	1.165	0.245	0.038	1.58	0.33	0.039	1.995	0.415	0.039	2.415	0.005	0.055

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.74	0.53	0.038	1.67	0.1	0.075	1.165	0.25	0.046	1.58	0.335	0.039	1.995	0.42	0.040	2.415	0.01	0.060
0.74	0.54	0.039	1.67	0.11	0.072	1.165	0.255	0.052	1.58	0.34	0.041	1.995	0.425	0.042	2.415	0.015	0.065
0.74	0.55	0.041	1.67	0.12	0.069	1.165	0.26	0.053	1.58	0.345	0.038	1.995	0.43	0.043	2.415	0.02	0.067
0.74	0.56	0.043	1.67	0.13	0.067	1.165	0.265	0.051	1.58	0.35	0.037	1.995	0.435	0.043	2.415	0.025	0.066
0.74	0.57	0.046	1.67	0.14	0.067	1.165	0.27	0.046	1.58	0.355	0.038	1.995	0.44	0.042	2.415	0.03	0.062
0.74	0.58	0.049	1.67	0.15	0.068	1.165	0.275	0.042	1.58	0.36	0.041	1.995	0.445	0.040	2.415	0.035	0.058
0.74	0.59	0.050	1.67	0.16	0.068	1.165	0.28	0.043	1.58	0.365	0.043	1.995	0.45	0.039	2.415	0.04	0.056
0.74	0.6	0.048	1.67	0.17	0.070	1.165	0.285	0.052	1.58	0.37	0.044	1.995	0.455	0.042	2.415	0.045	0.060
0.74	0.61	0.044	1.67	0.18	0.070	1.165	0.29	0.059	1.58	0.375	0.045	1.995	0.46	0.046	2.415	0.05	0.065
0.74	0.62	0.041	1.67	0.19	0.070	1.165	0.295	0.061	1.58	0.38	0.044	1.995	0.465	0.048	2.415	0.055	0.066
0.74	0.63	0.039	1.67	0.2	0.068	1.165	0.3	0.059	1.58	0.385	0.043	1.995	0.47	0.047	2.415	0.06	0.065
0.74	0.64	0.038	1.67	0.21	0.067	1.165	0.305	0.054	1.58	0.39	0.041	1.995	0.475	0.044	2.415	0.065	0.062
0.74	0.65	0.040	1.67	0.22	0.064	1.165	0.31	0.048	1.58	0.395	0.037	1.995	0.48	0.040	2.415	0.07	0.056
0.74	0.66	0.042	1.67	0.23	0.061	1.165	0.315	0.043	1.58	0.4	0.036	1.995	0.485	0.040	2.415	0.075	0.047
0.74	0.67	0.043	1.67	0.24	0.058	1.165	0.32	0.042	1.58	0.405	0.039	1.995	0.49	0.043	2.415	0.08	0.042
0.74	0.68	0.042	1.67	0.25	0.057	1.165	0.325	0.044	1.58	0.41	0.044	1.995	0.495	0.045	2.415	0.085	0.042
0.74	0.69	0.040	1.67	0.26	0.056	1.165	0.33	0.045	1.58	0.415	0.048	2	0.005	0.060	2.415	0.09	0.050
0.74	0.7	0.038	1.67	0.27	0.053	1.165	0.335	0.044	1.58	0.42	0.050	2	0.01	0.065	2.415	0.095	0.064
0.74	0.71	0.038	1.67	0.28	0.050	1.165	0.34	0.043	1.58	0.425	0.051	2	0.015	0.070	2.415	0.1	0.072
0.74	0.72	0.039	1.67	0.29	0.048	1.165	0.345	0.041	1.58	0.43	0.052	2	0.02	0.073	2.415	0.105	0.074
0.74	0.73	0.041	1.67	0.3	0.047	1.165	0.35	0.040	1.58	0.435	0.052	2	0.025	0.073	2.415	0.11	0.072
0.74	0.74	0.041	1.67	0.31	0.047	1.165	0.355	0.041	1.58	0.44	0.051	2	0.03	0.070	2.415	0.115	0.065
0.74	0.75	0.040	1.67	0.32	0.046	1.165	0.36	0.047	1.58	0.445	0.048	2	0.035	0.065	2.415	0.12	0.056
0.74	0.76	0.039	1.67	0.33	0.046	1.165	0.365	0.054	1.58	0.45	0.044	2	0.04	0.062	2.415	0.125	0.049
0.74	0.77	0.037	1.67	0.34	0.046	1.165	0.37	0.058	1.58	0.455	0.041	2	0.045	0.061	2.415	0.13	0.045

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.74	0.78	0.036	1.67	0.35	0.046	1.165	0.375	0.059	1.58	0.46	0.042	2	0.05	0.063	2.415	0.135	0.044
0.74	0.79	0.036	1.67	0.36	0.046	1.165	0.38	0.058	1.58	0.465	0.043	2	0.055	0.067	2.415	0.14	0.043
0.74	0.8	0.038	1.67	0.37	0.044	1.165	0.385	0.055	1.58	0.47	0.044	2	0.06	0.074	2.415	0.145	0.046
0.74	0.81	0.038	1.67	0.38	0.043	1.165	0.39	0.051	1.58	0.475	0.042	2	0.065	0.081	2.415	0.15	0.057
0.74	0.82	0.038	1.67	0.39	0.043	1.165	0.395	0.046	1.58	0.48	0.040	2	0.07	0.085	2.415	0.155	0.067
0.74	0.83	0.038	1.67	0.4	0.044	1.165	0.4	0.044	1.58	0.485	0.040	2	0.075	0.086	2.415	0.16	0.074
0.74	0.84	0.039	1.67	0.41	0.045	1.165	0.405	0.047	1.58	0.49	0.043	2	0.08	0.086	2.415	0.165	0.077
0.74	0.85	0.040	1.67	0.42	0.044	1.165	0.41	0.052	1.58	0.495	0.044	2	0.085	0.085	2.415	0.17	0.076
0.74	0.86	0.039	1.67	0.43	0.044	1.165	0.415	0.056	1.585	0.005	0.033	2	0.09	0.084	2.415	0.175	0.068
0.74	0.87	0.039	1.67	0.44	0.045	1.165	0.42	0.057	1.585	0.01	0.034	2	0.095	0.081	2.415	0.18	0.055
0.74	0.88	0.040	1.67	0.45	0.047	1.165	0.425	0.055	1.585	0.015	0.036	2	0.1	0.075	2.415	0.185	0.047
0.74	0.89	0.042	1.67	0.46	0.049	1.165	0.43	0.049	1.585	0.02	0.037	2	0.105	0.066	2.415	0.19	0.044
0.75	0.01	0.041	1.67	0.47	0.048	1.165	0.435	0.043	1.585	0.025	0.039	2	0.11	0.056	2.415	0.195	0.043
0.75	0.02	0.051	1.67	0.48	0.046	1.165	0.44	0.045	1.585	0.03	0.042	2	0.115	0.051	2.415	0.2	0.043
0.75	0.03	0.058	1.67	0.49	0.045	1.165	0.445	0.050	1.585	0.035	0.043	2	0.12	0.050	2.415	0.205	0.042
0.75	0.04	0.059	1.67	0.5	0.044	1.165	0.45	0.053	1.585	0.04	0.043	2	0.125	0.051	2.415	0.21	0.043
0.75	0.05	0.056	1.67	0.51	0.044	1.165	0.455	0.052	1.585	0.045	0.044	2	0.13	0.052	2.415	0.215	0.047
0.75	0.06	0.051	1.67	0.52	0.044	1.165	0.46	0.049	1.585	0.05	0.044	2	0.135	0.056	2.415	0.22	0.051
0.75	0.07	0.047	1.67	0.53	0.047	1.165	0.465	0.045	1.585	0.055	0.044	2	0.14	0.060	2.415	0.225	0.053
0.75	0.08	0.046	1.67	0.54	0.048	1.165	0.47	0.044	1.585	0.06	0.043	2	0.145	0.064	2.415	0.23	0.054
0.75	0.09	0.047	1.67	0.55	0.049	1.165	0.475	0.046	1.585	0.065	0.043	2	0.15	0.068	2.415	0.235	0.054
0.75	0.1	0.047	1.67	0.56	0.050	1.165	0.48	0.048	1.585	0.07	0.043	2	0.155	0.071	2.415	0.24	0.055
0.75	0.11	0.046	1.67	0.57	0.049	1.165	0.485	0.049	1.585	0.075	0.044	2	0.16	0.073	2.415	0.245	0.056
0.75	0.12	0.046	1.67	0.58	0.051	1.165	0.49	0.049	1.585	0.08	0.046	2	0.165	0.073	2.415	0.25	0.058
0.75	0.13	0.047	1.67	0.59	0.055	1.165	0.495	0.048	1.585	0.085	0.050	2	0.17	0.072	2.415	0.255	0.059

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.75	0.14	0.046	1.67	0.6	0.059	1.17	0.005	0.033	1.585	0.09	0.052	2	0.175	0.068	2.415	0.26	0.060
0.75	0.15	0.045	1.67	0.61	0.061	1.17	0.01	0.033	1.585	0.095	0.054	2	0.18	0.063	2.415	0.265	0.061
0.75	0.16	0.043	1.67	0.62	0.062	1.17	0.015	0.032	1.585	0.1	0.054	2	0.185	0.057	2.415	0.27	0.060
0.75	0.17	0.043	1.67	0.63	0.059	1.17	0.02	0.032	1.585	0.105	0.052	2	0.19	0.053	2.415	0.275	0.058
0.75	0.18	0.045	1.67	0.64	0.054	1.17	0.025	0.032	1.585	0.11	0.049	2	0.195	0.049	2.415	0.28	0.054
0.75	0.19	0.045	1.67	0.65	0.049	1.17	0.03	0.032	1.585	0.115	0.046	2	0.2	0.044	2.415	0.285	0.048
0.75	0.2	0.044	1.67	0.66	0.048	1.17	0.035	0.033	1.585	0.12	0.044	2	0.205	0.041	2.415	0.29	0.044
0.75	0.21	0.043	1.67	0.67	0.047	1.17	0.04	0.033	1.585	0.125	0.044	2	0.21	0.043	2.415	0.295	0.041
0.75	0.22	0.043	1.67	0.68	0.046	1.17	0.045	0.033	1.585	0.13	0.046	2	0.215	0.047	2.415	0.3	0.038
0.75	0.23	0.043	1.67	0.69	0.044	1.17	0.05	0.034	1.585	0.135	0.047	2	0.22	0.049	2.415	0.305	0.035
0.75	0.24	0.043	1.67	0.7	0.042	1.17	0.055	0.035	1.585	0.14	0.045	2	0.225	0.047	2.415	0.31	0.034
0.75	0.25	0.045	1.67	0.71	0.042	1.17	0.06	0.036	1.585	0.145	0.043	2	0.23	0.044	2.415	0.315	0.037
0.75	0.26	0.046	1.67	0.72	0.044	1.17	0.065	0.036	1.585	0.15	0.040	2	0.235	0.041	2.415	0.32	0.040
0.75	0.27	0.045	1.67	0.73	0.045	1.17	0.07	0.035	1.585	0.155	0.037	2	0.24	0.041	2.415	0.325	0.038
0.75	0.28	0.044	1.67	0.74	0.045	1.17	0.075	0.034	1.585	0.16	0.037	2	0.245	0.042	2.415	0.33	0.038
0.75	0.29	0.044	1.67	0.75	0.047	1.17	0.08	0.035	1.585	0.165	0.041	2	0.25	0.044	2.415	0.335	0.039
0.75	0.3	0.042	1.67	0.76	0.048	1.17	0.085	0.036	1.585	0.17	0.046	2	0.255	0.045	2.415	0.34	0.039
0.75	0.31	0.039	1.67	0.77	0.047	1.17	0.09	0.038	1.585	0.175	0.049	2	0.26	0.045	2.415	0.345	0.037
0.75	0.32	0.038	1.67	0.78	0.043	1.17	0.095	0.038	1.585	0.18	0.049	2	0.265	0.045	2.415	0.35	0.035
0.75	0.33	0.039	1.67	0.79	0.040	1.17	0.1	0.037	1.585	0.185	0.048	2	0.27	0.043	2.415	0.355	0.037
0.75	0.34	0.042	1.67	0.8	0.041	1.17	0.105	0.035	1.585	0.19	0.048	2	0.275	0.041	2.415	0.36	0.042
0.75	0.35	0.046	1.67	0.81	0.044	1.17	0.11	0.034	1.585	0.195	0.049	2	0.28	0.040	2.415	0.365	0.046
0.75	0.36	0.048	1.67	0.82	0.049	1.17	0.115	0.034	1.585	0.2	0.048	2	0.285	0.041	2.415	0.37	0.049
0.75	0.37	0.048	1.67	0.83	0.052	1.17	0.12	0.036	1.585	0.205	0.044	2	0.29	0.042	2.415	0.375	0.049
0.75	0.38	0.047	1.67	0.84	0.052	1.17	0.125	0.041	1.585	0.21	0.041	2	0.295	0.042	2.415	0.38	0.049

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.75	0.39	0.044	1.67	0.85	0.055	1.17	0.13	0.046	1.585	0.215	0.038	2	0.3	0.042	2.415	0.385	0.048
0.75	0.4	0.041	1.67	0.86	0.057	1.17	0.135	0.051	1.585	0.22	0.039	2	0.305	0.045	2.415	0.39	0.047
0.75	0.41	0.039	1.67	0.87	0.059	1.17	0.14	0.051	1.585	0.225	0.043	2	0.31	0.045	2.415	0.395	0.047
0.75	0.42	0.039	1.67	0.88	0.058	1.17	0.145	0.048	1.585	0.23	0.046	2	0.315	0.043	2.415	0.4	0.047
0.75	0.43	0.039	1.67	0.89	0.057	1.17	0.15	0.043	1.585	0.235	0.049	2	0.32	0.041	2.415	0.405	0.047
0.75	0.44	0.040	1.68	0.01	0.051	1.17	0.155	0.039	1.585	0.24	0.051	2	0.325	0.042	2.415	0.41	0.046
0.75	0.45	0.041	1.68	0.02	0.052	1.17	0.16	0.035	1.585	0.245	0.052	2	0.33	0.045	2.415	0.415	0.045
0.75	0.46	0.041	1.68	0.03	0.052	1.17	0.165	0.033	1.585	0.25	0.051	2	0.335	0.047	2.415	0.42	0.044
0.75	0.47	0.042	1.68	0.04	0.055	1.17	0.17	0.033	1.585	0.255	0.047	2	0.34	0.045	2.415	0.425	0.041
0.75	0.48	0.042	1.68	0.05	0.059	1.17	0.175	0.035	1.585	0.26	0.042	2	0.345	0.041	2.415	0.43	0.039
0.75	0.49	0.042	1.68	0.06	0.063	1.17	0.18	0.038	1.585	0.265	0.039	2	0.35	0.041	2.415	0.435	0.042
0.75	0.5	0.040	1.68	0.07	0.068	1.17	0.185	0.041	1.585	0.27	0.038	2	0.355	0.044	2.415	0.44	0.044
0.75	0.51	0.040	1.68	0.08	0.075	1.17	0.19	0.043	1.585	0.275	0.038	2	0.36	0.046	2.415	0.445	0.045
0.75	0.52	0.040	1.68	0.09	0.081	1.17	0.195	0.047	1.585	0.28	0.039	2	0.365	0.046	2.415	0.45	0.045
0.75	0.53	0.040	1.68	0.1	0.083	1.17	0.2	0.051	1.585	0.285	0.043	2	0.37	0.044	2.415	0.455	0.042
0.75	0.54	0.040	1.68	0.11	0.079	1.17	0.205	0.053	1.585	0.29	0.049	2	0.375	0.045	2.415	0.46	0.038
0.75	0.55	0.042	1.68	0.12	0.073	1.17	0.21	0.053	1.585	0.295	0.051	2	0.38	0.048	2.415	0.465	0.036
0.75	0.56	0.042	1.68	0.13	0.069	1.17	0.215	0.053	1.585	0.3	0.050	2	0.385	0.050	2.415	0.47	0.038
0.75	0.57	0.043	1.68	0.14	0.069	1.17	0.22	0.052	1.585	0.305	0.048	2	0.39	0.051	2.415	0.475	0.041
0.75	0.58	0.045	1.68	0.15	0.069	1.17	0.225	0.049	1.585	0.31	0.047	2	0.395	0.050	2.415	0.48	0.045
0.75	0.59	0.046	1.68	0.16	0.068	1.17	0.23	0.044	1.585	0.315	0.045	2	0.4	0.046	2.415	0.485	0.045
0.75	0.6	0.046	1.68	0.17	0.068	1.17	0.235	0.037	1.585	0.32	0.044	2	0.405	0.042	2.415	0.49	0.043
0.75	0.61	0.044	1.68	0.18	0.069	1.17	0.24	0.034	1.585	0.325	0.042	2	0.41	0.038	2.415	0.495	0.044
0.75	0.62	0.042	1.68	0.19	0.068	1.17	0.245	0.037	1.585	0.33	0.039	2	0.415	0.038	2.42	0.005	0.055
0.75	0.63	0.040	1.68	0.2	0.067	1.17	0.25	0.046	1.585	0.335	0.038	2	0.42	0.039	2.42	0.01	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.75	0.64	0.039	1.68	0.21	0.065	1.17	0.255	0.052	1.585	0.34	0.039	2	0.425	0.040	2.42	0.015	0.067
0.75	0.65	0.039	1.68	0.22	0.062	1.17	0.26	0.054	1.585	0.345	0.040	2	0.43	0.041	2.42	0.02	0.069
0.75	0.66	0.041	1.68	0.23	0.059	1.17	0.265	0.051	1.585	0.35	0.039	2	0.435	0.043	2.42	0.025	0.066
0.75	0.67	0.042	1.68	0.24	0.056	1.17	0.27	0.046	1.585	0.355	0.039	2	0.44	0.043	2.42	0.03	0.060
0.75	0.68	0.042	1.68	0.25	0.054	1.17	0.275	0.041	1.585	0.36	0.041	2	0.445	0.042	2.42	0.035	0.055
0.75	0.69	0.041	1.68	0.26	0.054	1.17	0.28	0.040	1.585	0.365	0.043	2	0.45	0.040	2.42	0.04	0.051
0.75	0.7	0.039	1.68	0.27	0.053	1.17	0.285	0.049	1.585	0.37	0.044	2	0.455	0.041	2.42	0.045	0.057
0.75	0.71	0.040	1.68	0.28	0.051	1.17	0.29	0.056	1.585	0.375	0.044	2	0.46	0.043	2.42	0.05	0.065
0.75	0.72	0.041	1.68	0.29	0.049	1.17	0.295	0.060	1.585	0.38	0.043	2	0.465	0.045	2.42	0.055	0.068
0.75	0.73	0.042	1.68	0.3	0.048	1.17	0.3	0.061	1.585	0.385	0.043	2	0.47	0.044	2.42	0.06	0.067
0.75	0.74	0.042	1.68	0.31	0.048	1.17	0.305	0.057	1.585	0.39	0.042	2	0.475	0.042	2.42	0.065	0.063
0.75	0.75	0.040	1.68	0.32	0.047	1.17	0.31	0.051	1.585	0.395	0.041	2	0.48	0.040	2.42	0.07	0.056
0.75	0.76	0.038	1.68	0.33	0.046	1.17	0.315	0.047	1.585	0.4	0.039	2	0.485	0.039	2.42	0.075	0.048
0.75	0.77	0.037	1.68	0.34	0.045	1.17	0.32	0.046	1.585	0.405	0.040	2	0.49	0.042	2.42	0.08	0.044
0.75	0.78	0.036	1.68	0.35	0.045	1.17	0.325	0.048	1.585	0.41	0.044	2	0.495	0.044	2.42	0.085	0.046
0.75	0.79	0.036	1.68	0.36	0.045	1.17	0.33	0.049	1.585	0.415	0.047	2.005	0.005	0.064	2.42	0.09	0.054
0.75	0.8	0.037	1.68	0.37	0.045	1.17	0.335	0.048	1.585	0.42	0.049	2.005	0.01	0.068	2.42	0.095	0.064
0.75	0.81	0.038	1.68	0.38	0.045	1.17	0.34	0.046	1.585	0.425	0.050	2.005	0.015	0.072	2.42	0.1	0.071
0.75	0.82	0.039	1.68	0.39	0.046	1.17	0.345	0.044	1.585	0.43	0.051	2.005	0.02	0.073	2.42	0.105	0.073
0.75	0.83	0.039	1.68	0.4	0.046	1.17	0.35	0.041	1.585	0.435	0.052	2.005	0.025	0.071	2.42	0.11	0.071
0.75	0.84	0.038	1.68	0.41	0.046	1.17	0.355	0.039	1.585	0.44	0.051	2.005	0.03	0.065	2.42	0.115	0.065
0.75	0.85	0.038	1.68	0.42	0.046	1.17	0.36	0.039	1.585	0.445	0.049	2.005	0.035	0.059	2.42	0.12	0.057
0.75	0.86	0.039	1.68	0.43	0.046	1.17	0.365	0.045	1.585	0.45	0.046	2.005	0.04	0.057	2.42	0.125	0.052
0.75	0.87	0.040	1.68	0.44	0.046	1.17	0.37	0.051	1.585	0.455	0.044	2.005	0.045	0.060	2.42	0.13	0.050
0.75	0.88	0.042	1.68	0.45	0.047	1.17	0.375	0.054	1.585	0.46	0.045	2.005	0.05	0.064	2.42	0.135	0.048

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.75	0.89	0.044	1.68	0.46	0.048	1.17	0.38	0.053	1.585	0.465	0.047	2.005	0.055	0.067	2.42	0.14	0.047
0.76	0.01	0.043	1.68	0.47	0.048	1.17	0.385	0.050	1.585	0.47	0.047	2.005	0.06	0.069	2.42	0.145	0.050
0.76	0.02	0.052	1.68	0.48	0.047	1.17	0.39	0.046	1.585	0.475	0.045	2.005	0.065	0.074	2.42	0.15	0.062
0.76	0.03	0.058	1.68	0.49	0.045	1.17	0.395	0.043	1.585	0.48	0.043	2.005	0.07	0.079	2.42	0.155	0.071
0.76	0.04	0.058	1.68	0.5	0.045	1.17	0.4	0.042	1.585	0.485	0.042	2.005	0.075	0.083	2.42	0.16	0.077
0.76	0.05	0.055	1.68	0.51	0.044	1.17	0.405	0.047	1.585	0.49	0.045	2.005	0.08	0.084	2.42	0.165	0.079
0.76	0.06	0.050	1.68	0.52	0.045	1.17	0.41	0.052	1.585	0.495	0.047	2.005	0.085	0.083	2.42	0.17	0.077
0.76	0.07	0.047	1.68	0.53	0.048	1.17	0.415	0.056	1.59	0.005	0.034	2.005	0.09	0.080	2.42	0.175	0.071
0.76	0.08	0.047	1.68	0.54	0.049	1.17	0.42	0.056	1.59	0.01	0.036	2.005	0.095	0.075	2.42	0.18	0.057
0.76	0.09	0.049	1.68	0.55	0.051	1.17	0.425	0.052	1.59	0.015	0.037	2.005	0.1	0.067	2.42	0.185	0.046
0.76	0.1	0.049	1.68	0.56	0.052	1.17	0.43	0.045	1.59	0.02	0.039	2.005	0.105	0.057	2.42	0.19	0.042
0.76	0.11	0.049	1.68	0.57	0.051	1.17	0.435	0.037	1.59	0.025	0.041	2.005	0.11	0.048	2.42	0.195	0.041
0.76	0.12	0.050	1.68	0.58	0.051	1.17	0.44	0.037	1.59	0.03	0.044	2.005	0.115	0.045	2.42	0.2	0.040
0.76	0.13	0.051	1.68	0.59	0.054	1.17	0.445	0.043	1.59	0.035	0.045	2.005	0.12	0.047	2.42	0.205	0.042
0.76	0.14	0.050	1.68	0.6	0.057	1.17	0.45	0.048	1.59	0.04	0.046	2.005	0.125	0.050	2.42	0.21	0.048
0.76	0.15	0.047	1.68	0.61	0.060	1.17	0.455	0.049	1.59	0.045	0.046	2.005	0.13	0.055	2.42	0.215	0.054
0.76	0.16	0.044	1.68	0.62	0.061	1.17	0.46	0.046	1.59	0.05	0.047	2.005	0.135	0.059	2.42	0.22	0.057
0.76	0.17	0.043	1.68	0.63	0.058	1.17	0.465	0.044	1.59	0.055	0.046	2.005	0.14	0.064	2.42	0.225	0.059
0.76	0.18	0.043	1.68	0.64	0.053	1.17	0.47	0.045	1.59	0.06	0.045	2.005	0.145	0.069	2.42	0.23	0.059
0.76	0.19	0.042	1.68	0.65	0.048	1.17	0.475	0.048	1.59	0.065	0.043	2.005	0.15	0.072	2.42	0.235	0.057
0.76	0.2	0.040	1.68	0.66	0.048	1.17	0.48	0.049	1.59	0.07	0.043	2.005	0.155	0.075	2.42	0.24	0.056
0.76	0.21	0.040	1.68	0.67	0.048	1.17	0.485	0.048	1.59	0.075	0.043	2.005	0.16	0.076	2.42	0.245	0.055
0.76	0.22	0.041	1.68	0.68	0.048	1.17	0.49	0.047	1.59	0.08	0.046	2.005	0.165	0.075	2.42	0.25	0.056
0.76	0.23	0.042	1.68	0.69	0.046	1.17	0.495	0.046	1.59	0.085	0.051	2.005	0.17	0.072	2.42	0.255	0.057
0.76	0.24	0.045	1.68	0.7	0.044	1.175	0.005	0.033	1.59	0.09	0.054	2.005	0.175	0.067	2.42	0.26	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.76	0.25	0.047	1.68	0.71	0.044	1.175	0.01	0.032	1.59	0.095	0.056	2.005	0.18	0.061	2.42	0.265	0.059
0.76	0.26	0.048	1.68	0.72	0.046	1.175	0.015	0.032	1.59	0.1	0.056	2.005	0.185	0.054	2.42	0.27	0.058
0.76	0.27	0.046	1.68	0.73	0.046	1.175	0.02	0.032	1.59	0.105	0.055	2.005	0.19	0.049	2.42	0.275	0.055
0.76	0.28	0.044	1.68	0.74	0.046	1.175	0.025	0.032	1.59	0.11	0.053	2.005	0.195	0.046	2.42	0.28	0.049
0.76	0.29	0.043	1.68	0.75	0.046	1.175	0.03	0.032	1.59	0.115	0.051	2.005	0.2	0.044	2.42	0.285	0.044
0.76	0.3	0.042	1.68	0.76	0.045	1.175	0.035	0.032	1.59	0.12	0.048	2.005	0.205	0.043	2.42	0.29	0.040
0.76	0.31	0.041	1.68	0.77	0.043	1.175	0.04	0.033	1.59	0.125	0.046	2.005	0.21	0.042	2.42	0.295	0.037
0.76	0.32	0.039	1.68	0.78	0.040	1.175	0.045	0.034	1.59	0.13	0.046	2.005	0.215	0.044	2.42	0.3	0.035
0.76	0.33	0.039	1.68	0.79	0.037	1.175	0.05	0.035	1.59	0.135	0.046	2.005	0.22	0.046	2.42	0.305	0.034
0.76	0.34	0.041	1.68	0.8	0.038	1.175	0.055	0.035	1.59	0.14	0.044	2.005	0.225	0.047	2.42	0.31	0.034
0.76	0.35	0.044	1.68	0.81	0.043	1.175	0.06	0.036	1.59	0.145	0.042	2.005	0.23	0.045	2.42	0.315	0.036
0.76	0.36	0.046	1.68	0.82	0.049	1.175	0.065	0.036	1.59	0.15	0.040	2.005	0.235	0.042	2.42	0.32	0.039
0.76	0.37	0.047	1.68	0.83	0.054	1.175	0.07	0.035	1.59	0.155	0.039	2.005	0.24	0.042	2.42	0.325	0.039
0.76	0.38	0.045	1.68	0.84	0.056	1.175	0.075	0.034	1.59	0.16	0.042	2.005	0.245	0.042	2.42	0.33	0.038
0.76	0.39	0.043	1.68	0.85	0.059	1.175	0.08	0.033	1.59	0.165	0.048	2.005	0.25	0.043	2.42	0.335	0.040
0.76	0.4	0.041	1.68	0.86	0.063	1.175	0.085	0.033	1.59	0.17	0.052	2.005	0.255	0.044	2.42	0.34	0.039
0.76	0.41	0.040	1.68	0.87	0.064	1.175	0.09	0.034	1.59	0.175	0.055	2.005	0.26	0.045	2.42	0.345	0.037
0.76	0.42	0.040	1.68	0.88	0.061	1.175	0.095	0.034	1.59	0.18	0.054	2.005	0.265	0.045	2.42	0.35	0.035
0.76	0.43	0.041	1.68	0.89	0.059	1.175	0.1	0.034	1.59	0.185	0.052	2.005	0.27	0.044	2.42	0.355	0.036
0.76	0.44	0.042	1.69	0.01	0.056	1.175	0.105	0.034	1.59	0.19	0.048	2.005	0.275	0.042	2.42	0.36	0.043
0.76	0.45	0.043	1.69	0.02	0.058	1.175	0.11	0.033	1.59	0.195	0.044	2.005	0.28	0.043	2.42	0.365	0.049
0.76	0.46	0.042	1.69	0.03	0.058	1.175	0.115	0.033	1.59	0.2	0.042	2.005	0.285	0.043	2.42	0.37	0.053
0.76	0.47	0.041	1.69	0.04	0.058	1.175	0.12	0.036	1.59	0.205	0.041	2.005	0.29	0.043	2.42	0.375	0.054
0.76	0.48	0.041	1.69	0.05	0.059	1.175	0.125	0.041	1.59	0.21	0.042	2.005	0.295	0.041	2.42	0.38	0.054
0.76	0.49	0.041	1.69	0.06	0.061	1.175	0.13	0.047	1.59	0.215	0.042	2.005	0.3	0.040	2.42	0.385	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.76	0.5	0.042	1.69	0.07	0.065	1.175	0.135	0.050	1.59	0.22	0.041	2.005	0.305	0.040	2.42	0.39	0.050
0.76	0.51	0.043	1.69	0.08	0.073	1.175	0.14	0.048	1.59	0.225	0.043	2.005	0.31	0.040	2.42	0.395	0.048
0.76	0.52	0.043	1.69	0.09	0.083	1.175	0.145	0.043	1.59	0.23	0.044	2.005	0.315	0.038	2.42	0.4	0.047
0.76	0.53	0.042	1.69	0.1	0.086	1.175	0.15	0.038	1.59	0.235	0.046	2.005	0.32	0.037	2.42	0.405	0.048
0.76	0.54	0.041	1.69	0.11	0.082	1.175	0.155	0.034	1.59	0.24	0.047	2.005	0.325	0.039	2.42	0.41	0.046
0.76	0.55	0.042	1.69	0.12	0.074	1.175	0.16	0.032	1.59	0.245	0.048	2.005	0.33	0.043	2.42	0.415	0.044
0.76	0.56	0.042	1.69	0.13	0.067	1.175	0.165	0.032	1.59	0.25	0.047	2.005	0.335	0.045	2.42	0.42	0.044
0.76	0.57	0.042	1.69	0.14	0.065	1.175	0.17	0.033	1.59	0.255	0.044	2.005	0.34	0.043	2.42	0.425	0.042
0.76	0.58	0.043	1.69	0.15	0.065	1.175	0.175	0.036	1.59	0.26	0.040	2.005	0.345	0.040	2.42	0.43	0.040
0.76	0.59	0.044	1.69	0.16	0.064	1.175	0.18	0.040	1.59	0.265	0.038	2.005	0.35	0.042	2.42	0.435	0.043
0.76	0.6	0.045	1.69	0.17	0.064	1.175	0.185	0.043	1.59	0.27	0.036	2.005	0.355	0.048	2.42	0.44	0.047
0.76	0.61	0.044	1.69	0.18	0.064	1.175	0.19	0.046	1.59	0.275	0.035	2.005	0.36	0.051	2.42	0.445	0.049
0.76	0.62	0.043	1.69	0.19	0.063	1.175	0.195	0.051	1.59	0.28	0.038	2.005	0.365	0.051	2.42	0.45	0.050
0.76	0.63	0.041	1.69	0.2	0.062	1.175	0.2	0.054	1.59	0.285	0.044	2.005	0.37	0.049	2.42	0.455	0.048
0.76	0.64	0.039	1.69	0.21	0.061	1.175	0.205	0.055	1.59	0.29	0.048	2.005	0.375	0.047	2.42	0.46	0.042
0.76	0.65	0.039	1.69	0.22	0.058	1.175	0.21	0.054	1.59	0.295	0.049	2.005	0.38	0.045	2.42	0.465	0.037
0.76	0.66	0.039	1.69	0.23	0.056	1.175	0.215	0.053	1.59	0.3	0.047	2.005	0.385	0.046	2.42	0.47	0.037
0.76	0.67	0.040	1.69	0.24	0.053	1.175	0.22	0.051	1.59	0.305	0.046	2.005	0.39	0.046	2.42	0.475	0.040
0.76	0.68	0.041	1.69	0.25	0.052	1.175	0.225	0.048	1.59	0.31	0.044	2.005	0.395	0.045	2.42	0.48	0.046
0.76	0.69	0.041	1.69	0.26	0.052	1.175	0.23	0.042	1.59	0.315	0.043	2.005	0.4	0.042	2.42	0.485	0.047
0.76	0.7	0.040	1.69	0.27	0.052	1.175	0.235	0.036	1.59	0.32	0.042	2.005	0.405	0.039	2.42	0.49	0.045
0.76	0.71	0.040	1.69	0.28	0.051	1.175	0.24	0.034	1.59	0.325	0.040	2.005	0.41	0.038	2.42	0.495	0.044
0.76	0.72	0.042	1.69	0.29	0.049	1.175	0.245	0.038	1.59	0.33	0.038	2.005	0.415	0.040	2.425	0.005	0.055
0.76	0.73	0.042	1.69	0.3	0.049	1.175	0.25	0.044	1.59	0.335	0.037	2.005	0.42	0.043	2.425	0.01	0.063
0.76	0.74	0.042	1.69	0.31	0.049	1.175	0.255	0.049	1.59	0.34	0.039	2.005	0.425	0.043	2.425	0.015	0.068

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.76	0.75	0.040	1.69	0.32	0.048	1.175	0.26	0.051	1.59	0.345	0.040	2.005	0.43	0.041	2.425	0.02	0.070
0.76	0.76	0.038	1.69	0.33	0.046	1.175	0.265	0.048	1.59	0.35	0.040	2.005	0.435	0.041	2.425	0.025	0.067
0.76	0.77	0.037	1.69	0.34	0.043	1.175	0.27	0.044	1.59	0.355	0.038	2.005	0.44	0.042	2.425	0.03	0.061
0.76	0.78	0.036	1.69	0.35	0.043	1.175	0.275	0.040	1.59	0.36	0.038	2.005	0.445	0.041	2.425	0.035	0.055
0.76	0.79	0.035	1.69	0.36	0.044	1.175	0.28	0.039	1.59	0.365	0.040	2.005	0.45	0.040	2.425	0.04	0.050
0.76	0.8	0.036	1.69	0.37	0.046	1.175	0.285	0.047	1.59	0.37	0.043	2.005	0.455	0.041	2.425	0.045	0.053
0.76	0.81	0.037	1.69	0.38	0.048	1.175	0.29	0.054	1.59	0.375	0.044	2.005	0.46	0.043	2.425	0.05	0.063
0.76	0.82	0.038	1.69	0.39	0.049	1.175	0.295	0.058	1.59	0.38	0.045	2.005	0.465	0.045	2.425	0.055	0.068
0.76	0.83	0.039	1.69	0.4	0.049	1.175	0.3	0.060	1.59	0.385	0.045	2.005	0.47	0.046	2.425	0.06	0.066
0.76	0.84	0.038	1.69	0.41	0.049	1.175	0.305	0.057	1.59	0.39	0.045	2.005	0.475	0.045	2.425	0.065	0.062
0.76	0.85	0.038	1.69	0.42	0.048	1.175	0.31	0.052	1.59	0.395	0.043	2.005	0.48	0.044	2.425	0.07	0.055
0.76	0.86	0.039	1.69	0.43	0.047	1.175	0.315	0.049	1.59	0.4	0.041	2.005	0.485	0.042	2.425	0.075	0.051
0.76	0.87	0.041	1.69	0.44	0.047	1.175	0.32	0.050	1.59	0.405	0.040	2.005	0.49	0.043	2.425	0.08	0.051
0.76	0.88	0.043	1.69	0.45	0.047	1.175	0.325	0.051	1.59	0.41	0.042	2.005	0.495	0.046	2.425	0.085	0.054
0.76	0.89	0.045	1.69	0.46	0.048	1.175	0.33	0.051	1.59	0.415	0.045	2.01	0.005	0.070	2.425	0.09	0.061
0.77	0.01	0.044	1.69	0.47	0.048	1.175	0.335	0.049	1.59	0.42	0.047	2.01	0.01	0.073	2.425	0.095	0.066
0.77	0.02	0.052	1.69	0.48	0.049	1.175	0.34	0.047	1.59	0.425	0.049	2.01	0.015	0.074	2.425	0.1	0.068
0.77	0.03	0.057	1.69	0.49	0.049	1.175	0.345	0.044	1.59	0.43	0.050	2.01	0.02	0.073	2.425	0.105	0.068
0.77	0.04	0.057	1.69	0.5	0.048	1.175	0.35	0.040	1.59	0.435	0.051	2.01	0.025	0.067	2.425	0.11	0.066
0.77	0.05	0.054	1.69	0.51	0.046	1.175	0.355	0.037	1.59	0.44	0.051	2.01	0.03	0.059	2.425	0.115	0.062
0.77	0.06	0.051	1.69	0.52	0.046	1.175	0.36	0.035	1.59	0.445	0.049	2.01	0.035	0.052	2.425	0.12	0.057
0.77	0.07	0.048	1.69	0.53	0.048	1.175	0.365	0.038	1.59	0.45	0.046	2.01	0.04	0.050	2.425	0.125	0.054
0.77	0.08	0.048	1.69	0.54	0.050	1.175	0.37	0.044	1.59	0.455	0.045	2.01	0.045	0.057	2.425	0.13	0.053
0.77	0.09	0.049	1.69	0.55	0.052	1.175	0.375	0.048	1.59	0.46	0.046	2.01	0.05	0.064	2.425	0.135	0.051
0.77	0.1	0.050	1.69	0.56	0.054	1.175	0.38	0.050	1.59	0.465	0.048	2.01	0.055	0.067	2.425	0.14	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.77	0.11	0.051	1.69	0.57	0.054	1.175	0.385	0.048	1.59	0.47	0.049	2.01	0.06	0.067	2.425	0.145	0.054
0.77	0.12	0.053	1.69	0.58	0.053	1.175	0.39	0.044	1.59	0.475	0.048	2.01	0.065	0.067	2.425	0.15	0.065
0.77	0.13	0.054	1.69	0.59	0.053	1.175	0.395	0.041	1.59	0.48	0.045	2.01	0.07	0.070	2.425	0.155	0.073
0.77	0.14	0.053	1.69	0.6	0.055	1.175	0.4	0.040	1.59	0.485	0.044	2.01	0.075	0.075	2.425	0.16	0.077
0.77	0.15	0.050	1.69	0.61	0.058	1.175	0.405	0.046	1.59	0.49	0.047	2.01	0.08	0.077	2.425	0.165	0.078
0.77	0.16	0.045	1.69	0.62	0.058	1.175	0.41	0.052	1.59	0.495	0.050	2.01	0.085	0.076	2.425	0.17	0.077
0.77	0.17	0.042	1.69	0.63	0.055	1.175	0.415	0.055	1.595	0.005	0.037	2.01	0.09	0.072	2.425	0.175	0.070
0.77	0.18	0.040	1.69	0.64	0.050	1.175	0.42	0.054	1.595	0.01	0.038	2.01	0.095	0.066	2.425	0.18	0.057
0.77	0.19	0.038	1.69	0.65	0.046	1.175	0.425	0.047	1.595	0.015	0.039	2.01	0.1	0.060	2.425	0.185	0.046
0.77	0.2	0.037	1.69	0.66	0.046	1.175	0.43	0.040	1.595	0.02	0.040	2.01	0.105	0.055	2.425	0.19	0.043
0.77	0.21	0.037	1.69	0.67	0.047	1.175	0.435	0.035	1.595	0.025	0.042	2.01	0.11	0.051	2.425	0.195	0.043
0.77	0.22	0.039	1.69	0.68	0.047	1.175	0.44	0.033	1.595	0.03	0.044	2.01	0.115	0.049	2.425	0.2	0.043
0.77	0.23	0.042	1.69	0.69	0.047	1.175	0.445	0.036	1.595	0.035	0.046	2.01	0.12	0.053	2.425	0.205	0.046
0.77	0.24	0.046	1.69	0.7	0.046	1.175	0.45	0.041	1.595	0.04	0.047	2.01	0.125	0.058	2.425	0.21	0.053
0.77	0.25	0.050	1.69	0.71	0.045	1.175	0.455	0.043	1.595	0.045	0.048	2.01	0.13	0.060	2.425	0.215	0.059
0.77	0.26	0.050	1.69	0.72	0.046	1.175	0.46	0.044	1.595	0.05	0.048	2.01	0.135	0.061	2.425	0.22	0.062
0.77	0.27	0.047	1.69	0.73	0.046	1.175	0.465	0.044	1.595	0.055	0.047	2.01	0.14	0.066	2.425	0.225	0.063
0.77	0.28	0.044	1.69	0.74	0.045	1.175	0.47	0.046	1.595	0.06	0.045	2.01	0.145	0.071	2.425	0.23	0.064
0.77	0.29	0.043	1.69	0.75	0.044	1.175	0.475	0.047	1.595	0.065	0.045	2.01	0.15	0.075	2.425	0.235	0.063
0.77	0.3	0.044	1.69	0.76	0.043	1.175	0.48	0.047	1.595	0.07	0.047	2.01	0.155	0.077	2.425	0.24	0.062
0.77	0.31	0.043	1.69	0.77	0.041	1.175	0.485	0.045	1.595	0.075	0.049	2.01	0.16	0.076	2.425	0.245	0.060
0.77	0.32	0.041	1.69	0.78	0.038	1.175	0.49	0.044	1.595	0.08	0.051	2.01	0.165	0.073	2.425	0.25	0.057
0.77	0.33	0.040	1.69	0.79	0.036	1.175	0.495	0.045	1.595	0.085	0.052	2.01	0.17	0.067	2.425	0.255	0.054
0.77	0.34	0.040	1.69	0.8	0.037	1.18	0.005	0.033	1.595	0.09	0.054	2.01	0.175	0.062	2.425	0.26	0.053
0.77	0.35	0.042	1.69	0.81	0.041	1.18	0.01	0.032	1.595	0.095	0.056	2.01	0.18	0.055	2.425	0.265	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.77	0.36	0.043	1.69	0.82	0.047	1.18	0.015	0.032	1.595	0.1	0.056	2.01	0.185	0.049	2.425	0.27	0.052
0.77	0.37	0.042	1.69	0.83	0.054	1.18	0.02	0.031	1.595	0.105	0.055	2.01	0.19	0.045	2.425	0.275	0.049
0.77	0.38	0.042	1.69	0.84	0.060	1.18	0.025	0.031	1.595	0.11	0.053	2.01	0.195	0.044	2.425	0.28	0.043
0.77	0.39	0.041	1.69	0.85	0.065	1.18	0.03	0.031	1.595	0.115	0.052	2.01	0.2	0.045	2.425	0.285	0.039
0.77	0.4	0.041	1.69	0.86	0.068	1.18	0.035	0.032	1.595	0.12	0.049	2.01	0.205	0.044	2.425	0.29	0.037
0.77	0.41	0.042	1.69	0.87	0.068	1.18	0.04	0.032	1.595	0.125	0.045	2.01	0.21	0.043	2.425	0.295	0.036
0.77	0.42	0.043	1.69	0.88	0.065	1.18	0.045	0.033	1.595	0.13	0.042	2.01	0.215	0.044	2.425	0.3	0.036
0.77	0.43	0.044	1.69	0.89	0.061	1.18	0.05	0.035	1.595	0.135	0.042	2.01	0.22	0.047	2.425	0.305	0.035
0.77	0.44	0.044	1.7	0.01	0.062	1.18	0.055	0.035	1.595	0.14	0.043	2.01	0.225	0.049	2.425	0.31	0.035
0.77	0.45	0.043	1.7	0.02	0.065	1.18	0.06	0.036	1.595	0.145	0.042	2.01	0.23	0.049	2.425	0.315	0.035
0.77	0.46	0.041	1.7	0.03	0.065	1.18	0.065	0.036	1.595	0.15	0.040	2.01	0.235	0.048	2.425	0.32	0.037
0.77	0.47	0.040	1.7	0.04	0.061	1.18	0.07	0.035	1.595	0.155	0.042	2.01	0.24	0.046	2.425	0.325	0.037
0.77	0.48	0.040	1.7	0.05	0.059	1.18	0.075	0.034	1.595	0.16	0.048	2.01	0.245	0.045	2.425	0.33	0.037
0.77	0.49	0.041	1.7	0.06	0.060	1.18	0.08	0.033	1.595	0.165	0.053	2.01	0.25	0.043	2.425	0.335	0.038
0.77	0.5	0.044	1.7	0.07	0.063	1.18	0.085	0.033	1.595	0.17	0.057	2.01	0.255	0.042	2.425	0.34	0.038
0.77	0.51	0.045	1.7	0.08	0.071	1.18	0.09	0.032	1.595	0.175	0.058	2.01	0.26	0.043	2.425	0.345	0.037
0.77	0.52	0.045	1.7	0.09	0.080	1.18	0.095	0.033	1.595	0.18	0.058	2.01	0.265	0.043	2.425	0.35	0.035
0.77	0.53	0.043	1.7	0.1	0.085	1.18	0.1	0.033	1.595	0.185	0.056	2.01	0.27	0.043	2.425	0.355	0.036
0.77	0.54	0.042	1.7	0.11	0.080	1.18	0.105	0.033	1.595	0.19	0.050	2.01	0.275	0.042	2.425	0.36	0.042
0.77	0.55	0.042	1.7	0.12	0.071	1.18	0.11	0.033	1.595	0.195	0.043	2.01	0.28	0.043	2.425	0.365	0.048
0.77	0.56	0.042	1.7	0.13	0.063	1.18	0.115	0.034	1.595	0.2	0.042	2.01	0.285	0.043	2.425	0.37	0.053
0.77	0.57	0.042	1.7	0.14	0.059	1.18	0.12	0.037	1.595	0.205	0.046	2.01	0.29	0.042	2.425	0.375	0.056
0.77	0.58	0.043	1.7	0.15	0.059	1.18	0.125	0.041	1.595	0.21	0.049	2.01	0.295	0.041	2.425	0.38	0.056
0.77	0.59	0.044	1.7	0.16	0.060	1.18	0.13	0.045	1.595	0.215	0.050	2.01	0.3	0.041	2.425	0.385	0.055
0.77	0.6	0.044	1.7	0.17	0.059	1.18	0.135	0.047	1.595	0.22	0.049	2.01	0.305	0.042	2.425	0.39	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.77	0.61	0.044	1.7	0.18	0.058	1.18	0.14	0.045	1.595	0.225	0.045	2.01	0.31	0.040	2.425	0.395	0.049
0.77	0.62	0.043	1.7	0.19	0.058	1.18	0.145	0.040	1.595	0.23	0.042	2.01	0.315	0.037	2.425	0.4	0.048
0.77	0.63	0.041	1.7	0.2	0.057	1.18	0.15	0.035	1.595	0.235	0.041	2.01	0.32	0.035	2.425	0.405	0.049
0.77	0.64	0.039	1.7	0.21	0.057	1.18	0.155	0.032	1.595	0.24	0.043	2.01	0.325	0.035	2.425	0.41	0.049
0.77	0.65	0.038	1.7	0.22	0.056	1.18	0.16	0.031	1.595	0.245	0.044	2.01	0.33	0.038	2.425	0.415	0.045
0.77	0.66	0.038	1.7	0.23	0.054	1.18	0.165	0.031	1.595	0.25	0.043	2.01	0.335	0.040	2.425	0.42	0.043
0.77	0.67	0.039	1.7	0.24	0.052	1.18	0.17	0.033	1.595	0.255	0.042	2.01	0.34	0.039	2.425	0.425	0.042
0.77	0.68	0.040	1.7	0.25	0.052	1.18	0.175	0.037	1.595	0.26	0.040	2.01	0.345	0.039	2.425	0.43	0.042
0.77	0.69	0.040	1.7	0.26	0.052	1.18	0.18	0.041	1.595	0.265	0.039	2.01	0.35	0.044	2.425	0.435	0.047
0.77	0.7	0.040	1.7	0.27	0.051	1.18	0.185	0.044	1.595	0.27	0.037	2.01	0.355	0.051	2.425	0.44	0.051
0.77	0.71	0.040	1.7	0.28	0.050	1.18	0.19	0.048	1.595	0.275	0.036	2.01	0.36	0.054	2.425	0.445	0.053
0.77	0.72	0.041	1.7	0.29	0.048	1.18	0.195	0.053	1.595	0.28	0.038	2.01	0.365	0.054	2.425	0.45	0.054
0.77	0.73	0.043	1.7	0.3	0.048	1.18	0.2	0.055	1.595	0.285	0.042	2.01	0.37	0.053	2.425	0.455	0.051
0.77	0.74	0.042	1.7	0.31	0.048	1.18	0.205	0.055	1.595	0.29	0.045	2.01	0.375	0.049	2.425	0.46	0.046
0.77	0.75	0.040	1.7	0.32	0.048	1.18	0.21	0.055	1.595	0.295	0.046	2.01	0.38	0.044	2.425	0.465	0.041
0.77	0.76	0.038	1.7	0.33	0.045	1.18	0.215	0.053	1.595	0.3	0.046	2.01	0.385	0.041	2.425	0.47	0.042
0.77	0.77	0.037	1.7	0.34	0.042	1.18	0.22	0.050	1.595	0.305	0.045	2.01	0.39	0.039	2.425	0.475	0.045
0.77	0.78	0.036	1.7	0.35	0.042	1.18	0.225	0.046	1.595	0.31	0.042	2.01	0.395	0.039	2.425	0.48	0.048
0.77	0.79	0.035	1.7	0.36	0.044	1.18	0.23	0.040	1.595	0.315	0.041	2.01	0.4	0.038	2.425	0.485	0.048
0.77	0.8	0.036	1.7	0.37	0.048	1.18	0.235	0.036	1.595	0.32	0.039	2.01	0.405	0.037	2.425	0.49	0.045
0.77	0.81	0.036	1.7	0.38	0.051	1.18	0.24	0.035	1.595	0.325	0.038	2.01	0.41	0.038	2.425	0.495	0.042
0.77	0.82	0.037	1.7	0.39	0.052	1.18	0.245	0.038	1.595	0.33	0.037	2.01	0.415	0.043	2.43	0.005	0.056
0.77	0.83	0.038	1.7	0.4	0.051	1.18	0.25	0.043	1.595	0.335	0.035	2.01	0.42	0.047	2.43	0.01	0.063
0.77	0.84	0.039	1.7	0.41	0.049	1.18	0.255	0.045	1.595	0.34	0.036	2.01	0.425	0.048	2.43	0.015	0.068
0.77	0.85	0.039	1.7	0.42	0.048	1.18	0.26	0.046	1.595	0.345	0.038	2.01	0.43	0.045	2.43	0.02	0.069

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.77	0.86	0.039	1.7	0.43	0.048	1.18	0.265	0.044	1.595	0.35	0.039	2.01	0.435	0.042	2.43	0.025	0.065
0.77	0.87	0.041	1.7	0.44	0.048	1.18	0.27	0.042	1.595	0.355	0.038	2.01	0.44	0.040	2.43	0.03	0.060
0.77	0.88	0.043	1.7	0.45	0.048	1.18	0.275	0.041	1.595	0.36	0.037	2.01	0.445	0.038	2.43	0.035	0.055
0.77	0.89	0.045	1.7	0.46	0.048	1.18	0.28	0.043	1.595	0.365	0.039	2.01	0.45	0.038	2.43	0.04	0.048
0.78	0.01	0.046	1.7	0.47	0.049	1.18	0.285	0.047	1.595	0.37	0.042	2.01	0.455	0.039	2.43	0.045	0.050
0.78	0.02	0.051	1.7	0.48	0.051	1.18	0.29	0.052	1.595	0.375	0.044	2.01	0.46	0.042	2.43	0.05	0.061
0.78	0.03	0.055	1.7	0.49	0.053	1.18	0.295	0.057	1.595	0.38	0.045	2.01	0.465	0.045	2.43	0.055	0.066
0.78	0.04	0.056	1.7	0.5	0.052	1.18	0.3	0.058	1.595	0.385	0.046	2.01	0.47	0.047	2.43	0.06	0.064
0.78	0.05	0.055	1.7	0.51	0.050	1.18	0.305	0.056	1.595	0.39	0.045	2.01	0.475	0.048	2.43	0.065	0.058
0.78	0.06	0.053	1.7	0.52	0.049	1.18	0.31	0.051	1.595	0.395	0.044	2.01	0.48	0.048	2.43	0.07	0.053
0.78	0.07	0.050	1.7	0.53	0.048	1.18	0.315	0.048	1.595	0.4	0.041	2.01	0.485	0.048	2.43	0.075	0.052
0.78	0.08	0.049	1.7	0.54	0.049	1.18	0.32	0.050	1.595	0.405	0.040	2.01	0.49	0.049	2.43	0.08	0.056
0.78	0.09	0.050	1.7	0.55	0.052	1.18	0.325	0.052	1.595	0.41	0.042	2.01	0.495	0.052	2.43	0.085	0.060
0.78	0.1	0.051	1.7	0.56	0.055	1.18	0.33	0.051	1.595	0.415	0.044	2.015	0.005	0.073	2.43	0.09	0.065
0.78	0.11	0.052	1.7	0.57	0.056	1.18	0.335	0.049	1.595	0.42	0.047	2.015	0.01	0.078	2.43	0.095	0.067
0.78	0.12	0.054	1.7	0.58	0.056	1.18	0.34	0.046	1.595	0.425	0.048	2.015	0.015	0.080	2.43	0.1	0.066
0.78	0.13	0.056	1.7	0.59	0.055	1.18	0.345	0.042	1.595	0.43	0.049	2.015	0.02	0.079	2.43	0.105	0.062
0.78	0.14	0.055	1.7	0.6	0.054	1.18	0.35	0.038	1.595	0.435	0.050	2.015	0.025	0.070	2.43	0.11	0.058
0.78	0.15	0.051	1.7	0.61	0.055	1.18	0.355	0.036	1.595	0.44	0.049	2.015	0.03	0.060	2.43	0.115	0.057
0.78	0.16	0.046	1.7	0.62	0.055	1.18	0.36	0.037	1.595	0.445	0.047	2.015	0.035	0.052	2.43	0.12	0.056
0.78	0.17	0.041	1.7	0.63	0.052	1.18	0.365	0.038	1.595	0.45	0.043	2.015	0.04	0.049	2.43	0.125	0.055
0.78	0.18	0.038	1.7	0.64	0.048	1.18	0.37	0.040	1.595	0.455	0.041	2.015	0.045	0.053	2.43	0.13	0.053
0.78	0.19	0.037	1.7	0.65	0.045	1.18	0.375	0.044	1.595	0.46	0.045	2.015	0.05	0.062	2.43	0.135	0.050
0.78	0.2	0.036	1.7	0.66	0.043	1.18	0.38	0.047	1.595	0.465	0.048	2.015	0.055	0.067	2.43	0.14	0.050
0.78	0.21	0.036	1.7	0.67	0.044	1.18	0.385	0.046	1.595	0.47	0.050	2.015	0.06	0.067	2.43	0.145	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.78	0.22	0.038	1.7	0.68	0.046	1.18	0.39	0.043	1.595	0.475	0.049	2.015	0.065	0.064	2.43	0.15	0.066
0.78	0.23	0.042	1.7	0.69	0.047	1.18	0.395	0.039	1.595	0.48	0.048	2.015	0.07	0.064	2.43	0.155	0.073
0.78	0.24	0.047	1.7	0.7	0.047	1.18	0.4	0.038	1.595	0.485	0.046	2.015	0.075	0.067	2.43	0.16	0.076
0.78	0.25	0.051	1.7	0.71	0.046	1.18	0.405	0.044	1.595	0.49	0.048	2.015	0.08	0.069	2.43	0.165	0.076
0.78	0.26	0.050	1.7	0.72	0.045	1.18	0.41	0.050	1.595	0.495	0.052	2.015	0.085	0.069	2.43	0.17	0.074
0.78	0.27	0.047	1.7	0.73	0.045	1.18	0.415	0.053	1.6	0.005	0.041	2.015	0.09	0.066	2.43	0.175	0.066
0.78	0.28	0.044	1.7	0.74	0.044	1.18	0.42	0.050	1.6	0.01	0.041	2.015	0.095	0.063	2.43	0.18	0.054
0.78	0.29	0.045	1.7	0.75	0.043	1.18	0.425	0.042	1.6	0.015	0.042	2.015	0.1	0.066	2.43	0.185	0.045
0.78	0.3	0.045	1.7	0.76	0.041	1.18	0.43	0.036	1.6	0.02	0.042	2.015	0.105	0.068	2.43	0.19	0.045
0.78	0.31	0.044	1.7	0.77	0.040	1.18	0.435	0.033	1.6	0.025	0.042	2.015	0.11	0.066	2.43	0.195	0.047
0.78	0.32	0.042	1.7	0.78	0.038	1.18	0.44	0.032	1.6	0.03	0.044	2.015	0.115	0.063	2.43	0.2	0.048
0.78	0.33	0.041	1.7	0.79	0.036	1.18	0.445	0.034	1.6	0.035	0.046	2.015	0.12	0.067	2.43	0.205	0.050
0.78	0.34	0.039	1.7	0.8	0.036	1.18	0.45	0.037	1.6	0.04	0.048	2.015	0.125	0.072	2.43	0.21	0.056
0.78	0.35	0.040	1.7	0.81	0.039	1.18	0.455	0.041	1.6	0.045	0.048	2.015	0.13	0.071	2.43	0.215	0.061
0.78	0.36	0.039	1.7	0.82	0.046	1.18	0.46	0.043	1.6	0.05	0.047	2.015	0.135	0.066	2.43	0.22	0.064
0.78	0.37	0.038	1.7	0.83	0.056	1.18	0.465	0.044	1.6	0.055	0.045	2.015	0.14	0.067	2.43	0.225	0.066
0.78	0.38	0.038	1.7	0.84	0.064	1.18	0.47	0.045	1.6	0.06	0.045	2.015	0.145	0.072	2.43	0.23	0.067
0.78	0.39	0.038	1.7	0.85	0.068	1.18	0.475	0.044	1.6	0.065	0.048	2.015	0.15	0.076	2.43	0.235	0.068
0.78	0.4	0.041	1.7	0.86	0.070	1.18	0.48	0.042	1.6	0.07	0.053	2.015	0.155	0.076	2.43	0.24	0.068
0.78	0.41	0.045	1.7	0.87	0.069	1.18	0.485	0.041	1.6	0.075	0.056	2.015	0.16	0.072	2.43	0.245	0.066
0.78	0.42	0.047	1.7	0.88	0.067	1.18	0.49	0.042	1.6	0.08	0.057	2.015	0.165	0.066	2.43	0.25	0.061
0.78	0.43	0.047	1.7	0.89	0.065	1.18	0.495	0.044	1.6	0.085	0.055	2.015	0.17	0.060	2.43	0.255	0.052
0.78	0.44	0.045	1.71	0.01	0.066	1.185	0.005	0.033	1.6	0.09	0.053	2.015	0.175	0.056	2.43	0.26	0.045
0.78	0.45	0.041	1.71	0.02	0.071	1.185	0.01	0.032	1.6	0.095	0.053	2.015	0.18	0.052	2.43	0.265	0.042
0.78	0.46	0.038	1.71	0.03	0.070	1.185	0.015	0.032	1.6	0.1	0.053	2.015	0.185	0.048	2.43	0.27	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.78	0.47	0.037	1.71	0.04	0.063	1.185	0.02	0.032	1.6	0.105	0.052	2.015	0.19	0.045	2.43	0.275	0.040
0.78	0.48	0.038	1.71	0.05	0.059	1.185	0.025	0.031	1.6	0.11	0.051	2.015	0.195	0.045	2.43	0.28	0.038
0.78	0.49	0.040	1.71	0.06	0.059	1.185	0.03	0.031	1.6	0.115	0.050	2.015	0.2	0.046	2.43	0.285	0.037
0.78	0.5	0.044	1.71	0.07	0.063	1.185	0.035	0.031	1.6	0.12	0.047	2.015	0.205	0.045	2.43	0.29	0.037
0.78	0.51	0.046	1.71	0.08	0.070	1.185	0.04	0.032	1.6	0.125	0.041	2.015	0.21	0.042	2.43	0.295	0.038
0.78	0.52	0.045	1.71	0.09	0.076	1.185	0.045	0.032	1.6	0.13	0.038	2.015	0.215	0.044	2.43	0.3	0.039
0.78	0.53	0.044	1.71	0.1	0.079	1.185	0.05	0.033	1.6	0.135	0.038	2.015	0.22	0.048	2.43	0.305	0.039
0.78	0.54	0.042	1.71	0.11	0.074	1.185	0.055	0.034	1.6	0.14	0.040	2.015	0.225	0.051	2.43	0.31	0.038
0.78	0.55	0.042	1.71	0.12	0.066	1.185	0.06	0.035	1.6	0.145	0.041	2.015	0.23	0.051	2.43	0.315	0.036
0.78	0.56	0.042	1.71	0.13	0.060	1.185	0.065	0.035	1.6	0.15	0.041	2.015	0.235	0.051	2.43	0.32	0.035
0.78	0.57	0.043	1.71	0.14	0.057	1.185	0.07	0.036	1.6	0.155	0.045	2.015	0.24	0.050	2.43	0.325	0.035
0.78	0.58	0.043	1.71	0.15	0.057	1.185	0.075	0.036	1.6	0.16	0.052	2.015	0.245	0.049	2.43	0.33	0.035
0.78	0.59	0.043	1.71	0.16	0.058	1.185	0.08	0.035	1.6	0.165	0.056	2.015	0.25	0.046	2.43	0.335	0.036
0.78	0.6	0.043	1.71	0.17	0.057	1.185	0.085	0.034	1.6	0.17	0.059	2.015	0.255	0.042	2.43	0.34	0.037
0.78	0.61	0.042	1.71	0.18	0.055	1.185	0.09	0.034	1.6	0.175	0.060	2.015	0.26	0.040	2.43	0.345	0.035
0.78	0.62	0.042	1.71	0.19	0.053	1.185	0.095	0.033	1.6	0.18	0.060	2.015	0.265	0.041	2.43	0.35	0.034
0.78	0.63	0.041	1.71	0.2	0.054	1.185	0.1	0.033	1.6	0.185	0.058	2.015	0.27	0.042	2.43	0.355	0.035
0.78	0.64	0.039	1.71	0.21	0.055	1.185	0.105	0.033	1.6	0.19	0.053	2.015	0.275	0.043	2.43	0.36	0.039
0.78	0.65	0.038	1.71	0.22	0.055	1.185	0.11	0.034	1.6	0.195	0.047	2.015	0.28	0.043	2.43	0.365	0.046
0.78	0.66	0.037	1.71	0.23	0.053	1.185	0.115	0.035	1.6	0.2	0.047	2.015	0.285	0.042	2.43	0.37	0.051
0.78	0.67	0.037	1.71	0.24	0.051	1.185	0.12	0.038	1.6	0.205	0.053	2.015	0.29	0.041	2.43	0.375	0.055
0.78	0.68	0.038	1.71	0.25	0.051	1.185	0.125	0.041	1.6	0.21	0.056	2.015	0.295	0.042	2.43	0.38	0.057
0.78	0.69	0.039	1.71	0.26	0.052	1.185	0.13	0.043	1.6	0.215	0.056	2.015	0.3	0.043	2.43	0.385	0.056
0.78	0.7	0.039	1.71	0.27	0.052	1.185	0.135	0.044	1.6	0.22	0.051	2.015	0.305	0.045	2.43	0.39	0.053
0.78	0.71	0.040	1.71	0.28	0.050	1.185	0.14	0.042	1.6	0.225	0.045	2.015	0.31	0.043	2.43	0.395	0.050

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.78	0.72	0.042	1.71	0.29	0.048	1.185	0.145	0.038	1.6	0.23	0.041	2.015	0.315	0.039	2.43	0.4	0.048
0.78	0.73	0.043	1.71	0.3	0.046	1.185	0.15	0.034	1.6	0.235	0.040	2.015	0.32	0.036	2.43	0.405	0.050
0.78	0.74	0.042	1.71	0.31	0.046	1.185	0.155	0.032	1.6	0.24	0.042	2.015	0.325	0.034	2.43	0.41	0.050
0.78	0.75	0.040	1.71	0.32	0.045	1.185	0.16	0.031	1.6	0.245	0.043	2.015	0.33	0.034	2.43	0.415	0.047
0.78	0.76	0.037	1.71	0.33	0.044	1.185	0.165	0.031	1.6	0.25	0.043	2.015	0.335	0.035	2.43	0.42	0.043
0.78	0.77	0.036	1.71	0.34	0.042	1.185	0.17	0.033	1.6	0.255	0.042	2.015	0.34	0.035	2.43	0.425	0.040
0.78	0.78	0.036	1.71	0.35	0.042	1.185	0.175	0.037	1.6	0.26	0.041	2.015	0.345	0.039	2.43	0.43	0.042
0.78	0.79	0.036	1.71	0.36	0.045	1.185	0.18	0.040	1.6	0.265	0.040	2.015	0.35	0.046	2.43	0.435	0.048
0.78	0.8	0.036	1.71	0.37	0.049	1.185	0.185	0.043	1.6	0.27	0.038	2.015	0.355	0.054	2.43	0.44	0.053
0.78	0.81	0.037	1.71	0.38	0.052	1.185	0.19	0.048	1.6	0.275	0.036	2.015	0.36	0.056	2.43	0.445	0.054
0.78	0.82	0.037	1.71	0.39	0.053	1.185	0.195	0.053	1.6	0.28	0.037	2.015	0.365	0.056	2.43	0.45	0.054
0.78	0.83	0.039	1.71	0.4	0.051	1.185	0.2	0.055	1.6	0.285	0.040	2.015	0.37	0.055	2.43	0.455	0.051
0.78	0.84	0.041	1.71	0.41	0.048	1.185	0.205	0.055	1.6	0.29	0.042	2.015	0.375	0.052	2.43	0.46	0.047
0.78	0.85	0.041	1.71	0.42	0.046	1.185	0.21	0.054	1.6	0.295	0.047	2.015	0.38	0.047	2.43	0.465	0.045
0.78	0.86	0.041	1.71	0.43	0.046	1.185	0.215	0.052	1.6	0.3	0.050	2.015	0.385	0.040	2.43	0.47	0.047
0.78	0.87	0.041	1.71	0.44	0.047	1.185	0.22	0.049	1.6	0.305	0.049	2.015	0.39	0.038	2.43	0.475	0.049
0.78	0.88	0.043	1.71	0.45	0.048	1.185	0.225	0.045	1.6	0.31	0.045	2.015	0.395	0.039	2.43	0.48	0.048
0.78	0.89	0.044	1.71	0.46	0.048	1.185	0.23	0.040	1.6	0.315	0.042	2.015	0.4	0.039	2.43	0.485	0.046
0.79	0.01	0.047	1.71	0.47	0.050	1.185	0.235	0.036	1.6	0.32	0.039	2.015	0.405	0.039	2.43	0.49	0.043
0.79	0.02	0.051	1.71	0.48	0.053	1.185	0.24	0.035	1.6	0.325	0.037	2.015	0.41	0.040	2.43	0.495	0.042
0.79	0.03	0.053	1.71	0.49	0.055	1.185	0.245	0.038	1.6	0.33	0.035	2.015	0.415	0.045	2.435	0.005	0.055
0.79	0.04	0.055	1.71	0.5	0.055	1.185	0.25	0.042	1.6	0.335	0.034	2.015	0.42	0.049	2.435	0.01	0.062
0.79	0.05	0.056	1.71	0.51	0.054	1.185	0.255	0.043	1.6	0.34	0.034	2.015	0.425	0.050	2.435	0.015	0.066
0.79	0.06	0.055	1.71	0.52	0.053	1.185	0.26	0.042	1.6	0.345	0.035	2.015	0.43	0.048	2.435	0.02	0.067
0.79	0.07	0.054	1.71	0.53	0.051	1.185	0.265	0.041	1.6	0.35	0.037	2.015	0.435	0.044	2.435	0.025	0.064

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.79	0.08	0.053	1.71	0.54	0.051	1.185	0.27	0.041	1.6	0.355	0.037	2.015	0.44	0.040	2.435	0.03	0.059
0.79	0.09	0.053	1.71	0.55	0.053	1.185	0.275	0.043	1.6	0.36	0.036	2.015	0.445	0.037	2.435	0.035	0.056
0.79	0.1	0.053	1.71	0.56	0.057	1.185	0.28	0.045	1.6	0.365	0.038	2.015	0.45	0.036	2.435	0.04	0.051
0.79	0.11	0.054	1.71	0.57	0.059	1.185	0.285	0.047	1.6	0.37	0.041	2.015	0.455	0.038	2.435	0.045	0.052
0.79	0.12	0.055	1.71	0.58	0.059	1.185	0.29	0.051	1.6	0.375	0.043	2.015	0.46	0.041	2.435	0.05	0.059
0.79	0.13	0.056	1.71	0.59	0.057	1.185	0.295	0.054	1.6	0.38	0.045	2.015	0.465	0.042	2.435	0.055	0.063
0.79	0.14	0.055	1.71	0.6	0.054	1.185	0.3	0.055	1.6	0.385	0.045	2.015	0.47	0.044	2.435	0.06	0.060
0.79	0.15	0.051	1.71	0.61	0.053	1.185	0.305	0.053	1.6	0.39	0.044	2.015	0.475	0.046	2.435	0.065	0.054
0.79	0.16	0.046	1.71	0.62	0.052	1.185	0.31	0.049	1.6	0.395	0.042	2.015	0.48	0.049	2.435	0.07	0.049
0.79	0.17	0.041	1.71	0.63	0.051	1.185	0.315	0.046	1.6	0.4	0.041	2.015	0.485	0.053	2.435	0.075	0.051
0.79	0.18	0.038	1.71	0.64	0.048	1.185	0.32	0.047	1.6	0.405	0.041	2.015	0.49	0.056	2.435	0.08	0.056
0.79	0.19	0.036	1.71	0.65	0.045	1.185	0.325	0.049	1.6	0.41	0.043	2.015	0.495	0.058	2.435	0.085	0.061
0.79	0.2	0.036	1.71	0.66	0.042	1.185	0.33	0.049	1.6	0.415	0.046	2.02	0.005	0.075	2.435	0.09	0.065
0.79	0.21	0.037	1.71	0.67	0.042	1.185	0.335	0.046	1.6	0.42	0.048	2.02	0.01	0.080	2.435	0.095	0.067
0.79	0.22	0.038	1.71	0.68	0.044	1.185	0.34	0.043	1.6	0.425	0.049	2.02	0.015	0.084	2.435	0.1	0.066
0.79	0.23	0.041	1.71	0.69	0.047	1.185	0.345	0.039	1.6	0.43	0.049	2.02	0.02	0.086	2.435	0.105	0.059
0.79	0.24	0.046	1.71	0.7	0.049	1.185	0.35	0.038	1.6	0.435	0.048	2.02	0.025	0.081	2.435	0.11	0.053
0.79	0.25	0.050	1.71	0.71	0.048	1.185	0.355	0.040	1.6	0.44	0.046	2.02	0.03	0.071	2.435	0.115	0.053
0.79	0.26	0.049	1.71	0.72	0.046	1.185	0.36	0.044	1.6	0.445	0.043	2.02	0.035	0.059	2.435	0.12	0.055
0.79	0.27	0.046	1.71	0.73	0.045	1.185	0.365	0.043	1.6	0.45	0.038	2.02	0.04	0.053	2.435	0.125	0.054
0.79	0.28	0.045	1.71	0.74	0.044	1.185	0.37	0.040	1.6	0.455	0.037	2.02	0.045	0.053	2.435	0.13	0.052
0.79	0.29	0.045	1.71	0.75	0.043	1.185	0.375	0.040	1.6	0.46	0.041	2.02	0.05	0.059	2.435	0.135	0.050
0.79	0.3	0.045	1.71	0.76	0.042	1.185	0.38	0.042	1.6	0.465	0.046	2.02	0.055	0.065	2.435	0.14	0.051
0.79	0.31	0.043	1.71	0.77	0.040	1.185	0.385	0.042	1.6	0.47	0.049	2.02	0.06	0.066	2.435	0.145	0.058
0.79	0.32	0.042	1.71	0.78	0.038	1.185	0.39	0.040	1.6	0.475	0.050	2.02	0.065	0.064	2.435	0.15	0.067

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.79	0.33	0.040	1.71	0.79	0.036	1.185	0.395	0.037	1.6	0.48	0.049	2.02	0.07	0.062	2.435	0.155	0.073
0.79	0.34	0.039	1.71	0.8	0.036	1.185	0.4	0.038	1.6	0.485	0.047	2.02	0.075	0.063	2.435	0.16	0.075
0.79	0.35	0.038	1.71	0.81	0.039	1.185	0.405	0.043	1.6	0.49	0.048	2.02	0.08	0.066	2.435	0.165	0.074
0.79	0.36	0.037	1.71	0.82	0.046	1.185	0.41	0.049	1.6	0.495	0.052	2.02	0.085	0.068	2.435	0.17	0.069
0.79	0.37	0.036	1.71	0.83	0.056	1.185	0.415	0.053	1.605	0.005	0.044	2.02	0.09	0.070	2.435	0.175	0.060
0.79	0.38	0.036	1.71	0.84	0.064	1.185	0.42	0.050	1.605	0.01	0.045	2.02	0.095	0.072	2.435	0.18	0.047
0.79	0.39	0.038	1.71	0.85	0.068	1.185	0.425	0.042	1.605	0.015	0.044	2.02	0.1	0.077	2.435	0.185	0.042
0.79	0.4	0.041	1.71	0.86	0.068	1.185	0.43	0.034	1.605	0.02	0.043	2.02	0.105	0.080	2.435	0.19	0.047
0.79	0.41	0.046	1.71	0.87	0.067	1.185	0.435	0.032	1.605	0.025	0.043	2.02	0.11	0.079	2.435	0.195	0.051
0.79	0.42	0.049	1.71	0.88	0.067	1.185	0.44	0.032	1.605	0.03	0.044	2.02	0.115	0.077	2.435	0.2	0.052
0.79	0.43	0.048	1.71	0.89	0.068	1.185	0.445	0.034	1.605	0.035	0.047	2.02	0.12	0.079	2.435	0.205	0.052
0.79	0.44	0.045	1.72	0.01	0.068	1.185	0.45	0.037	1.605	0.04	0.050	2.02	0.125	0.081	2.435	0.21	0.056
0.79	0.45	0.040	1.72	0.02	0.073	1.185	0.455	0.040	1.605	0.045	0.050	2.02	0.13	0.080	2.435	0.215	0.061
0.79	0.46	0.036	1.72	0.03	0.071	1.185	0.46	0.043	1.605	0.05	0.047	2.02	0.135	0.074	2.435	0.22	0.064
0.79	0.47	0.035	1.72	0.04	0.064	1.185	0.465	0.045	1.605	0.055	0.045	2.02	0.14	0.069	2.435	0.225	0.067
0.79	0.48	0.036	1.72	0.05	0.059	1.185	0.47	0.045	1.605	0.06	0.046	2.02	0.145	0.072	2.435	0.23	0.069
0.79	0.49	0.039	1.72	0.06	0.059	1.185	0.475	0.043	1.605	0.065	0.051	2.02	0.15	0.074	2.435	0.235	0.070
0.79	0.5	0.042	1.72	0.07	0.063	1.185	0.48	0.040	1.605	0.07	0.058	2.02	0.155	0.072	2.435	0.24	0.071
0.79	0.51	0.045	1.72	0.08	0.069	1.185	0.485	0.038	1.605	0.075	0.061	2.02	0.16	0.066	2.435	0.245	0.070
0.79	0.52	0.045	1.72	0.09	0.072	1.185	0.49	0.040	1.605	0.08	0.061	2.02	0.165	0.059	2.435	0.25	0.065
0.79	0.53	0.044	1.72	0.1	0.071	1.185	0.495	0.043	1.605	0.085	0.058	2.02	0.17	0.054	2.435	0.255	0.054
0.79	0.54	0.043	1.72	0.11	0.066	1.19	0.005	0.034	1.605	0.09	0.052	2.02	0.175	0.052	2.435	0.26	0.043
0.79	0.55	0.042	1.72	0.12	0.061	1.19	0.01	0.033	1.605	0.095	0.049	2.02	0.18	0.051	2.435	0.265	0.038
0.79	0.56	0.042	1.72	0.13	0.058	1.19	0.015	0.033	1.605	0.1	0.049	2.02	0.185	0.049	2.435	0.27	0.036
0.79	0.57	0.043	1.72	0.14	0.059	1.19	0.02	0.032	1.605	0.105	0.050	2.02	0.19	0.047	2.435	0.275	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.79	0.58	0.043	1.72	0.15	0.059	1.19	0.025	0.032	1.605	0.11	0.050	2.02	0.195	0.046	2.435	0.28	0.036
0.79	0.59	0.042	1.72	0.16	0.060	1.19	0.03	0.032	1.605	0.115	0.049	2.02	0.2	0.046	2.435	0.285	0.036
0.79	0.6	0.041	1.72	0.17	0.059	1.19	0.035	0.032	1.605	0.12	0.046	2.02	0.205	0.044	2.435	0.29	0.038
0.79	0.61	0.040	1.72	0.18	0.055	1.19	0.04	0.032	1.605	0.125	0.039	2.02	0.21	0.041	2.435	0.295	0.040
0.79	0.62	0.040	1.72	0.19	0.052	1.19	0.045	0.033	1.605	0.13	0.035	2.02	0.215	0.042	2.435	0.3	0.041
0.79	0.63	0.039	1.72	0.2	0.053	1.19	0.05	0.033	1.605	0.135	0.034	2.02	0.22	0.047	2.435	0.305	0.041
0.79	0.64	0.039	1.72	0.21	0.054	1.19	0.055	0.034	1.605	0.14	0.037	2.02	0.225	0.051	2.435	0.31	0.040
0.79	0.65	0.037	1.72	0.22	0.054	1.19	0.06	0.035	1.605	0.145	0.039	2.02	0.23	0.052	2.435	0.315	0.037
0.79	0.66	0.036	1.72	0.23	0.051	1.19	0.065	0.036	1.605	0.15	0.043	2.02	0.235	0.053	2.435	0.32	0.035
0.79	0.67	0.036	1.72	0.24	0.049	1.19	0.07	0.037	1.605	0.155	0.048	2.02	0.24	0.053	2.435	0.325	0.034
0.79	0.68	0.037	1.72	0.25	0.050	1.19	0.075	0.038	1.605	0.16	0.054	2.02	0.245	0.053	2.435	0.33	0.034
0.79	0.69	0.039	1.72	0.26	0.052	1.19	0.08	0.038	1.605	0.165	0.058	2.02	0.25	0.051	2.435	0.335	0.035
0.79	0.7	0.040	1.72	0.27	0.053	1.19	0.085	0.038	1.605	0.17	0.060	2.02	0.255	0.046	2.435	0.34	0.035
0.79	0.71	0.041	1.72	0.28	0.051	1.19	0.09	0.036	1.605	0.175	0.061	2.02	0.26	0.041	2.435	0.345	0.034
0.79	0.72	0.043	1.72	0.29	0.047	1.19	0.095	0.035	1.605	0.18	0.061	2.02	0.265	0.040	2.435	0.35	0.033
0.79	0.73	0.043	1.72	0.3	0.044	1.19	0.1	0.035	1.605	0.185	0.060	2.02	0.27	0.042	2.435	0.355	0.033
0.79	0.74	0.042	1.72	0.31	0.043	1.19	0.105	0.034	1.605	0.19	0.056	2.02	0.275	0.043	2.435	0.36	0.036
0.79	0.75	0.039	1.72	0.32	0.043	1.19	0.11	0.035	1.605	0.195	0.051	2.02	0.28	0.044	2.435	0.365	0.042
0.79	0.76	0.036	1.72	0.33	0.043	1.19	0.115	0.036	1.605	0.2	0.053	2.02	0.285	0.042	2.435	0.37	0.048
0.79	0.77	0.035	1.72	0.34	0.042	1.19	0.12	0.038	1.605	0.205	0.057	2.02	0.29	0.040	2.435	0.375	0.053
0.79	0.78	0.036	1.72	0.35	0.043	1.19	0.125	0.040	1.605	0.21	0.059	2.02	0.295	0.041	2.435	0.38	0.055
0.79	0.79	0.037	1.72	0.36	0.045	1.19	0.13	0.042	1.605	0.215	0.056	2.02	0.3	0.044	2.435	0.385	0.055
0.79	0.8	0.038	1.72	0.37	0.049	1.19	0.135	0.043	1.605	0.22	0.049	2.02	0.305	0.047	2.435	0.39	0.052
0.79	0.81	0.039	1.72	0.38	0.051	1.19	0.14	0.042	1.605	0.225	0.043	2.02	0.31	0.046	2.435	0.395	0.049
0.79	0.82	0.039	1.72	0.39	0.052	1.19	0.145	0.039	1.605	0.23	0.040	2.02	0.315	0.042	2.435	0.4	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.79	0.83	0.041	1.72	0.4	0.050	1.19	0.15	0.035	1.605	0.235	0.041	2.02	0.32	0.038	2.435	0.405	0.047
0.79	0.84	0.042	1.72	0.41	0.047	1.19	0.155	0.032	1.605	0.24	0.044	2.02	0.325	0.037	2.435	0.41	0.049
0.79	0.85	0.043	1.72	0.42	0.045	1.19	0.16	0.031	1.605	0.245	0.045	2.02	0.33	0.036	2.435	0.415	0.048
0.79	0.86	0.042	1.72	0.43	0.045	1.19	0.165	0.031	1.605	0.25	0.045	2.02	0.335	0.035	2.435	0.42	0.045
0.79	0.87	0.041	1.72	0.44	0.046	1.19	0.17	0.032	1.605	0.255	0.044	2.02	0.34	0.036	2.435	0.425	0.043
0.79	0.88	0.041	1.72	0.45	0.048	1.19	0.175	0.034	1.605	0.26	0.043	2.02	0.345	0.039	2.435	0.43	0.044
0.79	0.89	0.042	1.72	0.46	0.049	1.19	0.18	0.037	1.605	0.265	0.041	2.02	0.35	0.046	2.435	0.435	0.046
0.8	0.01	0.047	1.72	0.47	0.051	1.19	0.185	0.041	1.605	0.27	0.039	2.02	0.355	0.054	2.435	0.44	0.049
0.8	0.02	0.051	1.72	0.48	0.053	1.19	0.19	0.047	1.605	0.275	0.038	2.02	0.36	0.057	2.435	0.445	0.051
0.8	0.03	0.054	1.72	0.49	0.054	1.19	0.195	0.051	1.605	0.28	0.038	2.02	0.365	0.057	2.435	0.45	0.050
0.8	0.04	0.055	1.72	0.5	0.056	1.19	0.2	0.053	1.605	0.285	0.040	2.02	0.37	0.056	2.435	0.455	0.048
0.8	0.05	0.057	1.72	0.51	0.057	1.19	0.205	0.053	1.605	0.29	0.042	2.02	0.375	0.054	2.435	0.46	0.046
0.8	0.06	0.058	1.72	0.52	0.056	1.19	0.21	0.052	1.605	0.295	0.049	2.02	0.38	0.050	2.435	0.465	0.046
0.8	0.07	0.058	1.72	0.53	0.054	1.19	0.215	0.050	1.605	0.3	0.054	2.02	0.385	0.044	2.435	0.47	0.047
0.8	0.08	0.058	1.72	0.54	0.053	1.19	0.22	0.048	1.605	0.305	0.056	2.02	0.39	0.040	2.435	0.475	0.048
0.8	0.09	0.057	1.72	0.55	0.056	1.19	0.225	0.046	1.605	0.31	0.053	2.02	0.395	0.042	2.435	0.48	0.046
0.8	0.1	0.056	1.72	0.56	0.059	1.19	0.23	0.042	1.605	0.315	0.049	2.02	0.4	0.042	2.435	0.485	0.043
0.8	0.11	0.055	1.72	0.57	0.061	1.19	0.235	0.038	1.605	0.32	0.045	2.02	0.405	0.042	2.435	0.49	0.041
0.8	0.12	0.055	1.72	0.58	0.060	1.19	0.24	0.036	1.605	0.325	0.040	2.02	0.41	0.043	2.435	0.495	0.041
0.8	0.13	0.055	1.72	0.59	0.057	1.19	0.245	0.037	1.605	0.33	0.036	2.02	0.415	0.046	2.44	0.005	0.055
0.8	0.14	0.054	1.72	0.6	0.053	1.19	0.25	0.042	1.605	0.335	0.034	2.02	0.42	0.050	2.44	0.01	0.062
0.8	0.15	0.050	1.72	0.61	0.051	1.19	0.255	0.044	1.605	0.34	0.035	2.02	0.425	0.051	2.44	0.015	0.066
0.8	0.16	0.045	1.72	0.62	0.051	1.19	0.26	0.042	1.605	0.345	0.036	2.02	0.43	0.048	2.44	0.02	0.067
0.8	0.17	0.042	1.72	0.63	0.052	1.19	0.265	0.040	1.605	0.35	0.038	2.02	0.435	0.045	2.44	0.025	0.066
0.8	0.18	0.039	1.72	0.64	0.051	1.19	0.27	0.040	1.605	0.355	0.038	2.02	0.44	0.044	2.44	0.03	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.8	0.19	0.038	1.72	0.65	0.048	1.19	0.275	0.043	1.605	0.36	0.038	2.02	0.445	0.042	2.44	0.035	0.058
0.8	0.2	0.037	1.72	0.66	0.045	1.19	0.28	0.045	1.605	0.365	0.040	2.02	0.45	0.042	2.44	0.04	0.057
0.8	0.21	0.037	1.72	0.67	0.043	1.19	0.285	0.047	1.605	0.37	0.043	2.02	0.455	0.043	2.44	0.045	0.058
0.8	0.22	0.038	1.72	0.68	0.045	1.19	0.29	0.049	1.605	0.375	0.044	2.02	0.46	0.043	2.44	0.05	0.059
0.8	0.23	0.040	1.72	0.69	0.048	1.19	0.295	0.050	1.605	0.38	0.044	2.02	0.465	0.043	2.44	0.055	0.059
0.8	0.24	0.043	1.72	0.7	0.051	1.19	0.3	0.050	1.605	0.385	0.043	2.02	0.47	0.041	2.44	0.06	0.056
0.8	0.25	0.046	1.72	0.71	0.050	1.19	0.305	0.049	1.605	0.39	0.042	2.02	0.475	0.042	2.44	0.065	0.049
0.8	0.26	0.046	1.72	0.72	0.048	1.19	0.31	0.046	1.605	0.395	0.041	2.02	0.48	0.048	2.44	0.07	0.045
0.8	0.27	0.046	1.72	0.73	0.046	1.19	0.315	0.043	1.605	0.4	0.041	2.02	0.485	0.055	2.44	0.075	0.048
0.8	0.28	0.045	1.72	0.74	0.045	1.19	0.32	0.043	1.605	0.405	0.042	2.02	0.49	0.059	2.44	0.08	0.054
0.8	0.29	0.044	1.72	0.75	0.045	1.19	0.325	0.045	1.605	0.41	0.045	2.02	0.495	0.061	2.44	0.085	0.059
0.8	0.3	0.042	1.72	0.76	0.044	1.19	0.33	0.046	1.605	0.415	0.048	2.025	0.005	0.074	2.44	0.09	0.063
0.8	0.31	0.040	1.72	0.77	0.041	1.19	0.335	0.045	1.605	0.42	0.051	2.025	0.01	0.080	2.44	0.095	0.066
0.8	0.32	0.039	1.72	0.78	0.039	1.19	0.34	0.042	1.605	0.425	0.053	2.025	0.015	0.085	2.44	0.1	0.065
0.8	0.33	0.039	1.72	0.79	0.038	1.19	0.345	0.040	1.605	0.43	0.052	2.025	0.02	0.089	2.44	0.105	0.061
0.8	0.34	0.038	1.72	0.8	0.038	1.19	0.35	0.042	1.605	0.435	0.047	2.025	0.025	0.089	2.44	0.11	0.055
0.8	0.35	0.037	1.72	0.81	0.041	1.19	0.355	0.047	1.605	0.44	0.042	2.025	0.03	0.081	2.44	0.115	0.055
0.8	0.36	0.036	1.72	0.82	0.046	1.19	0.36	0.050	1.605	0.445	0.039	2.025	0.035	0.069	2.44	0.12	0.055
0.8	0.37	0.036	1.72	0.83	0.055	1.19	0.365	0.047	1.605	0.45	0.037	2.025	0.04	0.060	2.44	0.125	0.054
0.8	0.38	0.037	1.72	0.84	0.061	1.19	0.37	0.038	1.605	0.455	0.037	2.025	0.045	0.056	2.44	0.13	0.053
0.8	0.39	0.038	1.72	0.85	0.064	1.19	0.375	0.035	1.605	0.46	0.040	2.025	0.05	0.056	2.44	0.135	0.052
0.8	0.4	0.042	1.72	0.86	0.065	1.19	0.38	0.037	1.605	0.465	0.045	2.025	0.055	0.061	2.44	0.14	0.054
0.8	0.41	0.046	1.72	0.87	0.065	1.19	0.385	0.039	1.605	0.47	0.049	2.025	0.06	0.064	2.44	0.145	0.060
0.8	0.42	0.048	1.72	0.88	0.066	1.19	0.39	0.038	1.605	0.475	0.050	2.025	0.065	0.064	2.44	0.15	0.068
0.8	0.43	0.047	1.72	0.89	0.068	1.19	0.395	0.036	1.605	0.48	0.049	2.025	0.07	0.062	2.44	0.155	0.072

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.8	0.44	0.043	1.73	0.01	0.067	1.19	0.4	0.037	1.605	0.485	0.046	2.025	0.075	0.061	2.44	0.16	0.073
0.8	0.45	0.038	1.73	0.02	0.072	1.19	0.405	0.043	1.605	0.49	0.047	2.025	0.08	0.064	2.44	0.165	0.070
0.8	0.46	0.036	1.73	0.03	0.071	1.19	0.41	0.049	1.605	0.495	0.051	2.025	0.085	0.070	2.44	0.17	0.062
0.8	0.47	0.035	1.73	0.04	0.065	1.19	0.415	0.054	1.61	0.005	0.047	2.025	0.09	0.076	2.44	0.175	0.051
0.8	0.48	0.036	1.73	0.05	0.060	1.19	0.42	0.053	1.61	0.01	0.046	2.025	0.095	0.080	2.44	0.18	0.041
0.8	0.49	0.038	1.73	0.06	0.059	1.19	0.425	0.046	1.61	0.015	0.045	2.025	0.1	0.084	2.44	0.185	0.041
0.8	0.5	0.040	1.73	0.07	0.062	1.19	0.43	0.037	1.61	0.02	0.045	2.025	0.105	0.085	2.44	0.19	0.049
0.8	0.51	0.043	1.73	0.08	0.066	1.19	0.435	0.032	1.61	0.025	0.045	2.025	0.11	0.083	2.44	0.195	0.054
0.8	0.52	0.044	1.73	0.09	0.067	1.19	0.44	0.032	1.61	0.03	0.048	2.025	0.115	0.081	2.44	0.2	0.055
0.8	0.53	0.044	1.73	0.1	0.065	1.19	0.445	0.034	1.61	0.035	0.053	2.025	0.12	0.081	2.44	0.205	0.054
0.8	0.54	0.043	1.73	0.11	0.060	1.19	0.45	0.037	1.61	0.04	0.055	2.025	0.125	0.083	2.44	0.21	0.055
0.8	0.55	0.042	1.73	0.12	0.059	1.19	0.455	0.040	1.61	0.045	0.053	2.025	0.13	0.083	2.44	0.215	0.060
0.8	0.56	0.042	1.73	0.13	0.059	1.19	0.46	0.043	1.61	0.05	0.048	2.025	0.135	0.080	2.44	0.22	0.064
0.8	0.57	0.042	1.73	0.14	0.061	1.19	0.465	0.045	1.61	0.055	0.044	2.025	0.14	0.075	2.44	0.225	0.067
0.8	0.58	0.041	1.73	0.15	0.063	1.19	0.47	0.045	1.61	0.06	0.046	2.025	0.145	0.071	2.44	0.23	0.069
0.8	0.59	0.040	1.73	0.16	0.063	1.19	0.475	0.043	1.61	0.065	0.053	2.025	0.15	0.069	2.44	0.235	0.070
0.8	0.6	0.039	1.73	0.17	0.061	1.19	0.48	0.038	1.61	0.07	0.060	2.025	0.155	0.067	2.44	0.24	0.072
0.8	0.61	0.038	1.73	0.18	0.057	1.19	0.485	0.035	1.61	0.075	0.064	2.025	0.16	0.063	2.44	0.245	0.071
0.8	0.62	0.038	1.73	0.19	0.053	1.19	0.49	0.036	1.61	0.08	0.064	2.025	0.165	0.057	2.44	0.25	0.067
0.8	0.63	0.039	1.73	0.2	0.052	1.19	0.495	0.039	1.61	0.085	0.059	2.025	0.17	0.050	2.44	0.255	0.056
0.8	0.64	0.039	1.73	0.21	0.053	1.195	0.005	0.035	1.61	0.09	0.050	2.025	0.175	0.049	2.44	0.26	0.044
0.8	0.65	0.038	1.73	0.22	0.052	1.195	0.01	0.034	1.61	0.095	0.046	2.025	0.18	0.050	2.44	0.265	0.039
0.8	0.66	0.036	1.73	0.23	0.049	1.195	0.015	0.033	1.61	0.1	0.047	2.025	0.185	0.049	2.44	0.27	0.037
0.8	0.67	0.036	1.73	0.24	0.047	1.195	0.02	0.033	1.61	0.105	0.051	2.025	0.19	0.047	2.44	0.275	0.036
0.8	0.68	0.038	1.73	0.25	0.049	1.195	0.025	0.033	1.61	0.11	0.054	2.025	0.195	0.046	2.44	0.28	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.8	0.69	0.039	1.73	0.26	0.052	1.195	0.03	0.034	1.61	0.115	0.054	2.025	0.2	0.045	2.44	0.285	0.036
0.8	0.7	0.041	1.73	0.27	0.052	1.195	0.035	0.034	1.61	0.12	0.051	2.025	0.205	0.043	2.44	0.29	0.037
0.8	0.71	0.042	1.73	0.28	0.049	1.195	0.04	0.034	1.61	0.125	0.043	2.025	0.21	0.040	2.44	0.295	0.039
0.8	0.72	0.043	1.73	0.29	0.046	1.195	0.045	0.033	1.61	0.13	0.036	2.025	0.215	0.041	2.44	0.3	0.040
0.8	0.73	0.043	1.73	0.3	0.042	1.195	0.05	0.033	1.61	0.135	0.034	2.025	0.22	0.045	2.44	0.305	0.040
0.8	0.74	0.041	1.73	0.31	0.041	1.195	0.055	0.034	1.61	0.14	0.034	2.025	0.225	0.049	2.44	0.31	0.039
0.8	0.75	0.038	1.73	0.32	0.041	1.195	0.06	0.035	1.61	0.145	0.037	2.025	0.23	0.052	2.44	0.315	0.037
0.8	0.76	0.036	1.73	0.33	0.043	1.195	0.065	0.037	1.61	0.15	0.042	2.025	0.235	0.053	2.44	0.32	0.035
0.8	0.77	0.035	1.73	0.34	0.044	1.195	0.07	0.039	1.61	0.155	0.049	2.025	0.24	0.054	2.44	0.325	0.034
0.8	0.78	0.036	1.73	0.35	0.044	1.195	0.075	0.040	1.61	0.16	0.055	2.025	0.245	0.055	2.44	0.33	0.034
0.8	0.79	0.039	1.73	0.36	0.045	1.195	0.08	0.041	1.61	0.165	0.058	2.025	0.25	0.054	2.44	0.335	0.035
0.8	0.8	0.041	1.73	0.37	0.047	1.195	0.085	0.041	1.61	0.17	0.060	2.025	0.255	0.050	2.44	0.34	0.034
0.8	0.81	0.042	1.73	0.38	0.049	1.195	0.09	0.038	1.61	0.175	0.062	2.025	0.26	0.044	2.44	0.345	0.033
0.8	0.82	0.042	1.73	0.39	0.050	1.195	0.095	0.036	1.61	0.18	0.062	2.025	0.265	0.042	2.44	0.35	0.032
0.8	0.83	0.042	1.73	0.4	0.049	1.195	0.1	0.034	1.61	0.185	0.061	2.025	0.27	0.043	2.44	0.355	0.032
0.8	0.84	0.042	1.73	0.41	0.047	1.195	0.105	0.034	1.61	0.19	0.058	2.025	0.275	0.044	2.44	0.36	0.034
0.8	0.85	0.043	1.73	0.42	0.046	1.195	0.11	0.036	1.61	0.195	0.055	2.025	0.28	0.044	2.44	0.365	0.038
0.8	0.86	0.043	1.73	0.43	0.045	1.195	0.115	0.037	1.61	0.2	0.055	2.025	0.285	0.041	2.44	0.37	0.044
0.8	0.87	0.042	1.73	0.44	0.046	1.195	0.12	0.038	1.61	0.205	0.057	2.025	0.29	0.038	2.44	0.375	0.049
0.8	0.88	0.041	1.73	0.45	0.048	1.195	0.125	0.041	1.61	0.21	0.056	2.025	0.295	0.040	2.44	0.38	0.052
0.8	0.89	0.039	1.73	0.46	0.050	1.195	0.13	0.043	1.61	0.215	0.053	2.025	0.3	0.044	2.44	0.385	0.051
0.81	0.01	0.048	1.73	0.47	0.052	1.195	0.135	0.045	1.61	0.22	0.049	2.025	0.305	0.048	2.44	0.39	0.049
0.81	0.02	0.052	1.73	0.48	0.053	1.195	0.14	0.045	1.61	0.225	0.044	2.025	0.31	0.048	2.44	0.395	0.045
0.81	0.03	0.056	1.73	0.49	0.054	1.195	0.145	0.042	1.61	0.23	0.041	2.025	0.315	0.045	2.44	0.4	0.042
0.81	0.04	0.057	1.73	0.5	0.056	1.195	0.15	0.037	1.61	0.235	0.043	2.025	0.32	0.042	2.44	0.405	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.81	0.05	0.058	1.73	0.51	0.059	1.195	0.155	0.034	1.61	0.24	0.046	2.025	0.325	0.041	2.44	0.41	0.044
0.81	0.06	0.060	1.73	0.52	0.060	1.195	0.16	0.032	1.61	0.245	0.047	2.025	0.33	0.042	2.44	0.415	0.046
0.81	0.07	0.061	1.73	0.53	0.059	1.195	0.165	0.031	1.61	0.25	0.047	2.025	0.335	0.041	2.44	0.42	0.047
0.81	0.08	0.062	1.73	0.54	0.057	1.195	0.17	0.031	1.61	0.255	0.045	2.025	0.34	0.040	2.44	0.425	0.048
0.81	0.09	0.060	1.73	0.55	0.058	1.195	0.175	0.032	1.61	0.26	0.043	2.025	0.345	0.040	2.44	0.43	0.048
0.81	0.1	0.059	1.73	0.56	0.059	1.195	0.18	0.034	1.61	0.265	0.041	2.025	0.35	0.043	2.44	0.435	0.045
0.81	0.11	0.057	1.73	0.57	0.060	1.195	0.185	0.038	1.61	0.27	0.040	2.025	0.355	0.050	2.44	0.44	0.045
0.81	0.12	0.055	1.73	0.58	0.058	1.195	0.19	0.043	1.61	0.275	0.041	2.025	0.36	0.054	2.44	0.445	0.046
0.81	0.13	0.054	1.73	0.59	0.054	1.195	0.195	0.048	1.61	0.28	0.041	2.025	0.365	0.055	2.44	0.45	0.046
0.81	0.14	0.051	1.73	0.6	0.051	1.195	0.2	0.050	1.61	0.285	0.042	2.025	0.37	0.055	2.44	0.455	0.045
0.81	0.15	0.047	1.73	0.61	0.051	1.195	0.205	0.050	1.61	0.29	0.045	2.025	0.375	0.055	2.44	0.46	0.043
0.81	0.16	0.044	1.73	0.62	0.052	1.195	0.21	0.049	1.61	0.295	0.052	2.025	0.38	0.052	2.44	0.465	0.044
0.81	0.17	0.042	1.73	0.63	0.053	1.195	0.215	0.048	1.61	0.3	0.058	2.025	0.385	0.047	2.44	0.47	0.044
0.81	0.18	0.041	1.73	0.64	0.053	1.195	0.22	0.048	1.61	0.305	0.060	2.025	0.39	0.043	2.44	0.475	0.044
0.81	0.19	0.039	1.73	0.65	0.052	1.195	0.225	0.047	1.61	0.31	0.058	2.025	0.395	0.043	2.44	0.48	0.042
0.81	0.2	0.038	1.73	0.66	0.050	1.195	0.23	0.044	1.61	0.315	0.054	2.025	0.4	0.044	2.44	0.485	0.040
0.81	0.21	0.038	1.73	0.67	0.049	1.195	0.235	0.040	1.61	0.32	0.050	2.025	0.405	0.044	2.44	0.49	0.040
0.81	0.22	0.039	1.73	0.68	0.050	1.195	0.24	0.038	1.61	0.325	0.044	2.025	0.41	0.044	2.44	0.495	0.040
0.81	0.23	0.040	1.73	0.69	0.050	1.195	0.245	0.040	1.61	0.33	0.038	2.025	0.415	0.047	2.445	0.005	0.055
0.81	0.24	0.042	1.73	0.7	0.052	1.195	0.25	0.044	1.61	0.335	0.036	2.025	0.42	0.050	2.445	0.01	0.064
0.81	0.25	0.043	1.73	0.71	0.051	1.195	0.255	0.045	1.61	0.34	0.037	2.025	0.425	0.050	2.445	0.015	0.068
0.81	0.26	0.043	1.73	0.72	0.049	1.195	0.26	0.041	1.61	0.345	0.039	2.025	0.43	0.047	2.445	0.02	0.070
0.81	0.27	0.044	1.73	0.73	0.046	1.195	0.265	0.037	1.61	0.35	0.040	2.025	0.435	0.047	2.445	0.025	0.069
0.81	0.28	0.044	1.73	0.74	0.045	1.195	0.27	0.038	1.61	0.355	0.040	2.025	0.44	0.047	2.445	0.03	0.066
0.81	0.29	0.042	1.73	0.75	0.046	1.195	0.275	0.042	1.61	0.36	0.041	2.025	0.445	0.048	2.445	0.035	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.81	0.3	0.040	1.73	0.76	0.045	1.195	0.28	0.046	1.61	0.365	0.043	2.025	0.45	0.049	2.445	0.04	0.059
0.81	0.31	0.038	1.73	0.77	0.043	1.195	0.285	0.048	1.61	0.37	0.045	2.025	0.455	0.049	2.445	0.045	0.059
0.81	0.32	0.037	1.73	0.78	0.041	1.195	0.29	0.048	1.61	0.375	0.045	2.025	0.46	0.049	2.445	0.05	0.058
0.81	0.33	0.037	1.73	0.79	0.040	1.195	0.295	0.047	1.61	0.38	0.045	2.025	0.465	0.047	2.445	0.055	0.056
0.81	0.34	0.037	1.73	0.8	0.040	1.195	0.3	0.047	1.61	0.385	0.044	2.025	0.47	0.044	2.445	0.06	0.051
0.81	0.35	0.037	1.73	0.81	0.043	1.195	0.305	0.047	1.61	0.39	0.042	2.025	0.475	0.041	2.445	0.065	0.045
0.81	0.36	0.036	1.73	0.82	0.047	1.195	0.31	0.046	1.61	0.395	0.041	2.025	0.48	0.045	2.445	0.07	0.042
0.81	0.37	0.037	1.73	0.83	0.053	1.195	0.315	0.043	1.61	0.4	0.041	2.025	0.485	0.053	2.445	0.075	0.045
0.81	0.38	0.038	1.73	0.84	0.057	1.195	0.32	0.043	1.61	0.405	0.044	2.025	0.49	0.059	2.445	0.08	0.051
0.81	0.39	0.040	1.73	0.85	0.059	1.195	0.325	0.044	1.61	0.41	0.047	2.025	0.495	0.061	2.445	0.085	0.057
0.81	0.4	0.042	1.73	0.86	0.061	1.195	0.33	0.045	1.61	0.415	0.051	2.03	0.005	0.073	2.445	0.09	0.061
0.81	0.41	0.044	1.73	0.87	0.063	1.195	0.335	0.045	1.61	0.42	0.054	2.03	0.01	0.079	2.445	0.095	0.064
0.81	0.42	0.045	1.73	0.88	0.063	1.195	0.34	0.044	1.61	0.425	0.056	2.03	0.015	0.085	2.445	0.1	0.065
0.81	0.43	0.044	1.73	0.89	0.064	1.195	0.345	0.044	1.61	0.43	0.056	2.03	0.02	0.090	2.445	0.105	0.065
0.81	0.44	0.041	1.74	0.01	0.065	1.195	0.35	0.048	1.61	0.435	0.053	2.03	0.025	0.090	2.445	0.11	0.063
0.81	0.45	0.038	1.74	0.02	0.069	1.195	0.355	0.052	1.61	0.44	0.046	2.03	0.03	0.085	2.445	0.115	0.062
0.81	0.46	0.036	1.74	0.03	0.068	1.195	0.36	0.053	1.61	0.445	0.040	2.03	0.035	0.075	2.445	0.12	0.061
0.81	0.47	0.036	1.74	0.04	0.065	1.195	0.365	0.048	1.61	0.45	0.039	2.03	0.04	0.067	2.445	0.125	0.059
0.81	0.48	0.037	1.74	0.05	0.063	1.195	0.37	0.039	1.61	0.455	0.043	2.03	0.045	0.060	2.445	0.13	0.055
0.81	0.49	0.038	1.74	0.06	0.061	1.195	0.375	0.035	1.61	0.46	0.046	2.03	0.05	0.056	2.445	0.135	0.053
0.81	0.5	0.039	1.74	0.07	0.061	1.195	0.38	0.036	1.61	0.465	0.048	2.03	0.055	0.057	2.445	0.14	0.054
0.81	0.51	0.041	1.74	0.08	0.063	1.195	0.385	0.039	1.61	0.47	0.048	2.03	0.06	0.061	2.445	0.145	0.059
0.81	0.52	0.042	1.74	0.09	0.064	1.195	0.39	0.040	1.61	0.475	0.048	2.03	0.065	0.064	2.445	0.15	0.067
0.81	0.53	0.043	1.74	0.1	0.062	1.195	0.395	0.038	1.61	0.48	0.047	2.03	0.07	0.063	2.445	0.155	0.071
0.81	0.54	0.043	1.74	0.11	0.059	1.195	0.4	0.036	1.61	0.485	0.045	2.03	0.075	0.060	2.445	0.16	0.070

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.81	0.55	0.042	1.74	0.12	0.059	1.195	0.405	0.039	1.61	0.49	0.045	2.03	0.08	0.063	2.445	0.165	0.065
0.81	0.56	0.041	1.74	0.13	0.061	1.195	0.41	0.045	1.61	0.495	0.049	2.03	0.085	0.072	2.445	0.17	0.056
0.81	0.57	0.041	1.74	0.14	0.063	1.195	0.415	0.051	1.615	0.005	0.047	2.03	0.09	0.080	2.445	0.175	0.045
0.81	0.58	0.040	1.74	0.15	0.064	1.195	0.42	0.053	1.615	0.01	0.047	2.03	0.095	0.084	2.445	0.18	0.039
0.81	0.59	0.039	1.74	0.16	0.065	1.195	0.425	0.050	1.615	0.015	0.046	2.03	0.1	0.085	2.445	0.185	0.043
0.81	0.6	0.038	1.74	0.17	0.063	1.195	0.43	0.042	1.615	0.02	0.046	2.03	0.105	0.084	2.445	0.19	0.052
0.81	0.61	0.037	1.74	0.18	0.059	1.195	0.435	0.036	1.615	0.025	0.049	2.03	0.11	0.079	2.445	0.195	0.056
0.81	0.62	0.038	1.74	0.19	0.055	1.195	0.44	0.035	1.615	0.03	0.055	2.03	0.115	0.077	2.445	0.2	0.056
0.81	0.63	0.039	1.74	0.2	0.054	1.195	0.445	0.035	1.615	0.035	0.061	2.03	0.12	0.078	2.445	0.205	0.054
0.81	0.64	0.039	1.74	0.21	0.054	1.195	0.45	0.036	1.615	0.04	0.062	2.03	0.125	0.080	2.445	0.21	0.054
0.81	0.65	0.038	1.74	0.22	0.052	1.195	0.455	0.039	1.615	0.045	0.057	2.03	0.13	0.081	2.445	0.215	0.058
0.81	0.66	0.037	1.74	0.23	0.049	1.195	0.46	0.042	1.615	0.05	0.050	2.03	0.135	0.081	2.445	0.22	0.062
0.81	0.67	0.037	1.74	0.24	0.048	1.195	0.465	0.044	1.615	0.055	0.044	2.03	0.14	0.079	2.445	0.225	0.066
0.81	0.68	0.039	1.74	0.25	0.050	1.195	0.47	0.044	1.615	0.06	0.044	2.03	0.145	0.074	2.445	0.23	0.068
0.81	0.69	0.041	1.74	0.26	0.052	1.195	0.475	0.041	1.615	0.065	0.052	2.03	0.15	0.068	2.445	0.235	0.070
0.81	0.7	0.042	1.74	0.27	0.051	1.195	0.48	0.036	1.615	0.07	0.061	2.03	0.155	0.064	2.445	0.24	0.071
0.81	0.71	0.043	1.74	0.28	0.048	1.195	0.485	0.033	1.615	0.075	0.065	2.03	0.16	0.061	2.445	0.245	0.070
0.81	0.72	0.042	1.74	0.29	0.044	1.195	0.49	0.033	1.615	0.08	0.065	2.03	0.165	0.056	2.445	0.25	0.065
0.81	0.73	0.042	1.74	0.3	0.042	1.195	0.495	0.037	1.615	0.085	0.060	2.03	0.17	0.049	2.445	0.255	0.055
0.81	0.74	0.041	1.74	0.31	0.041	1.2	0.005	0.034	1.615	0.09	0.049	2.03	0.175	0.046	2.445	0.26	0.045
0.81	0.75	0.038	1.74	0.32	0.041	1.2	0.01	0.033	1.615	0.095	0.043	2.03	0.18	0.047	2.445	0.265	0.041
0.81	0.76	0.036	1.74	0.33	0.043	1.2	0.015	0.033	1.615	0.1	0.047	2.03	0.185	0.046	2.445	0.27	0.039
0.81	0.77	0.036	1.74	0.34	0.045	1.2	0.02	0.033	1.615	0.105	0.053	2.03	0.19	0.043	2.445	0.275	0.037
0.81	0.78	0.037	1.74	0.35	0.046	1.2	0.025	0.033	1.615	0.11	0.058	2.03	0.195	0.042	2.445	0.28	0.036
0.81	0.79	0.040	1.74	0.36	0.045	1.2	0.03	0.035	1.615	0.115	0.059	2.03	0.2	0.043	2.445	0.285	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.81	0.8	0.044	1.74	0.37	0.046	1.2	0.035	0.035	1.615	0.12	0.057	2.03	0.205	0.042	2.445	0.29	0.035
0.81	0.81	0.045	1.74	0.38	0.048	1.2	0.04	0.035	1.615	0.125	0.052	2.03	0.21	0.042	2.445	0.295	0.036
0.81	0.82	0.044	1.74	0.39	0.049	1.2	0.045	0.034	1.615	0.13	0.043	2.03	0.215	0.042	2.445	0.3	0.037
0.81	0.83	0.042	1.74	0.4	0.049	1.2	0.05	0.034	1.615	0.135	0.036	2.03	0.22	0.043	2.445	0.305	0.037
0.81	0.84	0.041	1.74	0.41	0.048	1.2	0.055	0.035	1.615	0.14	0.035	2.03	0.225	0.046	2.445	0.31	0.037
0.81	0.85	0.042	1.74	0.42	0.046	1.2	0.06	0.036	1.615	0.145	0.036	2.03	0.23	0.049	2.445	0.315	0.036
0.81	0.86	0.043	1.74	0.43	0.045	1.2	0.065	0.038	1.615	0.15	0.041	2.03	0.235	0.052	2.445	0.32	0.035
0.81	0.87	0.042	1.74	0.44	0.044	1.2	0.07	0.040	1.615	0.155	0.049	2.03	0.24	0.055	2.445	0.325	0.034
0.81	0.88	0.041	1.74	0.45	0.046	1.2	0.075	0.042	1.615	0.16	0.055	2.03	0.245	0.055	2.445	0.33	0.035
0.81	0.89	0.038	1.74	0.46	0.049	1.2	0.08	0.043	1.615	0.165	0.058	2.03	0.25	0.054	2.445	0.335	0.036
0.82	0.01	0.048	1.74	0.47	0.052	1.2	0.085	0.043	1.615	0.17	0.060	2.03	0.255	0.051	2.445	0.34	0.034
0.82	0.02	0.053	1.74	0.48	0.054	1.2	0.09	0.040	1.615	0.175	0.062	2.03	0.26	0.046	2.445	0.345	0.032
0.82	0.03	0.057	1.74	0.49	0.055	1.2	0.095	0.036	1.615	0.18	0.063	2.03	0.265	0.043	2.445	0.35	0.031
0.82	0.04	0.059	1.74	0.5	0.058	1.2	0.1	0.034	1.615	0.185	0.062	2.03	0.27	0.043	2.445	0.355	0.031
0.82	0.05	0.059	1.74	0.51	0.061	1.2	0.105	0.035	1.615	0.19	0.059	2.03	0.275	0.043	2.445	0.36	0.032
0.82	0.06	0.061	1.74	0.52	0.062	1.2	0.11	0.037	1.615	0.195	0.053	2.03	0.28	0.041	2.445	0.365	0.035
0.82	0.07	0.063	1.74	0.53	0.062	1.2	0.115	0.038	1.615	0.2	0.052	2.03	0.285	0.037	2.445	0.37	0.040
0.82	0.08	0.063	1.74	0.54	0.060	1.2	0.12	0.038	1.615	0.205	0.052	2.03	0.29	0.035	2.445	0.375	0.044
0.82	0.09	0.061	1.74	0.55	0.058	1.2	0.125	0.043	1.615	0.21	0.051	2.03	0.295	0.038	2.445	0.38	0.047
0.82	0.1	0.059	1.74	0.56	0.058	1.2	0.13	0.049	1.615	0.215	0.051	2.03	0.3	0.042	2.445	0.385	0.046
0.82	0.11	0.057	1.74	0.57	0.057	1.2	0.135	0.052	1.615	0.22	0.051	2.03	0.305	0.046	2.445	0.39	0.043
0.82	0.12	0.054	1.74	0.58	0.055	1.2	0.14	0.051	1.615	0.225	0.050	2.03	0.31	0.047	2.445	0.395	0.040
0.82	0.13	0.051	1.74	0.59	0.052	1.2	0.145	0.047	1.615	0.23	0.047	2.03	0.315	0.045	2.445	0.4	0.038
0.82	0.14	0.047	1.74	0.6	0.050	1.2	0.15	0.041	1.615	0.235	0.047	2.03	0.32	0.044	2.445	0.405	0.039
0.82	0.15	0.044	1.74	0.61	0.051	1.2	0.155	0.037	1.615	0.24	0.049	2.03	0.325	0.045	2.445	0.41	0.041

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.82	0.16	0.043	1.74	0.62	0.053	1.2	0.16	0.034	1.615	0.245	0.050	2.03	0.33	0.046	2.445	0.415	0.044
0.82	0.17	0.042	1.74	0.63	0.054	1.2	0.165	0.032	1.615	0.25	0.050	2.03	0.335	0.046	2.445	0.42	0.048
0.82	0.18	0.041	1.74	0.64	0.055	1.2	0.17	0.031	1.615	0.255	0.048	2.03	0.34	0.045	2.445	0.425	0.052
0.82	0.19	0.040	1.74	0.65	0.055	1.2	0.175	0.031	1.615	0.26	0.046	2.03	0.345	0.043	2.445	0.43	0.051
0.82	0.2	0.040	1.74	0.66	0.055	1.2	0.18	0.032	1.615	0.265	0.044	2.03	0.35	0.042	2.445	0.435	0.047
0.82	0.21	0.040	1.74	0.67	0.055	1.2	0.185	0.035	1.615	0.27	0.042	2.03	0.355	0.043	2.445	0.44	0.043
0.82	0.22	0.040	1.74	0.68	0.055	1.2	0.19	0.039	1.615	0.275	0.043	2.03	0.36	0.046	2.445	0.445	0.043
0.82	0.23	0.041	1.74	0.69	0.053	1.2	0.195	0.043	1.615	0.28	0.044	2.03	0.365	0.048	2.445	0.45	0.044
0.82	0.24	0.041	1.74	0.7	0.051	1.2	0.2	0.045	1.615	0.285	0.045	2.03	0.37	0.049	2.445	0.455	0.043
0.82	0.25	0.041	1.74	0.71	0.049	1.2	0.205	0.046	1.615	0.29	0.048	2.03	0.375	0.050	2.445	0.46	0.042
0.82	0.26	0.041	1.74	0.72	0.047	1.2	0.21	0.046	1.615	0.295	0.055	2.03	0.38	0.048	2.445	0.465	0.041
0.82	0.27	0.042	1.74	0.73	0.045	1.2	0.215	0.047	1.615	0.3	0.060	2.03	0.385	0.046	2.445	0.47	0.041
0.82	0.28	0.042	1.74	0.74	0.044	1.2	0.22	0.049	1.615	0.305	0.062	2.03	0.39	0.043	2.445	0.475	0.040
0.82	0.29	0.040	1.74	0.75	0.044	1.2	0.225	0.048	1.615	0.31	0.061	2.03	0.395	0.043	2.445	0.48	0.038
0.82	0.3	0.038	1.74	0.76	0.044	1.2	0.23	0.045	1.615	0.315	0.057	2.03	0.4	0.043	2.445	0.485	0.038
0.82	0.31	0.037	1.74	0.77	0.044	1.2	0.235	0.041	1.615	0.32	0.052	2.03	0.405	0.043	2.445	0.49	0.039
0.82	0.32	0.036	1.74	0.78	0.043	1.2	0.24	0.040	1.615	0.325	0.046	2.03	0.41	0.043	2.445	0.495	0.039
0.82	0.33	0.037	1.74	0.79	0.043	1.2	0.245	0.044	1.615	0.33	0.040	2.03	0.415	0.045	2.45	0.005	0.056
0.82	0.34	0.037	1.74	0.8	0.043	1.2	0.25	0.051	1.615	0.335	0.037	2.03	0.42	0.048	2.45	0.01	0.066
0.82	0.35	0.037	1.74	0.81	0.044	1.2	0.255	0.050	1.615	0.34	0.040	2.03	0.425	0.047	2.45	0.015	0.070
0.82	0.36	0.037	1.74	0.82	0.049	1.2	0.26	0.041	1.615	0.345	0.043	2.03	0.43	0.046	2.45	0.02	0.071
0.82	0.37	0.038	1.74	0.83	0.053	1.2	0.265	0.034	1.615	0.35	0.042	2.03	0.435	0.048	2.45	0.025	0.071
0.82	0.38	0.040	1.74	0.84	0.054	1.2	0.27	0.034	1.615	0.355	0.042	2.03	0.44	0.050	2.45	0.03	0.069
0.82	0.39	0.041	1.74	0.85	0.054	1.2	0.275	0.040	1.615	0.36	0.043	2.03	0.445	0.052	2.45	0.035	0.064
0.82	0.4	0.042	1.74	0.86	0.056	1.2	0.28	0.048	1.615	0.365	0.045	2.03	0.45	0.052	2.45	0.04	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.82	0.41	0.042	1.74	0.87	0.058	1.2	0.285	0.053	1.615	0.37	0.045	2.03	0.455	0.053	2.45	0.045	0.055
0.82	0.42	0.042	1.74	0.88	0.057	1.2	0.29	0.050	1.615	0.375	0.046	2.03	0.46	0.052	2.45	0.05	0.054
0.82	0.43	0.041	1.74	0.89	0.057	1.2	0.295	0.046	1.615	0.38	0.045	2.03	0.465	0.052	2.45	0.055	0.051
0.82	0.44	0.040	1.75	0.01	0.063	1.2	0.3	0.046	1.615	0.385	0.045	2.03	0.47	0.050	2.45	0.06	0.047
0.82	0.45	0.038	1.75	0.02	0.065	1.2	0.305	0.047	1.615	0.39	0.043	2.03	0.475	0.046	2.45	0.065	0.043
0.82	0.46	0.038	1.75	0.03	0.065	1.2	0.31	0.046	1.615	0.395	0.041	2.03	0.48	0.044	2.45	0.07	0.040
0.82	0.47	0.038	1.75	0.04	0.064	1.2	0.315	0.044	1.615	0.4	0.041	2.03	0.485	0.049	2.45	0.075	0.043
0.82	0.48	0.039	1.75	0.05	0.063	1.2	0.32	0.043	1.615	0.405	0.044	2.03	0.49	0.054	2.45	0.08	0.049
0.82	0.49	0.038	1.75	0.06	0.061	1.2	0.325	0.045	1.615	0.41	0.048	2.03	0.495	0.058	2.45	0.085	0.055
0.82	0.5	0.038	1.75	0.07	0.061	1.2	0.33	0.047	1.615	0.415	0.052	2.035	0.005	0.072	2.45	0.09	0.059
0.82	0.51	0.039	1.75	0.08	0.061	1.2	0.335	0.047	1.615	0.42	0.055	2.035	0.01	0.079	2.45	0.095	0.062
0.82	0.52	0.041	1.75	0.09	0.061	1.2	0.34	0.046	1.615	0.425	0.057	2.035	0.015	0.085	2.45	0.1	0.064
0.82	0.53	0.043	1.75	0.1	0.062	1.2	0.345	0.047	1.615	0.43	0.059	2.035	0.02	0.090	2.45	0.105	0.067
0.82	0.54	0.043	1.75	0.11	0.062	1.2	0.35	0.051	1.615	0.435	0.058	2.035	0.025	0.090	2.45	0.11	0.070
0.82	0.55	0.042	1.75	0.12	0.062	1.2	0.355	0.052	1.615	0.44	0.054	2.035	0.03	0.085	2.45	0.115	0.070
0.82	0.56	0.041	1.75	0.13	0.063	1.2	0.36	0.051	1.615	0.445	0.047	2.035	0.035	0.077	2.45	0.12	0.068
0.82	0.57	0.039	1.75	0.14	0.063	1.2	0.365	0.047	1.615	0.45	0.043	2.035	0.04	0.070	2.45	0.125	0.065
0.82	0.58	0.038	1.75	0.15	0.064	1.2	0.37	0.041	1.615	0.455	0.047	2.035	0.045	0.064	2.45	0.13	0.061
0.82	0.59	0.038	1.75	0.16	0.065	1.2	0.375	0.039	1.615	0.46	0.051	2.035	0.05	0.060	2.45	0.135	0.057
0.82	0.6	0.037	1.75	0.17	0.063	1.2	0.38	0.040	1.615	0.465	0.052	2.035	0.055	0.058	2.45	0.14	0.056
0.82	0.61	0.037	1.75	0.18	0.060	1.2	0.385	0.043	1.615	0.47	0.049	2.035	0.06	0.061	2.45	0.145	0.059
0.82	0.62	0.038	1.75	0.19	0.056	1.2	0.39	0.044	1.615	0.475	0.046	2.035	0.065	0.065	2.45	0.15	0.066
0.82	0.63	0.038	1.75	0.2	0.055	1.2	0.395	0.042	1.615	0.48	0.044	2.035	0.07	0.065	2.45	0.155	0.069
0.82	0.64	0.038	1.75	0.21	0.056	1.2	0.4	0.038	1.615	0.485	0.044	2.035	0.075	0.063	2.45	0.16	0.066
0.82	0.65	0.038	1.75	0.22	0.055	1.2	0.405	0.036	1.615	0.49	0.045	2.035	0.08	0.065	2.45	0.165	0.061

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.82	0.66	0.038	1.75	0.23	0.052	1.2	0.41	0.039	1.615	0.495	0.048	2.035	0.085	0.074	2.45	0.17	0.056
0.82	0.67	0.039	1.75	0.24	0.050	1.2	0.415	0.043	1.62	0.005	0.047	2.035	0.09	0.080	2.45	0.175	0.051
0.82	0.68	0.040	1.75	0.25	0.052	1.2	0.42	0.048	1.62	0.01	0.047	2.035	0.095	0.083	2.45	0.18	0.045
0.82	0.69	0.041	1.75	0.26	0.053	1.2	0.425	0.051	1.62	0.015	0.048	2.035	0.1	0.082	2.45	0.185	0.047
0.82	0.7	0.042	1.75	0.27	0.051	1.2	0.43	0.049	1.62	0.02	0.051	2.035	0.105	0.079	2.45	0.19	0.054
0.82	0.71	0.042	1.75	0.28	0.047	1.2	0.435	0.046	1.62	0.025	0.057	2.035	0.11	0.073	2.45	0.195	0.057
0.82	0.72	0.042	1.75	0.29	0.045	1.2	0.44	0.044	1.62	0.03	0.065	2.035	0.115	0.070	2.45	0.2	0.056
0.82	0.73	0.042	1.75	0.3	0.044	1.2	0.445	0.041	1.62	0.035	0.068	2.035	0.12	0.074	2.45	0.205	0.054
0.82	0.74	0.041	1.75	0.31	0.044	1.2	0.45	0.040	1.62	0.04	0.067	2.035	0.125	0.077	2.45	0.21	0.051
0.82	0.75	0.039	1.75	0.32	0.044	1.2	0.455	0.039	1.62	0.045	0.060	2.035	0.13	0.079	2.45	0.215	0.053
0.82	0.76	0.038	1.75	0.33	0.045	1.2	0.46	0.039	1.62	0.05	0.052	2.035	0.135	0.080	2.45	0.22	0.059
0.82	0.77	0.038	1.75	0.34	0.046	1.2	0.465	0.039	1.62	0.055	0.044	2.035	0.14	0.080	2.45	0.225	0.063
0.82	0.78	0.039	1.75	0.35	0.047	1.2	0.47	0.039	1.62	0.06	0.042	2.035	0.145	0.078	2.45	0.23	0.066
0.82	0.79	0.042	1.75	0.36	0.046	1.2	0.475	0.038	1.62	0.065	0.049	2.035	0.15	0.072	2.45	0.235	0.067
0.82	0.8	0.044	1.75	0.37	0.046	1.2	0.48	0.035	1.62	0.07	0.058	2.035	0.155	0.065	2.45	0.24	0.067
0.82	0.81	0.045	1.75	0.38	0.047	1.2	0.485	0.032	1.62	0.075	0.064	2.035	0.16	0.060	2.45	0.245	0.065
0.82	0.82	0.044	1.75	0.39	0.048	1.2	0.49	0.032	1.62	0.08	0.064	2.035	0.165	0.055	2.45	0.25	0.059
0.82	0.83	0.041	1.75	0.4	0.048	1.2	0.495	0.035	1.62	0.085	0.058	2.035	0.17	0.049	2.45	0.255	0.051
0.82	0.84	0.041	1.75	0.41	0.047	1.205	0.005	0.034	1.62	0.09	0.048	2.035	0.175	0.045	2.45	0.26	0.045
0.82	0.85	0.041	1.75	0.42	0.046	1.205	0.01	0.033	1.62	0.095	0.043	2.035	0.18	0.043	2.45	0.265	0.042
0.82	0.86	0.042	1.75	0.43	0.044	1.205	0.015	0.032	1.62	0.1	0.047	2.035	0.185	0.041	2.45	0.27	0.040
0.82	0.87	0.042	1.75	0.44	0.044	1.205	0.02	0.033	1.62	0.105	0.055	2.035	0.19	0.038	2.45	0.275	0.037
0.82	0.88	0.040	1.75	0.45	0.045	1.205	0.025	0.034	1.62	0.11	0.059	2.035	0.195	0.037	2.45	0.28	0.035
0.82	0.89	0.039	1.75	0.46	0.048	1.205	0.03	0.035	1.62	0.115	0.061	2.035	0.2	0.039	2.45	0.285	0.034
0.83	0.01	0.048	1.75	0.47	0.053	1.205	0.035	0.036	1.62	0.12	0.061	2.035	0.205	0.043	2.45	0.29	0.034

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.83	0.02	0.054	1.75	0.48	0.055	1.205	0.04	0.034	1.62	0.125	0.058	2.035	0.21	0.045	2.45	0.295	0.034
0.83	0.03	0.058	1.75	0.49	0.057	1.205	0.045	0.033	1.62	0.13	0.051	2.035	0.215	0.044	2.45	0.3	0.034
0.83	0.04	0.060	1.75	0.5	0.059	1.205	0.05	0.034	1.62	0.135	0.042	2.035	0.22	0.040	2.45	0.305	0.034
0.83	0.05	0.060	1.75	0.51	0.062	1.205	0.055	0.036	1.62	0.14	0.038	2.035	0.225	0.040	2.45	0.31	0.035
0.83	0.06	0.061	1.75	0.52	0.063	1.205	0.06	0.038	1.62	0.145	0.040	2.035	0.23	0.044	2.45	0.315	0.036
0.83	0.07	0.063	1.75	0.53	0.063	1.205	0.065	0.039	1.62	0.15	0.044	2.035	0.235	0.049	2.45	0.32	0.036
0.83	0.08	0.063	1.75	0.54	0.061	1.205	0.07	0.041	1.62	0.155	0.052	2.035	0.24	0.053	2.45	0.325	0.036
0.83	0.09	0.060	1.75	0.55	0.058	1.205	0.075	0.043	1.62	0.16	0.057	2.035	0.245	0.054	2.45	0.33	0.035
0.83	0.1	0.058	1.75	0.56	0.057	1.205	0.08	0.044	1.62	0.165	0.059	2.035	0.25	0.053	2.45	0.335	0.035
0.83	0.11	0.055	1.75	0.57	0.056	1.205	0.085	0.044	1.62	0.17	0.060	2.035	0.255	0.049	2.45	0.34	0.034
0.83	0.12	0.052	1.75	0.58	0.055	1.205	0.09	0.041	1.62	0.175	0.061	2.035	0.26	0.046	2.45	0.345	0.032
0.83	0.13	0.048	1.75	0.59	0.054	1.205	0.095	0.037	1.62	0.18	0.061	2.035	0.265	0.043	2.45	0.35	0.031
0.83	0.14	0.044	1.75	0.6	0.054	1.205	0.1	0.035	1.62	0.185	0.059	2.035	0.27	0.042	2.45	0.355	0.031
0.83	0.15	0.043	1.75	0.61	0.054	1.205	0.105	0.035	1.62	0.19	0.055	2.035	0.275	0.041	2.45	0.36	0.031
0.83	0.16	0.042	1.75	0.62	0.054	1.205	0.11	0.036	1.62	0.195	0.048	2.035	0.28	0.038	2.45	0.365	0.033
0.83	0.17	0.042	1.75	0.63	0.054	1.205	0.115	0.037	1.62	0.2	0.045	2.035	0.285	0.035	2.45	0.37	0.036
0.83	0.18	0.042	1.75	0.64	0.055	1.205	0.12	0.038	1.62	0.205	0.047	2.035	0.29	0.035	2.45	0.375	0.039
0.83	0.19	0.041	1.75	0.65	0.057	1.205	0.125	0.046	1.62	0.21	0.049	2.035	0.295	0.038	2.45	0.38	0.040
0.83	0.2	0.042	1.75	0.66	0.058	1.205	0.13	0.054	1.62	0.215	0.051	2.035	0.3	0.040	2.45	0.385	0.039
0.83	0.21	0.042	1.75	0.67	0.059	1.205	0.135	0.057	1.62	0.22	0.053	2.035	0.305	0.042	2.45	0.39	0.037
0.83	0.22	0.042	1.75	0.68	0.057	1.205	0.14	0.058	1.62	0.225	0.054	2.035	0.31	0.042	2.45	0.395	0.037
0.83	0.23	0.042	1.75	0.69	0.053	1.205	0.145	0.055	1.62	0.23	0.056	2.035	0.315	0.042	2.45	0.4	0.038
0.83	0.24	0.041	1.75	0.7	0.049	1.205	0.15	0.050	1.62	0.235	0.056	2.035	0.32	0.043	2.45	0.405	0.041
0.83	0.25	0.040	1.75	0.71	0.046	1.205	0.155	0.043	1.62	0.24	0.057	2.035	0.325	0.046	2.45	0.41	0.043
0.83	0.26	0.041	1.75	0.72	0.044	1.205	0.16	0.037	1.62	0.245	0.057	2.035	0.33	0.048	2.45	0.415	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.83	0.27	0.042	1.75	0.73	0.042	1.205	0.165	0.033	1.62	0.25	0.056	2.035	0.335	0.049	2.45	0.42	0.048
0.83	0.28	0.041	1.75	0.74	0.042	1.205	0.17	0.031	1.62	0.255	0.055	2.035	0.34	0.048	2.45	0.425	0.052
0.83	0.29	0.039	1.75	0.75	0.042	1.205	0.175	0.030	1.62	0.26	0.053	2.035	0.345	0.046	2.45	0.43	0.052
0.83	0.3	0.037	1.75	0.76	0.043	1.205	0.18	0.031	1.62	0.265	0.051	2.035	0.35	0.043	2.45	0.435	0.048
0.83	0.31	0.036	1.75	0.77	0.043	1.205	0.185	0.032	1.62	0.27	0.047	2.035	0.355	0.040	2.45	0.44	0.043
0.83	0.32	0.036	1.75	0.78	0.043	1.205	0.19	0.036	1.62	0.275	0.046	2.035	0.36	0.038	2.45	0.445	0.042
0.83	0.33	0.036	1.75	0.79	0.043	1.205	0.195	0.039	1.62	0.28	0.046	2.035	0.365	0.039	2.45	0.45	0.043
0.83	0.34	0.037	1.75	0.8	0.043	1.205	0.2	0.041	1.62	0.285	0.047	2.035	0.37	0.041	2.45	0.455	0.043
0.83	0.35	0.037	1.75	0.81	0.044	1.205	0.205	0.042	1.62	0.29	0.050	2.035	0.375	0.043	2.45	0.46	0.041
0.83	0.36	0.037	1.75	0.82	0.048	1.205	0.21	0.045	1.62	0.295	0.056	2.035	0.38	0.043	2.45	0.465	0.039
0.83	0.37	0.039	1.75	0.83	0.051	1.205	0.215	0.047	1.62	0.3	0.060	2.035	0.385	0.042	2.45	0.47	0.039
0.83	0.38	0.042	1.75	0.84	0.052	1.205	0.22	0.048	1.62	0.305	0.063	2.035	0.39	0.042	2.45	0.475	0.038
0.83	0.39	0.044	1.75	0.85	0.051	1.205	0.225	0.048	1.62	0.31	0.062	2.035	0.395	0.042	2.45	0.48	0.038
0.83	0.4	0.044	1.75	0.86	0.052	1.205	0.23	0.045	1.62	0.315	0.058	2.035	0.4	0.042	2.45	0.485	0.037
0.83	0.41	0.043	1.75	0.87	0.053	1.205	0.235	0.041	1.62	0.32	0.053	2.035	0.405	0.041	2.45	0.49	0.037
0.83	0.42	0.041	1.75	0.88	0.051	1.205	0.24	0.041	1.62	0.325	0.047	2.035	0.41	0.040	2.45	0.495	0.037
0.83	0.43	0.040	1.75	0.89	0.049	1.205	0.245	0.048	1.62	0.33	0.041	2.035	0.415	0.041	2.455	0.005	0.057
0.83	0.44	0.040	1.76	0.01	0.062	1.205	0.25	0.056	1.62	0.335	0.040	2.035	0.42	0.043	2.455	0.01	0.067
0.83	0.45	0.040	1.76	0.02	0.064	1.205	0.255	0.054	1.62	0.34	0.043	2.035	0.425	0.043	2.455	0.015	0.072
0.83	0.46	0.040	1.76	0.03	0.064	1.205	0.26	0.042	1.62	0.345	0.045	2.035	0.43	0.045	2.455	0.02	0.073
0.83	0.47	0.040	1.76	0.04	0.062	1.205	0.265	0.033	1.62	0.35	0.042	2.035	0.435	0.048	2.455	0.025	0.072
0.83	0.48	0.040	1.76	0.05	0.060	1.205	0.27	0.033	1.62	0.355	0.042	2.035	0.44	0.051	2.455	0.03	0.069
0.83	0.49	0.039	1.76	0.06	0.060	1.205	0.275	0.040	1.62	0.36	0.044	2.035	0.445	0.053	2.455	0.035	0.064
0.83	0.5	0.038	1.76	0.07	0.059	1.205	0.28	0.053	1.62	0.365	0.045	2.035	0.45	0.054	2.455	0.04	0.056
0.83	0.51	0.039	1.76	0.08	0.060	1.205	0.285	0.058	1.62	0.37	0.045	2.035	0.455	0.054	2.455	0.045	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.83	0.52	0.042	1.76	0.09	0.061	1.205	0.29	0.053	1.62	0.375	0.045	2.035	0.46	0.054	2.455	0.05	0.051
0.83	0.53	0.044	1.76	0.1	0.063	1.205	0.295	0.046	1.62	0.38	0.045	2.035	0.465	0.054	2.455	0.055	0.049
0.83	0.54	0.044	1.76	0.11	0.064	1.205	0.3	0.044	1.62	0.385	0.045	2.035	0.47	0.053	2.455	0.06	0.047
0.83	0.55	0.043	1.76	0.12	0.065	1.205	0.305	0.046	1.62	0.39	0.043	2.035	0.475	0.050	2.455	0.065	0.046
0.83	0.56	0.040	1.76	0.13	0.063	1.205	0.31	0.046	1.62	0.395	0.041	2.035	0.48	0.044	2.455	0.07	0.045
0.83	0.57	0.039	1.76	0.14	0.062	1.205	0.315	0.045	1.62	0.4	0.040	2.035	0.485	0.043	2.455	0.075	0.046
0.83	0.58	0.038	1.76	0.15	0.062	1.205	0.32	0.045	1.62	0.405	0.043	2.035	0.49	0.047	2.455	0.08	0.048
0.83	0.59	0.037	1.76	0.16	0.064	1.205	0.325	0.047	1.62	0.41	0.047	2.035	0.495	0.051	2.455	0.085	0.052
0.83	0.6	0.037	1.76	0.17	0.063	1.205	0.33	0.048	1.62	0.415	0.051	2.04	0.005	0.070	2.455	0.09	0.055
0.83	0.61	0.037	1.76	0.18	0.060	1.205	0.335	0.047	1.62	0.42	0.054	2.04	0.01	0.078	2.455	0.095	0.059
0.83	0.62	0.037	1.76	0.19	0.056	1.205	0.34	0.047	1.62	0.425	0.057	2.04	0.015	0.084	2.455	0.1	0.062
0.83	0.63	0.038	1.76	0.2	0.056	1.205	0.345	0.048	1.62	0.43	0.059	2.04	0.02	0.088	2.455	0.105	0.066
0.83	0.64	0.039	1.76	0.21	0.057	1.205	0.35	0.050	1.62	0.435	0.060	2.04	0.025	0.088	2.455	0.11	0.072
0.83	0.65	0.039	1.76	0.22	0.057	1.205	0.355	0.050	1.62	0.44	0.059	2.04	0.03	0.083	2.455	0.115	0.073
0.83	0.66	0.039	1.76	0.23	0.055	1.205	0.36	0.048	1.62	0.445	0.054	2.04	0.035	0.076	2.455	0.12	0.072
0.83	0.67	0.039	1.76	0.24	0.053	1.205	0.365	0.045	1.62	0.45	0.048	2.04	0.04	0.071	2.455	0.125	0.070
0.83	0.68	0.040	1.76	0.25	0.052	1.205	0.37	0.043	1.62	0.455	0.049	2.04	0.045	0.067	2.455	0.13	0.067
0.83	0.69	0.040	1.76	0.26	0.052	1.205	0.375	0.043	1.62	0.46	0.053	2.04	0.05	0.066	2.455	0.135	0.063
0.83	0.7	0.040	1.76	0.27	0.050	1.205	0.38	0.045	1.62	0.465	0.053	2.04	0.055	0.067	2.455	0.14	0.061
0.83	0.71	0.040	1.76	0.28	0.048	1.205	0.385	0.047	1.62	0.47	0.049	2.04	0.06	0.068	2.455	0.145	0.060
0.83	0.72	0.041	1.76	0.29	0.048	1.205	0.39	0.047	1.62	0.475	0.043	2.04	0.065	0.070	2.455	0.15	0.063
0.83	0.73	0.042	1.76	0.3	0.049	1.205	0.395	0.044	1.62	0.48	0.041	2.04	0.07	0.069	2.455	0.155	0.064
0.83	0.74	0.042	1.76	0.31	0.048	1.205	0.4	0.040	1.62	0.485	0.046	2.04	0.075	0.067	2.455	0.16	0.062
0.83	0.75	0.041	1.76	0.32	0.048	1.205	0.405	0.037	1.62	0.49	0.049	2.04	0.08	0.067	2.455	0.165	0.060
0.83	0.76	0.041	1.76	0.33	0.047	1.205	0.41	0.038	1.62	0.495	0.049	2.04	0.085	0.073	2.455	0.17	0.059

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.83	0.77	0.041	1.76	0.34	0.047	1.205	0.415	0.042	1.625	0.005	0.046	2.04	0.09	0.077	2.455	0.175	0.058
0.83	0.78	0.041	1.76	0.35	0.047	1.205	0.42	0.048	1.625	0.01	0.047	2.04	0.095	0.078	2.455	0.18	0.056
0.83	0.79	0.041	1.76	0.36	0.047	1.205	0.425	0.052	1.625	0.015	0.051	2.04	0.1	0.078	2.455	0.185	0.055
0.83	0.8	0.042	1.76	0.37	0.046	1.205	0.43	0.053	1.625	0.02	0.058	2.04	0.105	0.075	2.455	0.19	0.058
0.83	0.81	0.043	1.76	0.38	0.046	1.205	0.435	0.053	1.625	0.025	0.067	2.04	0.11	0.070	2.455	0.195	0.057
0.83	0.82	0.042	1.76	0.39	0.046	1.205	0.44	0.052	1.625	0.03	0.072	2.04	0.115	0.066	2.455	0.2	0.055
0.83	0.83	0.041	1.76	0.4	0.046	1.205	0.445	0.050	1.625	0.035	0.073	2.04	0.12	0.070	2.455	0.205	0.051
0.83	0.84	0.040	1.76	0.41	0.046	1.205	0.45	0.046	1.625	0.04	0.070	2.04	0.125	0.075	2.455	0.21	0.047
0.83	0.85	0.041	1.76	0.42	0.045	1.205	0.455	0.041	1.625	0.045	0.063	2.04	0.13	0.078	2.455	0.215	0.047
0.83	0.86	0.041	1.76	0.43	0.045	1.205	0.46	0.039	1.625	0.05	0.055	2.04	0.135	0.080	2.455	0.22	0.053
0.83	0.87	0.040	1.76	0.44	0.044	1.205	0.465	0.038	1.625	0.055	0.046	2.04	0.14	0.080	2.455	0.225	0.059
0.83	0.88	0.040	1.76	0.45	0.045	1.205	0.47	0.037	1.625	0.06	0.042	2.04	0.145	0.080	2.455	0.23	0.060
0.83	0.89	0.041	1.76	0.46	0.048	1.205	0.475	0.036	1.625	0.065	0.047	2.04	0.15	0.076	2.455	0.235	0.060
0.84	0.01	0.048	1.76	0.47	0.052	1.205	0.48	0.035	1.625	0.07	0.054	2.04	0.155	0.068	2.455	0.24	0.059
0.84	0.02	0.054	1.76	0.48	0.056	1.205	0.485	0.033	1.625	0.075	0.059	2.04	0.16	0.060	2.455	0.245	0.057
0.84	0.03	0.057	1.76	0.49	0.059	1.205	0.49	0.032	1.625	0.08	0.059	2.04	0.165	0.053	2.455	0.25	0.052
0.84	0.04	0.059	1.76	0.5	0.060	1.205	0.495	0.034	1.625	0.085	0.055	2.04	0.17	0.048	2.455	0.255	0.048
0.84	0.05	0.061	1.76	0.51	0.062	1.21	0.005	0.034	1.625	0.09	0.048	2.04	0.175	0.045	2.455	0.26	0.045
0.84	0.06	0.061	1.76	0.52	0.063	1.21	0.01	0.033	1.625	0.095	0.044	2.04	0.18	0.043	2.455	0.265	0.044
0.84	0.07	0.062	1.76	0.53	0.062	1.21	0.015	0.032	1.625	0.1	0.047	2.04	0.185	0.040	2.455	0.27	0.041
0.84	0.08	0.060	1.76	0.54	0.060	1.21	0.02	0.033	1.625	0.105	0.053	2.04	0.19	0.036	2.455	0.275	0.037
0.84	0.09	0.058	1.76	0.55	0.058	1.21	0.025	0.035	1.625	0.11	0.058	2.04	0.195	0.035	2.455	0.28	0.034
0.84	0.1	0.055	1.76	0.56	0.057	1.21	0.03	0.036	1.625	0.115	0.061	2.04	0.2	0.037	2.455	0.285	0.033
0.84	0.11	0.052	1.76	0.57	0.057	1.21	0.035	0.035	1.625	0.12	0.062	2.04	0.205	0.040	2.455	0.29	0.033
0.84	0.12	0.049	1.76	0.58	0.057	1.21	0.04	0.033	1.625	0.125	0.061	2.04	0.21	0.043	2.455	0.295	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.84	0.13	0.046	1.76	0.59	0.059	1.21	0.045	0.033	1.625	0.13	0.057	2.04	0.215	0.042	2.455	0.3	0.035
0.84	0.14	0.044	1.76	0.6	0.059	1.21	0.05	0.034	1.625	0.135	0.050	2.04	0.22	0.038	2.455	0.305	0.035
0.84	0.15	0.042	1.76	0.61	0.058	1.21	0.055	0.036	1.625	0.14	0.046	2.04	0.225	0.037	2.455	0.31	0.035
0.84	0.16	0.041	1.76	0.62	0.057	1.21	0.06	0.038	1.625	0.145	0.049	2.04	0.23	0.038	2.455	0.315	0.037
0.84	0.17	0.042	1.76	0.63	0.055	1.21	0.065	0.040	1.625	0.15	0.054	2.04	0.235	0.044	2.455	0.32	0.038
0.84	0.18	0.042	1.76	0.64	0.055	1.21	0.07	0.042	1.625	0.155	0.058	2.04	0.24	0.049	2.455	0.325	0.037
0.84	0.19	0.043	1.76	0.65	0.057	1.21	0.075	0.043	1.625	0.16	0.060	2.04	0.245	0.051	2.455	0.33	0.035
0.84	0.2	0.043	1.76	0.66	0.058	1.21	0.08	0.045	1.625	0.165	0.060	2.04	0.25	0.049	2.455	0.335	0.034
0.84	0.21	0.043	1.76	0.67	0.058	1.21	0.085	0.045	1.625	0.17	0.058	2.04	0.255	0.045	2.455	0.34	0.033
0.84	0.22	0.044	1.76	0.68	0.056	1.21	0.09	0.043	1.625	0.175	0.057	2.04	0.26	0.044	2.455	0.345	0.032
0.84	0.23	0.043	1.76	0.69	0.052	1.21	0.095	0.038	1.625	0.18	0.055	2.04	0.265	0.044	2.455	0.35	0.031
0.84	0.24	0.042	1.76	0.7	0.047	1.21	0.1	0.035	1.625	0.185	0.052	2.04	0.27	0.042	2.455	0.355	0.031
0.84	0.25	0.040	1.76	0.71	0.044	1.21	0.105	0.035	1.625	0.19	0.047	2.04	0.275	0.040	2.455	0.36	0.031
0.84	0.26	0.041	1.76	0.72	0.042	1.21	0.11	0.035	1.625	0.195	0.043	2.04	0.28	0.038	2.455	0.365	0.033
0.84	0.27	0.041	1.76	0.73	0.041	1.21	0.115	0.036	1.625	0.2	0.043	2.04	0.285	0.039	2.455	0.37	0.034
0.84	0.28	0.041	1.76	0.74	0.041	1.21	0.12	0.038	1.625	0.205	0.047	2.04	0.29	0.041	2.455	0.375	0.036
0.84	0.29	0.039	1.76	0.75	0.042	1.21	0.125	0.045	1.625	0.21	0.051	2.04	0.295	0.042	2.455	0.38	0.036
0.84	0.3	0.038	1.76	0.76	0.043	1.21	0.13	0.054	1.625	0.215	0.052	2.04	0.3	0.042	2.455	0.385	0.035
0.84	0.31	0.036	1.76	0.77	0.043	1.21	0.135	0.059	1.625	0.22	0.053	2.04	0.305	0.039	2.455	0.39	0.034
0.84	0.32	0.036	1.76	0.78	0.043	1.21	0.14	0.060	1.625	0.225	0.056	2.04	0.31	0.037	2.455	0.395	0.036
0.84	0.33	0.036	1.76	0.79	0.043	1.21	0.145	0.060	1.625	0.23	0.061	2.04	0.315	0.037	2.455	0.4	0.041
0.84	0.34	0.036	1.76	0.8	0.042	1.21	0.15	0.058	1.625	0.235	0.063	2.04	0.32	0.040	2.455	0.405	0.045
0.84	0.35	0.036	1.76	0.81	0.043	1.21	0.155	0.053	1.625	0.24	0.063	2.04	0.325	0.044	2.455	0.41	0.047
0.84	0.36	0.038	1.76	0.82	0.046	1.21	0.16	0.044	1.625	0.245	0.062	2.04	0.33	0.047	2.455	0.415	0.046
0.84	0.37	0.041	1.76	0.83	0.049	1.21	0.165	0.037	1.625	0.25	0.061	2.04	0.335	0.049	2.455	0.42	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.84	0.38	0.045	1.76	0.84	0.050	1.21	0.17	0.033	1.625	0.255	0.060	2.04	0.34	0.049	2.455	0.425	0.050
0.84	0.39	0.048	1.76	0.85	0.050	1.21	0.175	0.031	1.625	0.26	0.058	2.04	0.345	0.047	2.455	0.43	0.051
0.84	0.4	0.049	1.76	0.86	0.050	1.21	0.18	0.030	1.625	0.265	0.056	2.04	0.35	0.044	2.455	0.435	0.048
0.84	0.41	0.046	1.76	0.87	0.049	1.21	0.185	0.031	1.625	0.27	0.053	2.04	0.355	0.040	2.455	0.44	0.042
0.84	0.42	0.043	1.76	0.88	0.047	1.21	0.19	0.033	1.625	0.275	0.050	2.04	0.36	0.038	2.455	0.445	0.041
0.84	0.43	0.042	1.76	0.89	0.044	1.21	0.195	0.036	1.625	0.28	0.049	2.04	0.365	0.038	2.455	0.45	0.044
0.84	0.44	0.042	1.77	0.01	0.063	1.21	0.2	0.039	1.625	0.285	0.050	2.04	0.37	0.042	2.455	0.455	0.043
0.84	0.45	0.042	1.77	0.02	0.066	1.21	0.205	0.042	1.625	0.29	0.052	2.04	0.375	0.047	2.455	0.46	0.040
0.84	0.46	0.042	1.77	0.03	0.066	1.21	0.21	0.045	1.625	0.295	0.055	2.04	0.38	0.048	2.455	0.465	0.039
0.84	0.47	0.042	1.77	0.04	0.063	1.21	0.215	0.047	1.625	0.3	0.058	2.04	0.385	0.046	2.455	0.47	0.039
0.84	0.48	0.040	1.77	0.05	0.060	1.21	0.22	0.048	1.625	0.305	0.061	2.04	0.39	0.044	2.455	0.475	0.040
0.84	0.49	0.038	1.77	0.06	0.059	1.21	0.225	0.047	1.625	0.31	0.061	2.04	0.395	0.041	2.455	0.48	0.041
0.84	0.5	0.038	1.77	0.07	0.059	1.21	0.23	0.044	1.625	0.315	0.058	2.04	0.4	0.039	2.455	0.485	0.041
0.84	0.51	0.040	1.77	0.08	0.061	1.21	0.235	0.041	1.625	0.32	0.053	2.04	0.405	0.038	2.455	0.49	0.039
0.84	0.52	0.043	1.77	0.09	0.063	1.21	0.24	0.043	1.625	0.325	0.047	2.04	0.41	0.037	2.455	0.495	0.037
0.84	0.53	0.046	1.77	0.1	0.065	1.21	0.245	0.051	1.625	0.33	0.041	2.04	0.415	0.037	2.46	0.005	0.056
0.84	0.54	0.047	1.77	0.11	0.065	1.21	0.25	0.058	1.625	0.335	0.041	2.04	0.42	0.038	2.46	0.01	0.065
0.84	0.55	0.045	1.77	0.12	0.064	1.21	0.255	0.055	1.625	0.34	0.044	2.04	0.425	0.039	2.46	0.015	0.071
0.84	0.56	0.041	1.77	0.13	0.062	1.21	0.26	0.045	1.625	0.345	0.044	2.04	0.43	0.043	2.46	0.02	0.073
0.84	0.57	0.039	1.77	0.14	0.060	1.21	0.265	0.036	1.625	0.35	0.041	2.04	0.435	0.047	2.46	0.025	0.072
0.84	0.58	0.037	1.77	0.15	0.060	1.21	0.27	0.035	1.625	0.355	0.041	2.04	0.44	0.050	2.46	0.03	0.069
0.84	0.59	0.037	1.77	0.16	0.062	1.21	0.275	0.041	1.625	0.36	0.042	2.04	0.445	0.052	2.46	0.035	0.065
0.84	0.6	0.037	1.77	0.17	0.062	1.21	0.28	0.054	1.625	0.365	0.044	2.04	0.45	0.053	2.46	0.04	0.060
0.84	0.61	0.037	1.77	0.18	0.059	1.21	0.285	0.060	1.625	0.37	0.044	2.04	0.455	0.053	2.46	0.045	0.055
0.84	0.62	0.037	1.77	0.19	0.055	1.21	0.29	0.057	1.625	0.375	0.044	2.04	0.46	0.054	2.46	0.05	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.84	0.63	0.038	1.77	0.2	0.054	1.21	0.295	0.048	1.625	0.38	0.044	2.04	0.465	0.055	2.46	0.055	0.056
0.84	0.64	0.039	1.77	0.21	0.056	1.21	0.3	0.043	1.625	0.385	0.043	2.04	0.47	0.054	2.46	0.06	0.056
0.84	0.65	0.041	1.77	0.22	0.057	1.21	0.305	0.044	1.625	0.39	0.041	2.04	0.475	0.051	2.46	0.065	0.056
0.84	0.66	0.041	1.77	0.23	0.057	1.21	0.31	0.046	1.625	0.395	0.039	2.04	0.48	0.044	2.46	0.07	0.056
0.84	0.67	0.040	1.77	0.24	0.055	1.21	0.315	0.047	1.625	0.4	0.038	2.04	0.485	0.038	2.46	0.075	0.053
0.84	0.68	0.040	1.77	0.25	0.053	1.21	0.32	0.048	1.625	0.405	0.041	2.04	0.49	0.040	2.46	0.08	0.048
0.84	0.69	0.040	1.77	0.26	0.051	1.21	0.325	0.050	1.625	0.41	0.045	2.04	0.495	0.044	2.46	0.085	0.048
0.84	0.7	0.040	1.77	0.27	0.048	1.21	0.33	0.049	1.625	0.415	0.049	2.045	0.005	0.069	2.46	0.09	0.052
0.84	0.71	0.040	1.77	0.28	0.049	1.21	0.335	0.047	1.625	0.42	0.053	2.045	0.01	0.077	2.46	0.095	0.055
0.84	0.72	0.041	1.77	0.29	0.051	1.21	0.34	0.048	1.625	0.425	0.056	2.045	0.015	0.083	2.46	0.1	0.057
0.84	0.73	0.042	1.77	0.3	0.053	1.21	0.345	0.048	1.625	0.43	0.059	2.045	0.02	0.085	2.46	0.105	0.061
0.84	0.74	0.042	1.77	0.31	0.052	1.21	0.35	0.049	1.625	0.435	0.061	2.045	0.025	0.083	2.46	0.11	0.068
0.84	0.75	0.042	1.77	0.32	0.050	1.21	0.355	0.047	1.625	0.44	0.061	2.045	0.03	0.078	2.46	0.115	0.073
0.84	0.76	0.044	1.77	0.33	0.048	1.21	0.36	0.045	1.625	0.445	0.059	2.045	0.035	0.073	2.46	0.12	0.074
0.84	0.77	0.045	1.77	0.34	0.047	1.21	0.365	0.045	1.625	0.45	0.054	2.045	0.04	0.070	2.46	0.125	0.072
0.84	0.78	0.043	1.77	0.35	0.047	1.21	0.37	0.045	1.625	0.455	0.051	2.045	0.045	0.070	2.46	0.13	0.070
0.84	0.79	0.041	1.77	0.36	0.046	1.21	0.375	0.045	1.625	0.46	0.052	2.045	0.05	0.072	2.46	0.135	0.067
0.84	0.8	0.040	1.77	0.37	0.045	1.21	0.38	0.047	1.625	0.465	0.052	2.045	0.055	0.073	2.46	0.14	0.064
0.84	0.81	0.040	1.77	0.38	0.045	1.21	0.385	0.048	1.625	0.47	0.048	2.045	0.06	0.074	2.46	0.145	0.061
0.84	0.82	0.041	1.77	0.39	0.045	1.21	0.39	0.048	1.625	0.475	0.042	2.045	0.065	0.073	2.46	0.15	0.058
0.84	0.83	0.041	1.77	0.4	0.045	1.21	0.395	0.046	1.625	0.48	0.041	2.045	0.07	0.072	2.46	0.155	0.057
0.84	0.84	0.041	1.77	0.41	0.046	1.21	0.4	0.042	1.625	0.485	0.048	2.045	0.075	0.070	2.46	0.16	0.058
0.84	0.85	0.040	1.77	0.42	0.046	1.21	0.405	0.040	1.625	0.49	0.052	2.045	0.08	0.068	2.46	0.165	0.060
0.84	0.86	0.040	1.77	0.43	0.047	1.21	0.41	0.042	1.625	0.495	0.052	2.045	0.085	0.068	2.46	0.17	0.061
0.84	0.87	0.040	1.77	0.44	0.046	1.21	0.415	0.046	1.63	0.005	0.046	2.045	0.09	0.071	2.46	0.175	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.84	0.88	0.041	1.77	0.45	0.046	1.21	0.42	0.050	1.63	0.01	0.047	2.045	0.095	0.073	2.46	0.18	0.062
0.84	0.89	0.046	1.77	0.46	0.048	1.21	0.425	0.052	1.63	0.015	0.052	2.045	0.1	0.074	2.46	0.185	0.062
0.85	0.01	0.047	1.77	0.47	0.051	1.21	0.43	0.054	1.63	0.02	0.062	2.045	0.105	0.074	2.46	0.19	0.061
0.85	0.02	0.052	1.77	0.48	0.056	1.21	0.435	0.055	1.63	0.025	0.071	2.045	0.11	0.071	2.46	0.195	0.058
0.85	0.03	0.055	1.77	0.49	0.059	1.21	0.44	0.054	1.63	0.03	0.075	2.045	0.115	0.067	2.46	0.2	0.053
0.85	0.04	0.057	1.77	0.5	0.061	1.21	0.445	0.053	1.63	0.035	0.075	2.045	0.12	0.069	2.46	0.205	0.048
0.85	0.05	0.059	1.77	0.51	0.061	1.21	0.45	0.049	1.63	0.04	0.072	2.045	0.125	0.074	2.46	0.21	0.044
0.85	0.06	0.060	1.77	0.52	0.061	1.21	0.455	0.044	1.63	0.045	0.066	2.045	0.13	0.078	2.46	0.215	0.045
0.85	0.07	0.059	1.77	0.53	0.059	1.21	0.46	0.041	1.63	0.05	0.057	2.045	0.135	0.079	2.46	0.22	0.051
0.85	0.08	0.057	1.77	0.54	0.057	1.21	0.465	0.040	1.63	0.055	0.049	2.045	0.14	0.080	2.46	0.225	0.054
0.85	0.09	0.055	1.77	0.55	0.056	1.21	0.47	0.039	1.63	0.06	0.043	2.045	0.145	0.080	2.46	0.23	0.052
0.85	0.1	0.052	1.77	0.56	0.057	1.21	0.475	0.037	1.63	0.065	0.045	2.045	0.15	0.078	2.46	0.235	0.051
0.85	0.11	0.050	1.77	0.57	0.058	1.21	0.48	0.036	1.63	0.07	0.051	2.045	0.155	0.071	2.46	0.24	0.050
0.85	0.12	0.048	1.77	0.58	0.059	1.21	0.485	0.034	1.63	0.075	0.055	2.045	0.16	0.061	2.46	0.245	0.050
0.85	0.13	0.046	1.77	0.59	0.061	1.21	0.49	0.033	1.63	0.08	0.055	2.045	0.165	0.052	2.46	0.25	0.049
0.85	0.14	0.045	1.77	0.6	0.062	1.21	0.495	0.034	1.63	0.085	0.052	2.045	0.17	0.048	2.46	0.255	0.048
0.85	0.15	0.043	1.77	0.61	0.060	1.215	0.005	0.034	1.63	0.09	0.047	2.045	0.175	0.046	2.46	0.26	0.047
0.85	0.16	0.042	1.77	0.62	0.058	1.215	0.01	0.033	1.63	0.095	0.044	2.045	0.18	0.045	2.46	0.265	0.045
0.85	0.17	0.042	1.77	0.63	0.056	1.215	0.015	0.033	1.63	0.1	0.046	2.045	0.185	0.043	2.46	0.27	0.042
0.85	0.18	0.043	1.77	0.64	0.055	1.215	0.02	0.034	1.63	0.105	0.050	2.045	0.19	0.039	2.46	0.275	0.036
0.85	0.19	0.044	1.77	0.65	0.055	1.215	0.025	0.035	1.63	0.11	0.055	2.045	0.195	0.036	2.46	0.28	0.033
0.85	0.2	0.044	1.77	0.66	0.056	1.215	0.03	0.035	1.63	0.115	0.058	2.045	0.2	0.035	2.46	0.285	0.032
0.85	0.21	0.043	1.77	0.67	0.055	1.215	0.035	0.034	1.63	0.12	0.060	2.045	0.205	0.037	2.46	0.29	0.034
0.85	0.22	0.043	1.77	0.68	0.053	1.215	0.04	0.032	1.63	0.125	0.060	2.045	0.21	0.039	2.46	0.295	0.038
0.85	0.23	0.043	1.77	0.69	0.050	1.215	0.045	0.032	1.63	0.13	0.059	2.045	0.215	0.038	2.46	0.3	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.85	0.24	0.042	1.77	0.7	0.046	1.215	0.05	0.033	1.63	0.135	0.055	2.045	0.22	0.035	2.46	0.305	0.039
0.85	0.25	0.041	1.77	0.71	0.043	1.215	0.055	0.036	1.63	0.14	0.052	2.045	0.225	0.035	2.46	0.31	0.038
0.85	0.26	0.041	1.77	0.72	0.041	1.215	0.06	0.039	1.63	0.145	0.055	2.045	0.23	0.037	2.46	0.315	0.039
0.85	0.27	0.041	1.77	0.73	0.041	1.215	0.065	0.041	1.63	0.15	0.059	2.045	0.235	0.042	2.46	0.32	0.041
0.85	0.28	0.040	1.77	0.74	0.043	1.215	0.07	0.042	1.63	0.155	0.061	2.045	0.24	0.046	2.46	0.325	0.039
0.85	0.29	0.039	1.77	0.75	0.044	1.215	0.075	0.044	1.63	0.16	0.062	2.045	0.245	0.048	2.46	0.33	0.036
0.85	0.3	0.038	1.77	0.76	0.044	1.215	0.08	0.045	1.63	0.165	0.060	2.045	0.25	0.046	2.46	0.335	0.034
0.85	0.31	0.037	1.77	0.77	0.044	1.215	0.085	0.044	1.63	0.17	0.058	2.045	0.255	0.044	2.46	0.34	0.033
0.85	0.32	0.036	1.77	0.78	0.044	1.215	0.09	0.042	1.63	0.175	0.055	2.045	0.26	0.043	2.46	0.345	0.032
0.85	0.33	0.036	1.77	0.79	0.043	1.215	0.095	0.039	1.63	0.18	0.052	2.045	0.265	0.043	2.46	0.35	0.031
0.85	0.34	0.036	1.77	0.8	0.042	1.215	0.1	0.035	1.63	0.185	0.047	2.045	0.27	0.043	2.46	0.355	0.031
0.85	0.35	0.037	1.77	0.81	0.043	1.215	0.105	0.034	1.63	0.19	0.044	2.045	0.275	0.041	2.46	0.36	0.031
0.85	0.36	0.039	1.77	0.82	0.045	1.215	0.11	0.035	1.63	0.195	0.046	2.045	0.28	0.040	2.46	0.365	0.033
0.85	0.37	0.043	1.77	0.83	0.048	1.215	0.115	0.037	1.63	0.2	0.052	2.045	0.285	0.042	2.46	0.37	0.035
0.85	0.38	0.048	1.77	0.84	0.050	1.215	0.12	0.039	1.63	0.205	0.057	2.045	0.29	0.045	2.46	0.375	0.036
0.85	0.39	0.052	1.77	0.85	0.051	1.215	0.125	0.046	1.63	0.21	0.058	2.045	0.295	0.047	2.46	0.38	0.036
0.85	0.4	0.053	1.77	0.86	0.050	1.215	0.13	0.054	1.63	0.215	0.055	2.045	0.3	0.045	2.46	0.385	0.034
0.85	0.41	0.051	1.77	0.87	0.047	1.215	0.135	0.059	1.63	0.22	0.053	2.045	0.305	0.041	2.46	0.39	0.034
0.85	0.42	0.047	1.77	0.88	0.045	1.215	0.14	0.061	1.63	0.225	0.055	2.045	0.31	0.035	2.46	0.395	0.038
0.85	0.43	0.045	1.77	0.89	0.044	1.215	0.145	0.061	1.63	0.23	0.062	2.045	0.315	0.034	2.46	0.4	0.044
0.85	0.44	0.044	1.78	0.01	0.064	1.215	0.15	0.061	1.63	0.235	0.066	2.045	0.32	0.037	2.46	0.405	0.049
0.85	0.45	0.043	1.78	0.02	0.067	1.215	0.155	0.059	1.63	0.24	0.066	2.045	0.325	0.040	2.46	0.41	0.049
0.85	0.46	0.042	1.78	0.03	0.068	1.215	0.16	0.053	1.63	0.245	0.064	2.045	0.33	0.044	2.46	0.415	0.047
0.85	0.47	0.041	1.78	0.04	0.065	1.215	0.165	0.043	1.63	0.25	0.063	2.045	0.335	0.046	2.46	0.42	0.044
0.85	0.48	0.040	1.78	0.05	0.062	1.215	0.17	0.036	1.63	0.255	0.061	2.045	0.34	0.046	2.46	0.425	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.85	0.49	0.038	1.78	0.06	0.060	1.215	0.175	0.032	1.63	0.26	0.060	2.045	0.345	0.045	2.46	0.43	0.044
0.85	0.5	0.038	1.78	0.07	0.060	1.215	0.18	0.030	1.63	0.265	0.059	2.045	0.35	0.043	2.46	0.435	0.044
0.85	0.51	0.041	1.78	0.08	0.062	1.215	0.185	0.031	1.63	0.27	0.056	2.045	0.355	0.041	2.46	0.44	0.042
0.85	0.52	0.044	1.78	0.09	0.065	1.215	0.19	0.032	1.63	0.275	0.053	2.045	0.36	0.043	2.46	0.445	0.043
0.85	0.53	0.047	1.78	0.1	0.066	1.215	0.195	0.035	1.63	0.28	0.053	2.045	0.365	0.047	2.46	0.45	0.045
0.85	0.54	0.048	1.78	0.11	0.065	1.215	0.2	0.039	1.63	0.285	0.054	2.045	0.37	0.050	2.46	0.455	0.044
0.85	0.55	0.045	1.78	0.12	0.062	1.215	0.205	0.042	1.63	0.29	0.055	2.045	0.375	0.054	2.46	0.46	0.041
0.85	0.56	0.042	1.78	0.13	0.059	1.215	0.21	0.046	1.63	0.295	0.056	2.045	0.38	0.054	2.46	0.465	0.041
0.85	0.57	0.039	1.78	0.14	0.058	1.215	0.215	0.047	1.63	0.3	0.055	2.045	0.385	0.052	2.46	0.47	0.043
0.85	0.58	0.038	1.78	0.15	0.058	1.215	0.22	0.047	1.63	0.305	0.055	2.045	0.39	0.046	2.46	0.475	0.046
0.85	0.59	0.038	1.78	0.16	0.059	1.215	0.225	0.045	1.63	0.31	0.054	2.045	0.395	0.041	2.46	0.48	0.048
0.85	0.6	0.038	1.78	0.17	0.058	1.215	0.23	0.043	1.63	0.315	0.053	2.045	0.4	0.038	2.46	0.485	0.048
0.85	0.61	0.038	1.78	0.18	0.056	1.215	0.235	0.041	1.63	0.32	0.050	2.045	0.405	0.038	2.46	0.49	0.046
0.85	0.62	0.038	1.78	0.19	0.052	1.215	0.24	0.044	1.63	0.325	0.044	2.045	0.41	0.038	2.46	0.495	0.043
0.85	0.63	0.039	1.78	0.2	0.052	1.215	0.245	0.052	1.63	0.33	0.039	2.045	0.415	0.037	2.465	0.005	0.054
0.85	0.64	0.040	1.78	0.21	0.055	1.215	0.25	0.057	1.63	0.335	0.039	2.045	0.42	0.036	2.465	0.01	0.062
0.85	0.65	0.041	1.78	0.22	0.057	1.215	0.255	0.054	1.63	0.34	0.041	2.045	0.425	0.036	2.465	0.015	0.068
0.85	0.66	0.041	1.78	0.23	0.058	1.215	0.26	0.049	1.63	0.345	0.041	2.045	0.43	0.039	2.465	0.02	0.071
0.85	0.67	0.041	1.78	0.24	0.056	1.215	0.265	0.045	1.63	0.35	0.039	2.045	0.435	0.044	2.465	0.025	0.071
0.85	0.68	0.041	1.78	0.25	0.053	1.215	0.27	0.044	1.63	0.355	0.038	2.045	0.44	0.047	2.465	0.03	0.070
0.85	0.69	0.040	1.78	0.26	0.050	1.215	0.275	0.045	1.63	0.36	0.041	2.045	0.445	0.049	2.465	0.035	0.069
0.85	0.7	0.041	1.78	0.27	0.048	1.215	0.28	0.054	1.63	0.365	0.043	2.045	0.45	0.050	2.465	0.04	0.068
0.85	0.71	0.041	1.78	0.28	0.049	1.215	0.285	0.059	1.63	0.37	0.044	2.045	0.455	0.051	2.465	0.045	0.066
0.85	0.72	0.042	1.78	0.29	0.052	1.215	0.29	0.058	1.63	0.375	0.044	2.045	0.46	0.052	2.465	0.05	0.067
0.85	0.73	0.042	1.78	0.3	0.054	1.215	0.295	0.051	1.63	0.38	0.043	2.045	0.465	0.053	2.465	0.055	0.067

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.85	0.74	0.041	1.78	0.31	0.053	1.215	0.3	0.045	1.63	0.385	0.041	2.045	0.47	0.053	2.465	0.06	0.067
0.85	0.75	0.043	1.78	0.32	0.050	1.215	0.305	0.045	1.63	0.39	0.038	2.045	0.475	0.050	2.465	0.065	0.067
0.85	0.76	0.046	1.78	0.33	0.047	1.215	0.31	0.049	1.63	0.395	0.036	2.045	0.48	0.043	2.465	0.07	0.064
0.85	0.77	0.047	1.78	0.34	0.046	1.215	0.315	0.051	1.63	0.4	0.035	2.045	0.485	0.037	2.465	0.075	0.058
0.85	0.78	0.045	1.78	0.35	0.045	1.215	0.32	0.052	1.63	0.405	0.037	2.045	0.49	0.038	2.465	0.08	0.049
0.85	0.79	0.041	1.78	0.36	0.044	1.215	0.325	0.055	1.63	0.41	0.042	2.045	0.495	0.043	2.465	0.085	0.047
0.85	0.8	0.039	1.78	0.37	0.044	1.215	0.33	0.056	1.63	0.415	0.046	2.05	0.005	0.070	2.465	0.09	0.050
0.85	0.81	0.038	1.78	0.38	0.044	1.215	0.335	0.056	1.63	0.42	0.050	2.05	0.01	0.077	2.465	0.095	0.052
0.85	0.82	0.039	1.78	0.39	0.044	1.215	0.34	0.055	1.63	0.425	0.054	2.05	0.015	0.081	2.465	0.1	0.052
0.85	0.83	0.041	1.78	0.4	0.045	1.215	0.345	0.051	1.63	0.43	0.057	2.05	0.02	0.080	2.465	0.105	0.052
0.85	0.84	0.042	1.78	0.41	0.047	1.215	0.35	0.048	1.63	0.435	0.060	2.05	0.025	0.077	2.465	0.11	0.059
0.85	0.85	0.042	1.78	0.42	0.048	1.215	0.355	0.044	1.63	0.44	0.061	2.05	0.03	0.072	2.465	0.115	0.068
0.85	0.86	0.041	1.78	0.43	0.048	1.215	0.36	0.043	1.63	0.445	0.060	2.05	0.035	0.070	2.465	0.12	0.072
0.85	0.87	0.041	1.78	0.44	0.047	1.215	0.365	0.047	1.63	0.45	0.056	2.05	0.04	0.070	2.465	0.125	0.071
0.85	0.88	0.044	1.78	0.45	0.048	1.215	0.37	0.047	1.63	0.455	0.051	2.05	0.045	0.073	2.465	0.13	0.070
0.85	0.89	0.050	1.78	0.46	0.050	1.215	0.375	0.044	1.63	0.46	0.050	2.05	0.05	0.075	2.465	0.135	0.068
0.86	0.01	0.045	1.78	0.47	0.053	1.215	0.38	0.045	1.63	0.465	0.049	2.05	0.055	0.077	2.465	0.14	0.065
0.86	0.02	0.049	1.78	0.48	0.056	1.215	0.385	0.048	1.63	0.47	0.046	2.05	0.06	0.076	2.465	0.145	0.060
0.86	0.03	0.051	1.78	0.49	0.058	1.215	0.39	0.050	1.63	0.475	0.041	2.05	0.065	0.075	2.465	0.15	0.054
0.86	0.04	0.053	1.78	0.5	0.060	1.215	0.395	0.048	1.63	0.48	0.040	2.05	0.07	0.073	2.465	0.155	0.051
0.86	0.05	0.056	1.78	0.51	0.060	1.215	0.4	0.046	1.63	0.485	0.046	2.05	0.075	0.070	2.465	0.16	0.055
0.86	0.06	0.056	1.78	0.52	0.059	1.215	0.405	0.044	1.63	0.49	0.051	2.05	0.08	0.067	2.465	0.165	0.060
0.86	0.07	0.055	1.78	0.53	0.057	1.215	0.41	0.046	1.63	0.495	0.052	2.05	0.085	0.065	2.465	0.17	0.062
0.86	0.08	0.055	1.78	0.54	0.056	1.215	0.415	0.048	1.635	0.005	0.046	2.05	0.09	0.065	2.465	0.175	0.063
0.86	0.09	0.053	1.78	0.55	0.056	1.215	0.42	0.050	1.635	0.01	0.047	2.05	0.095	0.069	2.465	0.18	0.063

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.86	0.1	0.051	1.78	0.56	0.057	1.215	0.425	0.051	1.635	0.015	0.051	2.05	0.1	0.072	2.465	0.185	0.063
0.86	0.11	0.048	1.78	0.57	0.059	1.215	0.43	0.052	1.635	0.02	0.059	2.05	0.105	0.073	2.465	0.19	0.062
0.86	0.12	0.046	1.78	0.58	0.061	1.215	0.435	0.052	1.635	0.025	0.069	2.05	0.11	0.072	2.465	0.195	0.059
0.86	0.13	0.045	1.78	0.59	0.062	1.215	0.44	0.052	1.635	0.03	0.075	2.05	0.115	0.069	2.465	0.2	0.054
0.86	0.14	0.045	1.78	0.6	0.062	1.215	0.445	0.051	1.635	0.035	0.075	2.05	0.12	0.069	2.465	0.205	0.048
0.86	0.15	0.044	1.78	0.61	0.060	1.215	0.45	0.049	1.635	0.04	0.072	2.05	0.125	0.074	2.465	0.21	0.048
0.86	0.16	0.043	1.78	0.62	0.057	1.215	0.455	0.046	1.635	0.045	0.067	2.05	0.13	0.078	2.465	0.215	0.052
0.86	0.17	0.043	1.78	0.63	0.054	1.215	0.46	0.045	1.635	0.05	0.060	2.05	0.135	0.079	2.465	0.22	0.056
0.86	0.18	0.044	1.78	0.64	0.052	1.215	0.465	0.043	1.635	0.055	0.051	2.05	0.14	0.080	2.465	0.225	0.055
0.86	0.19	0.044	1.78	0.65	0.052	1.215	0.47	0.042	1.635	0.06	0.044	2.05	0.145	0.079	2.465	0.23	0.049
0.86	0.2	0.043	1.78	0.66	0.052	1.215	0.475	0.039	1.635	0.065	0.044	2.05	0.15	0.078	2.465	0.235	0.045
0.86	0.21	0.041	1.78	0.67	0.051	1.215	0.48	0.037	1.635	0.07	0.049	2.05	0.155	0.071	2.465	0.24	0.046
0.86	0.22	0.041	1.78	0.68	0.049	1.215	0.485	0.035	1.635	0.075	0.053	2.05	0.16	0.061	2.465	0.245	0.048
0.86	0.23	0.041	1.78	0.69	0.048	1.215	0.49	0.035	1.635	0.08	0.054	2.05	0.165	0.053	2.465	0.25	0.050
0.86	0.24	0.041	1.78	0.7	0.046	1.215	0.495	0.035	1.635	0.085	0.052	2.05	0.17	0.050	2.465	0.255	0.051
0.86	0.25	0.041	1.78	0.71	0.045	1.22	0.005	0.034	1.635	0.09	0.048	2.05	0.175	0.047	2.465	0.26	0.049
0.86	0.26	0.041	1.78	0.72	0.043	1.22	0.01	0.034	1.635	0.095	0.046	2.05	0.18	0.046	2.465	0.265	0.047
0.86	0.27	0.040	1.78	0.73	0.043	1.22	0.015	0.034	1.635	0.1	0.046	2.05	0.185	0.045	2.465	0.27	0.042
0.86	0.28	0.040	1.78	0.74	0.045	1.22	0.02	0.034	1.635	0.105	0.047	2.05	0.19	0.042	2.465	0.275	0.035
0.86	0.29	0.039	1.78	0.75	0.046	1.22	0.025	0.035	1.635	0.11	0.050	2.05	0.195	0.038	2.465	0.28	0.032
0.86	0.3	0.038	1.78	0.76	0.046	1.22	0.03	0.035	1.635	0.115	0.054	2.05	0.2	0.035	2.465	0.285	0.032
0.86	0.31	0.037	1.78	0.77	0.046	1.22	0.035	0.034	1.635	0.12	0.057	2.05	0.205	0.034	2.465	0.29	0.035
0.86	0.32	0.037	1.78	0.78	0.045	1.22	0.04	0.033	1.635	0.125	0.058	2.05	0.21	0.034	2.465	0.295	0.041
0.86	0.33	0.036	1.78	0.79	0.045	1.22	0.045	0.032	1.635	0.13	0.058	2.05	0.215	0.034	2.465	0.3	0.044
0.86	0.34	0.037	1.78	0.8	0.044	1.22	0.05	0.033	1.635	0.135	0.055	2.05	0.22	0.034	2.465	0.305	0.043

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y(m)	Z (m)	X (m)	Y (m)	Z (m)
0.86	0.35	0.038	1.78	0.81	0.045	1.22	0.055	0.035	1.635	0.14	0.052	2.05	0.225	0.035	2.465	0.31	0.040
0.86	0.36	0.041	1.78	0.82	0.047	1.22	0.06	0.038	1.635	0.145	0.053	2.05	0.23	0.039	2.465	0.315	0.040
0.86	0.37	0.045	1.78	0.83	0.049	1.22	0.065	0.040	1.635	0.15	0.056	2.05	0.235	0.044	2.465	0.32	0.043
0.86	0.38	0.050	1.78	0.84	0.052	1.22	0.07	0.042	1.635	0.155	0.059	2.05	0.24	0.048	2.465	0.325	0.042
0.86	0.39	0.053	1.78	0.85	0.054	1.22	0.075	0.043	1.635	0.16	0.060	2.05	0.245	0.048	2.465	0.33	0.038
0.86	0.4	0.054	1.78	0.86	0.052	1.22	0.08	0.044	1.635	0.165	0.060	2.05	0.25	0.047	2.465	0.335	0.035
0.86	0.41	0.053	1.78	0.87	0.048	1.22	0.085	0.043	1.635	0.17	0.058	2.05	0.255	0.046	2.465	0.34	0.034
0.86	0.42	0.050	1.78	0.88	0.047	1.22	0.09	0.041	1.635	0.175	0.055	2.05	0.26	0.045	2.465	0.345	0.033
0.86	0.43	0.047	1.78	0.89	0.048	1.22	0.095	0.037	1.635	0.18	0.051	2.05	0.265	0.045	2.465	0.35	0.032
0.86	0.44	0.045	1.79	0.01	0.063	1.22	0.1	0.035	1.635	0.185	0.048	2.05	0.27	0.045	2.465	0.355	0.032
0.86	0.45	0.043	1.79	0.02	0.066	1.22	0.105	0.035	1.635	0.19	0.050	2.05	0.275	0.043	2.465	0.36	0.033
0.86	0.46	0.041	1.79	0.03	0.067	1.22	0.11	0.037	1.635	0.195	0.054	2.05	0.28	0.042	2.465	0.365	0.034
0.86	0.47	0.040	1.79	0.04	0.067	1.22	0.115	0.039	1.635	0.2	0.061	2.05	0.285	0.043	2.465	0.37	0.036
0.86	0.48	0.039	1.79	0.05	0.064	1.22	0.12	0.042	1.635	0.205	0.065	2.05	0.29	0.046	2.465	0.375	0.037
0.86	0.49	0.038	1.79	0.06	0.062	1.22	0.125	0.050	1.635	0.21	0.066	2.05	0.295	0.047	2.465	0.38	0.037
0.86	0.5	0.038	1.79	0.07	0.062	1.22	0.13	0.057	1.635	0.215	0.061	2.05	0.3	0.046	2.465	0.385	0.036
0.86	0.51	0.040	1.79	0.08	0.063	1.22	0.135	0.061	1.635	0.22	0.054	2.05	0.305	0.042	2.465	0.39	0.038
0.86	0.52	0.044	1.79	0.09	0.066	1.22	0.14	0.061	1.635	0.225	0.053	2.05	0.31	0.036	2.465	0.395	0.042
0.86	0.53	0.046	1.79	0.1	0.066	1.22	0.145	0.060	1.635	0.23	0.059	2.05	0.315	0.033	2.465	0.4	0.046
0.86	0.54	0.047	1.79	0.11	0.063	1.22	0.15	0.060	1.635	0.235	0.065	2.05	0.32	0.034	2.465	0.405	0.049
0.86	0.55	0.045	1.79	0.12	0.060	1.22	0.155	0.060	1.635	0.24	0.066	2.05	0.325	0.037	2.465	0.41	0.050
0.86	0.56	0.043	1.79	0.13	0.058	1.22	0.16	0.055	1.635	0.245	0.065	2.05	0.33	0.040	2.465	0.415	0.047
0.86	0.57	0.041	1.79	0.14	0.057	1.22	0.165	0.047	1.635	0.25	0.064	2.05	0.335	0.041	2.465	0.42	0.043
0.86	0.58	0.040	1.79	0.15	0.056	1.22	0.17	0.038	1.635	0.255	0.062	2.05	0.34	0.042	2.465	0.425	0.040
0.86	0.59	0.039	1.79	0.16	0.056	1.22	0.175	0.033	1.635	0.26	0.061	2.05	0.345	0.042	2.465	0.43	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.86	0.6	0.039	1.79	0.17	0.055	1.22	0.18	0.032	1.635	0.265	0.059	2.05	0.35	0.041	2.465	0.435	0.043
0.86	0.61	0.039	1.79	0.18	0.053	1.22	0.185	0.032	1.635	0.27	0.057	2.05	0.355	0.044	2.465	0.44	0.044
0.86	0.62	0.040	1.79	0.19	0.050	1.22	0.19	0.032	1.635	0.275	0.055	2.05	0.36	0.049	2.465	0.445	0.045
0.86	0.63	0.040	1.79	0.2	0.050	1.22	0.195	0.035	1.635	0.28	0.055	2.05	0.365	0.054	2.465	0.45	0.046
0.86	0.64	0.041	1.79	0.21	0.053	1.22	0.2	0.038	1.635	0.285	0.057	2.05	0.37	0.057	2.465	0.455	0.044
0.86	0.65	0.042	1.79	0.22	0.057	1.22	0.205	0.043	1.635	0.29	0.059	2.05	0.375	0.058	2.465	0.46	0.041
0.86	0.66	0.043	1.79	0.23	0.059	1.22	0.21	0.046	1.635	0.295	0.059	2.05	0.38	0.057	2.465	0.465	0.043
0.86	0.67	0.044	1.79	0.24	0.058	1.22	0.215	0.047	1.635	0.3	0.057	2.05	0.385	0.053	2.465	0.47	0.047
0.86	0.68	0.043	1.79	0.25	0.055	1.22	0.22	0.046	1.635	0.305	0.052	2.05	0.39	0.046	2.465	0.475	0.052
0.86	0.69	0.043	1.79	0.26	0.051	1.22	0.225	0.044	1.635	0.31	0.045	2.05	0.395	0.040	2.465	0.48	0.055
0.86	0.7	0.043	1.79	0.27	0.049	1.22	0.23	0.041	1.635	0.315	0.042	2.05	0.4	0.039	2.465	0.485	0.055
0.86	0.71	0.043	1.79	0.28	0.050	1.22	0.235	0.041	1.635	0.32	0.043	2.05	0.405	0.040	2.465	0.49	0.054
0.86	0.72	0.043	1.79	0.29	0.052	1.22	0.24	0.045	1.635	0.325	0.042	2.05	0.41	0.041	2.465	0.495	0.052
0.86	0.73	0.042	1.79	0.3	0.052	1.22	0.245	0.052	1.635	0.33	0.039	2.05	0.415	0.040	2.47	0.005	0.051
0.86	0.74	0.041	1.79	0.31	0.050	1.22	0.25	0.054	1.635	0.335	0.038	2.05	0.42	0.038	2.47	0.01	0.057
0.86	0.75	0.043	1.79	0.32	0.047	1.22	0.255	0.051	1.635	0.34	0.038	2.05	0.425	0.037	2.47	0.015	0.063
0.86	0.76	0.046	1.79	0.33	0.045	1.22	0.26	0.050	1.635	0.345	0.037	2.05	0.43	0.037	2.47	0.02	0.067
0.86	0.77	0.047	1.79	0.34	0.043	1.22	0.265	0.050	1.635	0.35	0.036	2.05	0.435	0.040	2.47	0.025	0.069
0.86	0.78	0.044	1.79	0.35	0.042	1.22	0.27	0.051	1.635	0.355	0.037	2.05	0.44	0.043	2.47	0.03	0.072
0.86	0.79	0.041	1.79	0.36	0.042	1.22	0.275	0.050	1.635	0.36	0.040	2.05	0.445	0.045	2.47	0.035	0.075
0.86	0.8	0.039	1.79	0.37	0.042	1.22	0.28	0.051	1.635	0.365	0.042	2.05	0.45	0.046	2.47	0.04	0.077
0.86	0.81	0.038	1.79	0.38	0.043	1.22	0.285	0.056	1.635	0.37	0.043	2.05	0.455	0.047	2.47	0.045	0.078
0.86	0.82	0.039	1.79	0.39	0.045	1.22	0.29	0.057	1.635	0.375	0.042	2.05	0.46	0.049	2.47	0.05	0.078
0.86	0.83	0.041	1.79	0.4	0.047	1.22	0.295	0.053	1.635	0.38	0.040	2.05	0.465	0.050	2.47	0.055	0.077
0.86	0.84	0.043	1.79	0.41	0.049	1.22	0.3	0.048	1.635	0.385	0.038	2.05	0.47	0.049	2.47	0.06	0.076

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.86	0.85	0.044	1.79	0.42	0.049	1.22	0.305	0.050	1.635	0.39	0.037	2.05	0.475	0.046	2.47	0.065	0.073
0.86	0.86	0.044	1.79	0.43	0.048	1.22	0.31	0.054	1.635	0.395	0.037	2.05	0.48	0.042	2.47	0.07	0.067
0.86	0.87	0.044	1.79	0.44	0.048	1.22	0.315	0.054	1.635	0.4	0.036	2.05	0.485	0.040	2.47	0.075	0.057
0.86	0.88	0.047	1.79	0.45	0.050	1.22	0.32	0.053	1.635	0.405	0.036	2.05	0.49	0.043	2.47	0.08	0.049
0.86	0.89	0.053	1.79	0.46	0.054	1.22	0.325	0.054	1.635	0.41	0.038	2.05	0.495	0.046	2.47	0.085	0.049
0.87	0.01	0.043	1.79	0.47	0.057	1.22	0.33	0.057	1.635	0.415	0.043	2.055	0.005	0.070	2.47	0.09	0.055
0.87	0.02	0.046	1.79	0.48	0.057	1.22	0.335	0.060	1.635	0.42	0.047	2.055	0.01	0.078	2.47	0.095	0.056
0.87	0.03	0.048	1.79	0.49	0.057	1.22	0.34	0.061	1.635	0.425	0.051	2.055	0.015	0.080	2.47	0.1	0.052
0.87	0.04	0.050	1.79	0.5	0.057	1.22	0.345	0.058	1.635	0.43	0.055	2.055	0.02	0.079	2.47	0.105	0.050
0.87	0.05	0.052	1.79	0.51	0.058	1.22	0.35	0.049	1.635	0.435	0.058	2.055	0.025	0.075	2.47	0.11	0.052
0.87	0.06	0.052	1.79	0.52	0.058	1.22	0.355	0.042	1.635	0.44	0.060	2.055	0.03	0.071	2.47	0.115	0.059
0.87	0.07	0.052	1.79	0.53	0.057	1.22	0.36	0.045	1.635	0.445	0.058	2.055	0.035	0.070	2.47	0.12	0.065
0.87	0.08	0.051	1.79	0.54	0.057	1.22	0.365	0.052	1.635	0.45	0.055	2.055	0.04	0.071	2.47	0.125	0.067
0.87	0.09	0.051	1.79	0.55	0.058	1.22	0.37	0.050	1.635	0.455	0.049	2.055	0.045	0.075	2.47	0.13	0.066
0.87	0.1	0.049	1.79	0.56	0.060	1.22	0.375	0.042	1.635	0.46	0.048	2.055	0.05	0.077	2.47	0.135	0.066
0.87	0.11	0.046	1.79	0.57	0.062	1.22	0.38	0.042	1.635	0.465	0.047	2.055	0.055	0.077	2.47	0.14	0.064
0.87	0.12	0.044	1.79	0.58	0.063	1.22	0.385	0.049	1.635	0.47	0.044	2.055	0.06	0.076	2.47	0.145	0.060
0.87	0.13	0.044	1.79	0.59	0.064	1.22	0.39	0.053	1.635	0.475	0.040	2.055	0.065	0.074	2.47	0.15	0.053
0.87	0.14	0.044	1.79	0.6	0.063	1.22	0.395	0.054	1.635	0.48	0.038	2.055	0.07	0.072	2.47	0.155	0.051
0.87	0.15	0.044	1.79	0.61	0.060	1.22	0.4	0.053	1.635	0.485	0.042	2.055	0.075	0.070	2.47	0.16	0.055
0.87	0.16	0.044	1.79	0.62	0.055	1.22	0.405	0.051	1.635	0.49	0.047	2.055	0.08	0.066	2.47	0.165	0.060
0.87	0.17	0.045	1.79	0.63	0.051	1.22	0.41	0.049	1.635	0.495	0.049	2.055	0.085	0.062	2.47	0.17	0.061
0.87	0.18	0.044	1.79	0.64	0.049	1.22	0.415	0.048	1.64	0.005	0.047	2.055	0.09	0.061	2.47	0.175	0.062
0.87	0.19	0.042	1.79	0.65	0.050	1.22	0.42	0.048	1.64	0.01	0.046	2.055	0.095	0.065	2.47	0.18	0.062
0.87	0.2	0.040	1.79	0.66	0.050	1.22	0.425	0.048	1.64	0.015	0.048	2.055	0.1	0.069	2.47	0.185	0.062

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.87	0.21	0.039	1.79	0.67	0.049	1.22	0.43	0.048	1.64	0.02	0.053	2.055	0.105	0.070	2.47	0.19	0.061
0.87	0.22	0.038	1.79	0.68	0.047	1.22	0.435	0.047	1.64	0.025	0.062	2.055	0.11	0.070	2.47	0.195	0.060
0.87	0.23	0.039	1.79	0.69	0.047	1.22	0.44	0.047	1.64	0.03	0.069	2.055	0.115	0.068	2.47	0.2	0.057
0.87	0.24	0.041	1.79	0.7	0.048	1.22	0.445	0.047	1.64	0.035	0.071	2.055	0.12	0.068	2.47	0.205	0.054
0.87	0.25	0.042	1.79	0.71	0.048	1.22	0.45	0.047	1.64	0.04	0.070	2.055	0.125	0.074	2.47	0.21	0.056
0.87	0.26	0.042	1.79	0.72	0.047	1.22	0.455	0.047	1.64	0.045	0.067	2.055	0.13	0.078	2.47	0.215	0.060
0.87	0.27	0.040	1.79	0.73	0.046	1.22	0.46	0.047	1.64	0.05	0.061	2.055	0.135	0.079	2.47	0.22	0.061
0.87	0.28	0.039	1.79	0.74	0.046	1.22	0.465	0.046	1.64	0.055	0.054	2.055	0.14	0.079	2.47	0.225	0.057
0.87	0.29	0.038	1.79	0.75	0.046	1.22	0.47	0.044	1.64	0.06	0.049	2.055	0.145	0.078	2.47	0.23	0.048
0.87	0.3	0.038	1.79	0.76	0.047	1.22	0.475	0.041	1.64	0.065	0.047	2.055	0.15	0.075	2.47	0.235	0.042
0.87	0.31	0.038	1.79	0.77	0.047	1.22	0.48	0.039	1.64	0.07	0.050	2.055	0.155	0.069	2.47	0.24	0.044
0.87	0.32	0.037	1.79	0.78	0.046	1.22	0.485	0.037	1.64	0.075	0.053	2.055	0.16	0.060	2.47	0.245	0.048
0.87	0.33	0.037	1.79	0.79	0.046	1.22	0.49	0.036	1.64	0.08	0.054	2.055	0.165	0.054	2.47	0.25	0.051
0.87	0.34	0.038	1.79	0.8	0.046	1.22	0.495	0.036	1.64	0.085	0.053	2.055	0.17	0.052	2.47	0.255	0.051
0.87	0.35	0.040	1.79	0.81	0.047	1.225	0.005	0.035	1.64	0.09	0.051	2.055	0.175	0.048	2.47	0.26	0.050
0.87	0.36	0.042	1.79	0.82	0.048	1.225	0.01	0.035	1.64	0.095	0.051	2.055	0.18	0.044	2.47	0.265	0.047
0.87	0.37	0.045	1.79	0.83	0.050	1.225	0.015	0.035	1.64	0.1	0.049	2.055	0.185	0.043	2.47	0.27	0.042
0.87	0.38	0.049	1.79	0.84	0.053	1.225	0.02	0.035	1.64	0.105	0.048	2.055	0.19	0.042	2.47	0.275	0.036
0.87	0.39	0.051	1.79	0.85	0.055	1.225	0.025	0.035	1.64	0.11	0.048	2.055	0.195	0.040	2.47	0.28	0.033
0.87	0.4	0.051	1.79	0.86	0.053	1.225	0.03	0.034	1.64	0.115	0.050	2.055	0.2	0.036	2.47	0.285	0.033
0.87	0.41	0.050	1.79	0.87	0.049	1.225	0.035	0.034	1.64	0.12	0.053	2.055	0.205	0.033	2.47	0.29	0.035
0.87	0.42	0.048	1.79	0.88	0.050	1.225	0.04	0.033	1.64	0.125	0.055	2.055	0.21	0.032	2.47	0.295	0.040
0.87	0.43	0.046	1.79	0.89	0.052	1.225	0.045	0.033	1.64	0.13	0.055	2.055	0.215	0.033	2.47	0.3	0.043
0.87	0.44	0.044	1.8	0.01	0.060	1.225	0.05	0.033	1.64	0.135	0.052	2.055	0.22	0.034	2.47	0.305	0.042
0.87	0.45	0.042	1.8	0.02	0.063	1.225	0.055	0.034	1.64	0.14	0.047	2.055	0.225	0.036	2.47	0.31	0.038

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.87	0.46	0.040	1.8	0.03	0.066	1.225	0.06	0.036	1.64	0.145	0.045	2.055	0.23	0.043	2.47	0.315	0.040
0.87	0.47	0.039	1.8	0.04	0.066	1.225	0.065	0.039	1.64	0.15	0.049	2.055	0.235	0.049	2.47	0.32	0.043
0.87	0.48	0.039	1.8	0.05	0.065	1.225	0.07	0.041	1.64	0.155	0.053	2.055	0.24	0.051	2.47	0.325	0.044
0.87	0.49	0.039	1.8	0.06	0.064	1.225	0.075	0.042	1.64	0.16	0.058	2.055	0.245	0.051	2.47	0.33	0.041
0.87	0.5	0.039	1.8	0.07	0.064	1.225	0.08	0.042	1.64	0.165	0.061	2.055	0.25	0.050	2.47	0.335	0.038
0.87	0.51	0.039	1.8	0.08	0.065	1.225	0.085	0.041	1.64	0.17	0.061	2.055	0.255	0.050	2.47	0.34	0.036
0.87	0.52	0.041	1.8	0.09	0.067	1.225	0.09	0.038	1.64	0.175	0.058	2.055	0.26	0.049	2.47	0.345	0.035
0.87	0.53	0.043	1.8	0.1	0.066	1.225	0.095	0.035	1.64	0.18	0.053	2.055	0.265	0.049	2.47	0.35	0.034
0.87	0.54	0.044	1.8	0.11	0.063	1.225	0.1	0.035	1.64	0.185	0.052	2.055	0.27	0.048	2.47	0.355	0.035
0.87	0.55	0.045	1.8	0.12	0.060	1.225	0.105	0.037	1.64	0.19	0.055	2.055	0.275	0.047	2.47	0.36	0.035
0.87	0.56	0.044	1.8	0.13	0.058	1.225	0.11	0.041	1.64	0.195	0.060	2.055	0.28	0.046	2.47	0.365	0.036
0.87	0.57	0.043	1.8	0.14	0.056	1.225	0.115	0.043	1.64	0.2	0.065	2.055	0.285	0.046	2.47	0.37	0.038
0.87	0.58	0.042	1.8	0.15	0.055	1.225	0.12	0.045	1.64	0.205	0.068	2.055	0.29	0.046	2.47	0.375	0.039
0.87	0.59	0.041	1.8	0.16	0.055	1.225	0.125	0.053	1.64	0.21	0.069	2.055	0.295	0.046	2.47	0.38	0.038
0.87	0.6	0.041	1.8	0.17	0.053	1.225	0.13	0.061	1.64	0.215	0.065	2.055	0.3	0.045	2.47	0.385	0.037
0.87	0.61	0.042	1.8	0.18	0.051	1.225	0.135	0.064	1.64	0.22	0.056	2.055	0.305	0.041	2.47	0.39	0.040
0.87	0.62	0.042	1.8	0.19	0.050	1.225	0.14	0.064	1.64	0.225	0.052	2.055	0.31	0.036	2.47	0.395	0.046
0.87	0.63	0.042	1.8	0.2	0.050	1.225	0.145	0.060	1.64	0.23	0.056	2.055	0.315	0.033	2.47	0.4	0.047
0.87	0.64	0.042	1.8	0.21	0.054	1.225	0.15	0.056	1.64	0.235	0.063	2.055	0.32	0.034	2.47	0.405	0.048
0.87	0.65	0.042	1.8	0.22	0.059	1.225	0.155	0.054	1.64	0.24	0.066	2.055	0.325	0.037	2.47	0.41	0.048
0.87	0.66	0.044	1.8	0.23	0.062	1.225	0.16	0.050	1.64	0.245	0.066	2.055	0.33	0.038	2.47	0.415	0.046
0.87	0.67	0.046	1.8	0.24	0.061	1.225	0.165	0.044	1.64	0.25	0.064	2.055	0.335	0.038	2.47	0.42	0.043
0.87	0.68	0.046	1.8	0.25	0.057	1.225	0.17	0.038	1.64	0.255	0.063	2.055	0.34	0.038	2.47	0.425	0.040
0.87	0.69	0.045	1.8	0.26	0.053	1.225	0.175	0.035	1.64	0.26	0.061	2.055	0.345	0.039	2.47	0.43	0.043
0.87	0.7	0.044	1.8	0.27	0.051	1.225	0.18	0.034	1.64	0.265	0.059	2.055	0.35	0.040	2.47	0.435	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.87	0.71	0.044	1.8	0.28	0.051	1.225	0.185	0.034	1.64	0.27	0.057	2.055	0.355	0.045	2.47	0.44	0.048
0.87	0.72	0.043	1.8	0.29	0.051	1.225	0.19	0.033	1.64	0.275	0.054	2.055	0.36	0.051	2.47	0.445	0.048
0.87	0.73	0.041	1.8	0.3	0.049	1.225	0.195	0.034	1.64	0.28	0.054	2.055	0.365	0.056	2.47	0.45	0.046
0.87	0.74	0.040	1.8	0.31	0.046	1.225	0.2	0.037	1.64	0.285	0.057	2.055	0.37	0.058	2.47	0.455	0.044
0.87	0.75	0.041	1.8	0.32	0.043	1.225	0.205	0.042	1.64	0.29	0.060	2.055	0.375	0.058	2.47	0.46	0.045
0.87	0.76	0.043	1.8	0.33	0.041	1.225	0.21	0.046	1.64	0.295	0.061	2.055	0.38	0.056	2.47	0.465	0.048
0.87	0.77	0.044	1.8	0.34	0.040	1.225	0.215	0.047	1.64	0.3	0.060	2.055	0.385	0.050	2.47	0.47	0.052
0.87	0.78	0.042	1.8	0.35	0.039	1.225	0.22	0.046	1.64	0.305	0.055	2.055	0.39	0.042	2.47	0.475	0.056
0.87	0.79	0.040	1.8	0.36	0.039	1.225	0.225	0.043	1.64	0.31	0.044	2.055	0.395	0.040	2.47	0.48	0.059
0.87	0.8	0.040	1.8	0.37	0.039	1.225	0.23	0.040	1.64	0.315	0.038	2.055	0.4	0.041	2.47	0.485	0.060
0.87	0.81	0.041	1.8	0.38	0.041	1.225	0.235	0.040	1.64	0.32	0.038	2.055	0.405	0.044	2.47	0.49	0.060
0.87	0.82	0.042	1.8	0.39	0.045	1.225	0.24	0.045	1.64	0.325	0.040	2.055	0.41	0.045	2.47	0.495	0.059
0.87	0.83	0.044	1.8	0.4	0.049	1.225	0.245	0.048	1.64	0.33	0.041	2.055	0.415	0.044	2.475	0.005	0.050
0.87	0.84	0.048	1.8	0.41	0.051	1.225	0.25	0.047	1.64	0.335	0.040	2.055	0.42	0.042	2.475	0.01	0.054
0.87	0.85	0.050	1.8	0.42	0.051	1.225	0.255	0.045	1.64	0.34	0.037	2.055	0.425	0.039	2.475	0.015	0.058
0.87	0.86	0.049	1.8	0.43	0.049	1.225	0.26	0.047	1.64	0.345	0.035	2.055	0.43	0.036	2.475	0.02	0.061
0.87	0.87	0.048	1.8	0.44	0.049	1.225	0.265	0.049	1.64	0.35	0.035	2.055	0.435	0.038	2.475	0.025	0.066
0.87	0.88	0.049	1.8	0.45	0.052	1.225	0.27	0.051	1.64	0.355	0.038	2.055	0.44	0.041	2.475	0.03	0.074
0.87	0.89	0.053	1.8	0.46	0.056	1.225	0.275	0.049	1.64	0.36	0.040	2.055	0.445	0.043	2.475	0.035	0.081
0.88	0.01	0.040	1.8	0.47	0.059	1.225	0.28	0.047	1.64	0.365	0.041	2.055	0.45	0.044	2.475	0.04	0.084
0.88	0.02	0.044	1.8	0.48	0.058	1.225	0.285	0.050	1.64	0.37	0.040	2.055	0.455	0.044	2.475	0.045	0.085
0.88	0.03	0.047	1.8	0.49	0.056	1.225	0.29	0.052	1.64	0.375	0.038	2.055	0.46	0.045	2.475	0.05	0.084
0.88	0.04	0.049	1.8	0.5	0.054	1.225	0.295	0.051	1.64	0.38	0.037	2.055	0.465	0.045	2.475	0.055	0.082
0.88	0.05	0.051	1.8	0.51	0.055	1.225	0.3	0.049	1.64	0.385	0.038	2.055	0.47	0.045	2.475	0.06	0.079

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.88	0.06	0.050	1.8	0.52	0.056	1.225	0.305	0.053	1.64	0.39	0.039	2.055	0.475	0.042	2.475	0.065	0.073
0.88	0.07	0.049	1.8	0.53	0.058	1.225	0.31	0.056	1.64	0.395	0.039	2.055	0.48	0.040	2.475	0.07	0.063
0.88	0.08	0.048	1.8	0.54	0.059	1.225	0.315	0.054	1.64	0.4	0.039	2.055	0.485	0.040	2.475	0.075	0.053
0.88	0.09	0.048	1.8	0.55	0.060	1.225	0.32	0.051	1.64	0.405	0.038	2.055	0.49	0.045	2.475	0.08	0.049
0.88	0.1	0.046	1.8	0.56	0.063	1.225	0.325	0.051	1.64	0.41	0.038	2.055	0.495	0.049	2.475	0.085	0.054
0.88	0.11	0.044	1.8	0.57	0.065	1.225	0.33	0.054	1.64	0.415	0.039	2.06	0.005	0.070	2.475	0.09	0.062
0.88	0.12	0.043	1.8	0.58	0.066	1.225	0.335	0.058	1.64	0.42	0.043	2.06	0.01	0.079	2.475	0.095	0.064
0.88	0.13	0.043	1.8	0.59	0.066	1.225	0.34	0.060	1.64	0.425	0.048	2.06	0.015	0.082	2.475	0.1	0.060
0.88	0.14	0.043	1.8	0.6	0.064	1.225	0.345	0.059	1.64	0.43	0.052	2.06	0.02	0.081	2.475	0.105	0.055
0.88	0.15	0.044	1.8	0.61	0.060	1.225	0.35	0.053	1.64	0.435	0.056	2.06	0.025	0.078	2.475	0.11	0.052
0.88	0.16	0.045	1.8	0.62	0.054	1.225	0.355	0.048	1.64	0.44	0.057	2.06	0.03	0.075	2.475	0.115	0.052
0.88	0.17	0.045	1.8	0.63	0.050	1.225	0.36	0.053	1.64	0.445	0.054	2.06	0.035	0.073	2.475	0.12	0.054
0.88	0.18	0.043	1.8	0.64	0.049	1.225	0.365	0.058	1.64	0.45	0.049	2.06	0.04	0.073	2.475	0.125	0.059
0.88	0.19	0.040	1.8	0.65	0.051	1.225	0.37	0.053	1.64	0.455	0.045	2.06	0.045	0.075	2.475	0.13	0.064
0.88	0.2	0.038	1.8	0.66	0.052	1.225	0.375	0.045	1.64	0.46	0.045	2.06	0.05	0.076	2.475	0.135	0.066
0.88	0.21	0.037	1.8	0.67	0.050	1.225	0.38	0.046	1.64	0.465	0.045	2.06	0.055	0.076	2.475	0.14	0.067
0.88	0.22	0.037	1.8	0.68	0.047	1.225	0.385	0.053	1.64	0.47	0.042	2.06	0.06	0.074	2.475	0.145	0.064
0.88	0.23	0.038	1.8	0.69	0.047	1.225	0.39	0.057	1.64	0.475	0.038	2.06	0.065	0.072	2.475	0.15	0.059
0.88	0.24	0.041	1.8	0.7	0.048	1.225	0.395	0.059	1.64	0.48	0.036	2.06	0.07	0.070	2.475	0.155	0.055
0.88	0.25	0.043	1.8	0.71	0.050	1.225	0.4	0.059	1.64	0.485	0.038	2.06	0.075	0.067	2.475	0.16	0.057
0.88	0.26	0.042	1.8	0.72	0.049	1.225	0.405	0.057	1.64	0.49	0.042	2.06	0.08	0.063	2.475	0.165	0.059
0.88	0.27	0.040	1.8	0.73	0.048	1.225	0.41	0.054	1.64	0.495	0.044	2.06	0.085	0.059	2.475	0.17	0.060
0.88	0.28	0.038	1.8	0.74	0.045	1.225	0.415	0.050	1.645	0.005	0.048	2.06	0.09	0.056	2.475	0.175	0.060
0.88	0.29	0.038	1.8	0.75	0.045	1.225	0.42	0.046	1.645	0.01	0.046	2.06	0.095	0.058	2.475	0.18	0.060
0.88	0.3	0.037	1.8	0.76	0.046	1.225	0.425	0.044	1.645	0.015	0.047	2.06	0.1	0.063	2.475	0.185	0.060

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.88	0.31	0.038	1.8	0.77	0.047	1.225	0.43	0.042	1.645	0.02	0.050	2.06	0.105	0.065	2.475	0.19	0.060
0.88	0.32	0.037	1.8	0.78	0.048	1.225	0.435	0.041	1.645	0.025	0.053	2.06	0.11	0.065	2.475	0.195	0.059
0.88	0.33	0.038	1.8	0.79	0.048	1.225	0.44	0.043	1.645	0.03	0.058	2.06	0.115	0.063	2.475	0.2	0.058
0.88	0.34	0.039	1.8	0.8	0.048	1.225	0.445	0.046	1.645	0.035	0.062	2.06	0.12	0.063	2.475	0.205	0.057
0.88	0.35	0.041	1.8	0.81	0.048	1.225	0.45	0.046	1.645	0.04	0.065	2.06	0.125	0.071	2.475	0.21	0.062
0.88	0.36	0.042	1.8	0.82	0.048	1.225	0.455	0.046	1.645	0.045	0.066	2.06	0.13	0.076	2.475	0.215	0.065
0.88	0.37	0.044	1.8	0.83	0.050	1.225	0.46	0.047	1.645	0.05	0.064	2.06	0.135	0.077	2.475	0.22	0.064
0.88	0.38	0.045	1.8	0.84	0.052	1.225	0.465	0.046	1.645	0.055	0.061	2.06	0.14	0.076	2.475	0.225	0.057
0.88	0.39	0.046	1.8	0.85	0.053	1.225	0.47	0.045	1.645	0.06	0.059	2.06	0.145	0.074	2.475	0.23	0.047
0.88	0.4	0.046	1.8	0.86	0.051	1.225	0.475	0.043	1.645	0.065	0.058	2.06	0.15	0.070	2.475	0.235	0.041
0.88	0.41	0.045	1.8	0.87	0.050	1.225	0.48	0.040	1.645	0.07	0.058	2.06	0.155	0.065	2.475	0.24	0.044
0.88	0.42	0.044	1.8	0.88	0.051	1.225	0.485	0.038	1.645	0.075	0.056	2.06	0.16	0.059	2.475	0.245	0.048
0.88	0.43	0.043	1.8	0.89	0.052	1.225	0.49	0.036	1.645	0.08	0.055	2.06	0.165	0.056	2.475	0.25	0.050
0.88	0.44	0.041	1.81	0.01	0.059	1.225	0.495	0.036	1.645	0.085	0.055	2.06	0.17	0.053	2.475	0.255	0.050
0.88	0.45	0.040	1.81	0.02	0.062	1.23	0.005	0.035	1.645	0.09	0.057	2.06	0.175	0.048	2.475	0.26	0.050
0.88	0.46	0.039	1.81	0.03	0.064	1.23	0.01	0.035	1.645	0.095	0.058	2.06	0.18	0.041	2.475	0.265	0.048
0.88	0.47	0.039	1.81	0.04	0.065	1.23	0.015	0.035	1.645	0.1	0.056	2.06	0.185	0.038	2.475	0.27	0.044
0.88	0.48	0.039	1.81	0.05	0.065	1.23	0.02	0.035	1.645	0.105	0.053	2.06	0.19	0.038	2.475	0.275	0.038
0.88	0.49	0.040	1.81	0.06	0.065	1.23	0.025	0.035	1.645	0.11	0.050	2.06	0.195	0.038	2.475	0.28	0.035
0.88	0.5	0.040	1.81	0.07	0.066	1.23	0.03	0.035	1.645	0.115	0.051	2.06	0.2	0.037	2.475	0.285	0.034
0.88	0.51	0.039	1.81	0.08	0.068	1.23	0.035	0.034	1.645	0.12	0.052	2.06	0.205	0.035	2.475	0.29	0.034
0.88	0.52	0.039	1.81	0.09	0.070	1.23	0.04	0.034	1.645	0.125	0.053	2.06	0.21	0.033	2.475	0.295	0.037
0.88	0.53	0.040	1.81	0.1	0.068	1.23	0.045	0.034	1.645	0.13	0.052	2.06	0.215	0.033	2.475	0.3	0.039
0.88	0.54	0.041	1.81	0.11	0.065	1.23	0.05	0.034	1.645	0.135	0.047	2.06	0.22	0.034	2.475	0.305	0.038
0.88	0.55	0.043	1.81	0.12	0.061	1.23	0.055	0.035	1.645	0.14	0.040	2.06	0.225	0.038	2.475	0.31	0.036

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.88	0.56	0.045	1.81	0.13	0.059	1.23	0.06	0.036	1.645	0.145	0.037	2.06	0.23	0.048	2.475	0.315	0.039
0.88	0.57	0.045	1.81	0.14	0.056	1.23	0.065	0.038	1.645	0.15	0.041	2.06	0.235	0.054	2.475	0.32	0.042
0.88	0.58	0.044	1.81	0.15	0.055	1.23	0.07	0.040	1.645	0.155	0.051	2.06	0.24	0.055	2.475	0.325	0.043
0.88	0.59	0.043	1.81	0.16	0.054	1.23	0.075	0.041	1.645	0.16	0.060	2.06	0.245	0.055	2.475	0.33	0.041
0.88	0.6	0.043	1.81	0.17	0.053	1.23	0.08	0.040	1.645	0.165	0.064	2.06	0.25	0.054	2.475	0.335	0.039
0.88	0.61	0.044	1.81	0.18	0.052	1.23	0.085	0.039	1.645	0.17	0.065	2.06	0.255	0.053	2.475	0.34	0.038
0.88	0.62	0.044	1.81	0.19	0.051	1.23	0.09	0.036	1.645	0.175	0.063	2.06	0.26	0.053	2.475	0.345	0.039
0.88	0.63	0.043	1.81	0.2	0.051	1.23	0.095	0.034	1.645	0.18	0.059	2.06	0.265	0.052	2.475	0.35	0.040
0.88	0.64	0.043	1.81	0.21	0.055	1.23	0.1	0.035	1.645	0.185	0.056	2.06	0.27	0.052	2.475	0.355	0.040
0.88	0.65	0.043	1.81	0.22	0.059	1.23	0.105	0.038	1.645	0.19	0.058	2.06	0.275	0.051	2.475	0.36	0.037
0.88	0.66	0.046	1.81	0.23	0.063	1.23	0.11	0.043	1.645	0.195	0.062	2.06	0.28	0.051	2.475	0.365	0.037
0.88	0.67	0.047	1.81	0.24	0.064	1.23	0.115	0.046	1.645	0.2	0.066	2.06	0.285	0.050	2.475	0.37	0.039
0.88	0.68	0.047	1.81	0.25	0.061	1.23	0.12	0.048	1.645	0.205	0.069	2.06	0.29	0.049	2.475	0.375	0.039
0.88	0.69	0.045	1.81	0.26	0.056	1.23	0.125	0.053	1.645	0.21	0.070	2.06	0.295	0.046	2.475	0.38	0.038
0.88	0.7	0.044	1.81	0.27	0.054	1.23	0.13	0.062	1.645	0.215	0.067	2.06	0.3	0.042	2.475	0.385	0.038
0.88	0.71	0.043	1.81	0.28	0.052	1.23	0.135	0.066	1.645	0.22	0.060	2.06	0.305	0.039	2.475	0.39	0.040
0.88	0.72	0.042	1.81	0.29	0.050	1.23	0.14	0.066	1.645	0.225	0.054	2.06	0.31	0.036	2.475	0.395	0.045
0.88	0.73	0.040	1.81	0.3	0.046	1.23	0.145	0.062	1.645	0.23	0.055	2.06	0.315	0.035	2.475	0.4	0.047
0.88	0.74	0.038	1.81	0.31	0.043	1.23	0.15	0.056	1.645	0.235	0.059	2.06	0.32	0.036	2.475	0.405	0.045
0.88	0.75	0.038	1.81	0.32	0.041	1.23	0.155	0.049	1.645	0.24	0.063	2.06	0.325	0.039	2.475	0.41	0.043
0.88	0.76	0.040	1.81	0.33	0.040	1.23	0.16	0.043	1.645	0.245	0.064	2.06	0.33	0.040	2.475	0.415	0.043
0.88	0.77	0.040	1.81	0.34	0.039	1.23	0.165	0.039	1.645	0.25	0.064	2.06	0.335	0.039	2.475	0.42	0.041
0.88	0.78	0.039	1.81	0.35	0.038	1.23	0.17	0.037	1.645	0.255	0.063	2.06	0.34	0.038	2.475	0.425	0.041
0.88	0.79	0.039	1.81	0.36	0.037	1.23	0.175	0.037	1.645	0.26	0.061	2.06	0.345	0.038	2.475	0.43	0.045
0.88	0.8	0.040	1.81	0.37	0.037	1.23	0.18	0.037	1.645	0.265	0.058	2.06	0.35	0.040	2.475	0.435	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.88	0.81	0.043	1.81	0.38	0.040	1.23	0.185	0.036	1.645	0.27	0.054	2.06	0.355	0.044	2.475	0.44	0.052
0.88	0.82	0.045	1.81	0.39	0.045	1.23	0.19	0.034	1.645	0.275	0.050	2.06	0.36	0.049	2.475	0.445	0.050
0.88	0.83	0.050	1.81	0.4	0.050	1.23	0.195	0.034	1.645	0.28	0.051	2.06	0.365	0.053	2.475	0.45	0.047
0.88	0.84	0.055	1.81	0.41	0.051	1.23	0.2	0.036	1.645	0.285	0.055	2.06	0.37	0.056	2.475	0.455	0.046
0.88	0.85	0.057	1.81	0.42	0.051	1.23	0.205	0.040	1.645	0.29	0.059	2.06	0.375	0.056	2.475	0.46	0.048
0.88	0.86	0.056	1.81	0.43	0.050	1.23	0.21	0.045	1.645	0.295	0.061	2.06	0.38	0.053	2.475	0.465	0.051
0.88	0.87	0.052	1.81	0.44	0.050	1.23	0.215	0.046	1.645	0.3	0.062	2.06	0.385	0.046	2.475	0.47	0.053
0.88	0.88	0.050	1.81	0.45	0.053	1.23	0.22	0.044	1.645	0.305	0.058	2.06	0.39	0.039	2.475	0.475	0.055
0.88	0.89	0.051	1.81	0.46	0.056	1.23	0.225	0.042	1.645	0.31	0.050	2.06	0.395	0.040	2.475	0.48	0.058
0.89	0.01	0.038	1.81	0.47	0.058	1.23	0.23	0.040	1.645	0.315	0.041	2.06	0.4	0.044	2.475	0.485	0.061
0.89	0.02	0.042	1.81	0.48	0.056	1.23	0.235	0.040	1.645	0.32	0.038	2.06	0.405	0.048	2.475	0.49	0.061
0.89	0.03	0.047	1.81	0.49	0.053	1.23	0.24	0.041	1.645	0.325	0.041	2.06	0.41	0.049	2.475	0.495	0.060
0.89	0.04	0.051	1.81	0.5	0.051	1.23	0.245	0.041	1.645	0.33	0.044	2.06	0.415	0.048	2.48	0.005	0.053
0.89	0.05	0.053	1.81	0.51	0.052	1.23	0.25	0.038	1.645	0.335	0.043	2.06	0.42	0.045	2.48	0.01	0.056
0.89	0.06	0.052	1.81	0.52	0.055	1.23	0.255	0.038	1.645	0.34	0.038	2.06	0.425	0.042	2.48	0.015	0.059
0.89	0.07	0.049	1.81	0.53	0.057	1.23	0.26	0.040	1.645	0.345	0.035	2.06	0.43	0.039	2.48	0.02	0.059
0.89	0.08	0.047	1.81	0.54	0.058	1.23	0.265	0.043	1.645	0.35	0.036	2.06	0.435	0.040	2.48	0.025	0.063
0.89	0.09	0.046	1.81	0.55	0.059	1.23	0.27	0.045	1.645	0.355	0.039	2.06	0.44	0.044	2.48	0.03	0.073
0.89	0.1	0.045	1.81	0.56	0.062	1.23	0.275	0.046	1.645	0.36	0.042	2.06	0.445	0.046	2.48	0.035	0.081
0.89	0.11	0.044	1.81	0.57	0.065	1.23	0.28	0.046	1.645	0.365	0.042	2.06	0.45	0.045	2.48	0.04	0.085
0.89	0.12	0.042	1.81	0.58	0.066	1.23	0.285	0.048	1.645	0.37	0.040	2.06	0.455	0.044	2.48	0.045	0.086
0.89	0.13	0.043	1.81	0.59	0.065	1.23	0.29	0.049	1.645	0.375	0.037	2.06	0.46	0.042	2.48	0.05	0.084
0.89	0.14	0.043	1.81	0.6	0.063	1.23	0.295	0.048	1.645	0.38	0.036	2.06	0.465	0.041	2.48	0.055	0.081
0.89	0.15	0.045	1.81	0.61	0.058	1.23	0.3	0.048	1.645	0.385	0.038	2.06	0.47	0.040	2.48	0.06	0.075
0.89	0.16	0.046	1.81	0.62	0.053	1.23	0.305	0.050	1.645	0.39	0.040	2.06	0.475	0.038	2.48	0.065	0.067

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.89	0.17	0.045	1.81	0.63	0.049	1.23	0.31	0.053	1.645	0.395	0.042	2.06	0.48	0.037	2.48	0.07	0.058
0.89	0.18	0.042	1.81	0.64	0.051	1.23	0.315	0.053	1.645	0.4	0.043	2.06	0.485	0.039	2.48	0.075	0.052
0.89	0.19	0.040	1.81	0.65	0.056	1.23	0.32	0.053	1.645	0.405	0.042	2.06	0.49	0.045	2.48	0.08	0.053
0.89	0.2	0.038	1.81	0.66	0.058	1.23	0.325	0.051	1.645	0.41	0.041	2.06	0.495	0.049	2.48	0.085	0.060
0.89	0.21	0.037	1.81	0.67	0.055	1.23	0.33	0.051	1.645	0.415	0.040	2.065	0.005	0.069	2.48	0.09	0.067
0.89	0.22	0.037	1.81	0.68	0.050	1.23	0.335	0.053	1.645	0.42	0.040	2.065	0.01	0.079	2.48	0.095	0.069
0.89	0.23	0.038	1.81	0.69	0.047	1.23	0.34	0.055	1.645	0.425	0.044	2.065	0.015	0.083	2.48	0.1	0.067
0.89	0.24	0.040	1.81	0.7	0.047	1.23	0.345	0.056	1.645	0.43	0.048	2.065	0.02	0.083	2.48	0.105	0.062
0.89	0.25	0.042	1.81	0.71	0.049	1.23	0.35	0.054	1.645	0.435	0.051	2.065	0.025	0.082	2.48	0.11	0.055
0.89	0.26	0.042	1.81	0.72	0.049	1.23	0.355	0.053	1.645	0.44	0.051	2.065	0.03	0.080	2.48	0.115	0.049
0.89	0.27	0.040	1.81	0.73	0.047	1.23	0.36	0.058	1.645	0.445	0.048	2.065	0.035	0.077	2.48	0.12	0.048
0.89	0.28	0.039	1.81	0.74	0.045	1.23	0.365	0.061	1.645	0.45	0.042	2.065	0.04	0.074	2.48	0.125	0.053
0.89	0.29	0.037	1.81	0.75	0.045	1.23	0.37	0.056	1.645	0.455	0.041	2.065	0.045	0.072	2.48	0.13	0.065
0.89	0.3	0.037	1.81	0.76	0.046	1.23	0.375	0.051	1.645	0.46	0.044	2.065	0.05	0.072	2.48	0.135	0.072
0.89	0.31	0.037	1.81	0.77	0.048	1.23	0.38	0.053	1.645	0.465	0.045	2.065	0.055	0.072	2.48	0.14	0.074
0.89	0.32	0.037	1.81	0.78	0.048	1.23	0.385	0.058	1.645	0.47	0.042	2.065	0.06	0.070	2.48	0.145	0.071
0.89	0.33	0.037	1.81	0.79	0.048	1.23	0.39	0.061	1.645	0.475	0.039	2.065	0.065	0.069	2.48	0.15	0.067
0.89	0.34	0.039	1.81	0.8	0.048	1.23	0.395	0.061	1.645	0.48	0.037	2.065	0.07	0.066	2.48	0.155	0.062
0.89	0.35	0.040	1.81	0.81	0.047	1.23	0.4	0.061	1.645	0.485	0.037	2.065	0.075	0.063	2.48	0.16	0.058
0.89	0.36	0.042	1.81	0.82	0.047	1.23	0.405	0.061	1.645	0.49	0.038	2.065	0.08	0.058	2.48	0.165	0.057
0.89	0.37	0.043	1.81	0.83	0.050	1.23	0.41	0.059	1.645	0.495	0.040	2.065	0.085	0.053	2.48	0.17	0.057
0.89	0.38	0.043	1.81	0.84	0.052	1.23	0.415	0.053	1.65	0.005	0.050	2.065	0.09	0.051	2.48	0.175	0.058
0.89	0.39	0.042	1.81	0.85	0.051	1.23	0.42	0.045	1.65	0.01	0.048	2.065	0.095	0.052	2.48	0.18	0.058
0.89	0.4	0.042	1.81	0.86	0.049	1.23	0.425	0.040	1.65	0.015	0.048	2.065	0.1	0.055	2.48	0.185	0.059
0.89	0.41	0.042	1.81	0.87	0.049	1.23	0.43	0.038	1.65	0.02	0.048	2.065	0.105	0.056	2.48	0.19	0.058

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.89	0.42	0.041	1.81	0.88	0.049	1.23	0.435	0.040	1.65	0.025	0.047	2.065	0.11	0.054	2.48	0.195	0.058
0.89	0.43	0.041	1.81	0.89	0.049	1.23	0.44	0.043	1.65	0.03	0.048	2.065	0.115	0.053	2.48	0.2	0.057
0.89	0.44	0.040	1.82	0.01	0.058	1.23	0.445	0.046	1.65	0.035	0.050	2.065	0.12	0.054	2.48	0.205	0.057
0.89	0.45	0.039	1.82	0.02	0.061	1.23	0.45	0.046	1.65	0.04	0.058	2.065	0.125	0.064	2.48	0.21	0.061
0.89	0.46	0.038	1.82	0.03	0.063	1.23	0.455	0.045	1.65	0.045	0.065	2.065	0.13	0.071	2.48	0.215	0.065
0.89	0.47	0.039	1.82	0.04	0.064	1.23	0.46	0.045	1.65	0.05	0.069	2.065	0.135	0.072	2.48	0.22	0.063
0.89	0.48	0.041	1.82	0.05	0.064	1.23	0.465	0.046	1.65	0.055	0.070	2.065	0.14	0.071	2.48	0.225	0.056
0.89	0.49	0.041	1.82	0.06	0.065	1.23	0.47	0.045	1.65	0.06	0.071	2.065	0.145	0.069	2.48	0.23	0.048
0.89	0.5	0.041	1.82	0.07	0.067	1.23	0.475	0.043	1.65	0.065	0.070	2.065	0.15	0.065	2.48	0.235	0.045
0.89	0.51	0.039	1.82	0.08	0.070	1.23	0.48	0.041	1.65	0.07	0.068	2.065	0.155	0.062	2.48	0.24	0.047
0.89	0.52	0.038	1.82	0.09	0.072	1.23	0.485	0.038	1.65	0.075	0.065	2.065	0.16	0.059	2.48	0.245	0.050
0.89	0.53	0.038	1.82	0.1	0.072	1.23	0.49	0.036	1.65	0.08	0.060	2.065	0.165	0.057	2.48	0.25	0.051
0.89	0.54	0.039	1.82	0.11	0.068	1.23	0.495	0.035	1.65	0.085	0.057	2.065	0.17	0.053	2.48	0.255	0.050
0.89	0.55	0.042	1.82	0.12	0.064	1.235	0.005	0.035	1.65	0.09	0.059	2.065	0.175	0.048	2.48	0.26	0.050
0.89	0.56	0.045	1.82	0.13	0.061	1.235	0.01	0.035	1.65	0.095	0.062	2.065	0.18	0.041	2.48	0.265	0.049
0.89	0.57	0.046	1.82	0.14	0.058	1.235	0.015	0.034	1.65	0.1	0.061	2.065	0.185	0.037	2.48	0.27	0.045
0.89	0.58	0.045	1.82	0.15	0.056	1.235	0.02	0.035	1.65	0.105	0.058	2.065	0.19	0.036	2.48	0.275	0.039
0.89	0.59	0.043	1.82	0.16	0.054	1.235	0.025	0.035	1.65	0.11	0.054	2.065	0.195	0.037	2.48	0.28	0.036
0.89	0.6	0.043	1.82	0.17	0.054	1.235	0.03	0.035	1.65	0.115	0.054	2.065	0.2	0.039	2.48	0.285	0.034
0.89	0.61	0.043	1.82	0.18	0.054	1.235	0.035	0.035	1.65	0.12	0.058	2.065	0.205	0.038	2.48	0.29	0.034
0.89	0.62	0.043	1.82	0.19	0.054	1.235	0.04	0.035	1.65	0.125	0.058	2.065	0.21	0.035	2.48	0.295	0.035
0.89	0.63	0.043	1.82	0.2	0.052	1.235	0.045	0.035	1.65	0.13	0.053	2.065	0.215	0.033	2.48	0.3	0.035
0.89	0.64	0.043	1.82	0.21	0.053	1.235	0.05	0.035	1.65	0.135	0.044	2.065	0.22	0.035	2.48	0.305	0.035
0.89	0.65	0.043	1.82	0.22	0.056	1.235	0.055	0.036	1.65	0.14	0.037	2.065	0.225	0.041	2.48	0.31	0.035
0.89	0.66	0.045	1.82	0.23	0.061	1.235	0.06	0.037	1.65	0.145	0.035	2.065	0.23	0.052	2.48	0.315	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.89	0.67	0.046	1.82	0.24	0.064	1.235	0.065	0.038	1.65	0.15	0.040	2.065	0.235	0.058	2.48	0.32	0.040
0.89	0.68	0.046	1.82	0.25	0.064	1.235	0.07	0.040	1.65	0.155	0.053	2.065	0.24	0.059	2.48	0.325	0.039
0.89	0.69	0.044	1.82	0.26	0.061	1.235	0.075	0.040	1.65	0.16	0.063	2.065	0.245	0.059	2.48	0.33	0.037
0.89	0.7	0.043	1.82	0.27	0.057	1.235	0.08	0.039	1.65	0.165	0.068	2.065	0.25	0.058	2.48	0.335	0.037
0.89	0.71	0.042	1.82	0.28	0.054	1.235	0.085	0.037	1.65	0.17	0.069	2.065	0.255	0.057	2.48	0.34	0.039
0.89	0.72	0.040	1.82	0.29	0.050	1.235	0.09	0.036	1.65	0.175	0.067	2.065	0.26	0.056	2.48	0.345	0.042
0.89	0.73	0.039	1.82	0.3	0.047	1.235	0.095	0.036	1.65	0.18	0.064	2.065	0.265	0.056	2.48	0.35	0.044
0.89	0.74	0.037	1.82	0.31	0.043	1.235	0.1	0.037	1.65	0.185	0.061	2.065	0.27	0.055	2.48	0.355	0.043
0.89	0.75	0.036	1.82	0.32	0.041	1.235	0.105	0.041	1.65	0.19	0.060	2.065	0.275	0.055	2.48	0.36	0.039
0.89	0.76	0.037	1.82	0.33	0.040	1.235	0.11	0.045	1.65	0.195	0.062	2.065	0.28	0.055	2.48	0.365	0.037
0.89	0.77	0.037	1.82	0.34	0.039	1.235	0.115	0.048	1.65	0.2	0.066	2.065	0.285	0.055	2.48	0.37	0.038
0.89	0.78	0.037	1.82	0.35	0.038	1.235	0.12	0.049	1.65	0.205	0.068	2.065	0.29	0.052	2.48	0.375	0.038
0.89	0.79	0.038	1.82	0.36	0.037	1.235	0.125	0.051	1.65	0.21	0.069	2.065	0.295	0.047	2.48	0.38	0.037
0.89	0.8	0.040	1.82	0.37	0.037	1.235	0.13	0.059	1.65	0.215	0.068	2.065	0.3	0.041	2.48	0.385	0.037
0.89	0.81	0.043	1.82	0.38	0.040	1.235	0.135	0.064	1.65	0.22	0.063	2.065	0.305	0.038	2.48	0.39	0.038
0.89	0.82	0.047	1.82	0.39	0.045	1.235	0.14	0.065	1.65	0.225	0.057	2.065	0.31	0.039	2.48	0.395	0.041
0.89	0.83	0.053	1.82	0.4	0.049	1.235	0.145	0.063	1.65	0.23	0.056	2.065	0.315	0.040	2.48	0.4	0.044
0.89	0.84	0.060	1.82	0.41	0.050	1.235	0.15	0.057	1.65	0.235	0.057	2.065	0.32	0.041	2.48	0.405	0.043
0.89	0.85	0.063	1.82	0.42	0.051	1.235	0.155	0.050	1.65	0.24	0.059	2.065	0.325	0.041	2.48	0.41	0.040
0.89	0.86	0.061	1.82	0.43	0.052	1.235	0.16	0.042	1.65	0.245	0.061	2.065	0.33	0.040	2.48	0.415	0.039
0.89	0.87	0.055	1.82	0.44	0.052	1.235	0.165	0.037	1.65	0.25	0.061	2.065	0.335	0.040	2.48	0.42	0.040
0.89	0.88	0.051	1.82	0.45	0.052	1.235	0.17	0.036	1.65	0.255	0.061	2.065	0.34	0.040	2.48	0.425	0.042
0.89	0.89	0.050	1.82	0.46	0.054	1.235	0.175	0.038	1.65	0.26	0.059	2.065	0.345	0.040	2.48	0.43	0.046
0.9	0.01	0.037	1.82	0.47	0.055	1.235	0.18	0.038	1.65	0.265	0.055	2.065	0.35	0.042	2.48	0.435	0.053
0.9	0.02	0.042	1.82	0.48	0.053	1.235	0.185	0.037	1.65	0.27	0.048	2.065	0.355	0.043	2.48	0.44	0.054

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.9	0.03	0.048	1.82	0.49	0.051	1.235	0.19	0.034	1.65	0.275	0.044	2.065	0.36	0.046	2.48	0.445	0.052
0.9	0.04	0.053	1.82	0.5	0.050	1.235	0.195	0.033	1.65	0.28	0.046	2.065	0.365	0.049	2.48	0.45	0.048
0.9	0.05	0.058	1.82	0.51	0.052	1.235	0.2	0.035	1.65	0.285	0.051	2.065	0.37	0.052	2.48	0.455	0.048
0.9	0.06	0.057	1.82	0.52	0.056	1.235	0.205	0.038	1.65	0.29	0.055	2.065	0.375	0.052	2.48	0.46	0.049
0.9	0.07	0.053	1.82	0.53	0.058	1.235	0.21	0.041	1.65	0.295	0.058	2.065	0.38	0.048	2.48	0.465	0.050
0.9	0.08	0.049	1.82	0.54	0.057	1.235	0.215	0.043	1.65	0.3	0.059	2.065	0.385	0.041	2.48	0.47	0.051
0.9	0.09	0.047	1.82	0.55	0.057	1.235	0.22	0.042	1.65	0.305	0.056	2.065	0.39	0.037	2.48	0.475	0.052
0.9	0.1	0.046	1.82	0.56	0.059	1.235	0.225	0.040	1.65	0.31	0.051	2.065	0.395	0.040	2.48	0.48	0.054
0.9	0.11	0.045	1.82	0.57	0.062	1.235	0.23	0.038	1.65	0.315	0.045	2.065	0.4	0.047	2.48	0.485	0.055
0.9	0.12	0.044	1.82	0.58	0.063	1.235	0.235	0.037	1.65	0.32	0.042	2.065	0.405	0.050	2.48	0.49	0.054
0.9	0.13	0.044	1.82	0.59	0.062	1.235	0.24	0.036	1.65	0.325	0.043	2.065	0.41	0.051	2.48	0.495	0.052
0.9	0.14	0.044	1.82	0.6	0.059	1.235	0.245	0.035	1.65	0.33	0.046	2.065	0.415	0.050	2.485	0.005	0.053
0.9	0.15	0.045	1.82	0.61	0.055	1.235	0.25	0.033	1.65	0.335	0.045	2.065	0.42	0.047	2.485	0.01	0.059
0.9	0.16	0.046	1.82	0.62	0.051	1.235	0.255	0.034	1.65	0.34	0.040	2.065	0.425	0.044	2.485	0.015	0.062
0.9	0.17	0.045	1.82	0.63	0.049	1.235	0.26	0.035	1.65	0.345	0.037	2.065	0.43	0.044	2.485	0.02	0.062
0.9	0.18	0.043	1.82	0.64	0.054	1.235	0.265	0.037	1.65	0.35	0.040	2.065	0.435	0.046	2.485	0.025	0.063
0.9	0.19	0.041	1.82	0.65	0.061	1.235	0.27	0.040	1.65	0.355	0.042	2.065	0.44	0.050	2.485	0.03	0.070
0.9	0.2	0.041	1.82	0.66	0.065	1.235	0.275	0.045	1.65	0.36	0.044	2.065	0.445	0.051	2.485	0.035	0.076
0.9	0.21	0.040	1.82	0.67	0.061	1.235	0.28	0.048	1.65	0.365	0.044	2.065	0.45	0.049	2.485	0.04	0.080
0.9	0.22	0.040	1.82	0.68	0.054	1.235	0.285	0.049	1.65	0.37	0.042	2.065	0.455	0.046	2.485	0.045	0.081
0.9	0.23	0.039	1.82	0.69	0.049	1.235	0.29	0.049	1.65	0.375	0.039	2.065	0.46	0.043	2.485	0.05	0.079
0.9	0.24	0.039	1.82	0.7	0.046	1.235	0.295	0.049	1.65	0.38	0.037	2.065	0.465	0.039	2.485	0.055	0.076
0.9	0.25	0.040	1.82	0.71	0.046	1.235	0.3	0.048	1.65	0.385	0.038	2.065	0.47	0.037	2.485	0.06	0.071
0.9	0.26	0.041	1.82	0.72	0.046	1.235	0.305	0.046	1.65	0.39	0.041	2.065	0.475	0.035	2.485	0.065	0.066
0.9	0.27	0.040	1.82	0.73	0.046	1.235	0.31	0.049	1.65	0.395	0.044	2.065	0.48	0.035	2.485	0.07	0.061

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.9	0.28	0.039	1.82	0.74	0.048	1.235	0.315	0.052	1.65	0.4	0.045	2.065	0.485	0.039	2.485	0.075	0.058
0.9	0.29	0.038	1.82	0.75	0.049	1.235	0.32	0.055	1.65	0.405	0.046	2.065	0.49	0.046	2.485	0.08	0.060
0.9	0.3	0.038	1.82	0.76	0.050	1.235	0.325	0.054	1.65	0.41	0.045	2.065	0.495	0.051	2.485	0.085	0.065
0.9	0.31	0.038	1.82	0.77	0.049	1.235	0.33	0.051	1.65	0.415	0.043	2.07	0.005	0.070	2.485	0.09	0.070
0.9	0.32	0.037	1.82	0.78	0.049	1.235	0.335	0.049	1.65	0.42	0.041	2.07	0.01	0.079	2.485	0.095	0.071
0.9	0.33	0.037	1.82	0.79	0.048	1.235	0.34	0.049	1.65	0.425	0.042	2.07	0.015	0.085	2.485	0.1	0.069
0.9	0.34	0.038	1.82	0.8	0.047	1.235	0.345	0.049	1.65	0.43	0.043	2.07	0.02	0.086	2.485	0.105	0.064
0.9	0.35	0.040	1.82	0.81	0.045	1.235	0.35	0.051	1.65	0.435	0.045	2.07	0.025	0.085	2.485	0.11	0.055
0.9	0.36	0.041	1.82	0.82	0.046	1.235	0.355	0.054	1.65	0.44	0.045	2.07	0.03	0.083	2.485	0.115	0.050
0.9	0.37	0.042	1.82	0.83	0.049	1.235	0.36	0.060	1.65	0.445	0.042	2.07	0.035	0.079	2.485	0.12	0.049
0.9	0.38	0.042	1.82	0.84	0.052	1.235	0.365	0.061	1.65	0.45	0.041	2.07	0.04	0.072	2.485	0.125	0.056
0.9	0.39	0.041	1.82	0.85	0.052	1.235	0.37	0.058	1.65	0.455	0.043	2.07	0.045	0.067	2.485	0.13	0.069
0.9	0.4	0.041	1.82	0.86	0.049	1.235	0.375	0.054	1.65	0.46	0.047	2.07	0.05	0.065	2.485	0.135	0.078
0.9	0.41	0.040	1.82	0.87	0.048	1.235	0.38	0.058	1.65	0.465	0.049	2.07	0.055	0.064	2.485	0.14	0.079
0.9	0.42	0.040	1.82	0.88	0.047	1.235	0.385	0.061	1.65	0.47	0.048	2.07	0.06	0.063	2.485	0.145	0.077
0.9	0.43	0.039	1.82	0.89	0.045	1.235	0.39	0.063	1.65	0.475	0.046	2.07	0.065	0.062	2.485	0.15	0.072
0.9	0.44	0.039	1.83	0.01	0.058	1.235	0.395	0.063	1.65	0.48	0.043	2.07	0.07	0.060	2.485	0.155	0.067
0.9	0.45	0.038	1.83	0.02	0.061	1.235	0.4	0.062	1.65	0.485	0.040	2.07	0.075	0.056	2.485	0.16	0.062
0.9	0.46	0.039	1.83	0.03	0.063	1.235	0.405	0.062	1.65	0.49	0.039	2.07	0.08	0.052	2.485	0.165	0.058
0.9	0.47	0.040	1.83	0.04	0.063	1.235	0.41	0.061	1.65	0.495	0.042	2.07	0.085	0.048	2.485	0.17	0.055
0.9	0.48	0.041	1.83	0.05	0.063	1.235	0.415	0.055	1.655	0.005	0.051	2.07	0.09	0.048	2.485	0.175	0.055
0.9	0.49	0.041	1.83	0.06	0.065	1.235	0.42	0.046	1.655	0.01	0.051	2.07	0.095	0.049	2.485	0.18	0.056
0.9	0.5	0.041	1.83	0.07	0.067	1.235	0.425	0.039	1.655	0.015	0.050	2.07	0.1	0.048	2.485	0.185	0.057
0.9	0.51	0.041	1.83	0.08	0.070	1.235	0.43	0.037	1.655	0.02	0.048	2.07	0.105	0.046	2.485	0.19	0.057
0.9	0.52	0.039	1.83	0.09	0.073	1.235	0.435	0.039	1.655	0.025	0.045	2.07	0.11	0.044	2.485	0.195	0.056

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.9	0.53	0.038	1.83	0.1	0.075	1.235	0.44	0.043	1.655	0.03	0.044	2.07	0.115	0.043	2.485	0.2	0.055
0.9	0.54	0.038	1.83	0.11	0.072	1.235	0.445	0.046	1.655	0.035	0.046	2.07	0.12	0.046	2.485	0.205	0.056
0.9	0.55	0.041	1.83	0.12	0.067	1.235	0.45	0.045	1.655	0.04	0.054	2.07	0.125	0.055	2.485	0.21	0.059
0.9	0.56	0.044	1.83	0.13	0.064	1.235	0.455	0.043	1.655	0.045	0.064	2.07	0.13	0.063	2.485	0.215	0.062
0.9	0.57	0.045	1.83	0.14	0.062	1.235	0.46	0.043	1.655	0.05	0.071	2.07	0.135	0.065	2.485	0.22	0.060
0.9	0.58	0.044	1.83	0.15	0.059	1.235	0.465	0.044	1.655	0.055	0.075	2.07	0.14	0.065	2.485	0.225	0.055
0.9	0.59	0.043	1.83	0.16	0.056	1.235	0.47	0.045	1.655	0.06	0.077	2.07	0.145	0.064	2.485	0.23	0.051
0.9	0.6	0.042	1.83	0.17	0.056	1.235	0.475	0.044	1.655	0.065	0.077	2.07	0.15	0.063	2.485	0.235	0.050
0.9	0.61	0.042	1.83	0.18	0.056	1.235	0.48	0.042	1.655	0.07	0.075	2.07	0.155	0.061	2.485	0.24	0.051
0.9	0.62	0.042	1.83	0.19	0.055	1.235	0.485	0.039	1.655	0.075	0.070	2.07	0.16	0.059	2.485	0.245	0.052
0.9	0.63	0.042	1.83	0.2	0.053	1.235	0.49	0.036	1.655	0.08	0.063	2.07	0.165	0.056	2.485	0.25	0.052
0.9	0.64	0.042	1.83	0.21	0.051	1.235	0.495	0.034	1.655	0.085	0.058	2.07	0.17	0.052	2.485	0.255	0.051
0.9	0.65	0.042	1.83	0.22	0.053	1.24	0.005	0.034	1.655	0.09	0.059	2.07	0.175	0.047	2.485	0.26	0.050
0.9	0.66	0.043	1.83	0.23	0.058	1.24	0.01	0.034	1.655	0.095	0.062	2.07	0.18	0.042	2.485	0.265	0.050
0.9	0.67	0.044	1.83	0.24	0.063	1.24	0.015	0.034	1.655	0.1	0.063	2.07	0.185	0.040	2.485	0.27	0.047
0.9	0.68	0.044	1.83	0.25	0.065	1.24	0.02	0.033	1.655	0.105	0.060	2.07	0.19	0.040	2.485	0.275	0.041
0.9	0.69	0.043	1.83	0.26	0.062	1.24	0.025	0.034	1.655	0.11	0.057	2.07	0.195	0.041	2.485	0.28	0.037
0.9	0.7	0.042	1.83	0.27	0.058	1.24	0.03	0.034	1.655	0.115	0.059	2.07	0.2	0.041	2.485	0.285	0.035
0.9	0.71	0.041	1.83	0.28	0.054	1.24	0.035	0.034	1.655	0.12	0.063	2.07	0.205	0.040	2.485	0.29	0.034
0.9	0.72	0.040	1.83	0.29	0.050	1.24	0.04	0.034	1.655	0.125	0.064	2.07	0.21	0.038	2.485	0.295	0.034
0.9	0.73	0.037	1.83	0.3	0.047	1.24	0.045	0.034	1.655	0.13	0.058	2.07	0.215	0.035	2.485	0.3	0.034
0.9	0.74	0.036	1.83	0.31	0.046	1.24	0.05	0.035	1.655	0.135	0.047	2.07	0.22	0.037	2.485	0.305	0.034
0.9	0.75	0.035	1.83	0.32	0.044	1.24	0.055	0.036	1.655	0.14	0.041	2.07	0.225	0.044	2.485	0.31	0.035
0.9	0.76	0.035	1.83	0.33	0.042	1.24	0.06	0.038	1.655	0.145	0.040	2.07	0.23	0.056	2.485	0.315	0.036
0.9	0.77	0.035	1.83	0.34	0.041	1.24	0.065	0.039	1.655	0.15	0.045	2.07	0.235	0.061	2.485	0.32	0.037

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.9	0.78	0.036	1.83	0.35	0.040	1.24	0.07	0.039	1.655	0.155	0.056	2.07	0.24	0.062	2.485	0.325	0.036
0.9	0.79	0.037	1.83	0.36	0.039	1.24	0.075	0.039	1.655	0.16	0.065	2.07	0.245	0.062	2.485	0.33	0.034
0.9	0.8	0.040	1.83	0.37	0.040	1.24	0.08	0.038	1.655	0.165	0.070	2.07	0.25	0.061	2.485	0.335	0.035
0.9	0.81	0.043	1.83	0.38	0.041	1.24	0.085	0.036	1.655	0.17	0.071	2.07	0.255	0.060	2.485	0.34	0.038
0.9	0.82	0.047	1.83	0.39	0.044	1.24	0.09	0.036	1.655	0.175	0.070	2.07	0.26	0.060	2.485	0.345	0.043
0.9	0.83	0.053	1.83	0.4	0.047	1.24	0.095	0.038	1.655	0.18	0.068	2.07	0.265	0.059	2.485	0.35	0.045
0.9	0.84	0.061	1.83	0.41	0.049	1.24	0.1	0.041	1.655	0.185	0.064	2.07	0.27	0.059	2.485	0.355	0.044
0.9	0.85	0.064	1.83	0.42	0.051	1.24	0.105	0.043	1.655	0.19	0.062	2.07	0.275	0.059	2.485	0.36	0.039
0.9	0.86	0.062	1.83	0.43	0.052	1.24	0.11	0.046	1.655	0.195	0.062	2.07	0.28	0.058	2.485	0.365	0.037
0.9	0.87	0.057	1.83	0.44	0.052	1.24	0.115	0.049	1.655	0.2	0.065	2.07	0.285	0.056	2.485	0.37	0.037
0.9	0.88	0.052	1.83	0.45	0.050	1.24	0.12	0.049	1.655	0.205	0.068	2.07	0.29	0.052	2.485	0.375	0.037
0.9	0.89	0.051	1.83	0.46	0.050	1.24	0.125	0.048	1.655	0.21	0.069	2.07	0.295	0.047	2.485	0.38	0.036
0.91	0.01	0.037	1.83	0.47	0.051	1.24	0.13	0.052	1.655	0.215	0.068	2.07	0.3	0.044	2.485	0.385	0.035
0.91	0.02	0.043	1.83	0.48	0.050	1.24	0.135	0.058	1.655	0.22	0.064	2.07	0.305	0.043	2.485	0.39	0.035
0.91	0.03	0.049	1.83	0.49	0.050	1.24	0.14	0.061	1.655	0.225	0.059	2.07	0.31	0.044	2.485	0.395	0.036
0.91	0.04	0.056	1.83	0.5	0.050	1.24	0.145	0.062	1.655	0.23	0.058	2.07	0.315	0.046	2.485	0.4	0.039
0.91	0.05	0.062	1.83	0.51	0.053	1.24	0.15	0.059	1.655	0.235	0.058	2.07	0.32	0.044	2.485	0.405	0.040
0.91	0.06	0.062	1.83	0.52	0.057	1.24	0.155	0.053	1.655	0.24	0.056	2.07	0.325	0.042	2.485	0.41	0.038
0.91	0.07	0.057	1.83	0.53	0.059	1.24	0.16	0.045	1.655	0.245	0.057	2.07	0.33	0.041	2.485	0.415	0.037
0.91	0.08	0.050	1.83	0.54	0.058	1.24	0.165	0.039	1.655	0.25	0.057	2.07	0.335	0.040	2.485	0.42	0.040
0.91	0.09	0.047	1.83	0.55	0.057	1.24	0.17	0.036	1.655	0.255	0.058	2.07	0.34	0.042	2.485	0.425	0.043
0.91	0.1	0.046	1.83	0.56	0.057	1.24	0.175	0.037	1.655	0.26	0.058	2.07	0.345	0.044	2.485	0.43	0.046
0.91	0.11	0.046	1.83	0.57	0.059	1.24	0.18	0.038	1.655	0.265	0.054	2.07	0.35	0.045	2.485	0.435	0.053
0.91	0.12	0.046	1.83	0.58	0.060	1.24	0.185	0.036	1.655	0.27	0.046	2.07	0.355	0.045	2.485	0.44	0.055
0.91	0.13	0.045	1.83	0.59	0.059	1.24	0.19	0.034	1.655	0.275	0.041	2.07	0.36	0.044	2.485	0.445	0.052

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.91	0.14	0.045	1.83	0.6	0.055	1.24	0.195	0.033	1.655	0.28	0.043	2.07	0.365	0.045	2.485	0.45	0.048
0.91	0.15	0.044	1.83	0.61	0.051	1.24	0.2	0.034	1.655	0.285	0.048	2.07	0.37	0.047	2.485	0.455	0.046
0.91	0.16	0.044	1.83	0.62	0.049	1.24	0.205	0.036	1.655	0.29	0.049	2.07	0.375	0.046	2.485	0.46	0.047
0.91	0.17	0.044	1.83	0.63	0.050	1.24	0.21	0.037	1.655	0.295	0.050	2.07	0.38	0.042	2.485	0.465	0.047
0.91	0.18	0.043	1.83	0.64	0.056	1.24	0.215	0.039	1.655	0.3	0.051	2.07	0.385	0.036	2.485	0.47	0.047
0.91	0.19	0.043	1.83	0.65	0.063	1.24	0.22	0.038	1.655	0.305	0.050	2.07	0.39	0.035	2.485	0.475	0.048
0.91	0.2	0.045	1.83	0.66	0.067	1.24	0.225	0.037	1.655	0.31	0.048	2.07	0.395	0.040	2.485	0.48	0.049
0.91	0.21	0.045	1.83	0.67	0.064	1.24	0.23	0.035	1.655	0.315	0.047	2.07	0.4	0.047	2.485	0.485	0.048
0.91	0.22	0.043	1.83	0.68	0.058	1.24	0.235	0.034	1.655	0.32	0.046	2.07	0.405	0.050	2.485	0.49	0.045
0.91	0.23	0.041	1.83	0.69	0.051	1.24	0.24	0.033	1.655	0.325	0.046	2.07	0.41	0.051	2.485	0.495	0.042
0.91	0.24	0.040	1.83	0.7	0.046	1.24	0.245	0.032	1.655	0.33	0.047	2.07	0.415	0.049	2.49	0.005	0.050
0.91	0.25	0.040	1.83	0.71	0.044	1.24	0.25	0.032	1.655	0.335	0.046	2.07	0.42	0.046	2.49	0.01	0.059
0.91	0.26	0.041	1.83	0.72	0.045	1.24	0.255	0.034	1.655	0.34	0.043	2.07	0.425	0.045	2.49	0.015	0.064
0.91	0.27	0.041	1.83	0.73	0.048	1.24	0.26	0.037	1.655	0.345	0.042	2.07	0.43	0.048	2.49	0.02	0.066
0.91	0.28	0.041	1.83	0.74	0.054	1.24	0.265	0.038	1.655	0.35	0.044	2.07	0.435	0.051	2.49	0.025	0.067
0.91	0.29	0.040	1.83	0.75	0.057	1.24	0.27	0.042	1.655	0.355	0.046	2.07	0.44	0.053	2.49	0.03	0.068
0.91	0.3	0.039	1.83	0.76	0.056	1.24	0.275	0.047	1.655	0.36	0.046	2.07	0.445	0.053	2.49	0.035	0.069
0.91	0.31	0.038	1.83	0.77	0.052	1.24	0.28	0.050	1.655	0.365	0.046	2.07	0.45	0.052	2.49	0.04	0.072
0.91	0.32	0.038	1.83	0.78	0.050	1.24	0.285	0.051	1.655	0.37	0.045	2.07	0.455	0.050	2.49	0.045	0.073
0.91	0.33	0.037	1.83	0.79	0.048	1.24	0.29	0.051	1.655	0.375	0.042	2.07	0.46	0.047	2.49	0.05	0.072
0.91	0.34	0.038	1.83	0.8	0.046	1.24	0.295	0.051	1.655	0.38	0.038	2.07	0.465	0.042	2.49	0.055	0.071
0.91	0.35	0.040	1.83	0.81	0.045	1.24	0.3	0.049	1.655	0.385	0.038	2.07	0.47	0.037	2.49	0.06	0.070
0.91	0.36	0.042	1.83	0.82	0.046	1.24	0.305	0.046	1.655	0.39	0.041	2.07	0.475	0.035	2.49	0.065	0.069
0.91	0.37	0.043	1.83	0.83	0.050	1.24	0.31	0.046	1.655	0.395	0.044	2.07	0.48	0.035	2.49	0.07	0.068
0.91	0.38	0.042	1.83	0.84	0.052	1.24	0.315	0.052	1.655	0.4	0.046	2.07	0.485	0.040	2.49	0.075	0.068

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.91	0.39	0.042	1.83	0.85	0.052	1.24	0.32	0.056	1.655	0.405	0.048	2.07	0.49	0.048	2.49	0.08	0.068
0.91	0.4	0.042	1.83	0.86	0.051	1.24	0.325	0.056	1.655	0.41	0.048	2.07	0.495	0.054	2.49	0.085	0.069
0.91	0.41	0.041	1.83	0.87	0.049	1.24	0.33	0.052	1.655	0.415	0.046	2.075	0.005	0.071	2.49	0.09	0.069
0.91	0.42	0.040	1.83	0.88	0.046	1.24	0.335	0.047	1.655	0.42	0.044	2.075	0.01	0.080	2.49	0.095	0.069
0.91	0.43	0.040	1.83	0.89	0.044	1.24	0.34	0.043	1.655	0.425	0.041	2.075	0.015	0.086	2.49	0.1	0.066
0.91	0.44	0.039	1.84	0.01	0.057	1.24	0.345	0.043	1.655	0.43	0.039	2.075	0.02	0.088	2.49	0.105	0.061
0.91	0.45	0.039	1.84	0.02	0.060	1.24	0.35	0.045	1.655	0.435	0.040	2.075	0.025	0.087	2.49	0.11	0.053
0.91	0.46	0.040	1.84	0.03	0.062	1.24	0.355	0.050	1.655	0.44	0.041	2.075	0.03	0.085	2.49	0.115	0.052
0.91	0.47	0.041	1.84	0.04	0.063	1.24	0.36	0.057	1.655	0.445	0.043	2.075	0.035	0.079	2.49	0.12	0.057
0.91	0.48	0.041	1.84	0.05	0.063	1.24	0.365	0.059	1.655	0.45	0.045	2.075	0.04	0.068	2.49	0.125	0.064
0.91	0.49	0.041	1.84	0.06	0.063	1.24	0.37	0.057	1.655	0.455	0.048	2.075	0.045	0.058	2.49	0.13	0.075
0.91	0.5	0.041	1.84	0.07	0.064	1.24	0.375	0.055	1.655	0.46	0.050	2.075	0.05	0.054	2.49	0.135	0.081
0.91	0.51	0.041	1.84	0.08	0.068	1.24	0.38	0.058	1.655	0.465	0.052	2.075	0.055	0.053	2.49	0.14	0.082
0.91	0.52	0.040	1.84	0.09	0.072	1.24	0.385	0.062	1.655	0.47	0.052	2.075	0.06	0.054	2.49	0.145	0.080
0.91	0.53	0.038	1.84	0.1	0.076	1.24	0.39	0.063	1.655	0.475	0.051	2.075	0.065	0.054	2.49	0.15	0.076
0.91	0.54	0.038	1.84	0.11	0.075	1.24	0.395	0.062	1.655	0.48	0.048	2.075	0.07	0.052	2.49	0.155	0.072
0.91	0.55	0.040	1.84	0.12	0.072	1.24	0.4	0.062	1.655	0.485	0.045	2.075	0.075	0.050	2.49	0.16	0.066
0.91	0.56	0.042	1.84	0.13	0.069	1.24	0.405	0.062	1.655	0.49	0.045	2.075	0.08	0.047	2.49	0.165	0.061
0.91	0.57	0.043	1.84	0.14	0.067	1.24	0.41	0.060	1.655	0.495	0.048	2.075	0.085	0.045	2.49	0.17	0.055
0.91	0.58	0.043	1.84	0.15	0.064	1.24	0.415	0.055	1.66	0.005	0.051	2.075	0.09	0.046	2.49	0.175	0.052
0.91	0.59	0.042	1.84	0.16	0.061	1.24	0.42	0.045	1.66	0.01	0.052	2.075	0.095	0.047	2.49	0.18	0.052
0.91	0.6	0.042	1.84	0.17	0.059	1.24	0.425	0.038	1.66	0.015	0.052	2.075	0.1	0.046	2.49	0.185	0.054
0.91	0.61	0.041	1.84	0.18	0.057	1.24	0.43	0.035	1.66	0.02	0.049	2.075	0.105	0.042	2.49	0.19	0.054
0.91	0.62	0.041	1.84	0.19	0.055	1.24	0.435	0.036	1.66	0.025	0.045	2.075	0.11	0.040	2.49	0.195	0.053
0.91	0.63	0.041	1.84	0.2	0.052	1.24	0.44	0.040	1.66	0.03	0.043	2.075	0.115	0.041	2.49	0.2	0.053

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.91	0.64	0.040	1.84	0.21	0.049	1.24	0.445	0.043	1.66	0.035	0.043	2.075	0.12	0.044	2.49	0.205	0.054
0.91	0.65	0.040	1.84	0.22	0.050	1.24	0.45	0.043	1.66	0.04	0.050	2.075	0.125	0.051	2.49	0.21	0.056
0.91	0.66	0.041	1.84	0.23	0.056	1.24	0.455	0.041	1.66	0.045	0.060	2.075	0.13	0.058	2.49	0.215	0.059
0.91	0.67	0.042	1.84	0.24	0.061	1.24	0.46	0.041	1.66	0.05	0.067	2.075	0.135	0.062	2.49	0.22	0.058
0.91	0.68	0.043	1.84	0.25	0.063	1.24	0.465	0.041	1.66	0.055	0.072	2.075	0.14	0.062	2.49	0.225	0.054
0.91	0.69	0.042	1.84	0.26	0.061	1.24	0.47	0.042	1.66	0.06	0.075	2.075	0.145	0.063	2.49	0.23	0.052
0.91	0.7	0.042	1.84	0.27	0.057	1.24	0.475	0.042	1.66	0.065	0.076	2.075	0.15	0.062	2.49	0.235	0.053
0.91	0.71	0.041	1.84	0.28	0.053	1.24	0.48	0.041	1.66	0.07	0.074	2.075	0.155	0.062	2.49	0.24	0.054
0.91	0.72	0.039	1.84	0.29	0.050	1.24	0.485	0.039	1.66	0.075	0.069	2.075	0.16	0.059	2.49	0.245	0.053
0.91	0.73	0.037	1.84	0.3	0.049	1.24	0.49	0.036	1.66	0.08	0.063	2.075	0.165	0.055	2.49	0.25	0.053
0.91	0.74	0.036	1.84	0.31	0.048	1.24	0.495	0.034	1.66	0.085	0.060	2.075	0.17	0.049	2.49	0.255	0.052
0.91	0.75	0.035	1.84	0.32	0.047	1.245	0.005	0.033	1.66	0.09	0.062	2.075	0.175	0.045	2.49	0.26	0.052
0.91	0.76	0.035	1.84	0.33	0.045	1.245	0.01	0.034	1.66	0.095	0.064	2.075	0.18	0.043	2.49	0.265	0.051
0.91	0.77	0.036	1.84	0.34	0.043	1.245	0.015	0.033	1.66	0.1	0.065	2.075	0.185	0.042	2.49	0.27	0.048
0.91	0.78	0.037	1.84	0.35	0.043	1.245	0.02	0.033	1.66	0.105	0.063	2.075	0.19	0.043	2.49	0.275	0.042
0.91	0.79	0.038	1.84	0.36	0.043	1.245	0.025	0.033	1.66	0.11	0.060	2.075	0.195	0.043	2.49	0.28	0.037
0.91	0.8	0.040	1.84	0.37	0.043	1.245	0.03	0.033	1.66	0.115	0.063	2.075	0.2	0.044	2.49	0.285	0.034
0.91	0.81	0.043	1.84	0.38	0.043	1.245	0.035	0.034	1.66	0.12	0.067	2.075	0.205	0.043	2.49	0.29	0.034
0.91	0.82	0.046	1.84	0.39	0.044	1.245	0.04	0.034	1.66	0.125	0.067	2.075	0.21	0.040	2.49	0.295	0.034
0.91	0.83	0.051	1.84	0.4	0.046	1.245	0.045	0.034	1.66	0.13	0.062	2.075	0.215	0.036	2.49	0.3	0.033
0.91	0.84	0.058	1.84	0.41	0.048	1.245	0.05	0.035	1.66	0.135	0.054	2.075	0.22	0.038	2.49	0.305	0.033
0.91	0.85	0.062	1.84	0.42	0.049	1.245	0.055	0.036	1.66	0.14	0.055	2.075	0.225	0.046	2.49	0.31	0.033
0.91	0.86	0.060	1.84	0.43	0.051	1.245	0.06	0.037	1.66	0.145	0.057	2.075	0.23	0.058	2.49	0.315	0.034
0.91	0.87	0.056	1.84	0.44	0.050	1.245	0.065	0.039	1.66	0.15	0.058	2.075	0.235	0.063	2.49	0.32	0.035
0.91	0.88	0.053	1.84	0.45	0.049	1.245	0.07	0.039	1.66	0.155	0.061	2.075	0.24	0.065	2.49	0.325	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.91	0.89	0.053	1.84	0.46	0.048	1.245	0.075	0.039	1.66	0.16	0.065	2.075	0.245	0.064	2.49	0.33	0.035
0.92	0.01	0.038	1.84	0.47	0.048	1.245	0.08	0.038	1.66	0.165	0.070	2.075	0.25	0.064	2.49	0.335	0.036
0.92	0.02	0.044	1.84	0.48	0.048	1.245	0.085	0.036	1.66	0.17	0.073	2.075	0.255	0.064	2.49	0.34	0.037
0.92	0.03	0.051	1.84	0.49	0.049	1.245	0.09	0.037	1.66	0.175	0.073	2.075	0.26	0.063	2.49	0.345	0.041
0.92	0.04	0.059	1.84	0.5	0.051	1.245	0.095	0.041	1.66	0.18	0.071	2.075	0.265	0.062	2.49	0.35	0.043
0.92	0.05	0.063	1.84	0.51	0.054	1.245	0.1	0.044	1.66	0.185	0.068	2.075	0.27	0.062	2.49	0.355	0.042
0.92	0.06	0.063	1.84	0.52	0.058	1.245	0.105	0.045	1.66	0.19	0.064	2.075	0.275	0.061	2.49	0.36	0.038
0.92	0.07	0.058	1.84	0.53	0.060	1.245	0.11	0.046	1.66	0.195	0.063	2.075	0.28	0.059	2.49	0.365	0.035
0.92	0.08	0.050	1.84	0.54	0.059	1.245	0.115	0.047	1.66	0.2	0.065	2.075	0.285	0.055	2.49	0.37	0.035
0.92	0.09	0.046	1.84	0.55	0.059	1.245	0.12	0.047	1.66	0.205	0.068	2.075	0.29	0.050	2.49	0.375	0.035
0.92	0.1	0.046	1.84	0.56	0.058	1.245	0.125	0.046	1.66	0.21	0.070	2.075	0.295	0.047	2.49	0.38	0.034
0.92	0.11	0.047	1.84	0.57	0.056	1.245	0.13	0.045	1.66	0.215	0.069	2.075	0.3	0.046	2.49	0.385	0.033
0.92	0.12	0.047	1.84	0.58	0.055	1.245	0.135	0.048	1.66	0.22	0.065	2.075	0.305	0.048	2.49	0.39	0.033
0.92	0.13	0.046	1.84	0.59	0.053	1.245	0.14	0.054	1.66	0.225	0.061	2.075	0.31	0.049	2.49	0.395	0.035
0.92	0.14	0.045	1.84	0.6	0.050	1.245	0.145	0.057	1.66	0.23	0.061	2.075	0.315	0.049	2.49	0.4	0.037
0.92	0.15	0.045	1.84	0.61	0.048	1.245	0.15	0.057	1.66	0.235	0.059	2.075	0.32	0.046	2.49	0.405	0.038
0.92	0.16	0.043	1.84	0.62	0.047	1.245	0.155	0.054	1.66	0.24	0.056	2.075	0.325	0.043	2.49	0.41	0.038
0.92	0.17	0.042	1.84	0.63	0.050	1.245	0.16	0.048	1.66	0.245	0.055	2.075	0.33	0.041	2.49	0.415	0.037
0.92	0.18	0.042	1.84	0.64	0.055	1.245	0.165	0.042	1.66	0.25	0.057	2.075	0.335	0.042	2.49	0.42	0.039
0.92	0.19	0.044	1.84	0.65	0.061	1.245	0.17	0.037	1.66	0.255	0.059	2.075	0.34	0.045	2.49	0.425	0.043
0.92	0.2	0.047	1.84	0.66	0.064	1.245	0.175	0.036	1.66	0.26	0.060	2.075	0.345	0.047	2.49	0.43	0.047
0.92	0.21	0.048	1.84	0.67	0.062	1.245	0.18	0.036	1.66	0.265	0.057	2.075	0.35	0.048	2.49	0.435	0.053
0.92	0.22	0.046	1.84	0.68	0.057	1.245	0.185	0.035	1.66	0.27	0.050	2.075	0.355	0.047	2.49	0.44	0.055
0.92	0.23	0.043	1.84	0.69	0.052	1.245	0.19	0.033	1.66	0.275	0.043	2.075	0.36	0.046	2.49	0.445	0.052
0.92	0.24	0.041	1.84	0.7	0.046	1.245	0.195	0.032	1.66	0.28	0.043	2.075	0.365	0.043	2.49	0.45	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.92	0.25	0.041	1.84	0.71	0.044	1.245	0.2	0.032	1.66	0.285	0.046	2.075	0.37	0.042	2.49	0.455	0.043
0.92	0.26	0.043	1.84	0.72	0.046	1.245	0.205	0.034	1.66	0.29	0.044	2.075	0.375	0.041	2.49	0.46	0.044
0.92	0.27	0.044	1.84	0.73	0.053	1.245	0.21	0.035	1.66	0.295	0.043	2.075	0.38	0.039	2.49	0.465	0.043
0.92	0.28	0.043	1.84	0.74	0.060	1.245	0.215	0.036	1.66	0.3	0.044	2.075	0.385	0.035	2.49	0.47	0.043
0.92	0.29	0.041	1.84	0.75	0.063	1.245	0.22	0.037	1.66	0.305	0.045	2.075	0.39	0.035	2.49	0.475	0.043
0.92	0.3	0.040	1.84	0.76	0.060	1.245	0.225	0.037	1.66	0.31	0.047	2.075	0.395	0.039	2.49	0.48	0.044
0.92	0.31	0.040	1.84	0.77	0.054	1.245	0.23	0.036	1.66	0.315	0.049	2.075	0.4	0.044	2.49	0.485	0.042
0.92	0.32	0.039	1.84	0.78	0.050	1.245	0.235	0.034	1.66	0.32	0.049	2.075	0.405	0.047	2.49	0.49	0.038
0.92	0.33	0.038	1.84	0.79	0.047	1.245	0.24	0.033	1.66	0.325	0.048	2.075	0.41	0.046	2.49	0.495	0.035
0.92	0.34	0.039	1.84	0.8	0.045	1.245	0.245	0.032	1.66	0.33	0.047	2.075	0.415	0.044	2.495	0.005	0.045
0.92	0.35	0.041	1.84	0.81	0.045	1.245	0.25	0.033	1.66	0.335	0.046	2.075	0.42	0.042	2.495	0.01	0.056
0.92	0.36	0.043	1.84	0.82	0.047	1.245	0.255	0.037	1.66	0.34	0.045	2.075	0.425	0.043	2.495	0.015	0.065
0.92	0.37	0.044	1.84	0.83	0.051	1.245	0.26	0.041	1.66	0.345	0.046	2.075	0.43	0.048	2.495	0.02	0.071
0.92	0.38	0.044	1.84	0.84	0.053	1.245	0.265	0.043	1.66	0.35	0.048	2.075	0.435	0.052	2.495	0.025	0.074
0.92	0.39	0.044	1.84	0.85	0.052	1.245	0.27	0.045	1.66	0.355	0.049	2.075	0.44	0.054	2.495	0.03	0.072
0.92	0.4	0.044	1.84	0.86	0.051	1.245	0.275	0.049	1.66	0.36	0.048	2.075	0.445	0.054	2.495	0.035	0.067
0.92	0.41	0.044	1.84	0.87	0.050	1.245	0.28	0.052	1.66	0.365	0.047	2.075	0.45	0.054	2.495	0.04	0.064
0.92	0.42	0.043	1.84	0.88	0.048	1.245	0.285	0.053	1.66	0.37	0.046	2.075	0.455	0.053	2.495	0.045	0.063
0.92	0.43	0.042	1.84	0.89	0.045	1.245	0.29	0.054	1.66	0.375	0.044	2.075	0.46	0.051	2.495	0.05	0.066
0.92	0.44	0.041	1.85	0.01	0.057	1.245	0.295	0.053	1.66	0.38	0.040	2.075	0.465	0.048	2.495	0.055	0.068
0.92	0.45	0.040	1.85	0.02	0.059	1.245	0.3	0.051	1.66	0.385	0.037	2.075	0.47	0.042	2.495	0.06	0.070
0.92	0.46	0.041	1.85	0.03	0.061	1.245	0.305	0.047	1.66	0.39	0.039	2.075	0.475	0.037	2.495	0.065	0.072
0.92	0.47	0.041	1.85	0.04	0.062	1.245	0.31	0.047	1.66	0.395	0.043	2.075	0.48	0.035	2.495	0.07	0.074
0.92	0.48	0.040	1.85	0.05	0.062	1.245	0.315	0.053	1.66	0.4	0.046	2.075	0.485	0.041	2.495	0.075	0.075
0.92	0.49	0.040	1.85	0.06	0.061	1.245	0.32	0.057	1.66	0.405	0.048	2.075	0.49	0.049	2.495	0.08	0.074

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.92	0.5	0.040	1.85	0.07	0.063	1.245	0.325	0.057	1.66	0.41	0.049	2.075	0.495	0.056	2.495	0.085	0.072
0.92	0.51	0.039	1.85	0.08	0.066	1.245	0.33	0.053	1.66	0.415	0.048	2.08	0.005	0.071	2.495	0.09	0.067
0.92	0.52	0.038	1.85	0.09	0.071	1.245	0.335	0.048	1.66	0.42	0.045	2.08	0.01	0.080	2.495	0.095	0.062
0.92	0.53	0.037	1.85	0.1	0.075	1.245	0.34	0.042	1.66	0.425	0.040	2.08	0.015	0.086	2.495	0.1	0.058
0.92	0.54	0.037	1.85	0.11	0.075	1.245	0.345	0.040	1.66	0.43	0.037	2.08	0.02	0.088	2.495	0.105	0.054
0.92	0.55	0.039	1.85	0.12	0.073	1.245	0.35	0.042	1.66	0.435	0.037	2.08	0.025	0.086	2.495	0.11	0.053
0.92	0.56	0.041	1.85	0.13	0.072	1.245	0.355	0.046	1.66	0.44	0.040	2.08	0.03	0.083	2.495	0.115	0.057
0.92	0.57	0.042	1.85	0.14	0.070	1.245	0.36	0.052	1.66	0.445	0.045	2.08	0.035	0.075	2.495	0.12	0.065
0.92	0.58	0.042	1.85	0.15	0.068	1.245	0.365	0.054	1.66	0.45	0.049	2.08	0.04	0.062	2.495	0.125	0.073
0.92	0.59	0.042	1.85	0.16	0.065	1.245	0.37	0.052	1.66	0.455	0.051	2.08	0.045	0.050	2.495	0.13	0.080
0.92	0.6	0.043	1.85	0.17	0.062	1.245	0.375	0.052	1.66	0.46	0.052	2.08	0.05	0.045	2.495	0.135	0.083
0.92	0.61	0.042	1.85	0.18	0.059	1.245	0.38	0.057	1.66	0.465	0.052	2.08	0.055	0.044	2.495	0.14	0.083
0.92	0.62	0.040	1.85	0.19	0.055	1.245	0.385	0.062	1.66	0.47	0.053	2.08	0.06	0.046	2.495	0.145	0.081
0.92	0.63	0.039	1.85	0.2	0.052	1.245	0.39	0.063	1.66	0.475	0.052	2.08	0.065	0.046	2.495	0.15	0.079
0.92	0.64	0.038	1.85	0.21	0.049	1.245	0.395	0.063	1.66	0.48	0.049	2.08	0.07	0.046	2.495	0.155	0.075
0.92	0.65	0.039	1.85	0.22	0.050	1.245	0.4	0.062	1.66	0.485	0.048	2.08	0.075	0.045	2.495	0.16	0.071
0.92	0.66	0.040	1.85	0.23	0.055	1.245	0.405	0.061	1.66	0.49	0.049	2.08	0.08	0.045	2.495	0.165	0.066
0.92	0.67	0.042	1.85	0.24	0.060	1.245	0.41	0.058	1.66	0.495	0.052	2.08	0.085	0.047	2.495	0.17	0.058
0.92	0.68	0.043	1.85	0.25	0.061	1.245	0.415	0.052	1.665	0.005	0.051	2.08	0.09	0.049	2.495	0.175	0.049
0.92	0.69	0.043	1.85	0.26	0.058	1.245	0.42	0.042	1.665	0.01	0.052	2.08	0.095	0.050	2.495	0.18	0.045
0.92	0.7	0.042	1.85	0.27	0.055	1.245	0.425	0.035	1.665	0.015	0.052	2.08	0.1	0.048	2.495	0.185	0.045
0.92	0.71	0.041	1.85	0.28	0.052	1.245	0.43	0.033	1.665	0.02	0.050	2.08	0.105	0.044	2.495	0.19	0.046
0.92	0.72	0.039	1.85	0.29	0.050	1.245	0.435	0.035	1.665	0.025	0.046	2.08	0.11	0.042	2.495	0.195	0.048
0.92	0.73	0.038	1.85	0.3	0.050	1.245	0.44	0.038	1.665	0.03	0.044	2.08	0.115	0.042	2.495	0.2	0.049
0.92	0.74	0.038	1.85	0.31	0.049	1.245	0.445	0.040	1.665	0.035	0.043	2.08	0.12	0.044	2.495	0.205	0.051

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.92	0.75	0.038	1.85	0.32	0.048	1.245	0.45	0.040	1.665	0.04	0.047	2.08	0.125	0.049	2.495	0.21	0.054
0.92	0.76	0.038	1.85	0.33	0.047	1.245	0.455	0.039	1.665	0.045	0.055	2.08	0.13	0.056	2.495	0.215	0.056
0.92	0.77	0.038	1.85	0.34	0.046	1.245	0.46	0.038	1.665	0.05	0.061	2.08	0.135	0.060	2.495	0.22	0.056
0.92	0.78	0.039	1.85	0.35	0.045	1.245	0.465	0.038	1.665	0.055	0.063	2.08	0.14	0.062	2.495	0.225	0.053
0.92	0.79	0.039	1.85	0.36	0.045	1.245	0.47	0.038	1.665	0.06	0.066	2.08	0.145	0.062	2.495	0.23	0.053
0.92	0.8	0.040	1.85	0.37	0.046	1.245	0.475	0.039	1.665	0.065	0.070	2.08	0.15	0.062	2.495	0.235	0.054
0.92	0.81	0.042	1.85	0.38	0.046	1.245	0.48	0.041	1.665	0.07	0.070	2.08	0.155	0.061	2.495	0.24	0.055
0.92	0.82	0.045	1.85	0.39	0.046	1.245	0.485	0.040	1.665	0.075	0.067	2.08	0.16	0.057	2.495	0.245	0.055
0.92	0.83	0.049	1.85	0.4	0.047	1.245	0.49	0.037	1.665	0.08	0.064	2.08	0.165	0.052	2.495	0.25	0.054
0.92	0.84	0.054	1.85	0.41	0.048	1.245	0.495	0.035	1.665	0.085	0.066	2.08	0.17	0.047	2.495	0.255	0.054
0.92	0.85	0.057	1.85	0.42	0.049	1.25	0.005	0.032	1.665	0.09	0.070	2.08	0.175	0.043	2.495	0.26	0.053
0.92	0.86	0.056	1.85	0.43	0.050	1.25	0.01	0.033	1.665	0.095	0.072	2.08	0.18	0.042	2.495	0.265	0.051
0.92	0.87	0.054	1.85	0.44	0.051	1.25	0.015	0.033	1.665	0.1	0.071	2.08	0.185	0.042	2.495	0.27	0.047
0.92	0.88	0.053	1.85	0.45	0.051	1.25	0.02	0.033	1.665	0.105	0.067	2.08	0.19	0.043	2.495	0.275	0.041
0.92	0.89	0.053	1.85	0.46	0.049	1.25	0.025	0.033	1.665	0.11	0.064	2.08	0.195	0.044	2.495	0.28	0.036
0.93	0.01	0.040	1.85	0.47	0.048	1.25	0.03	0.033	1.665	0.115	0.065	2.08	0.2	0.045	2.495	0.285	0.034
0.93	0.02	0.046	1.85	0.48	0.047	1.25	0.035	0.033	1.665	0.12	0.068	2.08	0.205	0.045	2.495	0.29	0.033
0.93	0.03	0.052	1.85	0.49	0.049	1.25	0.04	0.034	1.665	0.125	0.068	2.08	0.21	0.041	2.495	0.295	0.033
0.93	0.04	0.058	1.85	0.5	0.052	1.25	0.045	0.033	1.665	0.13	0.066	2.08	0.215	0.037	2.495	0.3	0.032
0.93	0.05	0.061	1.85	0.51	0.053	1.25	0.05	0.034	1.665	0.135	0.063	2.08	0.22	0.038	2.495	0.305	0.032
0.93	0.06	0.060	1.85	0.52	0.056	1.25	0.055	0.035	1.665	0.14	0.067	2.08	0.225	0.045	2.495	0.31	0.032
0.93	0.07	0.055	1.85	0.53	0.058	1.25	0.06	0.037	1.665	0.145	0.072	2.08	0.23	0.056	2.495	0.315	0.033
0.93	0.08	0.049	1.85	0.54	0.060	1.25	0.065	0.038	1.665	0.15	0.071	2.08	0.235	0.063	2.495	0.32	0.036
0.93	0.09	0.044	1.85	0.55	0.060	1.25	0.07	0.039	1.665	0.155	0.068	2.08	0.24	0.065	2.495	0.325	0.038
0.93	0.1	0.044	1.85	0.56	0.058	1.25	0.075	0.039	1.665	0.16	0.066	2.08	0.245	0.066	2.495	0.33	0.039

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.93	0.11	0.044	1.85	0.57	0.055	1.25	0.08	0.038	1.665	0.165	0.069	2.08	0.25	0.066	2.495	0.335	0.039
0.93	0.12	0.045	1.85	0.58	0.051	1.25	0.085	0.037	1.665	0.17	0.073	2.08	0.255	0.066	2.495	0.34	0.038
0.93	0.13	0.045	1.85	0.59	0.048	1.25	0.09	0.038	1.665	0.175	0.075	2.08	0.26	0.065	2.495	0.345	0.039
0.93	0.14	0.046	1.85	0.6	0.046	1.25	0.095	0.042	1.665	0.18	0.074	2.08	0.265	0.064	2.495	0.35	0.040
0.93	0.15	0.045	1.85	0.61	0.045	1.25	0.1	0.045	1.665	0.185	0.071	2.08	0.27	0.062	2.495	0.355	0.039
0.93	0.16	0.043	1.85	0.62	0.046	1.25	0.105	0.046	1.665	0.19	0.067	2.08	0.275	0.060	2.495	0.36	0.036
0.93	0.17	0.041	1.85	0.63	0.049	1.25	0.11	0.045	1.665	0.195	0.065	2.08	0.28	0.056	2.495	0.365	0.034
0.93	0.18	0.041	1.85	0.64	0.053	1.25	0.115	0.043	1.665	0.2	0.066	2.08	0.285	0.051	2.495	0.37	0.033
0.93	0.19	0.044	1.85	0.65	0.057	1.25	0.12	0.043	1.665	0.205	0.068	2.08	0.29	0.047	2.495	0.375	0.032
0.93	0.2	0.047	1.85	0.66	0.059	1.25	0.125	0.043	1.665	0.21	0.070	2.08	0.295	0.047	2.495	0.38	0.032
0.93	0.21	0.048	1.85	0.67	0.058	1.25	0.13	0.042	1.665	0.215	0.069	2.08	0.3	0.048	2.495	0.385	0.032
0.93	0.22	0.046	1.85	0.68	0.055	1.25	0.135	0.042	1.665	0.22	0.066	2.08	0.305	0.050	2.495	0.39	0.034
0.93	0.23	0.044	1.85	0.69	0.051	1.25	0.14	0.046	1.665	0.225	0.063	2.08	0.31	0.051	2.495	0.395	0.036
0.93	0.24	0.043	1.85	0.7	0.047	1.25	0.145	0.051	1.665	0.23	0.063	2.08	0.315	0.050	2.495	0.4	0.038
0.93	0.25	0.044	1.85	0.71	0.046	1.25	0.15	0.053	1.665	0.235	0.061	2.08	0.32	0.046	2.495	0.405	0.039
0.93	0.26	0.046	1.85	0.72	0.048	1.25	0.155	0.052	1.665	0.24	0.057	2.08	0.325	0.042	2.495	0.41	0.039
0.93	0.27	0.047	1.85	0.73	0.055	1.25	0.16	0.049	1.665	0.245	0.056	2.08	0.33	0.039	2.495	0.415	0.038
0.93	0.28	0.045	1.85	0.74	0.061	1.25	0.165	0.043	1.665	0.25	0.058	2.08	0.335	0.041	2.495	0.42	0.039
0.93	0.29	0.043	1.85	0.75	0.063	1.25	0.17	0.038	1.665	0.255	0.061	2.08	0.34	0.046	2.495	0.425	0.042
0.93	0.3	0.041	1.85	0.76	0.060	1.25	0.175	0.035	1.665	0.26	0.063	2.08	0.345	0.048	2.495	0.43	0.046
0.93	0.31	0.041	1.85	0.77	0.054	1.25	0.18	0.034	1.665	0.265	0.060	2.08	0.35	0.049	2.495	0.435	0.053
0.93	0.32	0.041	1.85	0.78	0.049	1.25	0.185	0.033	1.665	0.27	0.053	2.08	0.355	0.048	2.495	0.44	0.054
0.93	0.33	0.041	1.85	0.79	0.047	1.25	0.19	0.032	1.665	0.275	0.046	2.08	0.36	0.046	2.495	0.445	0.051
0.93	0.34	0.041	1.85	0.8	0.046	1.25	0.195	0.031	1.665	0.28	0.043	2.08	0.365	0.042	2.495	0.45	0.045
0.93	0.35	0.042	1.85	0.81	0.046	1.25	0.2	0.031	1.665	0.285	0.043	2.08	0.37	0.040	2.495	0.455	0.042

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.93	0.36	0.045	1.85	0.82	0.049	1.25	0.205	0.032	1.665	0.29	0.041	2.08	0.375	0.041	2.495	0.46	0.042
0.93	0.37	0.046	1.85	0.83	0.053	1.25	0.21	0.033	1.665	0.295	0.039	2.08	0.38	0.041	2.495	0.465	0.041
0.93	0.38	0.047	1.85	0.84	0.054	1.25	0.215	0.036	1.665	0.3	0.041	2.08	0.385	0.039	2.495	0.47	0.039
0.93	0.39	0.048	1.85	0.85	0.053	1.25	0.22	0.039	1.665	0.305	0.044	2.08	0.39	0.036	2.495	0.475	0.037
0.93	0.4	0.048	1.85	0.86	0.051	1.25	0.225	0.040	1.665	0.31	0.047	2.08	0.395	0.037	2.495	0.48	0.036
0.93	0.41	0.047	1.85	0.87	0.050	1.25	0.23	0.039	1.665	0.315	0.050	2.08	0.4	0.039	2.495	0.485	0.035
0.93	0.42	0.047	1.85	0.88	0.049	1.25	0.235	0.038	1.665	0.32	0.049	2.08	0.405	0.041	2.495	0.49	0.033
0.93	0.43	0.045	1.85	0.89	0.048	1.25	0.24	0.035	1.665	0.325	0.046	2.08	0.41	0.040	2.495	0.495	0.032
0.93	0.44	0.043	1.86	0.01	0.056	1.25	0.245	0.034	1.665	0.33	0.045	2.08	0.415	0.038	2.5	0.495	0.029
0.93	0.45	0.041	1.86	0.02	0.059	1.25	0.25	0.036	1.665	0.335	0.045	2.08	0.42	0.038	2.5	0.50	0.033
0.93	0.46	0.040	1.86	0.03	0.062	1.25	0.255	0.041	1.665	0.34	0.046	2.08	0.425	0.040	0	0.90	0.027
0	0	0.049	0	0.15	0.041	0	0.3	0.050	0	0.45	0.044	0	0.6	0.061	0	0.75	0.056
0	0.01	0.052	0	0.16	0.041	0	0.31	0.047	0	0.46	0.045	0	0.61	0.062	0	0.76	0.059
0	0.02	0.054	0	0.17	0.043	0	0.32	0.045	0	0.47	0.046	0	0.62	0.060	0	0.77	0.059
0	0.03	0.054	0	0.18	0.044	0	0.33	0.045	0	0.48	0.045	0	0.63	0.055	0	0.78	0.058
0	0.04	0.053	0	0.19	0.044	0	0.34	0.046	0	0.49	0.044	0	0.64	0.050	0	0.79	0.055
0	0.05	0.050	0	0.2	0.042	0	0.35	0.048	0	0.5	0.046	0	0.65	0.045	0	0.8	0.052
0	0.06	0.047	0	0.21	0.040	0	0.36	0.049	0	0.51	0.048	0	0.66	0.041	0	0.81	0.049
0	0.07	0.044	0	0.22	0.039	0	0.37	0.048	0	0.52	0.049	0	0.67	0.040	0	0.82	0.046
0	0.08	0.041	0	0.23	0.038	0	0.38	0.047	0	0.53	0.047	0	0.68	0.041	0	0.83	0.042
0	0.09	0.039	0	0.24	0.038	0	0.39	0.045	0	0.54	0.042	0	0.69	0.043	0	0.84	0.040
0	0.1	0.039	0	0.25	0.039	0	0.4	0.045	0	0.55	0.039	0	0.7	0.046	0	0.85	0.039
0	0.11	0.041	0	0.26	0.040	0	0.41	0.044	0	0.56	0.039	0	0.71	0.049	0	0.86	0.039
0	0.12	0.042	0	0.27	0.043	0	0.42	0.045	0	0.57	0.044	0	0.72	0.051	0	0.87	0.038
0	0.13	0.043	0	0.28	0.046	0	0.43	0.045	0	0.58	0.050	0	0.73	0.052	0	0.88	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0	0.14	0.042	0	0.29	0.050	0	0.44	0.044	0	0.59	0.056	0	0.74	0.053	0	0.89	0.031
2.5	0	0.050	2.5	0.16	0.070	2.5	0.32	0.036	2.5	0.48	0.039	2.5	0.64	0.061	2.5	0.8	0.053
2.5	0.01	0.058	2.5	0.17	0.062	2.5	0.33	0.037	2.5	0.49	0.039	2.5	0.65	0.061	2.5	0.81	0.056
2.5	0.02	0.065	2.5	0.18	0.055	2.5	0.34	0.038	2.5	0.5	0.040	2.5	0.66	0.060	2.5	0.82	0.058
2.5	0.03	0.070	2.5	0.19	0.051	2.5	0.35	0.038	2.5	0.51	0.044	2.5	0.67	0.057	2.5	0.83	0.058
2.5	0.04	0.072	2.5	0.2	0.051	2.5	0.36	0.037	2.5	0.52	0.049	2.5	0.68	0.055	2.5	0.84	0.056
2.5	0.05	0.073	2.5	0.21	0.052	2.5	0.37	0.035	2.5	0.53	0.051	2.5	0.69	0.053	2.5	0.85	0.052
2.5	0.06	0.074	2.5	0.22	0.054	2.5	0.38	0.034	2.5	0.54	0.052	2.5	0.7	0.051	2.5	0.86	0.048
2.5	0.07	0.073	2.5	0.23	0.054	2.5	0.39	0.034	2.5	0.55	0.051	2.5	0.71	0.048	2.5	0.87	0.048
2.5	0.08	0.071	2.5	0.24	0.054	2.5	0.4	0.036	2.5	0.56	0.049	2.5	0.72	0.048	2.5	0.88	0.054
2.5	0.09	0.067	2.5	0.25	0.053	2.5	0.41	0.039	2.5	0.57	0.049	2.5	0.73	0.051	2.5	0.89	0.064
2.5	0.1	0.064	2.5	0.26	0.050	2.5	0.42	0.042	2.5	0.58	0.050	2.5	0.74	0.054	2.5	0.9	0.076
2.5	0.11	0.063	2.5	0.27	0.046	2.5	0.43	0.046	2.5	0.59	0.052	2.5	0.75	0.056	2.5	0.455	0.042
2.5	0.12	0.067	2.5	0.28	0.041	2.5	0.44	0.048	2.5	0.6	0.056	2.5	0.76	0.055	2.5	0.46	0.041
2.5	0.13	0.073	2.5	0.29	0.037	2.5	0.45	0.047	2.5	0.61	0.059	2.5	0.77	0.053	2.5	0.465	0.039
2.5	0.14	0.076	2.5	0.3	0.035	2.5	0.46	0.044	2.5	0.62	0.060	2.5	0.78	0.052	2.5	0.47	0.036
2.5	0.15	0.075	2.5	0.31	0.035	2.5	0.47	0.041	2.5	0.63	0.061	2.5	0.79	0.052	2.5	0.475	0.031
0.01	0.9	0.033	0.85	0.9	0.058	1.69	0.9	0.059	1.265	0.5	0.034	1.685	0.5	0.046	2.105	0.5	0.052
0.02	0.9	0.038	0.86	0.9	0.061	1.7	0.9	0.064	1.27	0.5	0.038	1.69	0.5	0.051	2.11	0.5	0.058
0.03	0.9	0.045	0.87	0.9	0.058	1.71	0.9	0.068	1.275	0.5	0.043	1.695	0.5	0.056	2.115	0.5	0.063
0.04	0.9	0.050	0.88	0.9	0.054	1.72	0.9	0.069	1.28	0.5	0.047	1.7	0.5	0.060	2.12	0.5	0.065
0.05	0.9	0.052	0.89	0.9	0.051	1.73	0.9	0.065	1.285	0.5	0.050	1.705	0.5	0.061	2.125	0.5	0.064
0.06	0.9	0.052	0.9	0.9	0.051	1.74	0.9	0.057	1.29	0.5	0.051	1.71	0.5	0.061	2.13	0.5	0.058
0.07	0.9	0.048	0.91	0.9	0.053	1.75	0.9	0.048	1.295	0.5	0.051	1.715	0.5	0.057	2.135	0.5	0.050
0.08	0.9	0.044	0.92	0.9	0.054	1.76	0.9	0.043	1.3	0.5	0.048	1.72	0.5	0.050	2.14	0.5	0.044

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.09	0.9	0.041	0.93	0.9	0.053	1.77	0.9	0.043	1.305	0.5	0.043	1.725	0.5	0.043	2.145	0.5	0.044
0.1	0.9	0.041	0.94	0.9	0.049	1.78	0.9	0.048	1.31	0.5	0.038	1.73	0.5	0.042	2.15	0.5	0.046
0.11	0.9	0.044	0.95	0.9	0.045	1.79	0.9	0.052	1.315	0.5	0.036	1.735	0.5	0.047	2.155	0.5	0.047
0.12	0.9	0.049	0.96	0.9	0.043	1.8	0.9	0.052	1.32	0.5	0.035	1.74	0.5	0.052	2.16	0.5	0.047
0.13	0.9	0.054	0.97	0.9	0.043	1.81	0.9	0.049	1.325	0.5	0.035	1.745	0.5	0.052	2.165	0.5	0.047
0.14	0.9	0.056	0.98	0.9	0.044	1.82	0.9	0.045	1.33	0.5	0.038	1.75	0.5	0.052	2.17	0.5	0.047
0.15	0.9	0.055	0.99	0.9	0.045	1.83	0.9	0.042	1.335	0.5	0.040	1.755	0.5	0.055	2.175	0.5	0.048
0.16	0.9	0.052	1	0.9	0.046	1.84	0.9	0.043	1.34	0.5	0.038	1.76	0.5	0.058	2.18	0.5	0.047
0.17	0.9	0.049	1.01	0.9	0.047	1.85	0.9	0.047	1.345	0.5	0.035	1.765	0.5	0.060	2.185	0.5	0.045
0.18	0.9	0.046	1.02	0.9	0.047	1.86	0.9	0.049	1.35	0.5	0.032	1.77	0.5	0.060	2.19	0.5	0.041
0.19	0.9	0.044	1.03	0.9	0.045	1.87	0.9	0.049	1.355	0.5	0.031	1.775	0.5	0.061	2.195	0.5	0.037
0.2	0.9	0.043	1.04	0.9	0.042	1.88	0.9	0.049	1.36	0.5	0.031	1.78	0.5	0.061	2.2	0.5	0.036
0.21	0.9	0.042	1.05	0.9	0.039	1.89	0.9	0.050	1.365	0.5	0.031	1.785	0.5	0.061	2.205	0.5	0.035
0.22	0.9	0.043	1.06	0.9	0.037	1.9	0.9	0.051	1.37	0.5	0.032	1.79	0.5	0.058	2.21	0.5	0.033
0.23	0.9	0.044	1.07	0.9	0.036	1.91	0.9	0.051	1.375	0.5	0.033	1.795	0.5	0.054	2.215	0.5	0.032
0.24	0.9	0.044	1.08	0.9	0.037	1.92	0.9	0.050	1.38	0.5	0.034	1.8	0.5	0.050	2.22	0.5	0.032
0.25	0.9	0.046	1.09	0.9	0.039	1.93	0.9	0.047	1.385	0.5	0.037	1.805	0.5	0.049	2.225	0.5	0.032
0.26	0.9	0.047	1.1	0.9	0.041	1.94	0.9	0.044	1.39	0.5	0.038	1.81	0.5	0.049	2.23	0.5	0.033
0.27	0.9	0.047	1.11	0.9	0.043	1.95	0.9	0.043	1.395	0.5	0.039	1.815	0.5	0.048	2.235	0.5	0.034
0.28	0.9	0.046	1.12	0.9	0.045	1.96	0.9	0.044	1.4	0.5	0.039	1.82	0.5	0.049	2.24	0.5	0.036
0.29	0.9	0.045	1.13	0.9	0.044	1.97	0.9	0.049	1.405	0.5	0.039	1.825	0.5	0.050	2.245	0.5	0.037
0.3	0.9	0.046	1.14	0.9	0.043	1.98	0.9	0.053	1.41	0.5	0.036	1.83	0.5	0.051	2.25	0.5	0.037
0.31	0.9	0.051	1.15	0.9	0.043	1.99	0.9	0.057	1.415	0.5	0.033	1.835	0.5	0.054	2.255	0.5	0.036
0.32	0.9	0.056	1.16	0.9	0.045	2	0.9	0.059	1.42	0.5	0.031	1.84	0.5	0.058	2.26	0.5	0.035
0.33	0.9	0.060	1.17	0.9	0.050	2.01	0.9	0.057	1.425	0.5	0.030	1.845	0.5	0.060	2.265	0.5	0.035

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.34	0.9	0.059	1.18	0.9	0.055	2.02	0.9	0.053	1.43	0.5	0.032	1.85	0.5	0.061	2.27	0.5	0.034
0.35	0.9	0.055	1.19	0.9	0.059	2.03	0.9	0.049	1.435	0.5	0.036	1.855	0.5	0.060	2.275	0.5	0.033
0.36	0.9	0.048	1.2	0.9	0.062	2.04	0.9	0.047	1.44	0.5	0.039	1.86	0.5	0.058	2.28	0.5	0.032
0.37	0.9	0.042	1.21	0.9	0.064	2.05	0.9	0.048	1.445	0.5	0.040	1.865	0.5	0.056	2.285	0.5	0.031
0.38	0.9	0.038	1.22	0.9	0.064	2.06	0.9	0.049	1.45	0.5	0.040	1.87	0.5	0.054	2.29	0.5	0.030
0.39	0.9	0.038	1.23	0.9	0.063	2.07	0.9	0.047	1.455	0.5	0.039	1.875	0.5	0.051	2.295	0.5	0.029
0.4	0.9	0.040	1.24	0.9	0.062	2.08	0.9	0.044	1.46	0.5	0.037	1.88	0.5	0.048	2.3	0.5	0.028
0.41	0.9	0.041	1.25	0.9	0.060	2.09	0.9	0.041	1.465	0.5	0.036	1.885	0.5	0.045	2.305	0.5	0.029
0.42	0.9	0.041	1.26	0.9	0.058	2.1	0.9	0.039	1.47	0.5	0.035	1.89	0.5	0.043	2.31	0.5	0.031
0.43	0.9	0.041	1.27	0.9	0.057	2.11	0.9	0.039	1.475	0.5	0.034	1.895	0.5	0.044	2.315	0.5	0.034
0.44	0.9	0.042	1.28	0.9	0.059	2.12	0.9	0.041	1.48	0.5	0.033	1.9	0.5	0.049	2.32	0.5	0.038
0.45	0.9	0.041	1.29	0.9	0.059	2.13	0.9	0.046	1.485	0.5	0.033	1.905	0.5	0.053	2.325	0.5	0.041
0.46	0.9	0.040	1.3	0.9	0.059	2.14	0.9	0.049	1.49	0.5	0.034	1.91	0.5	0.055	2.33	0.5	0.042
0.47	0.9	0.038	1.31	0.9	0.058	2.15	0.9	0.050	1.495	0.5	0.036	1.915	0.5	0.055	2.335	0.5	0.040
0.48	0.9	0.035	1.32	0.9	0.056	2.16	0.9	0.050	1.5	0.5	0.038	1.92	0.5	0.054	2.34	0.5	0.038
0.49	0.9	0.034	1.33	0.9	0.053	2.17	0.9	0.050	1.505	0.5	0.039	1.925	0.5	0.054	2.345	0.5	0.037
0.5	0.9	0.033	1.34	0.9	0.050	2.18	0.9	0.050	1.51	0.5	0.038	1.93	0.5	0.056	2.35	0.5	0.038
0.51	0.9	0.033	1.35	0.9	0.049	2.19	0.9	0.048	1.515	0.5	0.036	1.935	0.5	0.060	2.355	0.5	0.042
0.52	0.9	0.034	1.36	0.9	0.050	2.2	0.9	0.044	1.52	0.5	0.035	1.94	0.5	0.064	2.36	0.5	0.048
0.53	0.9	0.035	1.37	0.9	0.052	2.21	0.9	0.041	1.525	0.5	0.034	1.945	0.5	0.065	2.365	0.5	0.055
0.54	0.9	0.037	1.38	0.9	0.053	2.22	0.9	0.038	1.53	0.5	0.034	1.95	0.5	0.065	2.37	0.5	0.058
0.55	0.9	0.038	1.39	0.9	0.055	2.23	0.9	0.038	1.535	0.5	0.032	1.955	0.5	0.062	2.375	0.5	0.057
0.56	0.9	0.040	1.4	0.9	0.056	2.24	0.9	0.041	1.54	0.5	0.031	1.96	0.5	0.058	2.38	0.5	0.052
0.57	0.9	0.040	1.41	0.9	0.055	2.25	0.9	0.048	1.545	0.5	0.030	1.965	0.5	0.054	2.385	0.5	0.047
0.58	0.9	0.039	1.42	0.9	0.052	2.26	0.9	0.056	1.55	0.5	0.029	1.97	0.5	0.049	2.39	0.5	0.046

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.59	0.9	0.038	1.43	0.9	0.048	2.27	0.9	0.061	1.555	0.5	0.030	1.975	0.5	0.044	2.395	0.5	0.048
0.6	0.9	0.037	1.44	0.9	0.046	2.28	0.9	0.060	1.56	0.5	0.032	1.98	0.5	0.041	2.4	0.5	0.049
0.61	0.9	0.038	1.45	0.9	0.046	2.29	0.9	0.056	1.565	0.5	0.035	1.985	0.5	0.040	2.405	0.5	0.049
0.62	0.9	0.038	1.46	0.9	0.049	2.3	0.9	0.050	1.57	0.5	0.039	1.99	0.5	0.042	2.41	0.5	0.049
0.63	0.9	0.038	1.47	0.9	0.051	2.31	0.9	0.046	1.575	0.5	0.043	1.995	0.5	0.043	2.415	0.5	0.048
0.64	0.9	0.037	1.48	0.9	0.051	2.32	0.9	0.044	1.58	0.5	0.046	2	0.5	0.045	2.42	0.5	0.046
0.65	0.9	0.037	1.49	0.9	0.049	2.33	0.9	0.042	1.585	0.5	0.049	2.005	0.5	0.049	2.425	0.5	0.042
0.66	0.9	0.036	1.5	0.9	0.046	2.34	0.9	0.039	1.59	0.5	0.053	2.01	0.5	0.054	2.43	0.5	0.041
0.67	0.9	0.035	1.51	0.9	0.043	2.35	0.9	0.036	1.595	0.5	0.056	2.015	0.5	0.059	2.435	0.5	0.042
0.68	0.9	0.034	1.52	0.9	0.042	2.36	0.9	0.035	1.6	0.5	0.057	2.02	0.5	0.062	2.44	0.5	0.042
0.69	0.9	0.035	1.53	0.9	0.045	2.37	0.9	0.036	1.605	0.5	0.056	2.025	0.5	0.062	2.445	0.5	0.039
0.7	0.9	0.037	1.54	0.9	0.049	2.38	0.9	0.039	1.61	0.5	0.053	2.03	0.5	0.060	2.45	0.5	0.036
0.71	0.9	0.039	1.55	0.9	0.054	2.39	0.9	0.043	1.615	0.5	0.050	2.035	0.5	0.055	2.455	0.5	0.036
0.72	0.9	0.041	1.56	0.9	0.057	2.4	0.9	0.046	1.62	0.5	0.049	2.04	0.5	0.048	2.46	0.5	0.040
0.73	0.9	0.042	1.57	0.9	0.059	2.41	0.9	0.049	1.625	0.5	0.050	2.045	0.5	0.047	2.465	0.5	0.048
0.74	0.9	0.044	1.58	0.9	0.057	2.42	0.9	0.053	1.63	0.5	0.051	2.05	0.5	0.048	2.47	0.5	0.056
0.75	0.9	0.046	1.59	0.9	0.053	2.43	0.9	0.059	1.635	0.5	0.048	2.055	0.5	0.050	2.475	0.5	0.056
0.76	0.9	0.047	1.6	0.9	0.050	2.44	0.9	0.062	1.64	0.5	0.044	2.06	0.5	0.052	2.48	0.5	0.049
0.77	0.9	0.047	1.61	0.9	0.050	2.45	0.9	0.062	1.645	0.5	0.043	2.065	0.5	0.054	2.485	0.5	0.039
0.78	0.9	0.046	1.62	0.9	0.052	2.46	0.9	0.060	1.65	0.5	0.046	2.07	0.5	0.058	2.49	0.5	0.034
0.79	0.9	0.042	1.63	0.9	0.054	2.47	0.9	0.061	1.655	0.5	0.051	2.075	0.5	0.061	2.495	0.5	0.033
0.8	0.9	0.038	1.64	0.9	0.054	2.48	0.9	0.066	1.66	0.5	0.053	2.08	0.5	0.062	2.5	0.48	0.028
0.81	0.9	0.036	1.65	0.9	0.054	2.49	0.9	0.071	1.665	0.5	0.051	2.085	0.5	0.060	2.5	0.485	0.027
0.82	0.9	0.038	1.66	0.9	0.055	1.25	0.5	0.034	1.67	0.5	0.047	2.09	0.5	0.056	2.5	0.49	0.027
0.83	0.9	0.044	1.67	0.9	0.056	1.255	0.5	0.034	1.675	0.5	0.044	2.095	0.5	0.051	2.49	0	0.040

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.84	0.9	0.051	1.68	0.9	0.056	1.26	0.5	0.033	1.68	0.5	0.044	2.1	0.5	0.049	2.495	0	0.034
0.01	0	0.047	0.64	0	0.035	1.88	0	0.048	0.95	0	0.035	1.87	0	0.038	2.185	0	0.076
0.02	0	0.045	0.65	0	0.035	1.89	0	0.048	0.955	0	0.034	1.875	0	0.033	2.19	0	0.069
0.03	0	0.044	0.66	0	0.036	1.9	0	0.051	0.96	0	0.035	1.88	0	0.031	2.195	0	0.061
0.04	0	0.045	0.67	0	0.037	1.91	0	0.055	0.965	0	0.035	1.885	0	0.029	2.2	0	0.055
0.05	0	0.046	0.68	0	0.037	1.92	0	0.060	0.97	0	0.036	1.89	0	0.030	2.205	0	0.051
0.06	0	0.045	0.69	0	0.036	1.93	0	0.064	0.975	0	0.036	1.895	0	0.030	2.21	0	0.048
0.07	0	0.043	0.7	0	0.034	1.94	0	0.067	0.98	0	0.036	1.9	0	0.032	2.215	0	0.047
0.08	0	0.040	0.71	0	0.032	1.95	0	0.070	0.985	0	0.034	1.905	0	0.033	2.22	0	0.048
0.09	0	0.036	0.72	0	0.029	1.96	0	0.072	0.99	0	0.033	1.91	0	0.036	2.225	0	0.051
0.1	0	0.032	0.73	0	0.028	1.97	0	0.073	0.995	0	0.031	1.915	0	0.039	2.23	0	0.055
0.11	0	0.030	0.74	0	0.029	1.98	0	0.073	1.605	0	0.044	1.92	0	0.043	2.235	0	0.061
0.12	0	0.030	0.75	0	0.031	1.99	0	0.074	1.61	0	0.046	1.925	0	0.045	2.24	0	0.067
0.13	0	0.033	0.76	0	0.034	2	0	0.075	1.615	0	0.047	1.93	0	0.046	2.245	0	0.071
0.14	0	0.037	0.77	0	0.037	2.01	0	0.077	1.62	0	0.046	1.935	0	0.047	2.25	0	0.072
0.15	0	0.043	0.78	0	0.040	2.02	0	0.079	1.625	0	0.045	1.94	0	0.049	2.255	0	0.068
0.16	0	0.049	0.79	0	0.042	2.03	0	0.080	1.63	0	0.045	1.945	0	0.053	2.26	0	0.062
0.17	0	0.054	0.8	0	0.043	2.04	0	0.079	1.635	0	0.046	1.95	0	0.058	2.265	0	0.055
0.18	0	0.059	0.81	0	0.043	2.05	0	0.079	1.64	0	0.048	1.955	0	0.062	2.27	0	0.051
0.19	0	0.064	0.82	0	0.043	2.06	0	0.078	1.645	0	0.050	1.96	0	0.065	2.275	0	0.049
0.2	0	0.068	0.83	0	0.042	2.07	0	0.077	1.65	0	0.051	1.965	0	0.066	2.28	0	0.048
0.21	0	0.072	0.84	0	0.042	2.08	0	0.075	1.655	0	0.051	1.97	0	0.064	2.285	0	0.046
0.22	0	0.075	0.85	0	0.042	2.09	0	0.070	1.66	0	0.051	1.975	0	0.060	2.29	0	0.043
0.23	0	0.077	0.86	0	0.041	2.1	0	0.065	1.665	0	0.050	1.98	0	0.056	2.295	0	0.038
0.24	0	0.076	0.87	0	0.039	2.11	0	0.060	1.67	0	0.050	1.985	0	0.054	2.3	0	0.033

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.25	0	0.073	0.88	0	0.037	2.12	0	0.057	1.675	0	0.049	1.99	0	0.053	2.305	0	0.031
0.26	0	0.069	0.89	0	0.034	2.13	0	0.057	1.68	0	0.048	1.995	0	0.054	2.31	0	0.033
0.27	0	0.065	0.9	0	0.033	2.14	0	0.060	1.685	0	0.047	2	0	0.057	2.315	0	0.040
0.28	0	0.064	0.91	0	0.032	2.15	0	0.064	1.69	0	0.045	2.005	0	0.061	2.32	0	0.049
0.29	0	0.065	0.92	0	0.033	2.16	0	0.069	1.695	0	0.044	2.01	0	0.065	2.325	0	0.056
0.3	0	0.066	0.93	0	0.034	2.17	0	0.072	1.7	0	0.042	2.015	0	0.068	2.33	0	0.059
0.31	0	0.064	0.94	0	0.037	2.18	0	0.070	1.705	0	0.042	2.02	0	0.069	2.335	0	0.060
0.32	0	0.061	0.95	0	0.039	2.19	0	0.066	1.71	0	0.042	2.025	0	0.069	2.34	0	0.061
0.33	0	0.057	0.96	0	0.041	2.2	0	0.063	1.715	0	0.043	2.03	0	0.068	2.345	0	0.062
0.34	0	0.053	0.97	0	0.042	2.21	0	0.061	1.72	0	0.044	2.035	0	0.065	2.35	0	0.065
0.35	0	0.049	0.98	0	0.042	2.22	0	0.062	1.725	0	0.045	2.04	0	0.063	2.355	0	0.067
0.36	0	0.045	0.99	0	0.040	2.23	0	0.065	1.73	0	0.044	2.045	0	0.061	2.36	0	0.068
0.37	0	0.044	1.61	0	0.040	2.24	0	0.068	1.735	0	0.042	2.05	0	0.061	2.365	0	0.067
0.38	0	0.046	1.62	0	0.042	2.25	0	0.069	1.74	0	0.040	2.055	0	0.061	2.37	0	0.063
0.39	0	0.050	1.63	0	0.043	2.26	0	0.067	1.745	0	0.039	2.06	0	0.061	2.375	0	0.058
0.4	0	0.054	1.64	0	0.044	2.27	0	0.063	1.75	0	0.038	2.065	0	0.061	2.38	0	0.054
0.41	0	0.058	1.65	0	0.046	2.28	0	0.060	1.755	0	0.038	2.07	0	0.061	2.385	0	0.052
0.42	0	0.061	1.66	0	0.047	2.29	0	0.061	1.76	0	0.039	2.075	0	0.061	2.39	0	0.053
0.43	0	0.063	1.67	0	0.049	2.3	0	0.065	1.765	0	0.042	2.08	0	0.061	2.395	0	0.055
0.44	0	0.064	1.68	0	0.051	2.31	0	0.071	1.77	0	0.045	2.085	0	0.058	2.4	0	0.056
0.45	0	0.064	1.69	0	0.054	2.32	0	0.076	1.775	0	0.049	2.09	0	0.055	2.405	0	0.055
0.46	0	0.061	1.7	0	0.057	2.33	0	0.077	1.78	0	0.051	2.095	0	0.050	2.41	0	0.052
0.47	0	0.056	1.71	0	0.059	2.34	0	0.075	1.785	0	0.052	2.1	0	0.043	2.415	0	0.050
0.48	0	0.052	1.72	0	0.061	2.35	0	0.072	1.79	0	0.051	2.105	0	0.035	2.42	0	0.048
0.49	0	0.048	1.73	0	0.061	2.36	0	0.069	1.795	0	0.049	2.11	0	0.029	2.425	0	0.047

X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
0.5	0	0.044	1.74	0	0.061	2.37	0	0.066	1.8	0	0.048	2.115	0	0.026	2.43	0	0.047
0.51	0	0.042	1.75	0	0.060	2.38	0	0.063	1.805	0	0.047	2.12	0	0.027	2.435	0	0.047
0.52	0	0.039	1.76	0	0.060	2.39	0	0.062	1.81	0	0.047	2.125	0	0.030	2.44	0	0.047
0.53	0	0.038	1.77	0	0.060	2.4	0	0.062	1.815	0	0.048	2.13	0	0.034	2.445	0	0.046
0.54	0	0.037	1.78	0	0.060	2.41	0	0.061	1.82	0	0.049	2.135	0	0.037	2.45	0	0.046
0.55	0	0.036	1.79	0	0.059	2.42	0	0.061	1.825	0	0.050	2.14	0	0.040	2.455	0	0.047
0.56	0	0.036	1.8	0	0.057	2.43	0	0.061	1.83	0	0.052	2.145	0	0.042	2.46	0	0.047
0.57	0	0.037	1.81	0	0.056	2.44	0	0.061	1.835	0	0.055	2.15	0	0.047	2.465	0	0.047
0.58	0	0.038	1.82	0	0.056	2.45	0	0.060	1.84	0	0.057	2.155	0	0.055	2.47	0	0.047
0.59	0	0.039	1.83	0	0.056	2.46	0	0.058	1.845	0	0.057	2.16	0	0.066	2.475	0	0.047
0.6	0	0.039	1.84	0	0.055	2.47	0	0.055	1.85	0	0.057	2.165	0	0.075	2.48	0	0.047
0.61	0	0.038	1.85	0	0.054	2.48	0	0.053	1.855	0	0.054	2.17	0	0.081	2.485	0	0.045
0.62	0	0.037	1.86	0	0.052	2.49	0	0.051	1.86	0	0.049	2.175	0	0.084			
0.63	0	0.035	1.87	0	0.049	0.945	0	0.036	1.865	0	0.043	2.18	0	0.081			

APPENDIX C

SONTEK FLOWTRACKER VELOCITY MEASUREMENTS

FLUME EXPERIMENTS

C.1 Data Collection and Post-Processing

A Sontek FlowTracker Handheld acoustic Doppler velocimeter (ADV) was used to measure channel discharge and vertical velocity profiles. The FlowTracker Handheld ADV has a 10 MHz operating frequency, 0.10 m sampling volume distance, time-averaged 10-Hz sampling rate, and was mounted in the side looking position to a wading rod. Channel discharge was measured at 0.05 m transverse increments and vertical velocity profiles were measured at 0.01 m depth increments along the main channel centerline beginning 0.02 m above the flume streambed. Discharge and vertical velocity profiles were measured 1-m upstream of the cavity and at the leading edge of the cavity.

C.2 Summary of Data Tables

Main channel vertical velocity profiles and flow rates are listed in Tables C.1 and C.2, respectively. Of the nine flume experiments, the main channel flow changes from the hydraulically smooth cases, to the rough bed low flow cases and the rough bed high flow cases. Time-averaged velocities are listed for the vertical velocity profiles where longitudinal, transverse, and vertical directions correspond to X, Y, and Z, respectively. For the discharge measurements, measured depths (i.e., 60% of flow depth), time-averaged velocities, cross-sectional areas, and flow rates are listed at each transverse (Y) location. Note that Y = 0 m corresponds to the flume wall on the cavity side and Y = 1 m corresponds to the flume wall opposite to the cavity. Discharge was computed as the sum of the products of time-averaged velocity and cross-sectional areas along a transverse. Mean main channel velocity was computed as the ratio of discharge to the total channel cross-sectional area.

Table C.1 Vertical velocity profiles at main channel centerline.

Case	Meas. Depth (m)	1 m Upstream of Cavity Vx (m/s)	Vy (m/s)	Vz (m/s)	At Cavity Leading Edge Vx (m/s)	Vy (m/s)	Vz (m/s)
Hydraulically Smooth	0.02	0.5156	-0.0139	-0.0083	0.4696	-0.0536	-0.0171
	0.03	0.5321	-0.0494	-0.0013	0.5087	-0.0576	0.0016
	0.04	0.5627	-0.0397	-0.0111	0.5139	-0.1004	-0.0157
	0.05	0.5845	-0.0539	-0.0081	0.5469	-0.061	-0.0188
	0.06	0.5910	-0.0611	-0.0125	0.5362	-0.0641	-0.0158
	0.07	0.6028	-0.0318	0.0033	0.5518	-0.09	-0.0297
	0.08	0.6374	-0.0791	0.0015	0.5813	-0.0976	-0.0248
	0.09	0.6490	-0.0847	-0.0168	0.6011	-0.1336	-0.0344
	0.1	0.7063	-0.0399	0.0233	0.6417	-0.0441	-0.0215
Rough Low Flow	0.02	0.3036	-0.0355	0.0007	0.2387	-0.0275	-0.0072
	0.03	0.3528	-0.0391	-0.0102	0.2747	-0.0238	-0.0155
	0.04	0.3580	-0.0468	0.0032	0.2982	-0.0276	-0.011
	0.05	0.3686	-0.0491	0.0144	0.3132	-0.0224	-0.0013
	0.06	0.3960	-0.0487	-0.0052	0.3524	-0.0148	-0.024
	0.07	0.4037	-0.0385	-0.0040	0.3464	-0.0095	-0.0166
	0.08	0.4111	-0.0513	0.0067	0.3645	-0.0093	-0.0129
	0.09	0.4245	-0.0219	-0.1913	0.3765	0.0654	-0.0048
Rough High Flow	0.02	0.3416	-0.0224	-0.0009	0.2803	0.044	-0.0182
	0.03	0.3948	-0.0302	-0.0134	0.3526	-0.0275	-0.0212
	0.04	0.4232	-0.0360	-0.0169	0.3878	-0.0283	-0.0056
	0.05	0.4441	-0.0379	-0.0103	0.381	-0.012	-0.0115
	0.06	0.4733	-0.0304	0.0017	0.4143	-0.0336	-0.0277
	0.07	0.4805	-0.0459	-0.0218	0.4158	-0.0567	-0.0126
	0.08	0.5158	-0.0260	-0.0119	0.4479	-0.0493	-0.0192
	0.09	0.4979	-0.0339	-0.0088	0.4546	-0.0317	-0.0102
	0.1	0.5186	-0.0688	-0.0179	0.4846	-0.0324	-0.0163
	0.11	0.5459	-0.0309	-0.0012	0.4874	-0.0441	-0.0009
	0.12	0.5601	-0.0370	-0.0172	0.4965	-0.0379	0.0012
	0.13	0.5848	-0.0080	-0.0182	0.5065	-0.0343	-0.0056
	0.14	0.5800	-0.0195	-0.0143	0.5372	-0.02	-0.0094
	0.15	0.5847	-0.0315	-0.0177	0.5352	-0.0425	0.006
	0.16	0.6044	-0.0320	-0.0131	0.5495	-0.0178	-0.0066
	0.17	0.6114	-0.0649	-0.0680	0.5657	-0.0248	-0.0021

Table C.2 Main channel Velocity and Discharge Measurements.

Case	1 m Upstream of Cavity					At Cavity Leading Edge				
	Loc (m)	Meas. Depth (m)	Velocity (m/s)	Area (m^2)	Flow Rate (m^3/s)	Loc (m)	Meas. Depth (m)	Velocity (m/s)	Area (m^2)	Flow Rate (m^3/s)
Hydraulically Smooth	0	0	0	0.008	0.0034	0	0	0	0.008	0.0032
	0.1	0.06	0.4204	0.015	0.0063	0.1	0.06	0.4307	0.015	0.0065
	0.2	0.06	0.4428	0.015	0.0066	0.2	0.06	0.4132	0.015	0.0062
	0.3	0.06	0.5572	0.015	0.0084	0.3	0.06	0.5349	0.015	0.008
	0.4	0.06	0.6349	0.015	0.0095	0.4	0.06	0.5605	0.015	0.0084
	0.5	0.06	0.5772	0.015	0.0087	0.5	0.06	0.544	0.015	0.0082
	0.6	0.06	0.498	0.015	0.0075	0.6	0.06	0.4375	0.015	0.0066
	0.7	0.06	0.4071	0.015	0.0061	0.7	0.06	0.3983	0.015	0.006
	0.8	0.06	0.415	0.015	0.0062	0.8	0.06	0.3894	0.015	0.0058
	0.9	0.06	0.4012	0.015	0.006	0.9	0.06	0.3995	0.015	0.006
	1	0	0	0.008	0.003	1	0	0	0.008	0.003
	Mean Velocity (m/s) =				0.478	Mean Velocity (m/s) =				0.452
	Total Discharge (m^3/s) =				0.0717	Total Discharge (m^3/s) =				0.0678
Rough Low Flow	0	0	0	0.008	0.0024	0	0	0	0.008	0.0025
	0.1	0.06	0.3189	0.015	0.0048	0.1	0.06	0.3303	0.015	0.005
	0.2	0.06	0.3119	0.015	0.0047	0.2	0.06	0.3336	0.015	0.005
	0.3	0.056	0.3903	0.014	0.0055	0.3	0.06	0.3657	0.015	0.0055
	0.4	0.056	0.3421	0.014	0.0048	0.4	0.06	0.3227	0.015	0.0048
	0.5	0.056	0.384	0.014	0.0054	0.5	0.064	0.3423	0.016	0.0055
	0.6	0.056	0.362	0.014	0.0051	0.6	0.064	0.33	0.016	0.0053
	0.7	0.056	0.3343	0.014	0.0047	0.7	0.064	0.2792	0.016	0.0045
	0.8	0.06	0.3306	0.015	0.005	0.8	0.06	0.3175	0.015	0.0048
	0.9	0.056	0.3327	0.014	0.0047	0.9	0.06	0.3235	0.015	0.0049
	1	0	0	0.007	0.0023	1	0	0	0.008	0.0026
	Mean Velocity (m/s) =				0.3433	Mean Velocity (m/s) =				0.3271
	Total Discharge (m^3/s) =				0.0494	Total Discharge (m^3/s) =				0.0504

Case	1 m Upstream of Cavity					At Cavity Leading Edge				
	Loc (m)	Meas. Depth (m)	Velocity (m/s)	Area (m^2)	Flow Rate (m^3/s)	Loc (m)	Meas. Depth (m)	Velocity (m/s)	Area (m^2)	Flow Rate (m^3/s)
Rough High Flow	0	0	0.5178	0.011	0.0054	0	0	0.4642	0.011	0.0051
	0.1	0.092	0.5178	0.023	0.0119	0.1	0.088	0.4642	0.022	0.0102
	0.2	0.092	0.5195	0.023	0.0119	0.2	0.088	0.5319	0.022	0.0117
	0.3	0.088	0.5159	0.022	0.0113	0.3	0.092	0.4983	0.023	0.0115
	0.4	0.088	0.4344	0.022	0.0096	0.4	0.092	0.4438	0.023	0.0102
	0.5	0.088	0.5054	0.022	0.0111	0.5	0.096	0.4635	0.024	0.0111
	0.6	0.088	0.5209	0.022	0.0115	0.6	0.092	0.4899	0.023	0.0113
	0.7	0.088	0.5018	0.022	0.011	0.7	0.092	0.4876	0.023	0.0112
	0.8	0.092	0.4704	0.023	0.0108	0.8	0.092	0.4669	0.023	0.0107
	0.9	0.088	0.463	0.022	0.0102	0.9	0.088	0.4512	0.022	0.0099
	1	0	0.463	0.011	0.0051	1	0	0.4512	0.011	0.005
			Mean Velocity (m/s) =		0.494			Mean Velocity (m/s) =		0.4754
			Total Discharge (m^3/s) =		0.1099			Total Discharge (m^3/s) =		0.1079

APPENDIX D
STEREO PARTICLE IMAGE VELOCIMETRY MEASUREMENTS

FLUME EXPERIMENTS

D.1 Data Collection and Post-Processing

Instantaneous 3-D velocities were obtained along the entire cavity entrance (i.e., mixing layer interface between main channel and cavity) using the LaVision commercial stereoscopic particle image velocimetry (PIV) system. For the stereoscopic PIV system, high-speed (50 kHz sampling rate) CCD cameras were mounted at angles of 13° and -13° upstream and downstream of the PIV field of view (FOV), respectively. Four PIV FOV were required to measure instantaneous velocities along the entire cavity entrance and the FOV were overlapped by 20% to provide better resolution near the edges. The PIV FOV was 22.5 cm wide (1,600 pixels) by 17 cm high (1,200 pixels). The flow field was illuminated by a laser light sheet mounted adjacent to the downstream cavity wall and oriented parallel to flow in the plane of the cavity entrance. The laser light sheet was generated using two ND-YAG lasers. The flow was seeded with 0.2 liters of neutrally buoyant 20-μm glass microspheres per 60.5 m^3 of water in the flume catch basin. A total of 1,500 frame pairs were collected for each experiment and had an average particle displacement of 10 pixels between frames and a Δt ranging between 4,500 and 6,500 μm. Particle image pairs were processed using the cross-correlation method in the DaVis software package, where the PIV FOV is initially divided into 64 x 64 pixel interrogation windows and then further subdivided into 32 x 32 pixel interrogation windows with an overlap of 50%. Ensemble averaging at each node location in the PIV FOV was used to obtain time averaged and root mean square (RMS) velocity components in X, Y, and Z.

D.2 Summary of Data Tables

Time-averaged velocity in the longitudinal (X), transverse (Y), and vertical (Z) directions, velocity magnitude, and turbulent kinectic energy (TKE) are listed for all nine flume experiments. Longitudinal locations of X = 0 cm and X = 60 cm correspond to the leading and trailing edge of the cavity, respectively. The transverse location of Y = 0 cm corresponds to the mixing layer interface, where 0.800 cm is the thickness of the laser light sheet. Vertical locations span from Z = 0 cm at the flume bed to a maximum of Z = 20 cm near the water surface.

Table D.1 Stereo PIV data for semi-circular cavity with hydraulically smooth bed.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
5.632	0.800	11.198	0.342	-0.017	0.274	0.438	0.043
5.632	0.800	7.790	0.238	-0.001	0.523	0.575	0.032
5.632	0.800	4.383	0.166	0.011	0.406	0.439	0.034
5.859	0.800	11.425	0.354	-0.017	0.230	0.422	0.037
5.859	0.800	8.018	0.242	-0.004	0.502	0.557	0.033
5.859	0.800	4.610	0.165	0.008	0.418	0.449	0.034
6.086	0.800	11.652	0.357	-0.017	0.219	0.419	0.036
6.086	0.800	8.245	0.245	-0.006	0.479	0.538	0.034
6.086	0.800	4.837	0.166	0.009	0.430	0.462	0.033
6.313	0.800	11.879	0.382	-0.016	0.147	0.409	0.029
6.313	0.800	8.472	0.252	-0.008	0.476	0.539	0.032
6.313	0.800	5.065	0.167	0.007	0.445	0.476	0.031
6.540	0.800	12.106	0.386	-0.015	0.119	0.404	0.026
6.540	0.800	8.699	0.257	-0.008	0.470	0.536	0.036
6.540	0.800	5.292	0.174	0.008	0.464	0.495	0.032
6.767	0.800	12.334	0.402	-0.016	0.067	0.408	0.020
6.767	0.800	8.926	0.266	-0.006	0.431	0.507	0.039
6.767	0.800	5.519	0.175	0.006	0.450	0.483	0.031
6.995	0.800	12.561	0.403	-0.012	0.067	0.409	0.018
6.995	0.800	9.153	0.268	-0.008	0.427	0.504	0.040
6.995	0.800	5.746	0.180	0.008	0.471	0.504	0.032
7.222	0.800	12.788	0.414	-0.010	0.031	0.415	0.015
7.222	0.800	9.381	0.268	-0.011	0.422	0.500	0.040
7.222	0.800	5.973	0.181	0.008	0.476	0.510	0.033
7.449	0.800	13.015	0.417	-0.009	0.024	0.417	0.013
7.449	0.800	9.608	0.279	-0.009	0.399	0.487	0.040
7.449	0.800	6.200	0.183	0.005	0.495	0.528	0.032
7.676	0.800	13.242	0.421	-0.006	0.009	0.421	0.010
7.676	0.800	9.835	0.276	-0.010	0.393	0.480	0.043
7.676	0.800	6.427	0.186	0.010	0.502	0.535	0.031
7.903	0.800	13.469	0.421	-0.005	0.002	0.421	0.010
7.903	0.800	10.062	0.286	-0.007	0.384	0.479	0.042
7.903	0.800	6.655	0.190	0.009	0.499	0.534	0.033
8.130	0.800	13.696	0.419	-0.005	-0.003	0.419	0.010
8.130	0.800	10.289	0.289	-0.012	0.369	0.469	0.042
8.130	0.800	6.882	0.191	0.005	0.493	0.529	0.033
8.358	0.800	13.924	0.416	-0.003	-0.004	0.416	0.009
8.358	0.800	10.516	0.288	-0.009	0.359	0.460	0.041

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
8.358	0.800	7.109	0.188	0.004	0.514	0.548	0.034
8.358	0.800	3.702	0.128	0.011	0.344	0.368	0.037
8.585	0.800	14.151	0.412	-0.002	-0.004	0.412	0.009
8.585	0.800	10.743	0.300	-0.011	0.327	0.443	0.043
8.585	0.800	7.336	0.193	0.001	0.503	0.539	0.032
8.585	0.800	3.929	0.127	0.012	0.351	0.373	0.039
8.812	0.800	14.378	0.409	-0.002	-0.006	0.409	0.009
8.812	0.800	10.971	0.309	-0.011	0.300	0.431	0.044
8.812	0.800	7.563	0.200	0.004	0.505	0.543	0.031
8.812	0.800	4.156	0.127	0.008	0.356	0.378	0.035
9.039	0.800	11.198	0.323	-0.008	0.230	0.397	0.038
9.039	0.800	7.790	0.205	0.003	0.497	0.537	0.036
9.039	0.800	4.383	0.138	0.006	0.360	0.386	0.037
9.266	0.800	11.425	0.338	-0.010	0.205	0.396	0.036
9.266	0.800	8.018	0.206	-0.001	0.510	0.550	0.033
9.266	0.800	4.610	0.134	0.013	0.365	0.389	0.036
9.493	0.800	11.652	0.352	-0.009	0.160	0.387	0.031
9.493	0.800	8.245	0.212	0.002	0.492	0.536	0.035
9.493	0.800	4.837	0.141	0.009	0.381	0.406	0.037
9.721	0.800	11.879	0.368	-0.010	0.123	0.388	0.028
9.721	0.800	8.472	0.220	0.001	0.473	0.521	0.036
9.721	0.800	5.065	0.148	0.005	0.380	0.407	0.036
9.948	0.800	12.106	0.379	-0.007	0.087	0.388	0.022
9.948	0.800	8.699	0.222	-0.001	0.466	0.516	0.038
9.948	0.800	5.292	0.156	0.009	0.392	0.422	0.033
10.175	0.800	12.334	0.388	-0.005	0.063	0.393	0.019
10.175	0.800	8.926	0.235	-0.001	0.436	0.496	0.039
10.175	0.800	5.519	0.150	0.011	0.409	0.436	0.038
10.402	0.800	12.561	0.395	-0.005	0.041	0.397	0.016
10.402	0.800	9.153	0.248	-0.005	0.404	0.474	0.040
10.402	0.800	5.746	0.162	0.014	0.416	0.447	0.032
10.629	0.800	12.788	0.396	-0.004	0.027	0.397	0.014
10.629	0.800	9.381	0.261	-0.005	0.376	0.458	0.040
10.629	0.800	5.973	0.172	0.010	0.429	0.462	0.037
10.856	0.800	13.015	0.402	-0.004	0.020	0.403	0.012
10.856	0.800	9.608	0.265	-0.001	0.360	0.446	0.042
10.856	0.800	6.200	0.169	0.014	0.438	0.470	0.035
11.083	0.800	13.242	0.404	-0.004	0.010	0.404	0.012
11.083	0.800	9.835	0.273	-0.002	0.330	0.428	0.043

X (m)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
11.083	0.800	6.427	0.173	0.011	0.443	0.476	0.036
11.311	0.800	13.469	0.408	-0.001	-0.001	0.408	0.010
11.311	0.800	10.062	0.281	-0.006	0.310	0.419	0.043
11.311	0.800	6.655	0.173	0.004	0.438	0.471	0.035
11.538	0.800	13.696	0.405	-0.001	-0.001	0.405	0.010
11.538	0.800	10.289	0.296	-0.008	0.269	0.400	0.041
11.538	0.800	6.882	0.188	0.005	0.425	0.465	0.037
11.765	0.800	13.924	0.405	0.000	-0.003	0.405	0.009
11.765	0.800	10.516	0.312	-0.009	0.222	0.383	0.039
11.765	0.800	7.109	0.184	0.008	0.439	0.476	0.035
11.765	0.800	3.702	0.114	0.011	0.305	0.326	0.038
11.992	0.800	14.151	0.404	0.000	-0.009	0.404	0.008
11.992	0.800	10.743	0.327	-0.008	0.183	0.374	0.036
11.992	0.800	7.336	0.194	0.010	0.421	0.464	0.038
11.992	0.800	3.929	0.112	0.003	0.303	0.323	0.035
12.219	0.8000	14.378	0.4023	0.0026	-0.0142	0.4025	0.0082
12.219	0.800	10.971	0.337	-0.005	0.159	0.373	0.033
12.219	0.800	7.563	0.202	0.004	0.412	0.459	0.037
12.219	0.800	4.156	0.118	0.006	0.332	0.352	0.034
12.446	0.800	11.198	0.347	-0.009	0.139	0.374	0.030
12.446	0.800	7.790	0.205	0.006	0.411	0.459	0.040
12.446	0.800	4.383	0.118	0.007	0.340	0.360	0.039
12.674	0.800	11.425	0.358	-0.004	0.115	0.376	0.027
12.674	0.800	8.018	0.206	-0.001	0.402	0.452	0.042
12.674	0.800	4.610	0.130	0.005	0.335	0.360	0.038
12.901	0.800	11.652	0.374	-0.005	0.073	0.381	0.022
12.901	0.800	8.245	0.232	-0.003	0.344	0.415	0.040
12.901	0.800	4.837	0.130	0.009	0.351	0.375	0.039
13.128	0.800	11.879	0.380	-0.005	0.055	0.384	0.019
13.128	0.800	8.472	0.244	-0.001	0.342	0.420	0.041
13.128	0.800	5.065	0.131	0.007	0.361	0.385	0.038
13.355	0.800	12.106	0.386	-0.001	0.035	0.388	0.015
13.355	0.800	8.699	0.256	-0.004	0.308	0.400	0.041
13.355	0.800	5.292	0.141	0.005	0.375	0.401	0.038
13.582	0.800	12.334	0.396	-0.004	0.017	0.397	0.013
13.582	0.800	8.926	0.259	-0.004	0.296	0.393	0.039
13.582	0.800	5.519	0.149	0.002	0.374	0.402	0.040
13.809	0.800	12.561	0.398	-0.001	0.005	0.398	0.012
13.809	0.800	9.153	0.280	-0.004	0.243	0.371	0.038

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
13.809	0.800	5.746	0.158	0.010	0.375	0.407	0.038
14.036	0.800	12.788	0.405	-0.001	-0.004	0.405	0.011
14.036	0.800	9.381	0.297	-0.005	0.211	0.365	0.038
14.036	0.800	5.973	0.154	0.006	0.398	0.426	0.041
14.264	0.800	13.015	0.408	0.002	-0.010	0.408	0.010
14.264	0.800	9.608	0.308	-0.007	0.179	0.356	0.035
14.264	0.800	6.200	0.160	0.012	0.401	0.432	0.039
14.491	0.800	13.242	0.407	0.001	-0.006	0.407	0.010
14.491	0.800	9.835	0.328	-0.007	0.136	0.355	0.031
14.491	0.800	6.427	0.161	0.008	0.406	0.437	0.038
14.718	0.800	13.469	0.406	0.003	-0.011	0.406	0.009
14.718	0.800	10.062	0.334	-0.003	0.126	0.357	0.031
14.718	0.800	6.655	0.161	0.012	0.402	0.434	0.039
14.945	0.800	13.696	0.406	0.003	-0.018	0.406	0.008
14.945	0.800	10.289	0.341	-0.009	0.112	0.360	0.027
14.945	0.800	6.882	0.170	0.006	0.395	0.430	0.040
15.172	0.800	13.924	0.410	0.003	-0.024	0.410	0.009
15.172	0.800	10.516	0.355	-0.006	0.089	0.366	0.026
15.172	0.800	7.109	0.183	0.009	0.384	0.426	0.042
15.172	0.800	3.702	0.114	0.007	0.296	0.317	0.041
15.399	0.800	14.151	0.402	0.003	-0.019	0.402	0.008
15.399	0.800	10.743	0.361	-0.003	0.081	0.370	0.025
15.399	0.800	7.336	0.188	0.004	0.392	0.435	0.040
15.399	0.800	3.929	0.113	0.003	0.279	0.301	0.042
16.316	0.800	14.378	0.379	-0.001	0.051	0.383	0.017
16.316	0.800	13.696	0.384	0.001	0.077	0.391	0.021
16.316	0.800	13.015	0.380	-0.006	0.086	0.389	0.021
16.316	0.800	12.334	0.353	-0.008	0.156	0.386	0.033
16.316	0.800	11.652	0.343	0.000	0.202	0.398	0.038
16.316	0.800	10.971	0.323	-0.004	0.288	0.433	0.045
16.316	0.800	10.289	0.281	0.005	0.424	0.509	0.050
16.316	0.800	9.608	0.286	0.004	0.384	0.478	0.046
16.316	0.800	8.926	0.263	0.010	0.457	0.527	0.052
16.316	0.800	8.245	0.250	0.007	0.443	0.509	0.047
16.316	0.800	7.563	0.234	0.012	0.525	0.575	0.048
16.316	0.800	6.882	0.217	0.014	0.462	0.511	0.058
16.316	0.800	6.200	0.216	0.011	0.442	0.492	0.052
16.316	0.800	5.519	0.186	0.012	0.481	0.516	0.046
16.316	0.800	4.837	0.179	0.019	0.429	0.465	0.046

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
16.316	0.800	4.156	0.176	0.019	0.430	0.465	0.045
17.451	0.800	14.151	0.394	0.002	0.016	0.394	0.015
17.451	0.800	13.469	0.391	-0.001	0.029	0.392	0.016
17.451	0.800	12.788	0.388	-0.003	0.060	0.393	0.021
17.451	0.800	12.106	0.370	-0.008	0.115	0.387	0.030
17.451	0.800	11.425	0.345	-0.006	0.192	0.395	0.036
17.451	0.800	10.743	0.337	-0.004	0.212	0.398	0.042
17.451	0.800	10.062	0.318	0.003	0.253	0.406	0.044
17.451	0.800	9.381	0.290	-0.002	0.324	0.435	0.047
17.451	0.800	8.699	0.274	0.008	0.335	0.433	0.046
17.451	0.800	8.018	0.267	0.000	0.367	0.454	0.047
17.451	0.800	7.336	0.245	0.005	0.357	0.433	0.051
17.451	0.800	6.655	0.227	0.008	0.390	0.452	0.050
17.451	0.800	5.973	0.218	0.020	0.386	0.444	0.047
17.451	0.800	5.292	0.193	0.022	0.400	0.444	0.049
17.451	0.800	4.610	0.175	0.010	0.382	0.420	0.050
17.451	0.800	3.929	0.176	0.010	0.356	0.397	0.044
18.587	0.800	13.924	0.395	0.001	0.024	0.395	0.015
18.587	0.800	13.242	0.391	-0.003	0.052	0.394	0.020
18.587	0.800	12.561	0.383	-0.005	0.090	0.393	0.027
18.587	0.800	11.879	0.371	-0.002	0.111	0.387	0.027
18.587	0.800	11.198	0.358	-0.001	0.155	0.390	0.035
18.587	0.800	10.516	0.328	-0.003	0.225	0.398	0.040
18.587	0.800	9.835	0.311	0.003	0.253	0.401	0.042
18.587	0.800	9.153	0.296	0.006	0.282	0.409	0.044
18.587	0.800	8.472	0.273	0.001	0.317	0.419	0.052
18.587	0.800	7.790	0.264	0.012	0.307	0.405	0.047
18.587	0.800	7.109	0.253	0.008	0.305	0.397	0.044
18.587	0.800	6.427	0.219	0.014	0.354	0.416	0.048
18.587	0.800	5.746	0.219	0.009	0.325	0.392	0.041
18.587	0.800	5.065	0.190	0.008	0.352	0.400	0.047
18.587	0.800	4.383	0.173	0.016	0.332	0.375	0.042
18.587	0.800	3.702	0.161	0.016	0.377	0.411	0.041
19.723	0.800	14.378	0.390	0.005	0.012	0.391	0.021
19.723	0.800	13.696	0.385	-0.004	0.041	0.387	0.023
19.723	0.800	13.015	0.375	-0.002	0.089	0.386	0.027
19.723	0.800	12.334	0.369	-0.009	0.095	0.381	0.028
19.723	0.800	11.652	0.356	-0.002	0.132	0.380	0.031
19.723	0.800	10.971	0.346	-0.002	0.148	0.376	0.036

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
19.723	0.800	10.289	0.326	-0.002	0.205	0.385	0.033
19.723	0.800	9.608	0.297	0.004	0.255	0.391	0.039
19.723	0.800	8.926	0.274	-0.009	0.308	0.413	0.041
19.723	0.800	8.245	0.246	0.010	0.367	0.442	0.041
19.723	0.800	7.563	0.230	0.011	0.373	0.438	0.043
19.723	0.800	6.882	0.203	0.014	0.409	0.457	0.039
19.723	0.800	6.200	0.194	0.010	0.416	0.459	0.038
19.723	0.800	5.519	0.184	0.015	0.381	0.423	0.038
19.723	0.800	4.837	0.169	0.007	0.380	0.416	0.037
19.723	0.800	4.156	0.155	0.000	0.346	0.379	0.035
20.859	0.800	14.151	0.379	0.002	0.038	0.381	0.014
20.859	0.800	13.469	0.377	0.002	0.059	0.382	0.020
20.859	0.800	12.788	0.362	0.000	0.109	0.378	0.024
20.859	0.800	12.106	0.343	0.003	0.168	0.382	0.029
20.859	0.800	11.425	0.326	0.002	0.223	0.395	0.034
20.859	0.800	10.743	0.298	0.001	0.302	0.424	0.035
20.859	0.800	10.062	0.265	0.006	0.374	0.458	0.034
20.859	0.800	9.381	0.247	0.003	0.397	0.467	0.034
20.859	0.800	8.699	0.224	0.011	0.433	0.488	0.034
20.859	0.800	8.018	0.211	0.012	0.439	0.487	0.033
20.859	0.800	7.336	0.207	0.011	0.434	0.481	0.034
20.859	0.800	6.655	0.191	0.011	0.383	0.428	0.034
20.859	0.800	5.973	0.174	0.018	0.394	0.431	0.035
20.859	0.800	5.292	0.166	0.019	0.392	0.426	0.035
20.859	0.800	4.610	0.152	0.015	0.352	0.384	0.031
20.859	0.800	3.929	0.153	0.007	0.318	0.353	0.034
21.995	0.800	13.924	0.392	0.001	0.004	0.392	0.013
21.995	0.800	13.242	0.402	0.002	0.011	0.402	0.017
21.995	0.800	12.561	0.381	0.000	0.053	0.384	0.023
21.995	0.800	11.879	0.359	-0.002	0.103	0.373	0.029
21.995	0.800	11.198	0.321	0.002	0.193	0.374	0.035
21.995	0.800	10.516	0.301	-0.001	0.263	0.400	0.040
21.995	0.800	9.835	0.267	0.003	0.359	0.447	0.041
21.995	0.800	9.153	0.241	0.015	0.385	0.455	0.040
21.995	0.800	8.472	0.228	0.011	0.411	0.470	0.042
21.995	0.800	7.790	0.202	-0.003	0.458	0.500	0.040
21.995	0.800	7.109	0.191	0.007	0.426	0.467	0.038
21.995	0.800	6.427	0.185	0.016	0.433	0.471	0.036
21.995	0.800	5.746	0.176	0.012	0.382	0.420	0.040

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
21.995	0.800	5.065	0.157	0.025	0.369	0.402	0.041
21.995	0.800	4.383	0.150	0.002	0.351	0.382	0.040
21.995	0.800	3.702	0.151	0.001	0.328	0.361	0.038
23.130	0.800	14.378	0.400	0.003	-0.007	0.400	0.011
23.130	0.800	13.696	0.402	0.001	-0.005	0.402	0.013
23.130	0.800	13.015	0.387	0.000	0.041	0.389	0.018
23.130	0.800	12.334	0.374	0.007	0.075	0.381	0.022
23.130	0.800	11.652	0.336	0.000	0.147	0.367	0.032
23.130	0.800	10.971	0.298	0.004	0.271	0.402	0.041
23.130	0.800	10.289	0.277	0.006	0.304	0.412	0.037
23.130	0.800	9.608	0.244	0.005	0.391	0.461	0.042
23.130	0.800	8.926	0.231	0.001	0.398	0.460	0.040
23.130	0.800	8.245	0.202	0.014	0.451	0.495	0.041
23.130	0.800	7.563	0.180	0.009	0.465	0.499	0.040
23.130	0.800	6.882	0.184	0.014	0.426	0.464	0.033
23.130	0.800	6.200	0.167	0.017	0.390	0.425	0.037
23.130	0.800	5.519	0.154	0.013	0.376	0.407	0.036
23.130	0.800	4.837	0.156	0.001	0.350	0.383	0.037
23.130	0.800	4.156	0.141	0.014	0.345	0.373	0.037
24.266	0.800	14.151	0.400	-0.001	-0.007	0.400	0.011
24.266	0.800	13.469	0.392	0.000	0.014	0.392	0.016
24.266	0.800	12.788	0.381	-0.006	0.054	0.385	0.018
24.266	0.800	12.106	0.354	0.001	0.115	0.372	0.029
24.266	0.800	11.425	0.318	-0.007	0.222	0.388	0.036
24.266	0.800	10.743	0.283	0.005	0.286	0.402	0.039
24.266	0.800	10.062	0.249	0.008	0.365	0.441	0.038
24.266	0.800	9.381	0.222	0.012	0.432	0.485	0.042
24.266	0.800	8.699	0.197	0.011	0.486	0.524	0.039
24.266	0.800	8.018	0.199	0.006	0.445	0.487	0.042
24.266	0.800	7.336	0.179	0.017	0.422	0.459	0.041
24.266	0.800	6.655	0.169	0.020	0.423	0.456	0.039
24.266	0.800	5.973	0.167	0.010	0.389	0.423	0.041
24.266	0.800	5.292	0.154	0.014	0.357	0.389	0.036
24.266	0.800	4.610	0.141	0.014	0.319	0.348	0.033
24.266	0.800	3.929	0.138	0.014	0.335	0.363	0.042
25.402	0.800	13.924	0.395	-0.003	-0.006	0.395	0.012
25.402	0.800	13.242	0.391	0.000	0.023	0.391	0.019
25.402	0.800	12.561	0.366	-0.002	0.069	0.373	0.022
25.402	0.800	11.879	0.334	-0.001	0.130	0.359	0.029

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
25.402	0.800	11.198	0.317	-0.001	0.215	0.383	0.036
25.402	0.800	10.516	0.277	0.002	0.290	0.401	0.036
25.402	0.800	9.835	0.247	0.001	0.356	0.433	0.039
25.402	0.800	9.153	0.223	0.005	0.395	0.454	0.041
25.402	0.800	8.472	0.205	0.016	0.425	0.472	0.038
25.402	0.800	7.790	0.201	0.008	0.387	0.436	0.041
25.402	0.800	7.109	0.194	0.004	0.372	0.420	0.037
25.402	0.800	6.427	0.172	0.019	0.396	0.432	0.038
25.402	0.800	5.746	0.154	0.021	0.388	0.418	0.036
25.402	0.800	5.065	0.156	0.010	0.361	0.394	0.037
25.402	0.800	4.383	0.136	0.013	0.329	0.356	0.036
25.402	0.800	3.702	0.140	0.021	0.296	0.328	0.034
26.538	0.800	14.378	0.391	0.003	-0.012	0.391	0.011
26.538	0.800	13.696	0.392	0.004	0.003	0.392	0.013
26.538	0.800	13.015	0.383	0.002	0.042	0.385	0.021
26.538	0.800	12.334	0.362	-0.003	0.077	0.371	0.024
26.538	0.800	11.652	0.327	0.003	0.146	0.358	0.031
26.538	0.800	10.971	0.304	-0.001	0.201	0.365	0.038
26.538	0.800	10.289	0.272	0.005	0.280	0.390	0.038
26.538	0.800	9.608	0.247	0.001	0.340	0.420	0.039
26.538	0.800	8.926	0.224	0.010	0.383	0.444	0.042
26.538	0.800	8.245	0.224	0.008	0.363	0.426	0.042
26.538	0.800	7.563	0.201	0.018	0.366	0.418	0.035
26.538	0.800	6.882	0.194	0.018	0.347	0.398	0.037
26.538	0.800	6.200	0.172	0.012	0.365	0.404	0.035
26.538	0.800	5.519	0.156	0.012	0.387	0.417	0.039
26.538	0.800	4.837	0.155	-0.001	0.334	0.368	0.034
26.538	0.800	4.156	0.141	0.010	0.292	0.325	0.031
27.674	0.800	14.151	0.400	0.005	-0.017	0.401	0.010
27.674	0.800	13.469	0.394	-0.003	-0.008	0.394	0.013
27.674	0.800	12.788	0.386	0.000	0.024	0.387	0.018
27.674	0.800	12.106	0.364	0.000	0.068	0.370	0.022
27.674	0.800	11.425	0.347	-0.009	0.114	0.365	0.029
27.674	0.800	10.743	0.301	-0.003	0.200	0.362	0.039
27.674	0.800	10.062	0.285	0.004	0.251	0.380	0.038
27.674	0.800	9.381	0.247	0.012	0.316	0.401	0.042
27.674	0.800	8.699	0.236	-0.001	0.313	0.392	0.040
27.674	0.800	8.018	0.221	-0.001	0.340	0.405	0.038
27.674	0.800	7.336	0.207	-0.002	0.357	0.413	0.037

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
27.674	0.800	6.655	0.185	0.013	0.338	0.386	0.035
27.674	0.800	5.973	0.172	0.019	0.337	0.379	0.035
27.674	0.800	5.292	0.163	0.016	0.334	0.372	0.035
27.674	0.800	4.610	0.149	0.008	0.342	0.373	0.036
27.674	0.800	3.929	0.143	0.018	0.315	0.346	0.033
28.809	0.800	13.924	0.398	0.000	-0.021	0.399	0.011
28.809	0.800	13.242	0.405	0.001	-0.023	0.406	0.013
28.809	0.800	12.561	0.386	-0.002	0.016	0.387	0.018
28.809	0.800	11.879	0.375	-0.011	0.049	0.378	0.024
28.809	0.800	11.198	0.350	-0.006	0.094	0.362	0.031
28.809	0.800	10.516	0.312	-0.002	0.178	0.359	0.033
28.809	0.800	9.835	0.284	-0.006	0.210	0.353	0.036
28.809	0.800	9.153	0.242	0.003	0.311	0.394	0.039
28.809	0.800	8.472	0.224	0.005	0.324	0.394	0.043
28.809	0.800	7.790	0.222	0.018	0.304	0.377	0.040
28.809	0.800	7.109	0.193	0.016	0.362	0.410	0.041
28.809	0.800	6.427	0.181	0.006	0.368	0.410	0.040
28.809	0.800	5.746	0.167	0.017	0.318	0.360	0.037
28.809	0.800	5.065	0.172	0.020	0.314	0.359	0.034
28.809	0.800	4.383	0.160	0.011	0.340	0.376	0.037
28.809	0.800	3.702	0.149	0.021	0.317	0.351	0.034
29.945	0.800	14.378	0.403	-0.002	-0.020	0.403	0.010
29.945	0.800	13.696	0.404	0.001	-0.019	0.405	0.010
29.945	0.800	13.015	0.399	0.002	-0.013	0.399	0.014
29.945	0.800	12.334	0.386	-0.005	0.012	0.386	0.017
29.945	0.800	11.652	0.372	-0.004	0.061	0.377	0.020
29.945	0.800	10.971	0.342	-0.009	0.092	0.355	0.027
29.945	0.800	10.289	0.321	0.003	0.139	0.349	0.034
29.945	0.800	9.608	0.287	0.003	0.204	0.352	0.043
29.945	0.800	8.926	0.249	0.014	0.271	0.368	0.044
29.945	0.800	8.245	0.230	0.008	0.316	0.391	0.039
29.945	0.800	7.563	0.228	0.003	0.290	0.369	0.042
29.945	0.800	6.882	0.198	0.011	0.354	0.406	0.038
29.945	0.800	6.200	0.181	0.005	0.339	0.384	0.039
29.945	0.800	5.519	0.174	0.010	0.325	0.369	0.038
29.945	0.800	4.837	0.155	0.010	0.331	0.365	0.038
29.945	0.800	4.156	0.148	0.012	0.323	0.356	0.034
31.316	0.800	14.378	0.381	-0.001	0.029	0.382	0.017
31.316	0.800	13.696	0.379	-0.006	0.062	0.384	0.022

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
31.316	0.800	13.015	0.368	-0.008	0.110	0.384	0.029
31.316	0.800	12.334	0.353	-0.015	0.181	0.397	0.035
31.316	0.800	11.652	0.319	-0.009	0.253	0.407	0.038
31.316	0.800	10.971	0.296	-0.010	0.327	0.442	0.044
31.316	0.800	10.289	0.271	-0.006	0.368	0.457	0.046
31.316	0.800	9.608	0.268	-0.002	0.379	0.464	0.045
31.316	0.800	8.926	0.246	0.006	0.394	0.464	0.041
31.316	0.800	8.245	0.222	0.000	0.452	0.504	0.039
31.316	0.800	7.563	0.207	0.008	0.403	0.453	0.039
31.316	0.800	6.882	0.204	-0.002	0.391	0.441	0.042
31.316	0.800	6.200	0.188	0.013	0.430	0.470	0.040
31.316	0.800	5.519	0.181	0.011	0.372	0.414	0.038
31.316	0.800	4.837	0.161	0.008	0.382	0.415	0.037
31.316	0.800	4.156	0.171	0.015	0.357	0.396	0.038
32.451	0.800	14.151	0.404	-0.002	-0.003	0.404	0.013
32.451	0.800	13.469	0.405	0.000	0.003	0.405	0.016
32.451	0.800	12.788	0.397	0.002	0.016	0.398	0.020
32.451	0.800	12.106	0.380	-0.004	0.062	0.385	0.026
32.451	0.800	11.425	0.356	0.002	0.108	0.372	0.033
32.451	0.800	10.743	0.329	-0.006	0.184	0.377	0.042
32.451	0.800	10.062	0.313	-0.019	0.201	0.373	0.040
32.451	0.800	9.381	0.282	-0.015	0.223	0.360	0.040
32.451	0.800	8.699	0.262	-0.003	0.273	0.379	0.041
32.451	0.800	8.018	0.237	0.010	0.330	0.406	0.047
32.451	0.800	7.336	0.228	0.000	0.358	0.425	0.042
32.451	0.800	6.655	0.201	0.006	0.351	0.405	0.049
32.451	0.800	5.973	0.178	0.007	0.352	0.394	0.046
32.451	0.800	5.292	0.173	0.014	0.343	0.384	0.041
32.451	0.800	4.610	0.167	0.007	0.334	0.374	0.040
32.451	0.800	3.929	0.149	0.010	0.372	0.401	0.038
33.587	0.800	13.924	0.401	0.002	0.004	0.401	0.016
33.587	0.800	13.242	0.391	-0.008	0.040	0.393	0.019
33.587	0.800	12.561	0.382	-0.002	0.057	0.386	0.028
33.587	0.800	11.879	0.369	0.003	0.067	0.375	0.027
33.587	0.800	11.198	0.355	0.001	0.126	0.376	0.034
33.587	0.800	10.516	0.327	0.014	0.160	0.365	0.035
33.587	0.800	9.835	0.292	-0.002	0.227	0.370	0.039
33.587	0.800	9.153	0.269	-0.003	0.280	0.389	0.040
33.587	0.800	8.472	0.259	0.008	0.287	0.387	0.038

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
33.587	0.800	7.790	0.240	-0.006	0.289	0.375	0.038
33.587	0.800	7.109	0.206	0.001	0.336	0.394	0.037
33.587	0.800	6.427	0.195	0.002	0.302	0.359	0.042
33.587	0.800	5.746	0.178	0.013	0.352	0.395	0.038
33.587	0.800	5.065	0.160	0.014	0.328	0.365	0.037
33.587	0.800	4.383	0.157	0.005	0.344	0.378	0.034
33.587	0.800	3.702	0.148	0.021	0.319	0.353	0.034
34.723	0.800	14.378	0.395	-0.004	-0.010	0.396	0.015
34.723	0.800	13.696	0.391	-0.002	0.024	0.392	0.020
34.723	0.800	13.015	0.376	-0.008	0.060	0.381	0.023
34.723	0.800	12.334	0.374	-0.008	0.058	0.379	0.027
34.723	0.800	11.652	0.358	0.003	0.089	0.369	0.031
34.723	0.800	10.971	0.333	-0.002	0.154	0.367	0.036
34.723	0.800	10.289	0.303	-0.005	0.212	0.370	0.041
34.723	0.800	9.608	0.276	0.003	0.286	0.397	0.035
34.723	0.800	8.926	0.256	-0.003	0.320	0.410	0.038
34.723	0.800	8.245	0.234	0.000	0.326	0.401	0.033
34.723	0.800	7.563	0.213	-0.006	0.353	0.412	0.036
34.723	0.800	6.882	0.196	0.006	0.383	0.430	0.032
34.723	0.800	6.200	0.176	0.013	0.359	0.400	0.030
34.723	0.800	5.519	0.162	0.009	0.358	0.393	0.028
34.723	0.800	4.837	0.148	0.016	0.353	0.383	0.026
34.723	0.800	4.156	0.154	0.010	0.337	0.371	0.026
35.859	0.800	14.151	0.388	0.000	0.009	0.388	0.016
35.859	0.800	13.469	0.379	0.000	0.037	0.381	0.018
35.859	0.800	12.788	0.349	-0.008	0.143	0.377	0.031
35.859	0.800	12.106	0.316	-0.009	0.195	0.372	0.036
35.859	0.800	11.425	0.288	-0.005	0.289	0.408	0.037
35.859	0.800	10.743	0.260	-0.005	0.357	0.442	0.034
35.859	0.800	10.062	0.228	-0.005	0.428	0.485	0.033
35.859	0.800	9.381	0.218	-0.012	0.483	0.530	0.026
35.859	0.800	8.699	0.198	0.001	0.464	0.504	0.025
35.859	0.800	8.018	0.185	0.005	0.476	0.511	0.022
35.859	0.800	7.336	0.180	0.004	0.475	0.508	0.024
35.859	0.800	6.655	0.169	0.007	0.435	0.467	0.022
35.859	0.800	5.973	0.157	0.010	0.387	0.417	0.021
35.859	0.800	5.292	0.146	0.006	0.359	0.387	0.023
35.859	0.800	4.610	0.148	0.008	0.372	0.400	0.020
35.859	0.800	3.929	0.132	0.016	0.352	0.376	0.023

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
36.995	0.800	13.924	0.401	-0.004	-0.014	0.401	0.015
36.995	0.800	13.242	0.385	-0.007	0.034	0.386	0.022
36.995	0.800	12.561	0.357	-0.008	0.109	0.373	0.031
36.995	0.800	11.879	0.321	-0.011	0.172	0.364	0.039
36.995	0.800	11.198	0.273	-0.006	0.304	0.409	0.038
36.995	0.800	10.516	0.243	-0.010	0.403	0.471	0.036
36.995	0.800	9.835	0.227	-0.003	0.416	0.474	0.033
36.995	0.800	9.153	0.209	-0.007	0.436	0.484	0.028
36.995	0.800	8.472	0.187	-0.007	0.478	0.513	0.024
36.995	0.800	7.790	0.175	0.002	0.465	0.497	0.025
36.995	0.800	7.109	0.178	0.003	0.437	0.472	0.026
36.995	0.800	6.427	0.156	0.007	0.402	0.432	0.023
36.995	0.800	5.746	0.142	0.010	0.390	0.415	0.024
36.995	0.800	5.065	0.149	0.014	0.381	0.409	0.024
36.995	0.800	4.383	0.136	0.011	0.373	0.397	0.023
36.995	0.800	3.702	0.135	0.022	0.340	0.367	0.025
38.130	0.800	14.378	0.387	0.000	-0.007	0.387	0.015
38.130	0.800	13.696	0.377	-0.005	0.028	0.378	0.018
38.130	0.800	13.015	0.355	-0.016	0.093	0.367	0.027
38.130	0.800	12.334	0.329	-0.005	0.168	0.369	0.038
38.130	0.800	11.652	0.284	-0.009	0.299	0.413	0.039
38.130	0.800	10.971	0.258	-0.005	0.340	0.427	0.038
38.130	0.800	10.289	0.212	0.002	0.461	0.508	0.035
38.130	0.800	9.608	0.210	-0.005	0.481	0.524	0.028
38.130	0.800	8.926	0.195	-0.008	0.462	0.501	0.028
38.130	0.800	8.245	0.179	0.003	0.459	0.493	0.026
38.130	0.800	7.563	0.164	0.006	0.464	0.492	0.025
38.130	0.800	6.882	0.159	0.013	0.400	0.430	0.027
38.130	0.800	6.200	0.151	0.010	0.411	0.438	0.028
38.130	0.800	5.519	0.135	0.004	0.366	0.390	0.025
38.130	0.800	4.837	0.137	0.013	0.364	0.390	0.025
38.130	0.800	4.156	0.131	0.010	0.334	0.359	0.024
39.266	0.800	14.151	0.376	-0.003	-0.002	0.376	0.016
39.266	0.800	13.469	0.358	-0.007	0.069	0.365	0.025
39.266	0.800	12.788	0.336	-0.003	0.152	0.368	0.037
39.266	0.800	12.106	0.284	-0.013	0.269	0.392	0.043
39.266	0.800	11.425	0.261	-0.004	0.365	0.449	0.038
39.266	0.800	10.743	0.218	-0.009	0.475	0.523	0.037
39.266	0.800	10.062	0.202	-0.003	0.463	0.505	0.031

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
39.266	0.800	9.381	0.189	-0.008	0.484	0.520	0.029
39.266	0.800	8.699	0.186	0.012	0.435	0.473	0.031
39.266	0.800	8.018	0.177	0.005	0.482	0.513	0.026
39.266	0.800	7.336	0.162	0.008	0.455	0.483	0.024
39.266	0.800	6.655	0.149	0.005	0.423	0.449	0.025
39.266	0.800	5.973	0.149	0.017	0.411	0.438	0.029
39.266	0.800	5.292	0.133	0.010	0.386	0.408	0.025
39.266	0.800	4.610	0.134	0.022	0.375	0.399	0.024
39.266	0.800	3.929	0.126	0.012	0.342	0.364	0.023
40.402	0.800	13.924	0.375	-0.003	0.019	0.375	0.019
40.402	0.800	13.242	0.362	-0.005	0.074	0.370	0.025
40.402	0.800	12.561	0.328	-0.010	0.139	0.357	0.036
40.402	0.800	11.879	0.292	-0.002	0.212	0.361	0.039
40.402	0.800	11.198	0.250	-0.005	0.357	0.436	0.044
40.402	0.800	10.516	0.224	-0.003	0.378	0.439	0.041
40.402	0.800	9.835	0.203	-0.004	0.458	0.501	0.032
40.402	0.800	9.153	0.189	-0.001	0.477	0.513	0.029
40.402	0.800	8.472	0.180	0.006	0.444	0.480	0.030
40.402	0.800	7.790	0.171	0.009	0.407	0.442	0.029
40.402	0.800	7.109	0.161	-0.005	0.428	0.458	0.028
40.402	0.800	6.427	0.154	0.017	0.401	0.430	0.028
40.402	0.800	5.746	0.141	0.013	0.374	0.400	0.028
40.402	0.800	5.065	0.131	0.016	0.362	0.386	0.028
40.402	0.800	4.383	0.132	0.014	0.339	0.364	0.027
40.402	0.800	3.702	0.125	0.024	0.322	0.347	0.028
41.538	0.800	14.378	0.387	0.001	-0.031	0.389	0.012
41.538	0.800	13.696	0.386	0.000	-0.006	0.386	0.016
41.538	0.800	13.015	0.370	-0.005	0.040	0.372	0.023
41.538	0.800	12.334	0.349	0.000	0.077	0.357	0.025
41.538	0.800	11.652	0.314	-0.007	0.160	0.352	0.035
41.538	0.800	10.971	0.270	-0.007	0.276	0.386	0.043
41.538	0.800	10.289	0.238	-0.006	0.300	0.383	0.044
41.538	0.800	9.608	0.216	-0.004	0.359	0.418	0.038
41.538	0.800	8.926	0.201	-0.013	0.375	0.426	0.037
41.538	0.800	8.245	0.170	-0.001	0.447	0.479	0.030
41.538	0.800	7.563	0.163	0.006	0.429	0.459	0.034
41.538	0.800	6.882	0.145	0.009	0.401	0.426	0.029
41.538	0.800	6.200	0.145	0.013	0.351	0.380	0.037
41.538	0.800	5.519	0.132	0.023	0.354	0.379	0.034

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
41.538	0.800	4.837	0.138	0.019	0.330	0.358	0.031
41.538	0.800	4.156	0.127	0.020	0.331	0.355	0.029
42.674	0.800	14.151	0.383	-0.006	-0.028	0.384	0.012
42.674	0.800	13.469	0.386	0.004	-0.019	0.387	0.014
42.674	0.800	12.788	0.375	-0.006	-0.011	0.376	0.018
42.674	0.800	12.106	0.369	0.001	0.026	0.370	0.020
42.674	0.800	11.425	0.335	-0.005	0.086	0.346	0.030
42.674	0.800	10.743	0.309	-0.009	0.129	0.335	0.037
42.674	0.800	10.062	0.268	-0.006	0.207	0.339	0.039
42.674	0.800	9.381	0.249	-0.010	0.273	0.369	0.038
42.674	0.800	8.699	0.207	0.008	0.344	0.401	0.041
42.674	0.800	8.018	0.187	0.008	0.341	0.389	0.041
42.674	0.800	7.336	0.176	0.001	0.372	0.411	0.033
42.674	0.800	6.655	0.163	0.002	0.335	0.373	0.038
42.674	0.800	5.973	0.144	0.015	0.355	0.383	0.036
42.674	0.800	5.292	0.140	0.027	0.323	0.353	0.031
42.674	0.800	4.610	0.120	0.029	0.346	0.368	0.036
42.674	0.800	3.929	0.133	0.022	0.271	0.303	0.030
43.809	0.800	13.924	0.399	0.001	-0.045	0.401	0.010
43.809	0.800	13.242	0.396	-0.006	-0.041	0.398	0.014
43.809	0.800	12.561	0.392	-0.003	-0.021	0.392	0.016
43.809	0.800	11.879	0.373	-0.003	-0.007	0.373	0.018
43.809	0.800	11.198	0.362	-0.003	0.011	0.362	0.021
43.809	0.800	10.516	0.334	-0.007	0.089	0.346	0.032
43.809	0.800	9.835	0.310	-0.008	0.097	0.325	0.032
43.809	0.800	9.153	0.258	0.001	0.185	0.318	0.039
43.809	0.800	8.472	0.233	-0.001	0.224	0.323	0.043
43.809	0.800	7.790	0.216	0.004	0.230	0.316	0.041
43.809	0.800	7.109	0.191	0.006	0.280	0.340	0.045
43.809	0.800	6.427	0.192	0.015	0.251	0.316	0.039
43.809	0.800	5.746	0.169	0.028	0.235	0.291	0.035
43.809	0.800	5.065	0.159	0.012	0.258	0.303	0.037
43.809	0.800	4.383	0.138	0.017	0.281	0.313	0.040
43.809	0.800	3.702	0.119	0.022	0.240	0.269	0.040
44.945	0.800	14.378	0.388	-0.004	-0.042	0.390	0.010
44.945	0.800	13.696	0.400	-0.003	-0.042	0.402	0.010
44.945	0.800	13.015	0.402	-0.008	-0.054	0.405	0.012
44.945	0.800	12.334	0.396	-0.002	-0.042	0.399	0.013
44.945	0.800	11.652	0.384	-0.007	-0.033	0.386	0.016

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.945	0.800	10.971	0.376	-0.007	-0.017	0.376	0.021
44.945	0.800	10.289	0.358	-0.006	0.000	0.358	0.023
44.945	0.800	9.608	0.336	-0.010	0.043	0.338	0.033
44.945	0.800	8.926	0.297	0.001	0.082	0.308	0.031
44.945	0.800	8.245	0.275	0.001	0.111	0.297	0.037
44.945	0.800	7.563	0.238	-0.005	0.175	0.295	0.040
44.945	0.800	6.882	0.226	0.023	0.196	0.300	0.040
44.945	0.800	6.200	0.197	0.021	0.201	0.283	0.040
44.945	0.800	5.519	0.182	0.016	0.206	0.276	0.043
44.945	0.800	4.837	0.166	0.009	0.172	0.239	0.043
44.945	0.800	4.156	0.167	0.026	0.171	0.240	0.046
46.316	0.800	14.378	0.371	-0.007	0.012	0.372	0.016
46.316	0.800	13.696	0.376	-0.003	-0.003	0.376	0.020
46.316	0.800	13.015	0.367	-0.010	0.040	0.369	0.023
46.316	0.800	12.334	0.353	-0.013	0.083	0.363	0.026
46.316	0.800	11.652	0.348	-0.013	0.109	0.365	0.028
46.316	0.800	10.971	0.340	-0.010	0.115	0.359	0.031
46.316	0.800	10.289	0.326	-0.010	0.132	0.352	0.036
46.316	0.800	9.608	0.306	-0.013	0.185	0.357	0.035
46.316	0.800	8.926	0.308	-0.008	0.168	0.350	0.040
46.316	0.800	8.245	0.288	-0.003	0.186	0.342	0.039
46.316	0.800	7.563	0.273	-0.004	0.176	0.325	0.042
46.316	0.800	6.882	0.266	0.007	0.151	0.306	0.043
46.316	0.800	6.200	0.258	0.004	0.142	0.294	0.042
46.316	0.800	5.519	0.244	0.002	0.154	0.289	0.044
46.316	0.800	4.837	0.224	0.017	0.176	0.285	0.043
46.316	0.800	4.156	0.211	0.019	0.161	0.266	0.045
47.451	0.800	14.151	0.375	-0.008	-0.013	0.375	0.015
47.451	0.800	13.469	0.381	-0.004	-0.015	0.381	0.015
47.451	0.800	12.788	0.371	-0.008	0.006	0.371	0.018
47.451	0.800	12.106	0.368	-0.013	0.006	0.369	0.020
47.451	0.800	11.425	0.368	-0.006	0.019	0.369	0.024
47.451	0.800	10.743	0.358	-0.008	0.026	0.359	0.024
47.451	0.800	10.062	0.349	-0.011	0.043	0.351	0.028
47.451	0.800	9.381	0.336	-0.007	0.042	0.339	0.030
47.451	0.800	8.699	0.321	-0.003	0.075	0.329	0.033
47.451	0.800	8.018	0.310	-0.007	0.063	0.317	0.035
47.451	0.800	7.336	0.292	0.003	0.082	0.303	0.040
47.451	0.800	6.655	0.277	0.000	0.085	0.289	0.039

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
47.451	0.800	5.973	0.262	0.008	0.114	0.286	0.042
47.451	0.800	5.292	0.239	0.011	0.129	0.272	0.044
47.451	0.800	4.610	0.222	0.011	0.164	0.277	0.045
47.451	0.800	3.929	0.199	0.020	0.189	0.275	0.044
48.587	0.800	13.924	0.378	-0.006	-0.030	0.380	0.014
48.587	0.800	13.242	0.377	-0.006	-0.017	0.378	0.016
48.587	0.800	12.561	0.379	-0.013	-0.006	0.380	0.016
48.587	0.800	11.879	0.373	-0.013	-0.004	0.373	0.019
48.587	0.800	11.198	0.370	-0.012	0.005	0.370	0.023
48.587	0.800	10.516	0.363	-0.009	0.008	0.363	0.023
48.587	0.800	9.835	0.348	-0.007	0.019	0.349	0.026
48.587	0.800	9.153	0.338	-0.004	0.039	0.341	0.031
48.587	0.800	8.472	0.321	-0.010	0.039	0.323	0.033
48.587	0.800	7.790	0.304	-0.005	0.054	0.309	0.035
48.587	0.800	7.109	0.278	0.000	0.090	0.292	0.034
48.587	0.800	6.427	0.252	0.002	0.094	0.269	0.038
48.587	0.800	5.746	0.250	0.005	0.104	0.271	0.045
48.587	0.800	5.065	0.226	0.010	0.128	0.260	0.042
48.587	0.800	4.383	0.197	0.016	0.176	0.265	0.045
48.587	0.800	3.702	0.190	0.031	0.193	0.272	0.045
49.723	0.800	14.378	0.371	-0.005	-0.036	0.372	0.012
49.723	0.800	13.696	0.379	-0.009	-0.049	0.382	0.012
49.723	0.800	13.015	0.383	-0.008	-0.037	0.384	0.013
49.723	0.800	12.334	0.382	-0.009	-0.052	0.385	0.015
49.723	0.800	11.652	0.373	-0.016	-0.028	0.375	0.017
49.723	0.800	10.971	0.367	-0.014	-0.011	0.367	0.021
49.723	0.800	10.289	0.349	-0.013	0.005	0.350	0.022
49.723	0.800	9.608	0.337	-0.013	0.016	0.337	0.025
49.723	0.800	8.926	0.329	-0.014	0.041	0.332	0.031
49.723	0.800	8.245	0.315	-0.004	0.024	0.316	0.030
49.723	0.800	7.563	0.297	-0.004	0.057	0.303	0.036
49.723	0.800	6.882	0.266	0.001	0.094	0.282	0.034
49.723	0.800	6.200	0.250	0.009	0.149	0.291	0.034
49.723	0.800	5.519	0.225	0.009	0.174	0.284	0.036
49.723	0.800	4.837	0.198	0.018	0.217	0.295	0.042
49.723	0.800	4.156	0.181	0.017	0.203	0.273	0.040
50.859	0.800	14.151	0.379	-0.004	-0.040	0.381	0.010
50.859	0.800	13.469	0.375	-0.011	-0.029	0.377	0.011
50.859	0.800	12.788	0.372	-0.006	-0.016	0.372	0.013

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
50.859	0.800	12.106	0.377	-0.009	-0.024	0.378	0.014
50.859	0.800	11.425	0.359	-0.012	0.006	0.359	0.017
50.859	0.800	10.743	0.352	-0.022	0.019	0.353	0.021
50.859	0.800	10.062	0.334	-0.014	0.052	0.339	0.024
50.859	0.800	9.381	0.305	-0.011	0.122	0.329	0.034
50.859	0.800	8.699	0.293	-0.012	0.121	0.318	0.033
50.859	0.800	8.018	0.263	-0.008	0.177	0.317	0.034
50.859	0.800	7.336	0.250	-0.005	0.191	0.315	0.033
50.859	0.800	6.655	0.226	0.003	0.185	0.292	0.036
50.859	0.800	5.973	0.209	0.011	0.233	0.314	0.041
50.859	0.800	5.292	0.199	0.010	0.224	0.300	0.039
50.859	0.800	4.610	0.172	0.023	0.258	0.311	0.037
50.859	0.800	3.929	0.166	0.031	0.225	0.282	0.035
51.995	0.800	13.924	0.377	-0.013	-0.051	0.381	0.011
51.995	0.800	13.242	0.378	-0.010	-0.045	0.381	0.011
51.995	0.800	12.561	0.378	-0.015	-0.041	0.380	0.012
51.995	0.800	11.879	0.382	-0.013	-0.040	0.384	0.015
51.995	0.800	11.198	0.374	-0.020	-0.042	0.377	0.018
51.995	0.800	10.516	0.348	-0.017	0.025	0.350	0.025
51.995	0.800	9.835	0.338	-0.024	0.028	0.340	0.026
51.995	0.800	9.153	0.308	-0.021	0.084	0.319	0.029
51.995	0.800	8.472	0.294	-0.008	0.109	0.313	0.035
51.995	0.800	7.790	0.258	-0.003	0.164	0.306	0.036
51.995	0.800	7.109	0.235	-0.006	0.190	0.302	0.034
51.995	0.800	6.427	0.215	0.003	0.210	0.301	0.039
51.995	0.800	5.746	0.201	-0.001	0.225	0.301	0.042
51.995	0.800	5.065	0.185	0.011	0.233	0.297	0.039
51.995	0.800	4.383	0.179	0.008	0.221	0.285	0.039
51.995	0.800	3.702	0.144	0.030	0.252	0.291	0.043
53.130	0.800	14.378	0.363	-0.014	-0.036	0.365	0.009
53.130	0.800	13.696	0.372	-0.012	-0.042	0.374	0.009
53.130	0.800	13.015	0.373	-0.022	-0.033	0.375	0.011
53.130	0.800	12.334	0.372	-0.019	-0.033	0.374	0.015
53.130	0.800	11.652	0.365	-0.018	-0.019	0.366	0.016
53.130	0.800	10.971	0.354	-0.019	0.004	0.354	0.020
53.130	0.800	10.289	0.335	-0.021	0.031	0.337	0.020
53.130	0.800	9.608	0.313	-0.018	0.068	0.321	0.029
53.130	0.800	8.926	0.281	-0.014	0.129	0.309	0.033
53.130	0.800	8.245	0.267	-0.018	0.153	0.308	0.035

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
53.130	0.800	7.563	0.249	-0.011	0.141	0.287	0.035
53.130	0.800	6.882	0.232	-0.004	0.189	0.299	0.038
53.130	0.800	6.200	0.228	-0.003	0.200	0.303	0.035
53.130	0.800	5.519	0.204	0.001	0.203	0.288	0.038
53.130	0.800	4.837	0.191	-0.001	0.252	0.316	0.038
53.130	0.800	4.156	0.162	0.013	0.254	0.301	0.043
54.266	0.800	14.151	0.359	-0.015	-0.031	0.360	0.009
54.266	0.800	13.469	0.368	-0.016	-0.035	0.370	0.011
54.266	0.800	12.788	0.367	-0.017	-0.025	0.368	0.013
54.266	0.800	12.106	0.361	-0.023	-0.032	0.363	0.015
54.266	0.800	11.425	0.352	-0.025	-0.004	0.353	0.019
54.266	0.800	10.743	0.339	-0.025	0.021	0.340	0.022
54.266	0.800	10.062	0.318	-0.024	0.050	0.323	0.025
54.266	0.800	9.381	0.302	-0.024	0.086	0.315	0.028
54.266	0.800	8.699	0.294	-0.022	0.085	0.307	0.031
54.266	0.800	8.018	0.265	-0.020	0.147	0.304	0.034
54.266	0.800	7.336	0.249	-0.012	0.160	0.296	0.033
54.266	0.800	6.655	0.233	-0.010	0.163	0.285	0.035
54.266	0.800	5.973	0.214	-0.005	0.213	0.302	0.040
54.266	0.800	5.292	0.215	-0.006	0.191	0.288	0.038
54.266	0.800	4.610	0.182	-0.004	0.230	0.293	0.039
54.266	0.800	3.929	0.158	0.010	0.235	0.283	0.038
55.402	0.800	13.924	0.363	-0.021	-0.023	0.364	0.009
55.402	0.800	13.242	0.363	-0.024	-0.031	0.365	0.012
55.402	0.800	12.561	0.362	-0.025	-0.005	0.363	0.013
55.402	0.800	11.879	0.363	-0.027	-0.009	0.364	0.015
55.402	0.800	11.198	0.349	-0.025	0.015	0.350	0.019
55.402	0.800	10.516	0.343	-0.022	0.018	0.344	0.019
55.402	0.800	9.835	0.321	-0.022	0.064	0.328	0.029
55.402	0.800	9.153	0.300	-0.026	0.082	0.312	0.027
55.402	0.800	8.472	0.276	-0.032	0.140	0.311	0.037
55.402	0.800	7.790	0.277	-0.025	0.114	0.300	0.035
55.402	0.800	7.109	0.246	-0.023	0.131	0.280	0.038
55.402	0.800	6.427	0.248	-0.030	0.143	0.288	0.034
55.402	0.800	5.746	0.217	-0.013	0.211	0.303	0.036
55.402	0.800	5.065	0.202	-0.016	0.212	0.293	0.037
55.402	0.800	4.383	0.197	-0.013	0.188	0.273	0.038
55.402	0.800	3.702	0.159	-0.003	0.220	0.271	0.038
56.538	0.800	14.378	0.358	-0.025	-0.025	0.359	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
56.538	0.800	13.696	0.366	-0.020	-0.017	0.367	0.009
56.538	0.800	13.015	0.379	-0.024	-0.017	0.380	0.009
56.538	0.800	12.334	0.372	-0.023	-0.013	0.373	0.012
56.538	0.800	11.652	0.368	-0.024	0.002	0.369	0.015
56.538	0.800	10.971	0.367	-0.024	-0.015	0.368	0.016
56.538	0.800	10.289	0.349	-0.028	0.014	0.351	0.018
56.538	0.800	9.608	0.338	-0.032	0.009	0.340	0.024
56.538	0.800	8.926	0.333	-0.030	0.027	0.336	0.024
56.538	0.800	8.245	0.312	-0.033	0.056	0.319	0.030
56.538	0.800	7.563	0.295	-0.033	0.054	0.302	0.032
56.538	0.800	6.882	0.272	-0.036	0.101	0.292	0.034
56.538	0.800	6.200	0.245	-0.025	0.155	0.291	0.039
56.538	0.800	5.519	0.224	-0.028	0.175	0.285	0.038
56.538	0.800	4.837	0.219	-0.027	0.193	0.293	0.040
56.538	0.800	4.156	0.187	-0.028	0.218	0.288	0.039

Table D.2 Stereo PIV data for semi-circular cavity with rough bed at low flow.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
11.312	0.800	14.481	0.267	0.009	0.015	0.268	0.0036
7.910	0.800	14.481	0.282	0.010	0.016	0.282	0.0030
4.508	0.800	14.481	0.294	0.010	0.020	0.295	0.0023
1.105	0.800	14.481	0.243	0.006	0.177	0.301	0.0111
11.312	0.800	14.254	0.268	0.011	0.014	0.269	0.0037
7.910	0.800	14.254	0.284	0.008	0.014	0.284	0.0029
4.508	0.800	14.254	0.297	0.012	0.018	0.297	0.0023
1.105	0.800	14.254	0.246	0.004	0.170	0.299	0.0104
11.312	0.800	14.028	0.269	0.009	0.012	0.270	0.0037
7.910	0.800	14.028	0.284	0.009	0.015	0.285	0.0029
4.508	0.800	14.028	0.296	0.011	0.019	0.297	0.0023
1.105	0.800	14.028	0.247	0.006	0.176	0.304	0.0111
11.312	0.800	13.801	0.268	0.008	0.014	0.268	0.0037
7.910	0.800	13.801	0.286	0.008	0.016	0.287	0.0028
4.508	0.800	13.801	0.300	0.009	0.019	0.300	0.0024
1.105	0.800	13.801	0.253	0.004	0.158	0.298	0.0104
11.312	0.800	13.574	0.272	0.006	0.015	0.272	0.0033
7.910	0.800	13.574	0.288	0.009	0.012	0.289	0.0030
4.508	0.800	13.574	0.300	0.008	0.017	0.300	0.0023
1.105	0.800	13.574	0.252	0.005	0.169	0.304	0.0101
11.312	0.800	13.347	0.272	0.007	0.015	0.273	0.0033
7.910	0.800	13.347	0.293	0.007	0.009	0.294	0.0028
4.508	0.800	13.347	0.301	0.007	0.016	0.302	0.0021
1.105	0.800	13.347	0.255	0.004	0.160	0.301	0.0103
11.312	0.800	13.120	0.276	0.006	0.011	0.276	0.0034
7.910	0.800	13.120	0.293	0.006	0.009	0.293	0.0027
4.508	0.800	13.120	0.303	0.007	0.015	0.303	0.0021
1.105	0.800	13.120	0.258	0.006	0.147	0.297	0.0095
11.312	0.800	12.894	0.275	0.006	0.007	0.275	0.0034
7.910	0.800	12.894	0.293	0.005	0.010	0.294	0.0026
4.508	0.800	12.894	0.305	0.006	0.014	0.305	0.0020
1.105	0.800	12.894	0.261	0.005	0.131	0.292	0.0089
11.312	0.800	12.667	0.277	0.006	0.007	0.277	0.0031
7.910	0.800	12.667	0.294	0.005	0.010	0.294	0.0026
4.508	0.800	12.667	0.304	0.006	0.014	0.304	0.0020
1.105	0.800	12.667	0.264	0.005	0.136	0.297	0.0092
11.312	0.800	12.440	0.280	0.006	0.008	0.280	0.0030
7.910	0.800	12.440	0.296	0.005	0.010	0.296	0.0025

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.508	0.800	12.440	0.304	0.005	0.014	0.304	0.0019
1.105	0.800	12.440	0.265	0.005	0.129	0.294	0.0088
11.312	0.800	12.213	0.282	0.003	0.007	0.282	0.0029
7.910	0.800	12.213	0.299	0.003	0.009	0.299	0.0024
4.508	0.800	12.213	0.305	0.004	0.012	0.306	0.0019
1.105	0.800	12.213	0.267	0.004	0.124	0.295	0.0081
11.312	0.800	11.986	0.281	0.004	0.007	0.281	0.0033
7.910	0.800	11.986	0.296	0.004	0.008	0.296	0.0026
4.508	0.800	11.986	0.305	0.003	0.011	0.305	0.0019
1.105	0.800	11.986	0.269	0.000	0.109	0.291	0.0076
11.312	0.800	11.760	0.283	0.002	0.007	0.283	0.0028
7.910	0.800	11.760	0.299	0.002	0.007	0.299	0.0025
4.508	0.800	11.760	0.303	0.002	0.010	0.303	0.0018
1.105	0.800	11.760	0.275	0.003	0.092	0.290	0.0066
11.312	0.800	11.533	0.285	0.002	0.009	0.285	0.0028
7.910	0.800	11.533	0.300	0.001	0.007	0.300	0.0022
4.508	0.800	11.533	0.305	0.002	0.010	0.305	0.0020
1.105	0.800	11.533	0.277	0.001	0.081	0.288	0.0058
11.312	0.800	11.306	0.285	0.001	0.008	0.285	0.0029
7.910	0.800	11.306	0.299	0.000	0.006	0.299	0.0023
4.508	0.800	11.306	0.303	0.000	0.012	0.303	0.0019
1.105	0.800	11.306	0.279	0.002	0.069	0.287	0.0048
11.312	0.800	11.079	0.284	0.000	0.002	0.284	0.0029
7.910	0.800	11.079	0.298	-0.001	0.006	0.298	0.0023
4.508	0.800	11.079	0.303	-0.001	0.008	0.303	0.0018
1.105	0.800	11.079	0.280	-0.001	0.066	0.288	0.0051
11.312	0.800	10.852	0.282	-0.002	0.001	0.282	0.0026
7.910	0.800	10.852	0.299	-0.001	0.005	0.299	0.0022
4.508	0.800	10.852	0.301	-0.001	0.010	0.302	0.0019
1.105	0.800	10.852	0.275	-0.001	0.075	0.285	0.0055
11.312	0.800	10.626	0.285	-0.002	0.000	0.285	0.0025
7.910	0.800	10.626	0.295	-0.002	0.006	0.295	0.0024
4.508	0.800	10.626	0.303	-0.001	0.009	0.303	0.0019
1.105	0.800	10.626	0.278	-0.001	0.069	0.287	0.0049
11.312	0.800	10.399	0.285	-0.005	0.001	0.285	0.0026
7.910	0.800	10.399	0.295	-0.003	0.004	0.295	0.0022
4.508	0.800	10.399	0.301	-0.002	0.008	0.301	0.0018
1.105	0.800	10.399	0.277	-0.002	0.065	0.284	0.0050
11.312	0.800	10.172	0.284	-0.005	0.006	0.284	0.0025

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
7.910	0.800	10.172	0.295	-0.006	0.001	0.295	0.0022
4.508	0.800	10.172	0.299	-0.003	0.009	0.300	0.0017
1.105	0.800	10.172	0.271	-0.003	0.075	0.281	0.0055
11.312	0.800	9.945	0.287	-0.007	0.003	0.287	0.0024
7.910	0.800	9.945	0.292	-0.005	0.002	0.292	0.0023
4.508	0.800	9.945	0.297	-0.003	0.010	0.297	0.0019
1.105	0.800	9.945	0.272	-0.003	0.067	0.280	0.0053
11.312	0.800	9.718	0.285	-0.006	0.001	0.285	0.0026
7.910	0.800	9.718	0.293	-0.005	0.004	0.293	0.0023
4.508	0.800	9.718	0.298	-0.004	0.008	0.298	0.0019
1.105	0.800	9.718	0.272	-0.002	0.061	0.279	0.0049
11.312	0.800	9.491	0.285	-0.006	0.001	0.285	0.0024
7.910	0.800	9.491	0.293	-0.005	0.002	0.293	0.0022
4.508	0.800	9.491	0.296	-0.005	0.008	0.297	0.0020
1.105	0.800	9.491	0.268	-0.002	0.069	0.277	0.0052
11.312	0.800	9.265	0.283	-0.008	0.000	0.283	0.0025
7.910	0.800	9.265	0.290	-0.006	0.000	0.290	0.0022
4.508	0.800	9.265	0.294	-0.003	0.007	0.294	0.0019
1.105	0.800	9.265	0.267	-0.002	0.065	0.275	0.0045
11.312	0.800	9.038	0.278	-0.008	-0.001	0.278	0.0027
7.910	0.800	9.038	0.287	-0.005	0.001	0.287	0.0023
4.508	0.800	9.038	0.292	-0.004	0.007	0.292	0.0019
1.105	0.800	9.038	0.266	-0.002	0.071	0.276	0.0052
11.312	0.800	8.811	0.278	-0.008	0.002	0.278	0.0026
7.910	0.800	8.811	0.285	-0.006	0.004	0.285	0.0023
4.508	0.800	8.811	0.292	-0.005	0.005	0.292	0.0020
1.105	0.800	8.811	0.262	-0.004	0.075	0.273	0.0052
11.312	0.800	8.584	0.277	-0.008	0.001	0.278	0.0026
7.910	0.800	8.584	0.285	-0.008	0.002	0.285	0.0022
4.508	0.800	8.584	0.290	-0.007	0.008	0.290	0.0019
1.105	0.800	8.584	0.257	-0.005	0.081	0.270	0.0054
11.312	0.800	8.357	0.274	-0.009	-0.001	0.275	0.0026
7.910	0.800	8.357	0.282	-0.009	0.004	0.282	0.0021
4.508	0.800	8.357	0.287	-0.007	0.007	0.288	0.0021
1.105	0.800	8.357	0.254	-0.003	0.085	0.268	0.0058
11.312	0.800	8.131	0.274	-0.010	0.002	0.275	0.0028
7.910	0.800	8.131	0.280	-0.009	0.003	0.280	0.0022
4.508	0.800	8.131	0.286	-0.008	0.006	0.286	0.0020
1.105	0.800	8.131	0.252	-0.006	0.079	0.264	0.0059

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
11.312	0.800	7.904	0.271	-0.009	0.001	0.272	0.0029
7.910	0.800	7.904	0.279	-0.008	-0.001	0.279	0.0022
4.508	0.800	7.904	0.283	-0.009	0.004	0.283	0.0020
1.105	0.800	7.904	0.247	-0.004	0.090	0.263	0.0064
11.312	0.800	7.677	0.269	-0.011	-0.002	0.269	0.0027
7.910	0.800	7.677	0.277	-0.010	-0.001	0.277	0.0023
4.508	0.800	7.677	0.280	-0.009	0.006	0.280	0.0020
1.105	0.800	7.677	0.226	-0.002	0.147	0.270	0.0110
11.312	0.800	7.450	0.265	-0.011	0.000	0.265	0.0027
7.910	0.800	7.450	0.273	-0.011	0.000	0.274	0.0024
4.508	0.800	7.450	0.276	-0.010	0.007	0.277	0.0022
1.105	0.800	7.450	0.223	-0.003	0.159	0.274	0.0118
11.312	0.800	7.223	0.262	-0.012	-0.002	0.263	0.0026
7.910	0.800	7.223	0.271	-0.012	-0.002	0.272	0.0024
4.508	0.800	7.223	0.274	-0.011	0.005	0.274	0.0020
1.105	0.800	7.223	0.236	-0.005	0.090	0.253	0.0059
11.312	0.800	6.997	0.260	-0.013	0.000	0.260	0.0026
7.910	0.800	6.997	0.267	-0.013	-0.002	0.267	0.0025
4.508	0.800	6.997	0.272	-0.012	0.007	0.272	0.0021
1.105	0.800	6.997	0.233	-0.005	0.098	0.253	0.0071
11.312	0.800	6.770	0.257	-0.014	-0.002	0.257	0.0026
7.910	0.800	6.770	0.263	-0.014	0.000	0.264	0.0022
4.508	0.800	6.770	0.269	-0.014	0.005	0.270	0.0021
1.105	0.800	6.770	0.231	-0.006	0.093	0.249	0.0064
11.312	0.800	6.543	0.255	-0.014	-0.001	0.256	0.0027
7.910	0.800	6.543	0.263	-0.015	-0.001	0.263	0.0024
4.508	0.800	6.543	0.268	-0.015	0.005	0.268	0.0022
1.105	0.800	6.543	0.221	-0.007	0.115	0.249	0.0081
11.312	0.800	6.316	0.252	-0.014	-0.001	0.252	0.0027
7.910	0.800	6.316	0.260	-0.016	-0.003	0.261	0.0023
4.508	0.800	6.316	0.265	-0.015	0.004	0.265	0.0021
1.105	0.800	6.316	0.218	-0.009	0.117	0.247	0.0089
11.312	0.800	6.089	0.249	-0.014	-0.001	0.250	0.0026
7.910	0.800	6.089	0.255	-0.017	-0.003	0.255	0.0024
4.508	0.800	6.089	0.260	-0.014	0.005	0.261	0.0021
1.105	0.800	6.089	0.224	-0.007	0.087	0.240	0.0065
11.312	0.800	5.863	0.244	-0.017	-0.001	0.245	0.0028
7.910	0.800	5.863	0.252	-0.017	0.000	0.252	0.0022
4.508	0.800	5.863	0.255	-0.017	0.005	0.255	0.0021

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
1.105	0.800	5.863	0.222	-0.008	0.088	0.239	0.0058
11.312	0.800	5.636	0.240	-0.018	0.000	0.241	0.0029
7.910	0.800	5.636	0.247	-0.018	0.001	0.247	0.0025
4.508	0.800	5.636	0.251	-0.016	0.006	0.251	0.0021
1.105	0.800	5.636	0.216	-0.008	0.090	0.234	0.0059
11.312	0.800	5.409	0.238	-0.019	-0.001	0.239	0.0029
7.910	0.800	5.409	0.243	-0.020	0.001	0.244	0.0026
4.508	0.800	5.409	0.245	-0.016	0.006	0.246	0.0020
1.105	0.800	5.409	0.216	-0.010	0.080	0.230	0.0059
11.312	0.800	5.182	0.232	-0.021	0.001	0.233	0.0030
7.910	0.800	5.182	0.238	-0.021	0.000	0.239	0.0026
4.508	0.800	5.182	0.240	-0.017	0.005	0.240	0.0022
1.105	0.800	5.182	0.214	-0.012	0.063	0.224	0.0047
11.312	0.800	4.955	0.230	-0.023	0.000	0.231	0.0031
7.910	0.800	4.955	0.231	-0.021	-0.002	0.232	0.0028
4.508	0.800	4.955	0.237	-0.018	0.003	0.237	0.0024
1.105	0.800	4.955	0.206	-0.013	0.072	0.219	0.0050
11.312	0.800	4.728	0.223	-0.023	0.002	0.224	0.0033
7.910	0.800	4.728	0.229	-0.023	-0.002	0.230	0.0027
4.508	0.800	4.728	0.232	-0.019	-0.001	0.233	0.0023
1.105	0.800	4.728	0.200	-0.014	0.080	0.216	0.0053
11.312	0.800	4.502	0.216	-0.022	-0.002	0.217	0.0029
7.910	0.800	4.502	0.222	-0.024	-0.001	0.223	0.0029
4.508	0.800	4.502	0.226	-0.021	0.002	0.227	0.0025
1.105	0.800	4.502	0.197	-0.016	0.071	0.210	0.0045
11.312	0.800	4.275	0.213	-0.026	0.000	0.214	0.0030
7.910	0.800	4.275	0.215	-0.024	0.002	0.217	0.0027
4.508	0.800	4.275	0.219	-0.021	0.001	0.220	0.0025
1.105	0.800	4.275	0.190	-0.016	0.068	0.202	0.0041
11.312	0.800	4.048	0.209	-0.025	0.001	0.210	0.0029
7.910	0.800	4.048	0.210	-0.025	-0.002	0.211	0.0027
4.508	0.800	4.048	0.210	-0.023	0.002	0.211	0.0027
1.105	0.800	4.048	0.181	-0.017	0.062	0.192	0.0042
11.312	0.800	3.821	0.205	-0.026	0.001	0.206	0.0030
7.910	0.800	3.821	0.201	-0.025	-0.003	0.203	0.0027
4.508	0.800	3.821	0.202	-0.024	0.001	0.203	0.0026
1.105	0.800	3.821	0.175	-0.019	0.056	0.185	0.0038
11.312	0.800	3.594	0.199	-0.024	-0.003	0.201	0.0029
7.910	0.800	3.594	0.191	-0.023	-0.002	0.192	0.0030

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.508	0.800	3.594	0.195	-0.025	0.003	0.196	0.0024
1.105	0.800	3.594	0.168	-0.019	0.052	0.177	0.0040
11.312	0.800	3.368	0.193	-0.023	-0.001	0.195	0.0027
7.910	0.800	3.368	0.184	-0.023	-0.001	0.185	0.0029
4.508	0.800	3.368	0.185	-0.025	0.003	0.187	0.0029
1.105	0.800	3.368	0.158	-0.019	0.053	0.168	0.0037
11.312	0.800	3.141	0.188	-0.024	0.000	0.189	0.0027
7.910	0.800	3.141	0.176	-0.023	-0.003	0.177	0.0031
4.508	0.800	3.141	0.175	-0.027	0.000	0.177	0.0029
1.105	0.800	3.141	0.146	-0.018	0.051	0.156	0.0038
11.312	0.800	2.914	0.182	-0.021	-0.001	0.184	0.0027
7.910	0.800	2.914	0.168	-0.022	0.003	0.170	0.0028
4.508	0.800	2.914	0.165	-0.028	0.004	0.167	0.0031
1.105	0.800	2.914	0.137	-0.020	0.047	0.147	0.0037
11.312	0.800	2.687	0.172	-0.017	0.002	0.173	0.0026
7.910	0.800	2.687	0.159	-0.021	0.001	0.161	0.0028
4.508	0.800	2.687	0.153	-0.028	0.004	0.156	0.0029
1.105	0.800	2.687	0.126	-0.019	0.044	0.135	0.0035
26.312	0.800	14.481	0.224	0.005	0.011	0.225	0.0036
22.910	0.800	14.481	0.229	0.008	0.016	0.230	0.0042
19.508	0.800	14.481	0.240	0.004	0.021	0.241	0.0048
16.105	0.800	14.481	0.248	0.004	0.027	0.250	0.0053
27.673	0.800	14.254	0.219	0.007	0.014	0.220	0.0036
24.271	0.800	14.254	0.229	0.005	0.011	0.230	0.0036
20.868	0.800	14.254	0.238	0.006	0.016	0.238	0.0048
17.466	0.800	14.254	0.248	0.005	0.021	0.249	0.0048
29.034	0.800	14.028	0.225	0.006	0.013	0.226	0.0038
25.631	0.800	14.028	0.229	0.004	0.013	0.229	0.0039
22.229	0.800	14.028	0.237	0.005	0.014	0.237	0.0042
18.827	0.800	14.028	0.248	0.007	0.017	0.249	0.0054
15.425	0.800	14.028	0.256	0.006	0.026	0.257	0.0049
26.992	0.800	13.801	0.228	0.003	0.009	0.229	0.0036
23.590	0.800	13.801	0.236	0.008	0.009	0.236	0.0040
20.188	0.800	13.801	0.243	0.003	0.014	0.244	0.0044
16.786	0.800	13.801	0.255	0.006	0.017	0.256	0.0050
28.353	0.800	13.574	0.228	0.006	0.018	0.229	0.0037
24.951	0.800	13.574	0.236	0.005	0.008	0.236	0.0036
21.549	0.800	13.574	0.241	0.006	0.009	0.242	0.0042
18.147	0.800	13.574	0.253	0.005	0.016	0.253	0.0047

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
14.745	0.800	13.574	0.263	0.005	0.019	0.264	0.0049
26.312	0.800	13.347	0.234	0.006	0.007	0.234	0.0037
22.910	0.800	13.347	0.243	0.005	0.005	0.243	0.0040
19.508	0.800	13.347	0.250	0.005	0.015	0.251	0.0047
16.105	0.800	13.347	0.263	0.005	0.015	0.264	0.0044
27.673	0.800	13.120	0.235	0.003	0.008	0.236	0.0035
24.271	0.800	13.120	0.240	0.003	0.007	0.240	0.0038
20.868	0.800	13.120	0.245	0.008	0.013	0.245	0.0044
17.466	0.800	13.120	0.262	0.005	0.016	0.263	0.0038
29.034	0.800	12.894	0.233	0.005	0.007	0.233	0.0037
25.631	0.800	12.894	0.242	0.004	0.004	0.242	0.0037
22.229	0.800	12.894	0.247	0.004	0.008	0.247	0.0039
18.827	0.800	12.894	0.256	0.005	0.006	0.256	0.0041
15.425	0.800	12.894	0.271	0.005	0.015	0.272	0.0040
26.992	0.800	12.667	0.237	0.004	0.007	0.237	0.0036
23.590	0.800	12.667	0.246	0.007	0.007	0.247	0.0037
20.188	0.800	12.667	0.255	0.004	0.016	0.255	0.0041
16.786	0.800	12.667	0.264	0.004	0.014	0.264	0.0043
28.353	0.800	12.440	0.239	0.003	0.005	0.239	0.0033
24.951	0.800	12.440	0.246	0.003	0.003	0.246	0.0034
21.549	0.800	12.440	0.249	0.004	0.004	0.249	0.0039
18.147	0.800	12.440	0.257	0.004	0.018	0.258	0.0044
14.745	0.800	12.440	0.277	0.004	0.015	0.277	0.0044
26.312	0.800	12.213	0.245	0.004	0.005	0.245	0.0034
22.910	0.800	12.213	0.253	0.004	0.005	0.254	0.0039
19.508	0.800	12.213	0.258	0.001	0.011	0.258	0.0041
16.105	0.800	12.213	0.272	0.002	0.014	0.272	0.0038
27.673	0.800	11.986	0.243	0.002	0.005	0.243	0.0033
24.271	0.800	11.986	0.250	0.004	0.004	0.251	0.0035
20.868	0.800	11.986	0.259	0.004	0.006	0.259	0.0039
17.466	0.800	11.986	0.266	0.001	0.014	0.267	0.0039
29.034	0.800	11.760	0.245	0.004	0.004	0.245	0.0033
25.631	0.800	11.760	0.246	0.005	0.002	0.246	0.0035
22.229	0.800	11.760	0.255	0.004	0.001	0.255	0.0036
18.827	0.800	11.760	0.262	0.004	0.009	0.262	0.0037
15.425	0.800	11.760	0.279	0.000	0.012	0.279	0.0038
26.992	0.800	11.533	0.246	0.004	0.001	0.246	0.0035
23.590	0.800	11.533	0.256	0.005	0.004	0.257	0.0035
20.188	0.800	11.533	0.264	0.004	0.008	0.264	0.0038

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
16.786	0.800	11.533	0.272	0.000	0.008	0.272	0.0036
28.353	0.800	11.306	0.248	0.004	0.004	0.248	0.0031
24.951	0.800	11.306	0.250	0.002	0.006	0.250	0.0036
21.549	0.800	11.306	0.257	0.002	0.003	0.257	0.0037
18.147	0.800	11.306	0.268	0.003	0.007	0.268	0.0039
14.745	0.800	11.306	0.280	0.001	0.012	0.280	0.0037
26.312	0.800	11.079	0.251	0.001	0.003	0.251	0.0033
22.910	0.800	11.079	0.255	0.004	0.004	0.255	0.0036
19.508	0.800	11.079	0.266	0.002	0.006	0.266	0.0035
16.105	0.800	11.079	0.279	0.000	0.010	0.279	0.0036
27.673	0.800	10.852	0.248	0.003	0.004	0.248	0.0032
24.271	0.800	10.852	0.253	0.000	0.004	0.253	0.0036
20.868	0.800	10.852	0.261	0.001	0.005	0.261	0.0035
17.466	0.800	10.852	0.269	0.001	0.009	0.269	0.0039
29.034	0.800	10.626	0.247	0.002	0.002	0.247	0.0034
25.631	0.800	10.626	0.250	0.000	0.002	0.250	0.0034
22.229	0.800	10.626	0.259	0.002	0.002	0.259	0.0033
18.827	0.800	10.626	0.269	0.000	0.003	0.269	0.0036
15.425	0.800	10.626	0.281	-0.002	0.012	0.281	0.0038
26.992	0.800	10.399	0.248	0.003	0.001	0.248	0.0034
23.590	0.800	10.399	0.258	0.004	0.005	0.258	0.0033
20.188	0.800	10.399	0.268	0.001	0.004	0.268	0.0035
16.786	0.800	10.399	0.272	-0.002	0.009	0.272	0.0035
28.353	0.800	10.172	0.250	0.001	0.004	0.250	0.0030
24.951	0.800	10.172	0.253	0.001	0.006	0.253	0.0034
21.549	0.800	10.172	0.262	0.003	0.003	0.262	0.0036
18.147	0.800	10.172	0.270	0.001	0.008	0.270	0.0037
14.745	0.800	10.172	0.282	-0.003	0.010	0.282	0.0034
26.312	0.800	9.945	0.251	0.000	0.002	0.251	0.0033
22.910	0.800	9.945	0.260	0.000	0.003	0.260	0.0033
19.508	0.800	9.945	0.267	0.001	0.004	0.267	0.0034
16.105	0.800	9.945	0.276	-0.001	0.008	0.276	0.0035
27.673	0.800	9.718	0.252	0.000	0.003	0.252	0.0032
24.271	0.800	9.718	0.254	-0.002	0.004	0.254	0.0032
20.868	0.800	9.718	0.268	0.001	-0.003	0.268	0.0032
17.466	0.800	9.718	0.275	-0.003	0.007	0.275	0.0034
29.034	0.800	9.491	0.253	0.001	-0.003	0.253	0.0031
25.631	0.800	9.491	0.256	-0.001	0.002	0.256	0.0031
22.229	0.800	9.491	0.263	0.002	0.002	0.263	0.0034

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
18.827	0.800	9.491	0.271	-0.001	0.005	0.271	0.0033
15.425	0.800	9.491	0.281	-0.005	0.004	0.281	0.0039
26.992	0.800	9.265	0.250	-0.001	0.005	0.250	0.0032
23.590	0.800	9.265	0.258	0.001	0.000	0.258	0.0036
20.188	0.800	9.265	0.267	-0.003	0.003	0.267	0.0033
16.786	0.800	9.265	0.276	-0.005	0.003	0.276	0.0033
28.353	0.800	9.038	0.253	0.000	-0.001	0.253	0.0030
24.951	0.800	9.038	0.252	-0.002	0.002	0.252	0.0033
21.549	0.800	9.038	0.262	-0.004	0.000	0.262	0.0035
18.147	0.800	9.038	0.274	-0.004	0.004	0.274	0.0036
14.745	0.800	9.038	0.284	-0.005	0.005	0.284	0.0034
26.312	0.800	8.811	0.255	-0.002	0.000	0.255	0.0034
22.910	0.800	8.811	0.259	-0.002	-0.001	0.259	0.0032
19.508	0.800	8.811	0.266	-0.004	0.002	0.266	0.0038
16.105	0.800	8.811	0.277	-0.009	0.006	0.278	0.0037
27.673	0.800	8.584	0.252	0.002	0.000	0.252	0.0034
24.271	0.800	8.584	0.253	-0.004	0.001	0.253	0.0033
20.868	0.800	8.584	0.265	-0.003	0.002	0.265	0.0035
17.466	0.800	8.584	0.273	-0.005	0.007	0.273	0.0036
29.034	0.800	8.357	0.252	0.001	-0.002	0.252	0.0033
25.631	0.800	8.357	0.254	-0.003	-0.004	0.254	0.0032
22.229	0.800	8.357	0.259	-0.005	0.000	0.259	0.0034
18.827	0.800	8.357	0.268	-0.007	0.003	0.269	0.0034
15.425	0.800	8.357	0.276	-0.009	0.006	0.276	0.0035
26.992	0.800	8.131	0.253	-0.003	0.001	0.253	0.0033
23.590	0.800	8.131	0.255	-0.002	0.002	0.255	0.0035
20.188	0.800	8.131	0.261	-0.010	-0.001	0.261	0.0033
16.786	0.800	8.131	0.269	-0.010	0.005	0.269	0.0033
28.353	0.800	7.904	0.251	-0.001	-0.003	0.251	0.0034
24.951	0.800	7.904	0.256	-0.005	-0.003	0.257	0.0032
21.549	0.800	7.904	0.260	-0.004	0.000	0.260	0.0036
18.147	0.800	7.904	0.267	-0.009	0.004	0.267	0.0037
14.745	0.800	7.904	0.276	-0.008	0.007	0.276	0.0034
26.312	0.800	7.677	0.250	-0.003	-0.001	0.250	0.0031
22.910	0.800	7.677	0.258	-0.004	0.001	0.259	0.0033
19.508	0.800	7.677	0.261	-0.007	0.004	0.261	0.0037
16.105	0.800	7.677	0.267	-0.008	0.003	0.267	0.0037
27.673	0.800	7.450	0.250	-0.002	-0.005	0.250	0.0032
24.271	0.800	7.450	0.254	-0.005	-0.002	0.254	0.0032

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
20.868	0.800	7.450	0.256	-0.008	0.000	0.256	0.0037
17.466	0.800	7.450	0.262	-0.009	0.004	0.262	0.0037
29.034	0.800	7.223	0.247	-0.002	-0.003	0.247	0.0033
25.631	0.800	7.223	0.249	-0.003	-0.001	0.249	0.0031
22.229	0.800	7.223	0.252	-0.007	0.003	0.252	0.0033
18.827	0.800	7.223	0.259	-0.009	0.000	0.259	0.0036
15.425	0.800	7.223	0.265	-0.012	0.007	0.265	0.0038
26.992	0.800	6.997	0.247	-0.004	-0.003	0.247	0.0033
23.590	0.800	6.997	0.252	-0.007	-0.001	0.252	0.0033
20.188	0.800	6.997	0.252	-0.010	0.002	0.252	0.0034
16.786	0.800	6.997	0.256	-0.012	0.004	0.257	0.0034
28.353	0.800	6.770	0.247	-0.004	-0.006	0.247	0.0031
24.951	0.800	6.770	0.250	-0.008	-0.004	0.250	0.0032
21.549	0.800	6.770	0.250	-0.008	-0.001	0.250	0.0035
18.147	0.800	6.770	0.252	-0.012	0.006	0.252	0.0039
14.745	0.800	6.770	0.258	-0.012	0.009	0.258	0.0035
26.312	0.800	6.543	0.249	-0.005	-0.001	0.249	0.0032
22.910	0.800	6.543	0.249	-0.010	-0.006	0.249	0.0032
19.508	0.800	6.543	0.250	-0.013	0.002	0.251	0.0035
16.105	0.800	6.543	0.253	-0.014	0.007	0.254	0.0038
27.673	0.800	6.316	0.244	-0.005	-0.008	0.245	0.0031
24.271	0.800	6.316	0.243	-0.008	-0.005	0.243	0.0034
20.868	0.800	6.316	0.244	-0.010	0.001	0.244	0.0035
17.466	0.800	6.316	0.245	-0.014	0.007	0.245	0.0035
29.034	0.800	6.089	0.242	-0.007	-0.006	0.242	0.0033
25.631	0.800	6.089	0.241	-0.007	-0.001	0.241	0.0032
22.229	0.800	6.089	0.241	-0.012	-0.004	0.241	0.0031
18.827	0.800	6.089	0.242	-0.014	0.006	0.243	0.0038
15.425	0.800	6.089	0.247	-0.013	0.011	0.247	0.0039
26.992	0.800	5.863	0.241	-0.007	-0.008	0.241	0.0032
23.590	0.800	5.863	0.237	-0.011	-0.004	0.237	0.0036
20.188	0.800	5.863	0.237	-0.012	-0.001	0.237	0.0034
16.786	0.800	5.863	0.241	-0.016	0.009	0.241	0.0038
28.353	0.800	5.636	0.240	-0.009	-0.009	0.240	0.0030
24.951	0.800	5.636	0.235	-0.011	-0.006	0.235	0.0031
21.549	0.800	5.636	0.236	-0.011	-0.002	0.236	0.0036
18.147	0.800	5.636	0.236	-0.015	0.004	0.236	0.0037
14.745	0.800	5.636	0.242	-0.018	0.005	0.243	0.0037
26.312	0.800	5.409	0.236	-0.009	-0.007	0.236	0.0031

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
22.910	0.800	5.409	0.235	-0.013	-0.006	0.235	0.0032
19.508	0.800	5.409	0.232	-0.016	0.000	0.233	0.0036
16.105	0.800	5.409	0.237	-0.016	0.003	0.238	0.0036
27.673	0.800	5.182	0.235	-0.008	-0.010	0.236	0.0029
24.271	0.800	5.182	0.230	-0.012	-0.002	0.230	0.0033
20.868	0.800	5.182	0.232	-0.015	-0.004	0.232	0.0034
17.466	0.800	5.182	0.232	-0.018	0.001	0.233	0.0040
29.034	0.800	4.955	0.234	-0.010	-0.013	0.235	0.0029
25.631	0.800	4.955	0.228	-0.011	-0.010	0.229	0.0031
22.229	0.800	4.955	0.227	-0.016	-0.006	0.227	0.0033
18.827	0.800	4.955	0.228	-0.018	-0.002	0.229	0.0035
15.425	0.800	4.955	0.229	-0.020	0.008	0.230	0.0034
26.992	0.800	4.728	0.232	-0.012	-0.012	0.232	0.0028
23.590	0.800	4.728	0.226	-0.015	-0.006	0.227	0.0032
20.188	0.800	4.728	0.219	-0.017	-0.005	0.220	0.0032
16.786	0.800	4.728	0.222	-0.017	0.001	0.223	0.0040
28.353	0.800	4.502	0.229	-0.011	-0.015	0.230	0.0030
24.951	0.800	4.502	0.225	-0.015	-0.010	0.226	0.0030
21.549	0.800	4.502	0.221	-0.016	-0.006	0.221	0.0031
18.147	0.800	4.502	0.219	-0.017	0.001	0.220	0.0033
14.745	0.800	4.502	0.220	-0.020	0.002	0.221	0.0036
26.312	0.800	4.275	0.223	-0.013	-0.015	0.224	0.0029
22.910	0.800	4.275	0.220	-0.015	-0.007	0.220	0.0029
19.508	0.800	4.275	0.212	-0.017	-0.003	0.213	0.0034
16.105	0.800	4.275	0.214	-0.020	-0.001	0.215	0.0035
27.673	0.800	4.048	0.224	-0.011	-0.015	0.225	0.0029
24.271	0.800	4.048	0.215	-0.016	-0.014	0.216	0.0029
20.868	0.800	4.048	0.208	-0.016	-0.008	0.209	0.0031
17.466	0.800	4.048	0.208	-0.019	0.003	0.209	0.0033
29.034	0.800	3.821	0.223	-0.010	-0.015	0.223	0.0029
25.631	0.800	3.821	0.217	-0.014	-0.016	0.218	0.0029
22.229	0.800	3.821	0.209	-0.017	-0.007	0.210	0.0030
18.827	0.800	3.821	0.205	-0.017	0.000	0.206	0.0033
15.425	0.800	3.821	0.205	-0.021	0.000	0.206	0.0036
26.992	0.800	3.594	0.214	-0.011	-0.017	0.215	0.0027
23.590	0.800	3.594	0.209	-0.014	-0.010	0.210	0.0028
20.188	0.800	3.594	0.204	-0.018	-0.005	0.205	0.0031
16.786	0.800	3.594	0.198	-0.020	-0.002	0.199	0.0035
28.353	0.800	3.368	0.217	-0.010	-0.021	0.218	0.0026

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
24.951	0.800	3.368	0.208	-0.016	-0.012	0.209	0.0028
21.549	0.800	3.368	0.197	-0.016	-0.006	0.198	0.0032
18.147	0.800	3.368	0.193	-0.019	0.001	0.194	0.0035
14.745	0.800	3.368	0.193	-0.022	0.001	0.194	0.0033
26.312	0.800	3.141	0.204	-0.011	-0.014	0.205	0.0030
22.910	0.800	3.141	0.198	-0.016	-0.011	0.199	0.0028
19.508	0.800	3.141	0.190	-0.016	0.004	0.191	0.0033
16.105	0.800	3.141	0.187	-0.020	0.006	0.189	0.0035
27.673	0.800	2.914	0.199	-0.010	-0.010	0.200	0.0030
24.271	0.800	2.914	0.195	-0.014	-0.011	0.196	0.0028
20.868	0.800	2.914	0.187	-0.013	0.000	0.187	0.0030
17.466	0.800	2.914	0.183	-0.017	0.003	0.184	0.0031
29.034	0.800	2.687	0.201	-0.007	-0.020	0.202	0.0030
25.631	0.800	2.687	0.194	-0.013	-0.018	0.195	0.0026
22.229	0.800	2.687	0.187	-0.013	-0.005	0.188	0.0028
18.827	0.800	2.687	0.173	-0.014	0.008	0.173	0.0033
15.425	0.800	2.687	0.174	-0.017	0.008	0.175	0.0033
41.992	0.800	14.481	0.219	0.005	0.001	0.220	0.0037
38.590	0.800	14.481	0.219	0.005	0.006	0.219	0.0037
35.188	0.800	14.481	0.224	0.009	0.010	0.224	0.0043
31.786	0.800	14.481	0.226	0.004	0.016	0.226	0.0045
43.353	0.800	14.254	0.211	0.004	0.005	0.211	0.0033
39.951	0.800	14.254	0.216	0.005	0.005	0.216	0.0037
36.549	0.800	14.254	0.221	0.005	0.007	0.221	0.0039
33.147	0.800	14.254	0.229	0.006	0.017	0.230	0.0053
29.745	0.800	14.254	0.228	0.001	0.028	0.230	0.0059
41.312	0.800	14.028	0.215	0.008	0.003	0.216	0.0035
37.910	0.800	14.028	0.220	0.006	0.005	0.220	0.0039
34.508	0.800	14.028	0.225	0.007	0.009	0.225	0.0041
31.105	0.800	14.028	0.232	0.003	0.014	0.232	0.0046
42.673	0.800	13.801	0.219	0.004	0.001	0.219	0.0034
39.271	0.800	13.801	0.226	0.008	0.000	0.226	0.0036
35.868	0.800	13.801	0.225	0.005	0.003	0.225	0.0038
32.466	0.800	13.801	0.230	0.005	0.011	0.230	0.0043
44.034	0.800	13.574	0.217	0.004	0.003	0.217	0.0031
40.631	0.800	13.574	0.220	0.006	-0.003	0.220	0.0035
37.229	0.800	13.574	0.224	0.006	0.002	0.224	0.0038
33.827	0.800	13.574	0.232	0.004	0.007	0.232	0.0046
30.425	0.800	13.574	0.231	0.005	0.017	0.232	0.0049

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
41.992	0.800	13.347	0.221	0.004	0.003	0.221	0.0033
38.590	0.800	13.347	0.225	0.007	0.000	0.225	0.0035
35.188	0.800	13.347	0.230	0.006	0.008	0.230	0.0040
31.786	0.800	13.347	0.237	0.005	0.004	0.237	0.0044
43.353	0.800	13.120	0.222	0.003	-0.004	0.222	0.0033
39.951	0.800	13.120	0.226	0.005	0.000	0.226	0.0033
36.549	0.800	13.120	0.224	0.005	0.004	0.224	0.0037
33.147	0.800	13.120	0.234	0.004	0.009	0.234	0.0046
29.745	0.800	13.120	0.241	0.004	0.014	0.242	0.0053
41.312	0.800	12.894	0.227	0.006	-0.006	0.227	0.0034
37.910	0.800	12.894	0.230	0.005	0.000	0.230	0.0034
34.508	0.800	12.894	0.240	0.006	0.003	0.240	0.0038
31.105	0.800	12.894	0.243	0.005	0.011	0.243	0.0046
42.673	0.800	12.667	0.226	0.003	-0.004	0.227	0.0032
39.271	0.800	12.667	0.229	0.005	-0.002	0.229	0.0035
35.868	0.800	12.667	0.235	0.004	0.003	0.235	0.0038
32.466	0.800	12.667	0.240	0.005	0.000	0.240	0.0036
44.034	0.800	12.440	0.228	0.004	-0.005	0.228	0.0030
40.631	0.800	12.440	0.228	0.005	-0.007	0.228	0.0032
37.229	0.800	12.440	0.232	0.002	-0.001	0.232	0.0033
33.827	0.800	12.440	0.242	0.004	0.004	0.242	0.0037
30.425	0.800	12.440	0.244	0.004	0.004	0.244	0.0043
41.992	0.800	12.213	0.231	0.001	-0.006	0.231	0.0030
38.590	0.800	12.213	0.232	0.005	0.002	0.232	0.0031
35.188	0.800	12.213	0.241	0.004	0.005	0.241	0.0039
31.786	0.800	12.213	0.245	0.006	0.002	0.245	0.0042
43.353	0.800	11.986	0.233	0.004	-0.004	0.233	0.0031
39.951	0.800	11.986	0.232	0.003	-0.004	0.232	0.0032
36.549	0.800	11.986	0.242	0.005	-0.002	0.242	0.0034
33.147	0.800	11.986	0.245	0.003	0.002	0.245	0.0038
29.745	0.800	11.986	0.248	0.004	0.011	0.249	0.0049
41.312	0.800	11.760	0.233	0.004	-0.005	0.234	0.0031
37.910	0.800	11.760	0.241	0.003	-0.002	0.241	0.0035
34.508	0.800	11.760	0.247	0.004	0.001	0.247	0.0036
31.105	0.800	11.760	0.251	0.001	-0.001	0.251	0.0041
42.673	0.800	11.533	0.234	0.003	-0.009	0.235	0.0031
39.271	0.800	11.533	0.239	0.002	-0.003	0.239	0.0033
35.868	0.800	11.533	0.245	0.003	-0.003	0.245	0.0033
32.466	0.800	11.533	0.248	0.004	-0.001	0.248	0.0039

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.034	0.800	11.306	0.234	0.002	-0.006	0.234	0.0030
40.631	0.800	11.306	0.238	0.002	-0.009	0.239	0.0028
37.229	0.800	11.306	0.245	0.004	-0.004	0.245	0.0033
33.827	0.800	11.306	0.250	0.002	-0.003	0.250	0.0035
30.425	0.800	11.306	0.257	0.001	0.000	0.257	0.0038
41.992	0.800	11.079	0.238	0.002	-0.007	0.238	0.0028
38.590	0.800	11.079	0.241	0.003	-0.002	0.241	0.0033
35.188	0.800	11.079	0.247	0.002	0.001	0.247	0.0033
31.786	0.800	11.079	0.253	0.004	0.005	0.253	0.0038
43.353	0.800	10.852	0.237	0.000	-0.009	0.238	0.0029
39.951	0.800	10.852	0.246	0.002	-0.005	0.246	0.0032
36.549	0.800	10.852	0.249	0.002	-0.001	0.249	0.0030
33.147	0.800	10.852	0.253	0.001	0.000	0.253	0.0037
29.745	0.800	10.852	0.258	0.003	0.005	0.258	0.0038
41.312	0.800	10.626	0.243	0.003	-0.008	0.244	0.0030
37.910	0.800	10.626	0.249	0.001	-0.006	0.249	0.0031
34.508	0.800	10.626	0.251	0.001	-0.007	0.251	0.0034
31.105	0.800	10.626	0.256	0.001	-0.003	0.256	0.0035
42.673	0.800	10.399	0.244	0.000	-0.006	0.244	0.0033
39.271	0.800	10.399	0.244	0.004	-0.002	0.244	0.0031
35.868	0.800	10.399	0.251	0.000	-0.006	0.251	0.0033
32.466	0.800	10.399	0.255	0.002	-0.001	0.255	0.0037
44.034	0.800	10.172	0.242	0.001	-0.012	0.242	0.0029
40.631	0.800	10.172	0.248	0.001	-0.010	0.248	0.0030
37.229	0.800	10.172	0.252	0.001	-0.007	0.252	0.0032
33.827	0.800	10.172	0.252	-0.002	-0.006	0.252	0.0035
30.425	0.800	10.172	0.259	0.001	0.002	0.259	0.0037
41.992	0.800	9.945	0.243	-0.001	-0.009	0.244	0.0029
38.590	0.800	9.945	0.251	0.001	-0.008	0.251	0.0032
35.188	0.800	9.945	0.251	-0.001	-0.007	0.251	0.0032
31.786	0.800	9.945	0.258	0.003	-0.001	0.258	0.0035
43.353	0.800	9.718	0.248	-0.001	-0.010	0.248	0.0029
39.951	0.800	9.718	0.249	0.001	-0.008	0.249	0.0032
36.549	0.800	9.718	0.255	-0.001	-0.007	0.255	0.0031
33.147	0.800	9.718	0.254	-0.001	-0.001	0.254	0.0035
29.745	0.800	9.718	0.261	-0.001	0.003	0.261	0.0039
41.312	0.800	9.491	0.248	-0.002	-0.010	0.248	0.0028
37.910	0.800	9.491	0.253	-0.001	-0.009	0.253	0.0033
34.508	0.800	9.491	0.256	-0.001	-0.008	0.256	0.0032

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
31.105	0.800	9.491	0.256	0.001	-0.001	0.256	0.0032
42.673	0.800	9.265	0.250	0.000	-0.011	0.250	0.0029
39.271	0.800	9.265	0.252	-0.001	-0.013	0.253	0.0030
35.868	0.800	9.265	0.253	-0.002	-0.011	0.253	0.0031
32.466	0.800	9.265	0.258	-0.002	-0.003	0.258	0.0036
44.034	0.800	9.038	0.250	0.000	-0.015	0.251	0.0029
40.631	0.800	9.038	0.252	-0.002	-0.016	0.253	0.0031
37.229	0.800	9.038	0.254	0.002	-0.007	0.254	0.0032
33.827	0.800	9.038	0.258	0.001	-0.006	0.258	0.0033
30.425	0.800	9.038	0.262	-0.001	0.001	0.262	0.0036
41.992	0.800	8.811	0.251	-0.002	-0.012	0.252	0.0028
38.590	0.800	8.811	0.253	0.000	-0.014	0.253	0.0032
35.188	0.800	8.811	0.255	0.001	-0.006	0.255	0.0031
31.786	0.800	8.811	0.253	-0.001	0.000	0.253	0.0036
43.353	0.800	8.584	0.250	-0.003	-0.015	0.251	0.0028
39.951	0.800	8.584	0.252	-0.001	-0.010	0.252	0.0030
36.549	0.800	8.584	0.254	-0.003	-0.009	0.254	0.0032
33.147	0.800	8.584	0.258	-0.004	-0.003	0.258	0.0037
29.745	0.800	8.584	0.255	0.000	0.001	0.255	0.0038
41.312	0.800	8.357	0.252	-0.003	-0.019	0.253	0.0030
37.910	0.800	8.357	0.253	0.000	-0.011	0.254	0.0032
34.508	0.800	8.357	0.259	-0.003	-0.009	0.259	0.0036
31.105	0.800	8.357	0.253	0.001	0.000	0.253	0.0036
42.673	0.800	8.131	0.251	-0.001	-0.016	0.252	0.0029
39.271	0.800	8.131	0.252	-0.003	-0.013	0.252	0.0030
35.868	0.800	8.131	0.253	-0.003	-0.011	0.253	0.0034
32.466	0.800	8.131	0.255	-0.002	-0.006	0.255	0.0034
44.034	0.800	7.904	0.249	0.001	-0.019	0.250	0.0031
40.631	0.800	7.904	0.254	-0.003	-0.018	0.255	0.0032
37.229	0.800	7.904	0.253	-0.004	-0.010	0.254	0.0034
33.827	0.800	7.904	0.256	-0.002	-0.003	0.256	0.0033
30.425	0.800	7.904	0.253	-0.004	0.001	0.253	0.0037
41.992	0.800	7.677	0.253	-0.002	-0.017	0.254	0.0029
38.590	0.800	7.677	0.251	-0.002	-0.011	0.251	0.0033
35.188	0.800	7.677	0.256	-0.004	-0.011	0.256	0.0036
31.786	0.800	7.677	0.255	-0.005	-0.004	0.255	0.0036
43.353	0.800	7.450	0.251	0.000	-0.021	0.252	0.0028
39.951	0.800	7.450	0.249	-0.003	-0.021	0.250	0.0033
36.549	0.800	7.450	0.253	-0.006	-0.016	0.254	0.0031

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
33.147	0.800	7.450	0.255	-0.002	-0.006	0.255	0.0035
29.745	0.800	7.450	0.255	-0.004	0.001	0.255	0.0039
41.312	0.800	7.223	0.252	-0.004	-0.017	0.252	0.0032
37.910	0.800	7.223	0.252	-0.003	-0.015	0.252	0.0030
34.508	0.800	7.223	0.255	-0.005	-0.009	0.255	0.0035
31.105	0.800	7.223	0.255	-0.004	-0.001	0.255	0.0036
42.673	0.800	6.997	0.250	-0.002	-0.021	0.250	0.0030
39.271	0.800	6.997	0.252	-0.003	-0.017	0.253	0.0033
35.868	0.800	6.997	0.252	-0.004	-0.010	0.252	0.0035
32.466	0.800	6.997	0.254	-0.004	-0.008	0.254	0.0036
44.034	0.800	6.770	0.253	0.000	-0.025	0.254	0.0031
40.631	0.800	6.770	0.250	-0.004	-0.018	0.251	0.0030
37.229	0.800	6.770	0.248	-0.006	-0.013	0.248	0.0032
33.827	0.800	6.770	0.253	-0.006	-0.012	0.253	0.0034
30.425	0.800	6.770	0.254	-0.005	-0.002	0.254	0.0039
41.992	0.800	6.543	0.253	-0.002	-0.027	0.255	0.0029
38.590	0.800	6.543	0.248	-0.005	-0.018	0.249	0.0033
35.188	0.800	6.543	0.252	-0.007	-0.013	0.252	0.0033
31.786	0.800	6.543	0.252	-0.007	-0.007	0.252	0.0036
43.353	0.800	6.316	0.248	-0.002	-0.024	0.249	0.0030
39.951	0.800	6.316	0.249	-0.006	-0.021	0.250	0.0027
36.549	0.800	6.316	0.250	-0.008	-0.016	0.250	0.0033
33.147	0.800	6.316	0.248	-0.003	-0.007	0.248	0.0034
29.745	0.800	6.316	0.251	-0.007	-0.005	0.251	0.0038
41.312	0.800	6.089	0.248	-0.003	-0.024	0.249	0.0029
37.910	0.800	6.089	0.245	-0.008	-0.019	0.246	0.0032
34.508	0.800	6.089	0.251	-0.007	-0.013	0.251	0.0033
31.105	0.800	6.089	0.250	-0.007	-0.010	0.250	0.0035
42.673	0.800	5.863	0.243	-0.002	-0.027	0.244	0.0031
39.271	0.800	5.863	0.244	-0.008	-0.022	0.245	0.0033
35.868	0.800	5.863	0.245	-0.007	-0.018	0.246	0.0033
32.466	0.800	5.863	0.244	-0.006	-0.007	0.244	0.0036
44.034	0.800	5.636	0.241	0.000	-0.032	0.243	0.0029
40.631	0.800	5.636	0.241	-0.003	-0.026	0.243	0.0033
37.229	0.800	5.636	0.245	-0.008	-0.019	0.246	0.0031
33.827	0.800	5.636	0.247	-0.008	-0.010	0.247	0.0036
30.425	0.800	5.636	0.245	-0.007	-0.008	0.245	0.0035
41.992	0.800	5.409	0.240	-0.002	-0.029	0.242	0.0031
38.590	0.800	5.409	0.242	-0.008	-0.020	0.243	0.0029

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
35.188	0.800	5.409	0.242	-0.008	-0.020	0.243	0.0034
31.786	0.800	5.409	0.245	-0.010	-0.009	0.245	0.0035
43.353	0.800	5.182	0.236	-0.002	-0.029	0.238	0.0030
39.951	0.800	5.182	0.238	-0.005	-0.026	0.240	0.0029
36.549	0.800	5.182	0.239	-0.007	-0.021	0.240	0.0033
33.147	0.800	5.182	0.240	-0.006	-0.016	0.241	0.0034
29.745	0.800	5.182	0.240	-0.009	-0.009	0.241	0.0037
41.312	0.800	4.955	0.235	-0.003	-0.028	0.237	0.0029
37.910	0.800	4.955	0.241	-0.008	-0.025	0.242	0.0028
34.508	0.800	4.955	0.242	-0.008	-0.019	0.243	0.0031
31.105	0.800	4.955	0.239	-0.008	-0.009	0.239	0.0037
42.673	0.800	4.728	0.229	0.000	-0.032	0.231	0.0028
39.271	0.800	4.728	0.234	-0.007	-0.028	0.235	0.0030
35.868	0.800	4.728	0.237	-0.009	-0.025	0.238	0.0033
32.466	0.800	4.728	0.235	-0.009	-0.015	0.236	0.0031
44.034	0.800	4.502	0.226	-0.001	-0.038	0.229	0.0029
40.631	0.800	4.502	0.232	-0.005	-0.029	0.234	0.0028
37.229	0.800	4.502	0.234	-0.011	-0.024	0.235	0.0031
33.827	0.800	4.502	0.234	-0.011	-0.024	0.236	0.0030
30.425	0.800	4.502	0.233	-0.011	-0.014	0.234	0.0036
41.992	0.800	4.275	0.226	-0.005	-0.033	0.228	0.0029
38.590	0.800	4.275	0.229	-0.008	-0.027	0.231	0.0030
35.188	0.800	4.275	0.233	-0.011	-0.024	0.235	0.0031
31.786	0.800	4.275	0.231	-0.009	-0.018	0.232	0.0033
43.353	0.800	4.048	0.218	-0.002	-0.034	0.221	0.0027
39.951	0.800	4.048	0.228	-0.005	-0.032	0.230	0.0028
36.549	0.800	4.048	0.232	-0.013	-0.027	0.234	0.0030
33.147	0.800	4.048	0.228	-0.011	-0.022	0.230	0.0031
29.745	0.800	4.048	0.228	-0.012	-0.011	0.228	0.0034
41.312	0.800	3.821	0.221	-0.004	-0.036	0.224	0.0028
37.910	0.800	3.821	0.228	-0.010	-0.028	0.230	0.0027
34.508	0.800	3.821	0.229	-0.012	-0.025	0.231	0.0030
31.105	0.800	3.821	0.226	-0.012	-0.017	0.227	0.0030
42.673	0.800	3.594	0.214	-0.003	-0.035	0.217	0.0029
39.271	0.800	3.594	0.218	-0.007	-0.032	0.221	0.0026
35.868	0.800	3.594	0.226	-0.010	-0.027	0.228	0.0028
32.466	0.800	3.594	0.224	-0.011	-0.023	0.226	0.0030
44.034	0.800	3.368	0.209	-0.002	-0.036	0.212	0.0028
40.631	0.800	3.368	0.212	-0.005	-0.034	0.214	0.0027

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
37.229	0.800	3.368	0.221	-0.011	-0.027	0.222	0.0028
33.827	0.800	3.368	0.223	-0.011	-0.024	0.225	0.0029
30.425	0.800	3.368	0.221	-0.010	-0.018	0.222	0.0033
41.992	0.800	3.141	0.206	-0.004	-0.033	0.209	0.0027
38.590	0.800	3.141	0.216	-0.009	-0.029	0.218	0.0027
35.188	0.800	3.141	0.217	-0.011	-0.027	0.219	0.0028
31.786	0.800	3.141	0.218	-0.007	-0.021	0.219	0.0031
43.353	0.800	2.914	0.199	0.000	-0.035	0.202	0.0028
39.951	0.800	2.914	0.209	-0.007	-0.032	0.212	0.0026
36.549	0.800	2.914	0.217	-0.010	-0.030	0.219	0.0026
33.147	0.800	2.914	0.214	-0.008	-0.021	0.216	0.0029
29.745	0.800	2.914	0.212	-0.010	-0.017	0.213	0.0035
41.312	0.800	2.687	0.200	-0.004	-0.034	0.202	0.0025
37.910	0.800	2.687	0.209	-0.010	-0.025	0.211	0.0024
34.508	0.800	2.687	0.212	-0.010	-0.021	0.213	0.0029
31.105	0.800	2.687	0.209	-0.009	-0.022	0.211	0.0030
55.178	0.800	14.481	0.197	-0.009	0.016	0.198	0.0037
51.776	0.800	14.481	0.195	-0.005	0.008	0.195	0.0034
48.373	0.800	14.481	0.207	0.003	0.008	0.207	0.0042
44.971	0.800	14.481	0.214	0.003	0.014	0.214	0.0055
54.044	0.800	14.254	0.197	-0.009	0.014	0.198	0.0035
50.642	0.800	14.254	0.199	-0.003	0.006	0.199	0.0038
47.239	0.800	14.254	0.211	0.003	0.007	0.211	0.0042
56.312	0.800	14.028	0.212	-0.002	0.026	0.213	0.0034
52.910	0.800	14.028	0.201	-0.007	0.007	0.201	0.0034
49.508	0.800	14.028	0.206	-0.002	0.002	0.206	0.0038
46.105	0.800	14.028	0.218	0.001	0.005	0.218	0.0045
55.178	0.800	13.801	0.207	-0.005	0.018	0.208	0.0034
51.776	0.800	13.801	0.201	-0.006	0.006	0.201	0.0036
48.373	0.800	13.801	0.211	0.001	0.002	0.211	0.0040
44.971	0.800	13.801	0.222	0.004	0.007	0.223	0.0051
54.044	0.800	13.574	0.206	-0.008	0.006	0.206	0.0035
50.642	0.800	13.574	0.206	-0.003	0.004	0.206	0.0036
47.239	0.800	13.574	0.217	0.002	0.002	0.217	0.0038
56.312	0.800	13.347	0.222	0.002	0.023	0.223	0.0037
52.910	0.800	13.347	0.205	-0.006	0.004	0.205	0.0033
49.508	0.800	13.347	0.212	0.001	-0.003	0.212	0.0036
46.105	0.800	13.347	0.223	0.000	0.004	0.223	0.0044
55.178	0.800	13.120	0.216	-0.004	0.014	0.216	0.0032

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
51.776	0.800	13.120	0.213	-0.003	-0.002	0.213	0.0035
48.373	0.800	13.120	0.219	0.003	0.001	0.219	0.0036
44.971	0.800	13.120	0.229	0.006	0.003	0.229	0.0047
54.044	0.800	12.894	0.216	-0.002	0.005	0.216	0.0032
50.642	0.800	12.894	0.217	-0.002	-0.002	0.217	0.0035
47.239	0.800	12.894	0.225	0.001	0.001	0.225	0.0040
56.312	0.800	12.667	0.226	0.003	0.015	0.226	0.0030
52.910	0.800	12.667	0.215	-0.003	0.003	0.216	0.0034
49.508	0.800	12.667	0.221	0.001	-0.004	0.221	0.0035
46.105	0.800	12.667	0.228	0.003	-0.001	0.228	0.0041
55.178	0.800	12.440	0.219	0.001	0.009	0.219	0.0030
51.776	0.800	12.440	0.222	-0.003	0.000	0.222	0.0033
48.373	0.800	12.440	0.228	0.001	-0.002	0.228	0.0035
44.971	0.800	12.440	0.235	0.002	0.000	0.235	0.0045
54.044	0.800	12.213	0.222	0.000	-0.001	0.222	0.0030
50.642	0.800	12.213	0.224	-0.002	-0.004	0.224	0.0033
47.239	0.800	12.213	0.232	-0.001	-0.003	0.232	0.0042
56.312	0.800	11.986	0.232	0.005	0.018	0.233	0.0030
52.910	0.800	11.986	0.223	-0.001	-0.002	0.223	0.0030
49.508	0.800	11.986	0.231	0.002	-0.003	0.231	0.0035
46.105	0.800	11.986	0.238	0.003	-0.004	0.238	0.0041
55.178	0.800	11.760	0.228	0.001	0.009	0.228	0.0030
51.776	0.800	11.760	0.229	-0.001	-0.004	0.229	0.0029
48.373	0.800	11.760	0.235	-0.001	-0.009	0.236	0.0034
44.971	0.800	11.760	0.242	0.004	-0.002	0.242	0.0041
54.044	0.800	11.533	0.227	-0.001	0.000	0.227	0.0028
50.642	0.800	11.533	0.232	0.001	-0.006	0.232	0.0032
47.239	0.800	11.533	0.237	0.001	-0.006	0.237	0.0037
56.312	0.800	11.306	0.237	0.004	0.017	0.238	0.0029
52.910	0.800	11.306	0.232	-0.001	-0.006	0.232	0.0031
49.508	0.800	11.306	0.237	0.001	-0.010	0.237	0.0031
46.105	0.800	11.306	0.240	0.001	-0.004	0.240	0.0041
55.178	0.800	11.079	0.236	0.000	0.005	0.236	0.0028
51.776	0.800	11.079	0.235	-0.002	-0.007	0.235	0.0031
48.373	0.800	11.079	0.240	0.002	-0.010	0.240	0.0033
44.971	0.800	11.079	0.246	0.003	-0.007	0.246	0.0041
54.044	0.800	10.852	0.237	0.002	-0.005	0.237	0.0027
50.642	0.800	10.852	0.240	0.002	-0.011	0.240	0.0030
47.239	0.800	10.852	0.239	0.003	-0.006	0.239	0.0037

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
56.312	0.800	10.626	0.240	0.003	0.013	0.240	0.0026
52.910	0.800	10.626	0.240	0.000	-0.010	0.240	0.0029
49.508	0.800	10.626	0.240	0.001	-0.011	0.240	0.0032
46.105	0.800	10.626	0.242	0.001	-0.006	0.242	0.0037
55.178	0.800	10.399	0.239	0.003	0.000	0.239	0.0028
51.776	0.800	10.399	0.241	-0.001	-0.009	0.241	0.0028
48.373	0.800	10.399	0.242	0.001	-0.010	0.243	0.0032
44.971	0.800	10.399	0.250	0.002	-0.005	0.250	0.0037
54.044	0.800	10.172	0.242	0.001	-0.008	0.242	0.0028
50.642	0.800	10.172	0.243	0.002	-0.014	0.243	0.0027
47.239	0.800	10.172	0.246	0.003	-0.015	0.246	0.0032
56.312	0.800	9.945	0.246	0.004	0.011	0.247	0.0027
52.910	0.800	9.945	0.243	0.000	-0.011	0.244	0.0027
49.508	0.800	9.945	0.245	0.000	-0.012	0.245	0.0030
46.105	0.800	9.945	0.247	0.002	-0.006	0.247	0.0035
55.178	0.800	9.718	0.245	0.000	-0.001	0.245	0.0027
51.776	0.800	9.718	0.246	-0.002	-0.013	0.247	0.0027
48.373	0.800	9.718	0.245	0.003	-0.014	0.245	0.0029
44.971	0.800	9.718	0.252	0.002	-0.008	0.252	0.0037
54.044	0.800	9.491	0.247	-0.001	-0.011	0.247	0.0027
50.642	0.800	9.491	0.251	0.001	-0.015	0.252	0.0030
47.239	0.800	9.491	0.247	0.002	-0.015	0.248	0.0031
56.312	0.800	9.265	0.249	0.000	0.009	0.250	0.0026
52.910	0.800	9.265	0.248	0.001	-0.017	0.249	0.0026
49.508	0.800	9.265	0.251	0.002	-0.016	0.251	0.0031
46.105	0.800	9.265	0.253	0.002	-0.013	0.253	0.0035
55.178	0.800	9.038	0.250	0.000	-0.004	0.250	0.0026
51.776	0.800	9.038	0.252	-0.001	-0.019	0.253	0.0027
48.373	0.800	9.038	0.253	0.001	-0.021	0.254	0.0032
44.971	0.800	9.038	0.255	0.002	-0.013	0.255	0.0033
54.044	0.800	8.811	0.249	0.001	-0.012	0.249	0.0028
50.642	0.800	8.811	0.251	-0.001	-0.021	0.252	0.0029
47.239	0.800	8.811	0.255	0.003	-0.019	0.256	0.0033
56.312	0.800	8.584	0.256	0.000	0.005	0.256	0.0024
52.910	0.800	8.584	0.253	0.002	-0.020	0.254	0.0028
49.508	0.800	8.584	0.254	0.004	-0.021	0.255	0.0031
46.105	0.800	8.584	0.255	0.000	-0.018	0.255	0.0034
55.178	0.800	8.357	0.251	0.001	-0.004	0.251	0.0027
51.776	0.800	8.357	0.257	0.000	-0.022	0.258	0.0028

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
48.373	0.800	8.357	0.254	0.002	-0.024	0.255	0.0031
44.971	0.800	8.357	0.256	0.000	-0.020	0.257	0.0035
54.044	0.800	8.131	0.255	0.000	-0.016	0.256	0.0028
50.642	0.800	8.131	0.256	0.002	-0.021	0.257	0.0031
47.239	0.800	8.131	0.254	0.001	-0.027	0.255	0.0032
56.312	0.800	7.904	0.255	-0.001	0.003	0.255	0.0026
52.910	0.800	7.904	0.250	0.002	-0.020	0.251	0.0029
49.508	0.800	7.904	0.256	0.004	-0.028	0.258	0.0033
46.105	0.800	7.904	0.255	-0.001	-0.024	0.256	0.0033
55.178	0.800	7.677	0.251	-0.002	-0.012	0.251	0.0026
51.776	0.800	7.677	0.253	0.001	-0.022	0.254	0.0029
48.373	0.800	7.677	0.256	0.003	-0.027	0.258	0.0031
44.971	0.800	7.677	0.259	0.000	-0.020	0.259	0.0038
54.044	0.800	7.450	0.254	-0.001	-0.022	0.255	0.0028
50.642	0.800	7.450	0.255	0.003	-0.024	0.257	0.0029
47.239	0.800	7.450	0.253	0.000	-0.022	0.254	0.0035
56.312	0.800	7.223	0.249	-0.003	-0.002	0.249	0.0027
52.910	0.800	7.223	0.251	0.003	-0.025	0.252	0.0027
49.508	0.800	7.223	0.256	0.004	-0.027	0.257	0.0031
46.105	0.800	7.223	0.255	-0.004	-0.021	0.256	0.0033
55.178	0.800	6.997	0.248	-0.001	-0.014	0.249	0.0028
51.776	0.800	6.997	0.253	0.002	-0.027	0.254	0.0027
48.373	0.800	6.997	0.256	0.004	-0.031	0.258	0.0032
44.971	0.800	6.997	0.256	-0.001	-0.022	0.257	0.0039
54.044	0.800	6.770	0.248	-0.001	-0.022	0.249	0.0029
50.642	0.800	6.770	0.253	0.003	-0.033	0.255	0.0029
47.239	0.800	6.770	0.259	0.002	-0.031	0.261	0.0034
56.312	0.800	6.543	0.248	-0.004	-0.002	0.248	0.0028
52.910	0.800	6.543	0.247	0.003	-0.026	0.248	0.0029
49.508	0.800	6.543	0.252	0.003	-0.033	0.255	0.0033
46.105	0.800	6.543	0.255	-0.001	-0.030	0.257	0.0034
55.178	0.800	6.316	0.241	-0.003	-0.013	0.242	0.0029
51.776	0.800	6.316	0.247	0.001	-0.032	0.249	0.0030
48.373	0.800	6.316	0.249	0.003	-0.032	0.251	0.0030
44.971	0.800	6.316	0.254	-0.004	-0.029	0.255	0.0034
54.044	0.800	6.089	0.239	0.003	-0.023	0.240	0.0028
50.642	0.800	6.089	0.245	0.005	-0.035	0.248	0.0030
47.239	0.800	6.089	0.249	0.002	-0.035	0.252	0.0033
56.312	0.800	5.863	0.235	-0.004	-0.007	0.235	0.0029

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
52.910	0.800	5.863	0.240	0.004	-0.027	0.242	0.0028
49.508	0.800	5.863	0.243	0.004	-0.033	0.245	0.0032
46.105	0.800	5.863	0.247	-0.002	-0.033	0.250	0.0035
55.178	0.800	5.636	0.234	-0.001	-0.016	0.234	0.0030
51.776	0.800	5.636	0.237	0.004	-0.032	0.239	0.0029
48.373	0.800	5.636	0.243	0.001	-0.036	0.246	0.0030
44.971	0.800	5.636	0.246	-0.002	-0.033	0.248	0.0036
54.044	0.800	5.409	0.226	0.002	-0.021	0.227	0.0029
50.642	0.800	5.409	0.235	0.003	-0.034	0.237	0.0030
47.239	0.800	5.409	0.238	0.001	-0.035	0.241	0.0033
56.312	0.800	5.182	0.228	-0.006	-0.003	0.228	0.0028
52.910	0.800	5.182	0.226	0.004	-0.025	0.228	0.0028
49.508	0.800	5.182	0.231	0.006	-0.035	0.234	0.0033
46.105	0.800	5.182	0.235	0.001	-0.031	0.237	0.0036
55.178	0.800	4.955	0.221	-0.001	-0.013	0.221	0.0030
51.776	0.800	4.955	0.222	0.007	-0.030	0.225	0.0030
48.373	0.800	4.955	0.227	0.004	-0.037	0.230	0.0032
44.971	0.800	4.955	0.235	-0.002	-0.033	0.238	0.0038
54.044	0.800	4.728	0.213	0.002	-0.023	0.215	0.0030
50.642	0.800	4.728	0.217	0.006	-0.033	0.219	0.0034
47.239	0.800	4.728	0.229	0.002	-0.035	0.231	0.0035
56.312	0.800	4.502	0.217	-0.006	0.000	0.217	0.0029
52.910	0.800	4.502	0.207	0.006	-0.027	0.209	0.0030
49.508	0.800	4.502	0.214	0.008	-0.034	0.217	0.0033
46.105	0.800	4.502	0.222	0.000	-0.035	0.224	0.0035
55.178	0.800	4.275	0.208	-0.001	-0.013	0.209	0.0033
51.776	0.800	4.275	0.203	0.006	-0.027	0.205	0.0030
48.373	0.800	4.275	0.212	0.006	-0.037	0.215	0.0032
44.971	0.800	4.275	0.220	-0.001	-0.035	0.222	0.0038
54.044	0.800	4.048	0.200	0.005	-0.018	0.201	0.0031
50.642	0.800	4.048	0.202	0.009	-0.032	0.205	0.0029
47.239	0.800	4.048	0.207	0.005	-0.036	0.210	0.0034
56.312	0.800	3.821	0.201	-0.004	0.000	0.201	0.0028
52.910	0.800	3.821	0.192	0.006	-0.022	0.194	0.0031
49.508	0.800	3.821	0.198	0.010	-0.033	0.201	0.0033
46.105	0.800	3.821	0.206	0.000	-0.035	0.209	0.0037
55.178	0.800	3.594	0.189	0.000	-0.006	0.189	0.0032
51.776	0.800	3.594	0.185	0.009	-0.025	0.187	0.0031
48.373	0.800	3.594	0.189	0.007	-0.035	0.193	0.0034

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.971	0.800	3.594	0.201	0.000	-0.032	0.203	0.0036
54.044	0.800	3.368	0.182	0.002	-0.011	0.182	0.0029
50.642	0.800	3.368	0.179	0.009	-0.025	0.181	0.0033
47.239	0.800	3.368	0.188	0.005	-0.035	0.191	0.0035
56.312	0.800	3.141	0.176	-0.004	0.008	0.176	0.0031
52.910	0.800	3.141	0.173	0.008	-0.015	0.174	0.0031
49.508	0.800	3.141	0.170	0.010	-0.020	0.172	0.0033
46.105	0.800	3.141	0.182	0.003	-0.028	0.184	0.0039
55.178	0.800	2.914	0.165	-0.002	0.008	0.165	0.0034
51.776	0.800	2.914	0.159	0.010	-0.010	0.159	0.0032
48.373	0.800	2.914	0.164	0.012	-0.020	0.166	0.0035
44.971	0.800	2.914	0.181	0.004	-0.028	0.183	0.0037
54.044	0.800	2.687	0.151	-0.006	-0.022	0.153	0.0029
50.642	0.800	2.687	0.151	0.013	-0.009	0.151	0.0038
47.239	0.800	2.687	0.158	0.008	-0.018	0.159	0.0036

Table D.3 Stereo PIV data for semi-circular cavity with rough bed at high flow.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
2.693	0.800	14.254	0.399	0.007	0.024	0.399	0.0047
2.693	0.800	10.852	0.382	-0.009	0.011	0.383	0.0030
2.693	0.800	7.450	0.341	-0.015	0.004	0.341	0.0030
2.693	0.800	4.048	0.255	-0.024	0.005	0.256	0.0032
2.920	0.800	17.203	0.356	0.005	0.215	0.416	0.0305
2.920	0.800	13.801	0.407	0.004	0.018	0.407	0.0045
2.920	0.800	10.399	0.381	-0.010	0.009	0.381	0.0031
2.920	0.800	6.997	0.337	-0.015	0.001	0.337	0.0030
2.920	0.800	3.594	0.237	-0.026	0.009	0.238	0.0036
3.147	0.800	16.749	0.376	0.007	0.135	0.400	0.0203
3.147	0.800	13.347	0.404	0.003	0.021	0.404	0.0044
3.147	0.800	9.945	0.373	-0.009	0.011	0.374	0.0032
3.147	0.800	6.543	0.328	-0.019	0.000	0.329	0.0031
3.147	0.800	3.141	0.211	-0.030	0.007	0.213	0.0037
3.373	0.800	16.296	0.412	0.009	0.030	0.414	0.0113
3.373	0.800	12.894	0.409	0.000	0.010	0.409	0.0041
3.373	0.800	9.491	0.370	-0.013	0.007	0.370	0.0031
3.373	0.800	6.089	0.319	-0.020	0.002	0.319	0.0032
3.373	0.800	2.687	0.186	-0.028	0.009	0.188	0.0040
3.600	0.800	15.842	0.409	0.009	0.034	0.411	0.0059
3.600	0.800	12.440	0.400	-0.001	0.017	0.401	0.0032
3.600	0.800	9.038	0.362	-0.013	0.002	0.362	0.0031
3.600	0.800	5.636	0.308	-0.022	-0.001	0.309	0.0032
3.827	0.800	15.389	0.410	0.009	0.022	0.410	0.0051
3.827	0.800	11.986	0.400	0.000	0.012	0.400	0.0031
3.827	0.800	8.584	0.359	-0.013	0.004	0.360	0.0031
3.827	0.800	5.182	0.296	-0.026	0.004	0.298	0.0032
4.054	0.800	14.935	0.412	0.007	0.015	0.412	0.0048
4.054	0.800	11.533	0.394	-0.004	0.013	0.395	0.0033
4.054	0.800	8.131	0.352	-0.014	0.002	0.352	0.0032
4.054	0.800	4.728	0.285	-0.026	0.002	0.286	0.0031
4.281	0.800	14.481	0.409	0.009	0.013	0.409	0.0048
4.281	0.800	11.079	0.387	-0.008	0.012	0.387	0.0034
4.281	0.800	7.677	0.347	-0.017	0.001	0.348	0.0032
4.281	0.800	4.275	0.268	-0.027	-0.004	0.269	0.0033
4.508	0.800	17.430	0.389	0.014	0.109	0.404	0.0206
4.508	0.800	14.028	0.416	0.006	0.004	0.416	0.0042
4.508	0.800	10.626	0.383	-0.009	0.008	0.383	0.0032

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.508	0.800	7.223	0.340	-0.016	0.001	0.341	0.0035
4.508	0.800	3.821	0.248	-0.031	-0.001	0.250	0.0040
4.734	0.800	16.976	0.396	0.011	0.084	0.405	0.0142
4.734	0.800	13.574	0.411	0.005	0.011	0.411	0.0038
4.734	0.800	10.172	0.377	-0.010	0.009	0.378	0.0033
4.734	0.800	6.770	0.332	-0.018	0.000	0.332	0.0033
4.734	0.800	3.368	0.228	-0.028	-0.001	0.229	0.0039
4.961	0.800	16.523	0.409	0.011	0.043	0.412	0.0103
4.961	0.800	13.120	0.410	0.001	0.008	0.410	0.0037
4.961	0.800	9.718	0.373	-0.012	0.003	0.374	0.0032
4.961	0.800	6.316	0.322	-0.020	0.001	0.323	0.0033
4.961	0.800	2.914	0.202	-0.027	0.002	0.203	0.0040
5.188	0.800	16.069	0.415	0.011	0.015	0.415	0.0077
5.188	0.800	12.667	0.404	-0.001	0.009	0.404	0.0034
5.188	0.800	9.265	0.368	-0.015	0.006	0.368	0.0033
5.188	0.800	5.863	0.316	-0.022	0.000	0.316	0.0038
5.415	0.800	15.615	0.416	0.009	0.019	0.416	0.0061
5.415	0.800	12.213	0.397	-0.005	0.013	0.397	0.0036
5.415	0.800	8.811	0.363	-0.016	0.005	0.363	0.0032
5.415	0.800	5.409	0.303	-0.022	0.001	0.304	0.0036
5.642	0.800	15.162	0.414	0.008	0.019	0.415	0.0051
5.642	0.800	11.760	0.396	-0.007	0.010	0.396	0.0035
5.642	0.800	8.357	0.358	-0.014	0.001	0.359	0.0032
5.642	0.800	4.955	0.289	-0.026	-0.004	0.291	0.0037
5.868	0.800	14.708	0.418	0.006	0.009	0.418	0.0053
5.868	0.800	11.306	0.392	-0.008	0.011	0.392	0.0036
5.868	0.800	7.904	0.350	-0.019	0.001	0.351	0.0033
5.868	0.800	4.502	0.278	-0.027	-0.003	0.279	0.0038
6.095	0.800	14.254	0.414	0.007	0.009	0.414	0.0049
6.095	0.800	10.852	0.389	-0.010	0.013	0.390	0.0038
6.095	0.800	7.450	0.344	-0.019	-0.002	0.344	0.0038
6.095	0.800	4.048	0.259	-0.028	-0.005	0.261	0.0037
6.322	0.800	17.203	0.391	0.009	0.090	0.401	0.0205
6.322	0.800	13.801	0.411	0.002	0.012	0.411	0.0043
6.322	0.800	10.399	0.380	-0.010	0.010	0.381	0.0036
6.322	0.800	6.997	0.336	-0.020	0.000	0.337	0.0039
6.322	0.800	3.594	0.234	-0.028	0.000	0.236	0.0041
6.549	0.800	16.749	0.402	0.012	0.059	0.407	0.0123
6.549	0.800	13.347	0.410	-0.002	0.009	0.410	0.0040

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
6.549	0.800	9.945	0.379	-0.012	0.007	0.380	0.0036
6.549	0.800	6.543	0.330	-0.021	-0.004	0.330	0.0037
6.549	0.800	3.141	0.212	-0.026	0.003	0.214	0.0042
6.776	0.800	16.296	0.413	0.011	0.029	0.414	0.0092
6.776	0.800	12.894	0.407	-0.003	0.009	0.407	0.0040
6.776	0.800	9.491	0.370	-0.014	0.000	0.371	0.0034
6.776	0.800	6.089	0.316	-0.022	-0.002	0.317	0.0037
6.776	0.800	2.687	0.193	-0.025	-0.002	0.195	0.0039
7.002	0.800	15.842	0.414	0.011	0.018	0.415	0.0074
7.002	0.800	12.440	0.403	-0.003	0.007	0.403	0.0038
7.002	0.800	9.038	0.367	-0.014	0.001	0.367	0.0035
7.002	0.800	5.636	0.309	-0.023	-0.005	0.310	0.0034
7.229	0.800	15.389	0.414	0.009	0.008	0.414	0.0066
7.229	0.800	11.986	0.395	-0.007	0.006	0.395	0.0040
7.229	0.800	8.584	0.360	-0.019	0.001	0.360	0.0035
7.229	0.800	5.182	0.299	-0.024	-0.006	0.300	0.0034
7.456	0.800	14.935	0.416	0.006	0.005	0.416	0.0054
7.456	0.800	11.533	0.391	-0.006	0.003	0.391	0.0037
7.456	0.800	8.131	0.354	-0.016	-0.006	0.355	0.0040
7.456	0.800	4.728	0.282	-0.027	-0.002	0.283	0.0038
7.683	0.800	14.481	0.412	0.004	0.001	0.412	0.0050
7.683	0.800	11.079	0.385	-0.008	0.003	0.385	0.0037
7.683	0.800	7.677	0.347	-0.016	-0.006	0.347	0.0037
7.683	0.800	4.275	0.268	-0.026	-0.006	0.269	0.0040
7.910	0.800	17.430	0.360	0.007	0.158	0.393	0.0261
7.910	0.800	14.028	0.406	0.001	-0.001	0.406	0.0050
7.910	0.800	10.626	0.379	-0.009	0.006	0.379	0.0037
7.910	0.800	7.223	0.340	-0.019	-0.007	0.341	0.0039
7.910	0.800	3.821	0.250	-0.024	-0.001	0.251	0.0041
8.136	0.800	16.976	0.382	0.006	0.083	0.391	0.0178
8.136	0.800	13.574	0.401	-0.001	0.003	0.401	0.0048
8.136	0.800	10.172	0.372	-0.012	0.004	0.372	0.0041
8.136	0.800	6.770	0.334	-0.022	-0.002	0.335	0.0041
8.136	0.800	3.368	0.226	-0.027	-0.007	0.228	0.0047
8.363	0.800	16.523	0.399	0.007	0.037	0.401	0.0121
8.363	0.800	13.120	0.399	-0.005	0.006	0.399	0.0047
8.363	0.800	9.718	0.367	-0.013	-0.001	0.367	0.0039
8.363	0.800	6.316	0.329	-0.023	-0.008	0.330	0.0039
8.363	0.800	2.914	0.210	-0.024	0.000	0.211	0.0042

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
8.590	0.800	16.069	0.406	0.009	0.013	0.406	0.0095
8.590	0.800	12.667	0.393	-0.005	0.004	0.393	0.0045
8.590	0.800	9.265	0.359	-0.015	0.001	0.360	0.0040
8.590	0.800	5.863	0.309	-0.021	-0.003	0.310	0.0040
8.817	0.800	15.615	0.407	0.005	0.008	0.407	0.0073
8.817	0.800	12.213	0.392	-0.008	0.000	0.393	0.0046
8.817	0.800	8.811	0.357	-0.015	0.003	0.357	0.0040
8.817	0.800	5.409	0.303	-0.025	-0.008	0.304	0.0040
9.044	0.800	15.162	0.404	0.006	0.006	0.404	0.0065
9.044	0.800	11.760	0.386	-0.010	0.001	0.386	0.0046
9.044	0.800	8.357	0.353	-0.019	-0.003	0.354	0.0038
9.044	0.800	4.955	0.290	-0.026	-0.007	0.291	0.0043
9.271	0.800	14.708	0.403	0.003	0.008	0.403	0.0064
9.271	0.800	11.306	0.383	-0.007	-0.001	0.383	0.0044
9.271	0.800	7.904	0.348	-0.018	-0.005	0.349	0.0039
9.271	0.800	4.502	0.277	-0.025	0.002	0.279	0.0042
9.497	0.800	14.254	0.400	0.001	0.003	0.400	0.0059
9.497	0.800	10.852	0.373	-0.009	0.004	0.373	0.0044
9.497	0.800	7.450	0.339	-0.022	-0.003	0.340	0.0042
9.497	0.800	4.048	0.261	-0.027	-0.008	0.263	0.0042
9.724	0.800	17.203	0.362	0.000	0.114	0.380	0.0230
9.724	0.800	13.801	0.397	-0.003	0.001	0.397	0.0053
9.724	0.800	10.399	0.371	-0.013	-0.006	0.371	0.0042
9.724	0.800	6.997	0.334	-0.023	-0.007	0.335	0.0039
9.724	0.800	3.594	0.245	-0.028	-0.007	0.247	0.0038
9.951	0.800	16.749	0.385	0.005	0.054	0.389	0.0156
9.951	0.800	13.347	0.393	-0.006	0.005	0.393	0.0054
9.951	0.800	9.945	0.366	-0.013	-0.002	0.366	0.0043
9.951	0.800	6.543	0.326	-0.025	-0.007	0.327	0.0042
9.951	0.800	3.141	0.228	-0.023	-0.004	0.230	0.0040
10.178	0.800	16.296	0.391	0.004	0.029	0.392	0.0122
10.178	0.800	12.894	0.392	-0.004	-0.001	0.392	0.0052
10.178	0.800	9.491	0.361	-0.016	-0.006	0.361	0.0043
10.178	0.800	6.089	0.316	-0.024	-0.005	0.317	0.0040
10.178	0.800	2.687	0.212	-0.016	-0.003	0.212	0.0040
10.405	0.800	15.842	0.397	0.005	0.019	0.397	0.0096
10.405	0.800	12.440	0.385	-0.007	-0.003	0.385	0.0048
10.405	0.800	9.038	0.355	-0.016	-0.003	0.356	0.0044
10.405	0.800	5.636	0.305	-0.025	-0.003	0.306	0.0040

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
10.631	0.800	15.389	0.403	0.005	0.007	0.403	0.0071
10.631	0.800	11.986	0.379	-0.010	0.001	0.379	0.0050
10.631	0.800	8.584	0.353	-0.016	0.000	0.354	0.0044
10.631	0.800	5.182	0.298	-0.027	-0.007	0.299	0.0044
10.858	0.800	14.935	0.393	0.002	0.002	0.393	0.0070
10.858	0.800	11.533	0.375	-0.008	0.002	0.375	0.0048
10.858	0.800	8.131	0.352	-0.019	-0.008	0.353	0.0041
10.858	0.800	4.728	0.286	-0.027	-0.007	0.288	0.0043
11.085	0.800	14.481	0.390	-0.003	0.007	0.391	0.0062
11.085	0.800	11.079	0.368	-0.012	0.003	0.368	0.0048
11.085	0.800	7.677	0.342	-0.024	-0.006	0.342	0.0046
11.085	0.800	4.275	0.268	-0.027	-0.007	0.269	0.0044
11.312	0.800	17.430	0.339	-0.003	0.142	0.368	0.0251
11.312	0.800	14.028	0.393	-0.008	0.001	0.393	0.0062
11.312	0.800	10.626	0.364	-0.014	0.003	0.365	0.0053
11.312	0.800	7.223	0.335	-0.023	-0.005	0.336	0.0043
11.312	0.800	3.821	0.258	-0.029	-0.004	0.260	0.0041
11.539	0.800	16.976	0.356	-0.001	0.086	0.367	0.0205
11.539	0.800	13.574	0.385	-0.006	0.004	0.385	0.0063
11.539	0.800	10.172	0.365	-0.012	-0.002	0.365	0.0043
11.539	0.800	6.770	0.325	-0.022	-0.006	0.326	0.0041
11.539	0.800	3.368	0.243	-0.027	-0.003	0.244	0.0044
11.765	0.800	16.523	0.378	0.005	0.048	0.381	0.0132
11.765	0.800	13.120	0.381	-0.009	0.004	0.381	0.0057
11.765	0.800	9.718	0.354	-0.014	-0.001	0.355	0.0047
11.765	0.800	6.316	0.318	-0.023	-0.001	0.318	0.0044
11.765	0.800	2.914	0.227	-0.023	-0.002	0.228	0.0041
11.992	0.800	16.069	0.383	-0.001	0.020	0.383	0.0111
11.992	0.800	12.667	0.381	-0.012	0.000	0.381	0.0057
11.992	0.800	9.265	0.351	-0.019	-0.001	0.352	0.0046
11.992	0.800	5.863	0.310	-0.026	-0.007	0.312	0.0042
12.219	0.800	15.615	0.392	-0.001	0.007	0.392	0.0087
12.219	0.800	12.213	0.375	-0.011	0.005	0.376	0.0055
12.219	0.800	8.811	0.349	-0.021	0.000	0.350	0.0049
12.219	0.800	5.409	0.301	-0.029	-0.008	0.303	0.0043
12.446	0.800	15.162	0.388	0.000	0.006	0.388	0.0075
12.446	0.800	11.760	0.371	-0.011	0.004	0.372	0.0052
12.446	0.800	8.357	0.343	-0.021	-0.002	0.344	0.0043
12.446	0.800	4.955	0.291	-0.029	-0.007	0.293	0.0046

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
12.673	0.800	14.708	0.384	-0.003	0.009	0.384	0.0067
12.673	0.800	11.306	0.368	-0.015	-0.002	0.369	0.0050
12.673	0.800	7.904	0.337	-0.018	-0.002	0.338	0.0049
12.673	0.800	4.502	0.280	-0.033	-0.004	0.282	0.0044
12.899	0.800	14.254	0.386	-0.001	0.004	0.386	0.0072
12.899	0.800	10.852	0.365	-0.012	0.006	0.365	0.0052
12.899	0.800	7.450	0.332	-0.021	-0.001	0.333	0.0049
12.899	0.800	4.048	0.266	-0.031	0.000	0.268	0.0046
13.126	0.800	17.203	0.279	-0.016	0.256	0.379	0.0330
13.126	0.800	13.801	0.376	-0.002	0.004	0.376	0.0069
13.126	0.800	10.399	0.361	-0.012	0.001	0.361	0.0049
13.126	0.800	6.997	0.327	-0.023	-0.010	0.328	0.0046
13.126	0.800	3.594	0.249	-0.029	-0.004	0.250	0.0043
13.353	0.800	16.749	0.328	-0.002	0.114	0.347	0.0201
13.353	0.800	13.347	0.377	-0.008	0.003	0.377	0.0068
13.353	0.800	9.945	0.358	-0.014	-0.001	0.358	0.0048
13.353	0.800	6.543	0.322	-0.024	-0.008	0.323	0.0043
13.353	0.800	3.141	0.236	-0.028	-0.005	0.238	0.0040
13.580	0.800	16.296	0.365	0.000	0.037	0.367	0.0119
13.580	0.800	12.894	0.371	-0.008	0.006	0.371	0.0061
13.580	0.800	9.491	0.353	-0.018	0.002	0.354	0.0049
13.580	0.800	6.089	0.316	-0.027	0.000	0.317	0.0045
13.580	0.800	2.687	0.220	-0.021	-0.002	0.221	0.0038
13.807	0.800	15.842	0.375	0.001	0.015	0.375	0.0097
13.807	0.800	12.440	0.371	-0.008	0.003	0.371	0.0063
13.807	0.800	9.038	0.345	-0.019	-0.002	0.346	0.0051
13.807	0.800	5.636	0.309	-0.029	-0.009	0.310	0.0047
14.034	0.800	15.389	0.380	0.001	0.006	0.380	0.0082
14.034	0.800	11.986	0.363	-0.010	0.006	0.363	0.0060
14.034	0.800	8.584	0.339	-0.021	0.002	0.340	0.0056
14.034	0.800	5.182	0.299	-0.029	-0.010	0.300	0.0048
14.260	0.800	14.935	0.373	-0.003	0.010	0.373	0.0084
14.260	0.800	11.533	0.359	-0.011	0.001	0.359	0.0057
14.260	0.800	8.131	0.336	-0.021	0.001	0.337	0.0053
14.260	0.800	4.728	0.288	-0.032	-0.007	0.290	0.0046
14.487	0.800	14.481	0.369	-0.006	0.008	0.369	0.0071
14.487	0.800	11.079	0.355	-0.015	0.002	0.356	0.0058
14.487	0.800	7.677	0.330	-0.022	-0.003	0.331	0.0050
14.487	0.800	4.275	0.275	-0.035	-0.004	0.277	0.0045

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
14.745	0.800	17.203	0.286	-0.010	0.293	0.410	0.0307
14.745	0.800	16.069	0.359	-0.001	0.065	0.364	0.0170
14.745	0.800	14.935	0.372	-0.003	0.026	0.373	0.0111
14.745	0.800	13.801	0.373	-0.010	0.010	0.373	0.0092
14.745	0.800	12.667	0.372	-0.013	0.003	0.372	0.0075
14.745	0.800	11.533	0.369	-0.015	0.012	0.369	0.0064
14.745	0.800	10.399	0.363	-0.016	0.006	0.363	0.0057
14.745	0.800	9.265	0.352	-0.021	0.002	0.353	0.0060
14.745	0.800	8.131	0.345	-0.027	0.002	0.346	0.0053
14.745	0.800	6.997	0.333	-0.028	-0.009	0.334	0.0047
14.745	0.800	5.863	0.322	-0.029	-0.007	0.323	0.0047
14.745	0.800	4.728	0.291	-0.029	-0.010	0.292	0.0044
14.745	0.800	3.594	0.261	-0.029	-0.004	0.263	0.0044
15.425	0.800	16.523	0.334	-0.005	0.110	0.352	0.0208
15.425	0.800	15.389	0.367	-0.001	0.026	0.367	0.0126
15.425	0.800	14.254	0.372	-0.007	0.011	0.372	0.0093
15.425	0.800	13.120	0.374	-0.011	0.007	0.374	0.0081
15.425	0.800	11.986	0.366	-0.016	0.003	0.366	0.0065
15.425	0.800	10.852	0.358	-0.016	0.005	0.359	0.0060
15.425	0.800	9.718	0.356	-0.020	-0.004	0.356	0.0054
15.425	0.800	8.584	0.348	-0.024	0.004	0.349	0.0049
15.425	0.800	7.450	0.338	-0.025	-0.011	0.339	0.0052
15.425	0.800	6.316	0.327	-0.029	-0.003	0.328	0.0044
15.425	0.800	5.182	0.306	-0.031	-0.012	0.307	0.0047
15.425	0.800	4.048	0.272	-0.030	-0.008	0.274	0.0048
15.425	0.800	2.914	0.233	-0.021	0.001	0.234	0.0041
16.105	0.800	16.976	0.335	0.001	0.104	0.351	0.0197
16.105	0.800	15.842	0.362	0.001	0.029	0.364	0.0143
16.105	0.800	14.708	0.369	-0.006	0.010	0.369	0.0100
16.105	0.800	13.574	0.364	-0.009	0.014	0.365	0.0090
16.105	0.800	12.440	0.367	-0.015	0.006	0.368	0.0065
16.105	0.800	11.306	0.361	-0.018	0.001	0.362	0.0060
16.105	0.800	10.172	0.357	-0.017	0.001	0.357	0.0055
16.105	0.800	9.038	0.349	-0.018	0.000	0.350	0.0052
16.105	0.800	7.904	0.338	-0.022	-0.004	0.339	0.0049
16.105	0.800	6.770	0.332	-0.028	-0.010	0.333	0.0050
16.105	0.800	5.636	0.314	-0.031	-0.010	0.315	0.0050
16.105	0.800	4.502	0.284	-0.030	-0.010	0.285	0.0048
16.105	0.800	3.368	0.252	-0.025	-0.001	0.253	0.0043

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
16.786	0.800	17.430	0.330	-0.003	0.111	0.348	0.0249
16.786	0.800	16.296	0.351	0.005	0.033	0.353	0.0148
16.786	0.800	15.162	0.366	-0.001	0.008	0.366	0.0111
16.786	0.800	14.028	0.362	-0.006	0.002	0.362	0.0091
16.786	0.800	12.894	0.368	-0.013	0.001	0.368	0.0076
16.786	0.800	11.760	0.358	-0.016	0.005	0.358	0.0066
16.786	0.800	10.626	0.354	-0.018	0.000	0.355	0.0062
16.786	0.800	9.491	0.350	-0.019	-0.004	0.350	0.0052
16.786	0.800	8.357	0.344	-0.024	-0.007	0.345	0.0049
16.786	0.800	7.223	0.335	-0.027	-0.005	0.336	0.0049
16.786	0.800	6.089	0.320	-0.030	-0.008	0.322	0.0045
16.786	0.800	4.955	0.297	-0.029	-0.014	0.299	0.0049
16.786	0.800	3.821	0.267	-0.027	-0.011	0.269	0.0045
16.786	0.800	2.687	0.229	-0.018	-0.002	0.229	0.0039
17.466	0.800	16.749	0.346	0.001	0.039	0.348	0.0177
17.466	0.800	15.615	0.363	0.001	0.015	0.363	0.0115
17.466	0.800	14.481	0.365	-0.004	0.011	0.365	0.0093
17.466	0.800	13.347	0.364	-0.016	0.006	0.364	0.0080
17.466	0.800	12.213	0.361	-0.015	0.005	0.361	0.0065
17.466	0.800	11.079	0.354	-0.015	0.009	0.355	0.0064
17.466	0.800	9.945	0.353	-0.018	0.000	0.354	0.0056
17.466	0.800	8.811	0.349	-0.022	-0.004	0.349	0.0052
17.466	0.800	7.677	0.339	-0.024	-0.004	0.340	0.0049
17.466	0.800	6.543	0.325	-0.030	-0.011	0.326	0.0045
17.466	0.800	5.409	0.310	-0.030	-0.011	0.312	0.0050
17.466	0.800	4.275	0.282	-0.027	-0.011	0.283	0.0047
17.466	0.800	3.141	0.248	-0.023	-0.005	0.249	0.0043
18.147	0.800	17.203	0.332	0.006	0.070	0.339	0.0222
18.147	0.800	16.069	0.351	0.000	0.033	0.352	0.0140
18.147	0.800	14.935	0.355	-0.007	0.012	0.355	0.0104
18.147	0.800	13.801	0.359	-0.006	0.009	0.359	0.0082
18.147	0.800	12.667	0.360	-0.008	0.006	0.360	0.0074
18.147	0.800	11.533	0.358	-0.013	0.001	0.358	0.0064
18.147	0.800	10.399	0.347	-0.016	0.000	0.347	0.0056
18.147	0.800	9.265	0.349	-0.019	-0.006	0.350	0.0051
18.147	0.800	8.131	0.343	-0.027	-0.007	0.344	0.0047
18.147	0.800	6.997	0.332	-0.027	-0.013	0.334	0.0047
18.147	0.800	5.863	0.318	-0.030	-0.011	0.320	0.0047
18.147	0.800	4.728	0.295	-0.027	-0.015	0.296	0.0045

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
18.147	0.800	3.594	0.264	-0.027	-0.008	0.265	0.0043
18.827	0.800	16.523	0.347	0.003	0.016	0.347	0.0146
18.827	0.800	15.389	0.358	0.003	0.004	0.358	0.0108
18.827	0.800	14.254	0.360	0.000	0.009	0.360	0.0087
18.827	0.800	13.120	0.359	-0.003	0.002	0.359	0.0071
18.827	0.800	11.986	0.358	-0.011	0.001	0.359	0.0064
18.827	0.800	10.852	0.351	-0.016	0.006	0.351	0.0062
18.827	0.800	9.718	0.353	-0.018	0.000	0.353	0.0054
18.827	0.800	8.584	0.344	-0.021	-0.007	0.344	0.0052
18.827	0.800	7.450	0.331	-0.029	-0.006	0.333	0.0053
18.827	0.800	6.316	0.326	-0.028	-0.009	0.328	0.0049
18.827	0.800	5.182	0.306	-0.027	-0.016	0.308	0.0045
18.827	0.800	4.048	0.275	-0.026	-0.013	0.277	0.0046
18.827	0.800	2.914	0.237	-0.020	0.002	0.238	0.0041
19.508	0.800	16.976	0.329	0.000	0.045	0.332	0.0182
19.508	0.800	15.842	0.346	0.002	0.018	0.347	0.0132
19.508	0.800	14.708	0.360	0.004	0.007	0.360	0.0098
19.508	0.800	13.574	0.353	-0.009	0.012	0.353	0.0080
19.508	0.800	12.440	0.353	-0.004	0.000	0.353	0.0064
19.508	0.800	11.306	0.356	-0.012	0.002	0.356	0.0063
19.508	0.800	10.172	0.344	-0.018	0.001	0.344	0.0057
19.508	0.800	9.038	0.340	-0.020	-0.005	0.341	0.0049
19.508	0.800	7.904	0.339	-0.018	-0.008	0.340	0.0053
19.508	0.800	6.770	0.328	-0.027	-0.012	0.329	0.0050
19.508	0.800	5.636	0.313	-0.026	-0.013	0.315	0.0048
19.508	0.800	4.502	0.289	-0.029	-0.018	0.291	0.0046
19.508	0.800	3.368	0.255	-0.021	-0.007	0.256	0.0044
20.188	0.800	17.430	0.294	-0.001	0.149	0.330	0.0295
20.188	0.800	16.296	0.330	0.003	0.056	0.334	0.0150
20.188	0.800	15.162	0.351	0.003	0.015	0.352	0.0111
20.188	0.800	14.028	0.358	-0.005	0.008	0.358	0.0089
20.188	0.800	12.894	0.359	-0.004	0.005	0.359	0.0074
20.188	0.800	11.760	0.344	-0.013	0.001	0.344	0.0064
20.188	0.800	10.626	0.345	-0.017	0.001	0.346	0.0059
20.188	0.800	9.491	0.347	-0.020	-0.003	0.347	0.0059
20.188	0.800	8.357	0.341	-0.020	-0.009	0.342	0.0058
20.188	0.800	7.223	0.336	-0.024	-0.011	0.337	0.0053
20.188	0.800	6.089	0.321	-0.028	-0.012	0.322	0.0050
20.188	0.800	4.955	0.301	-0.028	-0.018	0.303	0.0051

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
20.188	0.800	3.821	0.275	-0.028	-0.015	0.277	0.0042
20.188	0.800	2.687	0.215	-0.011	0.036	0.218	0.0038
20.868	0.800	16.749	0.306	0.002	0.097	0.321	0.0205
20.868	0.800	15.615	0.342	0.002	0.016	0.342	0.0139
20.868	0.800	14.481	0.349	-0.003	0.004	0.349	0.0097
20.868	0.800	13.347	0.350	-0.006	0.006	0.350	0.0077
20.868	0.800	12.213	0.350	-0.008	0.001	0.350	0.0067
20.868	0.800	11.079	0.346	-0.012	0.001	0.346	0.0064
20.868	0.800	9.945	0.347	-0.016	0.001	0.347	0.0060
20.868	0.800	8.811	0.339	-0.021	-0.004	0.339	0.0057
20.868	0.800	7.677	0.337	-0.021	-0.015	0.337	0.0051
20.868	0.800	6.543	0.330	-0.026	-0.013	0.332	0.0048
20.868	0.800	5.409	0.307	-0.030	-0.013	0.309	0.0049
20.868	0.800	4.275	0.286	-0.026	-0.016	0.288	0.0049
20.868	0.800	3.141	0.252	-0.019	-0.011	0.253	0.0041
21.549	0.800	17.203	0.284	-0.002	0.122	0.309	0.0266
21.549	0.800	16.069	0.334	0.005	0.034	0.336	0.0142
21.549	0.800	14.935	0.347	0.005	0.019	0.348	0.0100
21.549	0.800	13.801	0.353	-0.005	0.006	0.353	0.0079
21.549	0.800	12.667	0.354	-0.010	0.000	0.354	0.0071
21.549	0.800	11.533	0.348	-0.014	0.000	0.348	0.0061
21.549	0.800	10.399	0.346	-0.012	0.001	0.347	0.0060
21.549	0.800	9.265	0.343	-0.020	-0.005	0.344	0.0053
21.549	0.800	8.131	0.342	-0.019	-0.012	0.342	0.0053
21.549	0.800	6.997	0.332	-0.024	-0.013	0.333	0.0051
21.549	0.800	5.863	0.323	-0.028	-0.020	0.324	0.0049
21.549	0.800	4.728	0.301	-0.026	-0.016	0.303	0.0047
21.549	0.800	3.594	0.269	-0.022	-0.016	0.270	0.0048
22.229	0.800	16.523	0.317	0.001	0.066	0.324	0.0176
22.229	0.800	15.389	0.347	0.001	0.025	0.348	0.0115
22.229	0.800	14.254	0.347	0.001	0.009	0.347	0.0088
22.229	0.800	13.120	0.353	-0.006	0.006	0.353	0.0071
22.229	0.800	11.986	0.347	-0.012	0.003	0.347	0.0070
22.229	0.800	10.852	0.346	-0.014	0.001	0.346	0.0065
22.229	0.800	9.718	0.347	-0.013	-0.008	0.347	0.0060
22.229	0.800	8.584	0.345	-0.019	-0.013	0.345	0.0052
22.229	0.800	7.450	0.335	-0.021	-0.009	0.336	0.0051
22.229	0.800	6.316	0.324	-0.024	-0.016	0.325	0.0050
22.229	0.800	5.182	0.309	-0.026	-0.023	0.311	0.0051

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
22.229	0.800	4.048	0.283	-0.024	-0.016	0.285	0.0046
22.229	0.800	2.914	0.248	-0.017	-0.015	0.249	0.0041
22.910	0.800	16.976	0.298	-0.005	0.124	0.322	0.0236
22.910	0.800	15.842	0.334	0.000	0.027	0.335	0.0129
22.910	0.800	14.708	0.346	0.000	0.011	0.346	0.0095
22.910	0.800	13.574	0.349	-0.005	0.009	0.349	0.0084
22.910	0.800	12.440	0.352	-0.008	0.001	0.352	0.0071
22.910	0.800	11.306	0.344	-0.011	0.003	0.344	0.0066
22.910	0.800	10.172	0.349	-0.011	-0.005	0.349	0.0059
22.910	0.800	9.038	0.347	-0.016	-0.009	0.347	0.0056
22.910	0.800	7.904	0.335	-0.020	-0.008	0.336	0.0053
22.910	0.800	6.770	0.325	-0.020	-0.013	0.326	0.0053
22.910	0.800	5.636	0.316	-0.023	-0.016	0.317	0.0053
22.910	0.800	4.502	0.296	-0.024	-0.021	0.298	0.0049
22.910	0.800	3.368	0.266	-0.024	-0.014	0.268	0.0045
23.590	0.800	17.430	0.264	-0.002	0.186	0.323	0.0310
23.590	0.800	16.296	0.322	-0.001	0.046	0.326	0.0171
23.590	0.800	15.162	0.336	0.004	0.014	0.336	0.0116
23.590	0.800	14.028	0.349	0.000	0.008	0.349	0.0083
23.590	0.800	12.894	0.350	-0.008	0.007	0.350	0.0078
23.590	0.800	11.760	0.348	-0.008	0.000	0.348	0.0069
23.590	0.800	10.626	0.349	-0.012	-0.002	0.349	0.0063
23.590	0.800	9.491	0.346	-0.016	-0.009	0.347	0.0058
23.590	0.800	8.357	0.341	-0.017	-0.014	0.342	0.0053
23.590	0.800	7.223	0.332	-0.019	-0.018	0.333	0.0052
23.590	0.800	6.089	0.321	-0.022	-0.017	0.323	0.0051
23.590	0.800	4.955	0.307	-0.024	-0.019	0.309	0.0051
23.590	0.800	3.821	0.283	-0.024	-0.019	0.285	0.0046
23.590	0.800	2.687	0.247	-0.017	-0.011	0.247	0.0042
24.271	0.800	16.749	0.293	0.001	0.098	0.308	0.0231
24.271	0.800	15.615	0.333	0.004	0.020	0.334	0.0122
24.271	0.800	14.481	0.341	-0.001	0.015	0.341	0.0095
24.271	0.800	13.347	0.347	-0.002	0.003	0.347	0.0074
24.271	0.800	12.213	0.347	-0.005	0.004	0.347	0.0067
24.271	0.800	11.079	0.350	-0.010	-0.007	0.350	0.0063
24.271	0.800	9.945	0.347	-0.014	-0.006	0.348	0.0059
24.271	0.800	8.811	0.345	-0.015	-0.006	0.346	0.0054
24.271	0.800	7.677	0.335	-0.016	-0.014	0.335	0.0053
24.271	0.800	6.543	0.324	-0.021	-0.014	0.325	0.0055

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
24.271	0.800	5.409	0.312	-0.024	-0.022	0.314	0.0052
24.271	0.800	4.275	0.292	-0.022	-0.022	0.294	0.0046
24.271	0.800	3.141	0.263	-0.019	-0.017	0.264	0.0040
24.951	0.800	17.203	0.274	-0.005	0.117	0.298	0.0266
24.951	0.800	16.069	0.323	0.000	0.043	0.326	0.0148
24.951	0.800	14.935	0.338	0.001	0.012	0.338	0.0097
24.951	0.800	13.801	0.346	0.002	-0.003	0.346	0.0081
24.951	0.800	12.667	0.348	-0.005	-0.004	0.348	0.0079
24.951	0.800	11.533	0.352	-0.007	-0.002	0.352	0.0065
24.951	0.800	10.399	0.349	-0.012	-0.007	0.349	0.0060
24.951	0.800	9.265	0.345	-0.018	-0.002	0.345	0.0057
24.951	0.800	8.131	0.337	-0.013	-0.015	0.338	0.0056
24.951	0.800	6.997	0.334	-0.016	-0.019	0.335	0.0050
24.951	0.800	5.863	0.320	-0.020	-0.021	0.321	0.0054
24.951	0.800	4.728	0.306	-0.022	-0.021	0.307	0.0046
24.951	0.800	3.594	0.278	-0.020	-0.021	0.280	0.0043
25.631	0.800	16.523	0.303	0.003	0.060	0.309	0.0180
25.631	0.800	15.389	0.337	0.004	0.008	0.337	0.0107
25.631	0.800	14.254	0.336	-0.001	0.013	0.336	0.0091
25.631	0.800	13.120	0.343	-0.005	0.003	0.343	0.0076
25.631	0.800	11.986	0.348	-0.006	0.006	0.348	0.0070
25.631	0.800	10.852	0.347	-0.008	-0.009	0.347	0.0066
25.631	0.800	9.718	0.350	-0.008	-0.016	0.350	0.0057
25.631	0.800	8.584	0.345	-0.016	-0.010	0.345	0.0056
25.631	0.800	7.450	0.335	-0.019	-0.016	0.336	0.0052
25.631	0.800	6.316	0.327	-0.020	-0.016	0.328	0.0052
25.631	0.800	5.182	0.317	-0.024	-0.022	0.318	0.0048
25.631	0.800	4.048	0.290	-0.022	-0.023	0.292	0.0046
25.631	0.800	2.914	0.256	-0.017	-0.018	0.257	0.0041
26.312	0.800	16.976	0.287	-0.001	0.079	0.298	0.0228
26.312	0.800	15.842	0.323	0.005	0.019	0.324	0.0152
26.312	0.800	14.708	0.333	0.005	0.004	0.333	0.0091
26.312	0.800	13.574	0.344	0.002	0.004	0.344	0.0091
26.312	0.800	12.440	0.348	-0.004	-0.004	0.348	0.0073
26.312	0.800	11.306	0.346	-0.008	-0.005	0.346	0.0066
26.312	0.800	10.172	0.346	-0.005	-0.006	0.346	0.0057
26.312	0.800	9.038	0.345	-0.012	-0.009	0.345	0.0059
26.312	0.800	7.904	0.340	-0.016	-0.013	0.341	0.0057
26.312	0.800	6.770	0.325	-0.018	-0.014	0.326	0.0052

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
26.312	0.800	5.636	0.319	-0.022	-0.016	0.320	0.0048
26.312	0.800	4.502	0.302	-0.021	-0.025	0.304	0.0047
26.312	0.800	3.368	0.269	-0.016	-0.019	0.270	0.0041
26.992	0.800	17.430	0.281	0.002	0.123	0.307	0.0269
26.992	0.800	16.296	0.311	0.004	0.047	0.315	0.0162
26.992	0.800	15.162	0.338	0.003	0.007	0.338	0.0101
26.992	0.800	14.028	0.343	0.003	0.000	0.343	0.0083
26.992	0.800	12.894	0.344	-0.003	0.005	0.344	0.0076
26.992	0.800	11.760	0.345	-0.007	-0.003	0.345	0.0069
26.992	0.800	10.626	0.345	-0.009	-0.003	0.345	0.0063
26.992	0.800	9.491	0.341	-0.008	-0.008	0.341	0.0060
26.992	0.800	8.357	0.339	-0.014	-0.011	0.339	0.0059
26.992	0.800	7.223	0.332	-0.015	-0.017	0.333	0.0054
26.992	0.800	6.089	0.321	-0.019	-0.019	0.322	0.0052
26.992	0.800	4.955	0.306	-0.018	-0.023	0.307	0.0049
26.992	0.800	3.821	0.281	-0.016	-0.021	0.282	0.0049
26.992	0.800	2.687	0.249	-0.009	-0.023	0.250	0.0045
27.673	0.800	16.749	0.307	0.003	0.052	0.311	0.0206
27.673	0.800	15.615	0.326	0.009	0.015	0.326	0.0123
27.673	0.800	14.481	0.338	0.007	-0.001	0.338	0.0091
27.673	0.800	13.347	0.341	0.004	0.003	0.341	0.0079
27.673	0.800	12.213	0.344	-0.005	0.001	0.344	0.0070
27.673	0.800	11.079	0.348	-0.008	0.003	0.348	0.0064
27.673	0.800	9.945	0.345	-0.010	-0.009	0.345	0.0062
27.673	0.800	8.811	0.344	-0.011	-0.012	0.345	0.0058
27.673	0.800	7.677	0.337	-0.016	-0.021	0.338	0.0058
27.673	0.800	6.543	0.331	-0.017	-0.020	0.332	0.0051
27.673	0.800	5.409	0.318	-0.020	-0.022	0.319	0.0049
27.673	0.800	4.275	0.294	-0.016	-0.022	0.295	0.0045
27.673	0.800	3.141	0.262	-0.012	-0.022	0.263	0.0043
28.353	0.800	17.203	0.289	0.004	0.082	0.300	0.0223
28.353	0.800	16.069	0.320	0.009	0.013	0.320	0.0143
28.353	0.800	14.935	0.334	0.002	0.000	0.334	0.0105
28.353	0.800	13.801	0.341	0.002	-0.001	0.341	0.0078
28.353	0.800	12.667	0.339	-0.001	0.001	0.339	0.0071
28.353	0.800	11.533	0.344	-0.004	-0.002	0.344	0.0073
28.353	0.800	10.399	0.349	-0.011	-0.015	0.349	0.0059
28.353	0.800	9.265	0.347	-0.008	-0.009	0.347	0.0062
28.353	0.800	8.131	0.337	-0.011	-0.011	0.337	0.0061

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
28.353	0.800	6.997	0.329	-0.016	-0.017	0.330	0.0056
28.353	0.800	5.863	0.321	-0.015	-0.022	0.322	0.0053
28.353	0.800	4.728	0.301	-0.016	-0.021	0.303	0.0052
28.353	0.800	3.594	0.276	-0.008	-0.023	0.277	0.0045
29.034	0.800	16.523	0.316	0.004	0.030	0.317	0.0179
29.034	0.800	15.389	0.328	0.004	0.006	0.328	0.0126
29.034	0.800	14.254	0.338	0.005	0.008	0.338	0.0087
29.034	0.800	13.120	0.336	0.000	0.004	0.336	0.0079
29.034	0.800	11.986	0.340	-0.003	0.002	0.341	0.0069
29.034	0.800	10.852	0.341	-0.008	-0.008	0.341	0.0064
29.034	0.800	9.718	0.347	-0.007	-0.009	0.347	0.0065
29.034	0.800	8.584	0.340	-0.009	-0.018	0.341	0.0058
29.034	0.800	7.450	0.334	-0.012	-0.012	0.334	0.0058
29.034	0.800	6.316	0.327	-0.016	-0.023	0.328	0.0058
29.034	0.800	5.182	0.311	-0.018	-0.029	0.312	0.0053
29.034	0.800	4.048	0.287	-0.011	-0.024	0.289	0.0049
29.034	0.800	2.914	0.258	-0.006	-0.027	0.260	0.0044
29.745	0.800	17.430	0.268	-0.008	0.172	0.319	0.0246
29.745	0.800	16.296	0.312	0.001	0.044	0.315	0.0140
29.745	0.800	15.162	0.334	-0.001	0.009	0.334	0.0101
29.745	0.800	14.028	0.343	-0.003	0.003	0.343	0.0086
29.745	0.800	12.894	0.351	-0.003	-0.003	0.351	0.0076
29.745	0.800	11.760	0.350	-0.008	-0.006	0.350	0.0071
29.745	0.800	10.626	0.353	-0.008	-0.013	0.353	0.0068
29.745	0.800	9.491	0.357	-0.013	-0.019	0.357	0.0058
29.745	0.800	8.357	0.349	-0.015	-0.015	0.350	0.0054
29.745	0.800	7.223	0.349	-0.016	-0.022	0.350	0.0052
29.745	0.800	6.089	0.338	-0.018	-0.024	0.340	0.0052
29.745	0.800	4.955	0.307	-0.017	-0.024	0.309	0.0052
29.745	0.800	3.821	0.288	-0.011	-0.024	0.289	0.0051
29.745	0.800	2.687	0.252	-0.004	-0.028	0.253	0.0043
30.425	0.800	16.749	0.310	0.000	0.053	0.314	0.0177
30.425	0.800	15.615	0.330	0.001	0.018	0.331	0.0103
30.425	0.800	14.481	0.340	-0.001	-0.003	0.340	0.0082
30.425	0.800	13.347	0.350	-0.001	-0.011	0.351	0.0078
30.425	0.800	12.213	0.350	-0.005	-0.014	0.351	0.0069
30.425	0.800	11.079	0.347	-0.007	-0.011	0.347	0.0067
30.425	0.800	9.945	0.353	-0.012	-0.018	0.353	0.0059
30.425	0.800	8.811	0.349	-0.015	-0.014	0.349	0.0056

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
30.425	0.800	7.677	0.347	-0.015	-0.020	0.348	0.0056
30.425	0.800	6.543	0.338	-0.023	-0.025	0.340	0.0055
30.425	0.800	5.409	0.323	-0.018	-0.025	0.324	0.0054
30.425	0.800	4.275	0.297	-0.011	-0.031	0.299	0.0049
30.425	0.800	3.141	0.269	-0.008	-0.030	0.271	0.0044
31.105	0.800	17.203	0.292	0.004	0.066	0.299	0.0203
31.105	0.800	16.069	0.326	0.005	0.006	0.326	0.0118
31.105	0.800	14.935	0.338	0.001	-0.006	0.338	0.0093
31.105	0.800	13.801	0.338	-0.003	0.000	0.338	0.0083
31.105	0.800	12.667	0.345	-0.007	-0.002	0.345	0.0073
31.105	0.800	11.533	0.349	-0.008	-0.013	0.349	0.0068
31.105	0.800	10.399	0.351	-0.011	-0.020	0.352	0.0063
31.105	0.800	9.265	0.351	-0.015	-0.013	0.352	0.0061
31.105	0.800	8.131	0.349	-0.014	-0.016	0.350	0.0058
31.105	0.800	6.997	0.342	-0.015	-0.027	0.343	0.0057
31.105	0.800	5.863	0.331	-0.019	-0.026	0.333	0.0055
31.105	0.800	4.728	0.311	-0.010	-0.032	0.313	0.0052
31.105	0.800	3.594	0.281	-0.008	-0.032	0.283	0.0047
31.786	0.800	16.523	0.321	0.004	0.007	0.321	0.0140
31.786	0.800	15.389	0.334	0.006	-0.014	0.334	0.0098
31.786	0.800	14.254	0.343	0.003	-0.005	0.343	0.0080
31.786	0.800	13.120	0.346	-0.004	-0.009	0.346	0.0075
31.786	0.800	11.986	0.351	-0.003	-0.014	0.351	0.0068
31.786	0.800	10.852	0.346	-0.008	-0.013	0.346	0.0065
31.786	0.800	9.718	0.349	-0.015	-0.022	0.350	0.0059
31.786	0.800	8.584	0.355	-0.014	-0.021	0.356	0.0056
31.786	0.800	7.450	0.348	-0.017	-0.026	0.350	0.0053
31.786	0.800	6.316	0.337	-0.019	-0.030	0.339	0.0052
31.786	0.800	5.182	0.319	-0.017	-0.029	0.321	0.0052
31.786	0.800	4.048	0.296	-0.012	-0.036	0.298	0.0051
31.786	0.800	2.914	0.264	-0.005	-0.027	0.265	0.0043
32.466	0.800	16.976	0.313	0.001	0.023	0.314	0.0165
32.466	0.800	15.842	0.332	0.002	0.000	0.332	0.0109
32.466	0.800	14.708	0.343	0.000	-0.010	0.343	0.0088
32.466	0.800	13.574	0.341	-0.001	-0.005	0.341	0.0080
32.466	0.800	12.440	0.348	-0.003	-0.011	0.348	0.0069
32.466	0.800	11.306	0.347	-0.008	-0.006	0.347	0.0062
32.466	0.800	10.172	0.352	-0.013	-0.018	0.353	0.0062
32.466	0.800	9.038	0.354	-0.014	-0.022	0.355	0.0059

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
32.466	0.800	7.904	0.350	-0.017	-0.026	0.351	0.0053
32.466	0.800	6.770	0.341	-0.014	-0.025	0.342	0.0055
32.466	0.800	5.636	0.327	-0.017	-0.034	0.329	0.0050
32.466	0.800	4.502	0.308	-0.016	-0.035	0.310	0.0053
32.466	0.800	3.368	0.275	-0.007	-0.032	0.277	0.0046
33.147	0.800	17.430	0.302	0.001	0.040	0.305	0.0172
33.147	0.800	16.296	0.317	0.006	0.017	0.318	0.0123
33.147	0.800	15.162	0.332	0.001	0.001	0.332	0.0099
33.147	0.800	14.028	0.341	0.004	-0.011	0.341	0.0082
33.147	0.800	12.894	0.348	0.000	-0.005	0.348	0.0072
33.147	0.800	11.760	0.350	-0.003	-0.006	0.350	0.0067
33.147	0.800	10.626	0.354	-0.011	-0.015	0.354	0.0063
33.147	0.800	9.491	0.351	-0.012	-0.020	0.351	0.0057
33.147	0.800	8.357	0.352	-0.012	-0.025	0.353	0.0054
33.147	0.800	7.223	0.344	-0.017	-0.027	0.346	0.0055
33.147	0.800	6.089	0.334	-0.016	-0.033	0.336	0.0047
33.147	0.800	4.955	0.315	-0.013	-0.032	0.317	0.0051
33.147	0.800	3.821	0.291	-0.010	-0.033	0.293	0.0047
33.147	0.800	2.687	0.255	-0.001	-0.025	0.256	0.0041
33.827	0.800	16.749	0.316	0.007	0.004	0.316	0.0130
33.827	0.800	15.615	0.330	0.001	-0.007	0.330	0.0098
33.827	0.800	14.481	0.342	0.004	-0.010	0.342	0.0078
33.827	0.800	13.347	0.341	-0.003	-0.007	0.341	0.0074
33.827	0.800	12.213	0.353	-0.004	-0.012	0.353	0.0065
33.827	0.800	11.079	0.349	-0.004	-0.014	0.350	0.0067
33.827	0.800	9.945	0.351	-0.011	-0.018	0.351	0.0059
33.827	0.800	8.811	0.357	-0.011	-0.028	0.358	0.0057
33.827	0.800	7.677	0.350	-0.019	-0.027	0.351	0.0054
33.827	0.800	6.543	0.341	-0.017	-0.031	0.343	0.0054
33.827	0.800	5.409	0.321	-0.016	-0.031	0.323	0.0052
33.827	0.800	4.275	0.299	-0.013	-0.033	0.301	0.0050
33.827	0.800	3.141	0.272	-0.006	-0.028	0.273	0.0045
34.508	0.800	17.203	0.290	0.004	0.055	0.295	0.0192
34.508	0.800	16.069	0.318	0.007	0.013	0.319	0.0116
34.508	0.800	14.935	0.333	0.003	-0.008	0.333	0.0082
34.508	0.800	13.801	0.337	0.000	0.000	0.337	0.0081
34.508	0.800	12.667	0.349	-0.001	-0.020	0.349	0.0070
34.508	0.800	11.533	0.353	-0.005	-0.023	0.354	0.0065
34.508	0.800	10.399	0.346	-0.007	-0.021	0.346	0.0061

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
34.508	0.800	9.265	0.353	-0.013	-0.024	0.354	0.0055
34.508	0.800	8.131	0.348	-0.016	-0.026	0.349	0.0056
34.508	0.800	6.997	0.338	-0.016	-0.032	0.340	0.0051
34.508	0.800	5.863	0.333	-0.013	-0.032	0.335	0.0052
34.508	0.800	4.728	0.307	-0.015	-0.026	0.308	0.0050
34.508	0.800	3.594	0.284	-0.008	-0.030	0.286	0.0048
35.188	0.800	16.523	0.306	0.013	0.024	0.308	0.0141
35.188	0.800	15.389	0.324	0.004	0.001	0.324	0.0093
35.188	0.800	14.254	0.337	0.003	-0.008	0.337	0.0080
35.188	0.800	13.120	0.343	0.003	-0.013	0.343	0.0078
35.188	0.800	11.986	0.348	-0.004	-0.015	0.348	0.0070
35.188	0.800	10.852	0.347	-0.006	-0.015	0.347	0.0067
35.188	0.800	9.718	0.350	-0.012	-0.021	0.351	0.0058
35.188	0.800	8.584	0.352	-0.014	-0.027	0.353	0.0056
35.188	0.800	7.450	0.347	-0.019	-0.028	0.348	0.0053
35.188	0.800	6.316	0.335	-0.015	-0.036	0.337	0.0051
35.188	0.800	5.182	0.319	-0.012	-0.034	0.321	0.0051
35.188	0.800	4.048	0.295	-0.009	-0.032	0.297	0.0047
35.188	0.800	2.914	0.265	-0.002	-0.031	0.267	0.0041
35.868	0.800	16.976	0.294	0.008	0.038	0.297	0.0182
35.868	0.800	15.842	0.322	0.005	-0.003	0.322	0.0111
35.868	0.800	14.708	0.334	0.006	-0.010	0.334	0.0085
35.868	0.800	13.574	0.337	0.005	-0.007	0.337	0.0076
35.868	0.800	12.440	0.347	0.002	-0.017	0.348	0.0070
35.868	0.800	11.306	0.348	0.000	-0.014	0.348	0.0061
35.868	0.800	10.172	0.347	-0.005	-0.023	0.347	0.0061
35.868	0.800	9.038	0.347	-0.010	-0.021	0.348	0.0059
35.868	0.800	7.904	0.345	-0.013	-0.030	0.347	0.0056
35.868	0.800	6.770	0.341	-0.015	-0.033	0.343	0.0050
35.868	0.800	5.636	0.326	-0.012	-0.032	0.328	0.0052
35.868	0.800	4.502	0.304	-0.006	-0.036	0.306	0.0050
35.868	0.800	3.368	0.276	-0.005	-0.039	0.278	0.0045
36.549	0.800	17.430	0.265	0.000	0.109	0.287	0.0228
36.549	0.800	16.296	0.315	0.005	0.018	0.316	0.0122
36.549	0.800	15.162	0.321	0.004	-0.002	0.321	0.0087
36.549	0.800	14.028	0.333	0.003	-0.011	0.333	0.0081
36.549	0.800	12.894	0.344	0.003	-0.016	0.344	0.0069
36.549	0.800	11.760	0.349	0.002	-0.017	0.349	0.0065
36.549	0.800	10.626	0.348	-0.004	-0.018	0.348	0.0065

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
36.549	0.800	9.491	0.349	-0.007	-0.022	0.349	0.0060
36.549	0.800	8.357	0.346	-0.009	-0.031	0.347	0.0058
36.549	0.800	7.223	0.348	-0.015	-0.030	0.349	0.0056
36.549	0.800	6.089	0.331	-0.012	-0.031	0.332	0.0050
36.549	0.800	4.955	0.315	-0.009	-0.040	0.318	0.0050
36.549	0.800	3.821	0.289	-0.009	-0.033	0.291	0.0048
36.549	0.800	2.687	0.252	-0.001	-0.029	0.253	0.0042
37.229	0.800	16.749	0.292	0.008	0.043	0.295	0.0170
37.229	0.800	15.615	0.320	0.006	0.009	0.321	0.0098
37.229	0.800	14.481	0.326	0.005	-0.007	0.326	0.0078
37.229	0.800	13.347	0.338	0.002	-0.011	0.338	0.0077
37.229	0.800	12.213	0.346	0.001	-0.022	0.346	0.0061
37.229	0.800	11.079	0.346	-0.001	-0.019	0.347	0.0061
37.229	0.800	9.945	0.347	-0.006	-0.022	0.347	0.0060
37.229	0.800	8.811	0.352	-0.008	-0.032	0.354	0.0056
37.229	0.800	7.677	0.346	-0.013	-0.030	0.347	0.0055
37.229	0.800	6.543	0.335	-0.014	-0.029	0.336	0.0051
37.229	0.800	5.409	0.323	-0.010	-0.042	0.326	0.0050
37.229	0.800	4.275	0.300	-0.006	-0.040	0.303	0.0047
37.229	0.800	3.141	0.263	-0.003	-0.037	0.266	0.0043
37.910	0.800	17.203	0.265	0.000	0.110	0.287	0.0227
37.910	0.800	16.069	0.313	0.011	0.022	0.314	0.0127
37.910	0.800	14.935	0.330	0.009	-0.007	0.331	0.0083
37.910	0.800	13.801	0.334	0.004	-0.015	0.334	0.0077
37.910	0.800	12.667	0.344	0.002	-0.016	0.345	0.0066
37.910	0.800	11.533	0.347	0.000	-0.019	0.348	0.0058
37.910	0.800	10.399	0.345	-0.002	-0.022	0.346	0.0059
37.910	0.800	9.265	0.352	-0.008	-0.026	0.353	0.0056
37.910	0.800	8.131	0.348	-0.010	-0.027	0.349	0.0056
37.910	0.800	6.997	0.342	-0.010	-0.031	0.344	0.0050
37.910	0.800	5.863	0.328	-0.010	-0.036	0.330	0.0051
37.910	0.800	4.728	0.308	-0.008	-0.036	0.310	0.0049
37.910	0.800	3.594	0.277	-0.003	-0.038	0.279	0.0046
38.590	0.800	16.523	0.293	0.002	0.035	0.295	0.0144
38.590	0.800	15.389	0.318	0.008	-0.003	0.318	0.0095
38.590	0.800	14.254	0.328	0.008	-0.005	0.328	0.0080
38.590	0.800	13.120	0.337	0.004	-0.013	0.337	0.0069
38.590	0.800	11.986	0.346	0.001	-0.016	0.346	0.0064
38.590	0.800	10.852	0.344	-0.003	-0.019	0.345	0.0062

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
38.590	0.800	9.718	0.350	-0.004	-0.026	0.351	0.0061
38.590	0.800	8.584	0.349	-0.010	-0.030	0.350	0.0057
38.590	0.800	7.450	0.341	-0.010	-0.027	0.342	0.0054
38.590	0.800	6.316	0.331	-0.012	-0.036	0.333	0.0052
38.590	0.800	5.182	0.316	-0.009	-0.037	0.319	0.0048
38.590	0.800	4.048	0.295	-0.007	-0.038	0.297	0.0047
38.590	0.800	2.914	0.251	-0.003	-0.029	0.252	0.0045
39.271	0.800	16.976	0.270	0.005	0.068	0.279	0.0196
39.271	0.800	15.842	0.315	0.003	0.002	0.315	0.0109
39.271	0.800	14.708	0.327	0.007	-0.009	0.327	0.0090
39.271	0.800	13.574	0.332	0.004	-0.012	0.332	0.0072
39.271	0.800	12.440	0.340	0.002	-0.016	0.340	0.0068
39.271	0.800	11.306	0.346	-0.001	-0.019	0.347	0.0061
39.271	0.800	10.172	0.348	-0.007	-0.025	0.349	0.0057
39.271	0.800	9.038	0.347	-0.005	-0.026	0.348	0.0053
39.271	0.800	7.904	0.343	-0.008	-0.032	0.345	0.0052
39.271	0.800	6.770	0.333	-0.005	-0.038	0.335	0.0050
39.271	0.800	5.636	0.320	-0.008	-0.034	0.322	0.0050
39.271	0.800	4.502	0.296	-0.006	-0.041	0.299	0.0048
39.271	0.800	3.368	0.262	-0.002	-0.041	0.265	0.0046
39.951	0.800	17.430	0.251	-0.001	0.102	0.271	0.0235
39.951	0.800	16.296	0.302	0.005	0.012	0.302	0.0133
39.951	0.800	15.162	0.318	0.007	-0.009	0.318	0.0089
39.951	0.800	14.028	0.326	0.009	-0.004	0.326	0.0078
39.951	0.800	12.894	0.337	0.005	-0.014	0.337	0.0070
39.951	0.800	11.760	0.344	0.000	-0.015	0.344	0.0062
39.951	0.800	10.626	0.345	-0.002	-0.022	0.346	0.0061
39.951	0.800	9.491	0.343	-0.005	-0.027	0.344	0.0057
39.951	0.800	8.357	0.343	-0.010	-0.035	0.345	0.0051
39.951	0.800	7.223	0.338	-0.006	-0.038	0.341	0.0052
39.951	0.800	6.089	0.328	-0.002	-0.042	0.331	0.0052
39.951	0.800	4.955	0.308	-0.007	-0.038	0.310	0.0049
39.951	0.800	3.821	0.272	-0.003	-0.038	0.275	0.0050
39.951	0.800	2.687	0.235	0.000	-0.026	0.236	0.0044
40.631	0.800	16.749	0.292	0.008	0.029	0.293	0.0155
40.631	0.800	15.615	0.321	0.005	0.000	0.321	0.0100
40.631	0.800	14.481	0.326	0.008	-0.010	0.326	0.0091
40.631	0.800	13.347	0.333	0.005	-0.013	0.334	0.0074
40.631	0.800	12.213	0.340	0.004	-0.023	0.341	0.0066

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
40.631	0.800	11.079	0.341	0.001	-0.024	0.342	0.0069
40.631	0.800	9.945	0.345	-0.005	-0.026	0.346	0.0058
40.631	0.800	8.811	0.343	-0.006	-0.031	0.344	0.0056
40.631	0.800	7.677	0.340	-0.007	-0.031	0.342	0.0050
40.631	0.800	6.543	0.332	-0.006	-0.035	0.333	0.0051
40.631	0.800	5.409	0.316	-0.004	-0.041	0.319	0.0049
40.631	0.800	4.275	0.288	-0.002	-0.038	0.290	0.0046
40.631	0.800	3.141	0.249	0.002	-0.027	0.251	0.0044
41.312	0.800	17.203	0.271	0.006	0.046	0.275	0.0200
41.312	0.800	16.069	0.305	0.008	0.000	0.305	0.0111
41.312	0.800	14.935	0.321	0.009	-0.015	0.321	0.0087
41.312	0.800	13.801	0.327	0.004	-0.010	0.327	0.0073
41.312	0.800	12.667	0.338	0.004	-0.019	0.338	0.0066
41.312	0.800	11.533	0.341	0.005	-0.019	0.341	0.0067
41.312	0.800	10.399	0.344	0.000	-0.027	0.345	0.0059
41.312	0.800	9.265	0.342	-0.003	-0.032	0.343	0.0057
41.312	0.800	8.131	0.343	-0.006	-0.033	0.345	0.0061
41.312	0.800	6.997	0.333	-0.006	-0.040	0.336	0.0051
41.312	0.800	5.863	0.320	-0.003	-0.041	0.323	0.0051
41.312	0.800	4.728	0.298	0.000	-0.041	0.301	0.0051
41.312	0.800	3.594	0.265	0.001	-0.039	0.268	0.0048
41.992	0.800	16.523	0.305	0.009	0.002	0.305	0.0137
41.992	0.800	15.389	0.318	0.012	-0.011	0.319	0.0097
41.992	0.800	14.254	0.323	0.007	-0.022	0.324	0.0083
41.992	0.800	13.120	0.330	0.000	-0.009	0.330	0.0069
41.992	0.800	11.986	0.340	0.004	-0.019	0.341	0.0063
41.992	0.800	10.852	0.341	-0.001	-0.022	0.342	0.0059
41.992	0.800	9.718	0.343	-0.006	-0.027	0.344	0.0058
41.992	0.800	8.584	0.342	-0.004	-0.032	0.344	0.0053
41.992	0.800	7.450	0.334	-0.003	-0.033	0.335	0.0055
41.992	0.800	6.316	0.326	-0.003	-0.039	0.329	0.0054
41.992	0.800	5.182	0.309	0.000	-0.046	0.312	0.0050
41.992	0.800	4.048	0.279	-0.003	-0.040	0.282	0.0051
41.992	0.800	2.914	0.239	-0.002	-0.035	0.242	0.0050
42.673	0.800	16.976	0.296	0.009	0.021	0.297	0.0157
42.673	0.800	15.842	0.319	0.009	-0.004	0.319	0.0114
42.673	0.800	14.708	0.317	0.009	-0.010	0.317	0.0084
42.673	0.800	13.574	0.328	0.009	-0.005	0.328	0.0073
42.673	0.800	12.440	0.336	0.004	-0.016	0.337	0.0066

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
42.673	0.800	11.306	0.341	0.001	-0.020	0.341	0.0063
42.673	0.800	10.172	0.345	-0.002	-0.023	0.346	0.0056
42.673	0.800	9.038	0.339	0.000	-0.021	0.339	0.0056
42.673	0.800	7.904	0.336	-0.004	-0.040	0.339	0.0056
42.673	0.800	6.770	0.335	-0.003	-0.047	0.338	0.0052
42.673	0.800	5.636	0.317	-0.001	-0.042	0.320	0.0051
42.673	0.800	4.502	0.289	-0.002	-0.040	0.292	0.0050
42.673	0.800	3.368	0.251	-0.001	-0.032	0.253	0.0050
43.353	0.800	17.430	0.282	0.005	0.032	0.284	0.0196
43.353	0.800	16.296	0.306	0.009	0.003	0.306	0.0122
43.353	0.800	15.162	0.313	0.013	-0.002	0.314	0.0095
43.353	0.800	14.028	0.324	0.005	-0.010	0.324	0.0077
43.353	0.800	12.894	0.332	0.005	-0.016	0.333	0.0075
43.353	0.800	11.760	0.339	0.005	-0.018	0.339	0.0065
43.353	0.800	10.626	0.345	0.001	-0.024	0.346	0.0060
43.353	0.800	9.491	0.340	0.000	-0.027	0.341	0.0063
43.353	0.800	8.357	0.338	-0.002	-0.030	0.339	0.0056
43.353	0.800	7.223	0.336	-0.001	-0.040	0.338	0.0053
43.353	0.800	6.089	0.327	-0.001	-0.043	0.330	0.0053
43.353	0.800	4.955	0.298	0.001	-0.041	0.301	0.0055
43.353	0.800	3.821	0.264	-0.001	-0.035	0.267	0.0050
43.353	0.800	2.687	0.219	0.002	-0.026	0.220	0.0052
44.034	0.800	16.749	0.302	0.006	0.003	0.302	0.0136
44.034	0.800	15.615	0.317	0.010	-0.011	0.317	0.0102
44.034	0.800	14.481	0.320	0.006	-0.015	0.321	0.0086
44.034	0.800	13.347	0.327	0.005	-0.011	0.327	0.0075
44.034	0.800	12.213	0.335	0.006	-0.018	0.336	0.0063
44.034	0.800	11.079	0.338	0.000	-0.028	0.339	0.0062
44.034	0.800	9.945	0.343	0.003	-0.027	0.344	0.0059
44.034	0.800	8.811	0.341	-0.003	-0.035	0.343	0.0057
44.034	0.800	7.677	0.337	0.000	-0.036	0.339	0.0057
44.034	0.800	6.543	0.324	0.000	-0.042	0.327	0.0057
44.034	0.800	5.409	0.305	-0.001	-0.042	0.308	0.0057
44.034	0.800	4.275	0.279	0.002	-0.044	0.283	0.0051
44.034	0.800	3.141	0.235	0.003	-0.033	0.238	0.0053
44.745	0.800	16.976	0.279	0.006	0.036	0.281	0.0150
44.745	0.800	16.296	0.298	0.005	0.018	0.299	0.0119
44.745	0.800	15.615	0.313	0.005	0.003	0.314	0.0093
44.745	0.800	14.935	0.324	0.005	-0.003	0.324	0.0096

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.745	0.800	14.254	0.332	0.010	-0.010	0.333	0.0081
44.745	0.800	13.574	0.336	0.007	-0.009	0.337	0.0077
44.745	0.800	12.894	0.346	0.005	-0.013	0.346	0.0072
44.745	0.800	12.213	0.354	0.003	-0.026	0.355	0.0069
44.745	0.800	11.533	0.361	0.002	-0.030	0.363	0.0064
44.745	0.800	10.852	0.362	0.004	-0.030	0.363	0.0061
44.745	0.800	10.172	0.362	0.003	-0.032	0.363	0.0058
44.745	0.800	9.491	0.362	0.002	-0.035	0.363	0.0060
44.745	0.800	8.811	0.353	0.001	-0.044	0.356	0.0055
44.745	0.800	8.131	0.351	0.003	-0.040	0.353	0.0058
44.745	0.800	7.450	0.335	0.004	-0.041	0.338	0.0055
44.745	0.800	6.770	0.328	0.006	-0.040	0.331	0.0054
44.745	0.800	6.089	0.313	0.011	-0.046	0.317	0.0052
44.745	0.800	5.409	0.300	0.005	-0.040	0.302	0.0054
44.745	0.800	4.728	0.281	0.008	-0.035	0.284	0.0055
44.745	0.800	4.048	0.259	0.004	-0.040	0.262	0.0054
44.745	0.800	3.368	0.235	0.008	-0.027	0.236	0.0052
44.745	0.800	2.687	0.198	0.010	-0.022	0.199	0.0049
45.879	0.800	17.203	0.281	0.000	0.041	0.284	0.0163
45.879	0.800	16.523	0.298	0.006	0.007	0.298	0.0123
45.879	0.800	15.842	0.309	0.005	-0.014	0.310	0.0106
45.879	0.800	15.162	0.317	0.004	-0.008	0.318	0.0094
45.879	0.800	14.481	0.332	0.009	-0.009	0.332	0.0085
45.879	0.800	13.801	0.337	0.007	-0.016	0.337	0.0074
45.879	0.800	13.120	0.342	0.010	-0.019	0.343	0.0070
45.879	0.800	12.440	0.353	0.008	-0.023	0.354	0.0071
45.879	0.800	11.760	0.356	0.008	-0.027	0.357	0.0065
45.879	0.800	11.079	0.360	0.001	-0.032	0.361	0.0065
45.879	0.800	10.399	0.361	-0.001	-0.027	0.362	0.0059
45.879	0.800	9.718	0.362	0.002	-0.032	0.363	0.0056
45.879	0.800	9.038	0.355	-0.001	-0.042	0.357	0.0057
45.879	0.800	8.357	0.347	0.004	-0.042	0.349	0.0056
45.879	0.800	7.677	0.341	0.007	-0.042	0.344	0.0055
45.879	0.800	6.997	0.331	0.008	-0.046	0.334	0.0053
45.879	0.800	6.316	0.315	0.010	-0.040	0.318	0.0057
45.879	0.800	5.636	0.302	0.011	-0.044	0.306	0.0056
45.879	0.800	4.955	0.283	0.010	-0.045	0.287	0.0049
45.879	0.800	4.275	0.261	0.010	-0.038	0.264	0.0052
45.879	0.800	3.594	0.231	0.012	-0.032	0.233	0.0055

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
45.879	0.800	2.914	0.197	0.012	-0.011	0.197	0.0055
47.013	0.800	17.430	0.278	0.000	0.023	0.279	0.0177
47.013	0.800	16.749	0.302	0.004	0.002	0.302	0.0116
47.013	0.800	16.069	0.308	0.006	-0.014	0.309	0.0102
47.013	0.800	15.389	0.324	0.007	-0.016	0.324	0.0087
47.013	0.800	14.708	0.324	0.006	-0.015	0.325	0.0086
47.013	0.800	14.028	0.330	0.007	-0.014	0.331	0.0075
47.013	0.800	13.347	0.341	0.006	-0.021	0.342	0.0072
47.013	0.800	12.667	0.348	0.008	-0.019	0.349	0.0071
47.013	0.800	11.986	0.352	0.003	-0.022	0.352	0.0062
47.013	0.800	11.306	0.355	0.008	-0.025	0.356	0.0060
47.013	0.800	10.626	0.353	0.006	-0.030	0.354	0.0062
47.013	0.800	9.945	0.355	0.005	-0.038	0.357	0.0056
47.013	0.800	9.265	0.356	0.004	-0.043	0.359	0.0055
47.013	0.800	8.584	0.350	0.011	-0.042	0.352	0.0051
47.013	0.800	7.904	0.345	0.007	-0.044	0.347	0.0053
47.013	0.800	7.223	0.333	0.008	-0.047	0.337	0.0050
47.013	0.800	6.543	0.318	0.012	-0.045	0.321	0.0055
47.013	0.800	5.863	0.304	0.012	-0.047	0.307	0.0054
47.013	0.800	5.182	0.283	0.011	-0.045	0.286	0.0051
47.013	0.800	4.502	0.265	0.014	-0.042	0.269	0.0057
47.013	0.800	3.821	0.236	0.009	-0.033	0.238	0.0057
47.013	0.800	3.141	0.205	0.011	-0.030	0.207	0.0056
48.147	0.800	16.976	0.289	0.005	0.014	0.289	0.0117
48.147	0.800	16.296	0.301	0.003	0.006	0.301	0.0105
48.147	0.800	15.615	0.310	0.005	-0.008	0.310	0.0092
48.147	0.800	14.935	0.323	0.010	-0.019	0.323	0.0086
48.147	0.800	14.254	0.325	0.005	-0.014	0.326	0.0076
48.147	0.800	13.574	0.334	0.010	-0.015	0.335	0.0070
48.147	0.800	12.894	0.342	0.010	-0.020	0.343	0.0066
48.147	0.800	12.213	0.348	0.010	-0.026	0.349	0.0069
48.147	0.800	11.533	0.357	0.006	-0.026	0.358	0.0060
48.147	0.800	10.852	0.356	0.011	-0.028	0.357	0.0059
48.147	0.800	10.172	0.354	0.010	-0.035	0.355	0.0056
48.147	0.800	9.491	0.352	0.008	-0.038	0.354	0.0055
48.147	0.800	8.811	0.351	0.006	-0.045	0.354	0.0055
48.147	0.800	8.131	0.343	0.007	-0.047	0.347	0.0053
48.147	0.800	7.450	0.336	0.010	-0.043	0.339	0.0054
48.147	0.800	6.770	0.322	0.010	-0.044	0.325	0.0051

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
48.147	0.800	6.089	0.305	0.010	-0.045	0.308	0.0053
48.147	0.800	5.409	0.285	0.014	-0.044	0.289	0.0050
48.147	0.800	4.728	0.265	0.012	-0.036	0.267	0.0051
48.147	0.800	4.048	0.243	0.007	-0.036	0.246	0.0053
48.147	0.800	3.368	0.210	0.016	-0.028	0.212	0.0056
48.147	0.800	2.687	0.174	0.015	-0.017	0.175	0.0054
49.281	0.800	17.203	0.285	0.002	0.010	0.285	0.0136
49.281	0.800	16.523	0.303	-0.003	-0.008	0.303	0.0108
49.281	0.800	15.842	0.312	0.006	-0.007	0.313	0.0091
49.281	0.800	15.162	0.321	0.010	-0.014	0.321	0.0080
49.281	0.800	14.481	0.331	0.007	-0.020	0.331	0.0076
49.281	0.800	13.801	0.338	0.009	-0.021	0.338	0.0077
49.281	0.800	13.120	0.339	0.008	-0.021	0.340	0.0068
49.281	0.800	12.440	0.338	0.009	-0.021	0.339	0.0065
49.281	0.800	11.760	0.348	0.006	-0.024	0.349	0.0056
49.281	0.800	11.079	0.352	0.004	-0.036	0.354	0.0054
49.281	0.800	10.399	0.353	0.003	-0.039	0.355	0.0053
49.281	0.800	9.718	0.349	0.008	-0.039	0.352	0.0055
49.281	0.800	9.038	0.349	0.008	-0.038	0.351	0.0055
49.281	0.800	8.357	0.341	0.008	-0.044	0.344	0.0052
49.281	0.800	7.677	0.335	0.008	-0.047	0.338	0.0052
49.281	0.800	6.997	0.321	0.009	-0.045	0.324	0.0055
49.281	0.800	6.316	0.307	0.008	-0.049	0.311	0.0053
49.281	0.800	5.636	0.292	0.008	-0.047	0.296	0.0050
49.281	0.800	4.955	0.272	0.011	-0.037	0.275	0.0053
49.281	0.800	4.275	0.244	0.013	-0.030	0.247	0.0051
49.281	0.800	3.594	0.216	0.015	-0.026	0.218	0.0046
49.281	0.800	2.914	0.182	0.017	-0.008	0.183	0.0054
50.415	0.800	17.430	0.260	0.001	0.050	0.265	0.0155
50.415	0.800	16.749	0.282	0.002	0.021	0.282	0.0125
50.415	0.800	16.069	0.301	0.009	0.010	0.301	0.0105
50.415	0.800	15.389	0.317	0.009	-0.011	0.317	0.0083
50.415	0.800	14.708	0.320	0.008	-0.011	0.321	0.0081
50.415	0.800	14.028	0.329	0.011	-0.016	0.330	0.0074
50.415	0.800	13.347	0.336	0.005	-0.018	0.337	0.0070
50.415	0.800	12.667	0.345	0.005	-0.019	0.346	0.0061
50.415	0.800	11.986	0.350	0.007	-0.027	0.351	0.0062
50.415	0.800	11.306	0.354	0.007	-0.032	0.355	0.0057
50.415	0.800	10.626	0.353	0.007	-0.031	0.355	0.0056

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
50.415	0.800	9.945	0.350	0.007	-0.041	0.353	0.0055
50.415	0.800	9.265	0.346	0.003	-0.037	0.348	0.0058
50.415	0.800	8.584	0.338	0.006	-0.036	0.340	0.0058
50.415	0.800	7.904	0.335	0.007	-0.041	0.337	0.0052
50.415	0.800	7.223	0.322	0.006	-0.050	0.326	0.0055
50.415	0.800	6.543	0.311	0.009	-0.041	0.314	0.0054
50.415	0.800	5.863	0.291	0.010	-0.042	0.294	0.0054
50.415	0.800	5.182	0.275	0.013	-0.035	0.277	0.0053
50.415	0.800	4.502	0.256	0.012	-0.036	0.258	0.0052
50.415	0.800	3.821	0.225	0.014	-0.031	0.227	0.0053
50.415	0.800	3.141	0.194	0.015	-0.011	0.195	0.0055
51.549	0.800	16.976	0.283	0.006	0.017	0.284	0.0131
51.549	0.800	16.296	0.295	0.007	0.000	0.295	0.0102
51.549	0.800	15.615	0.311	0.009	-0.017	0.311	0.0091
51.549	0.800	14.935	0.320	0.010	-0.010	0.320	0.0081
51.549	0.800	14.254	0.323	0.010	-0.010	0.323	0.0073
51.549	0.800	13.574	0.326	0.007	-0.013	0.326	0.0071
51.549	0.800	12.894	0.338	0.009	-0.015	0.339	0.0062
51.549	0.800	12.213	0.343	0.005	-0.017	0.343	0.0064
51.549	0.800	11.533	0.348	0.007	-0.027	0.349	0.0057
51.549	0.800	10.852	0.349	0.008	-0.032	0.351	0.0056
51.549	0.800	10.172	0.348	0.005	-0.033	0.350	0.0055
51.549	0.800	9.491	0.345	0.004	-0.034	0.347	0.0056
51.549	0.800	8.811	0.341	0.005	-0.036	0.343	0.0055
51.549	0.800	8.131	0.333	0.006	-0.033	0.334	0.0048
51.549	0.800	7.450	0.325	0.009	-0.043	0.328	0.0052
51.549	0.800	6.770	0.314	0.012	-0.046	0.318	0.0048
51.549	0.800	6.089	0.296	0.010	-0.037	0.298	0.0054
51.549	0.800	5.409	0.282	0.013	-0.032	0.284	0.0053
51.549	0.800	4.728	0.259	0.010	-0.030	0.261	0.0055
51.549	0.800	4.048	0.234	0.011	-0.031	0.236	0.0053
51.549	0.800	3.368	0.209	0.014	-0.020	0.211	0.0051
51.549	0.800	2.687	0.175	0.014	0.001	0.176	0.0054
52.683	0.800	17.203	0.272	0.015	0.025	0.274	0.0156
52.683	0.800	16.523	0.285	0.009	0.013	0.286	0.0105
52.683	0.800	15.842	0.307	0.015	-0.001	0.308	0.0093
52.683	0.800	15.162	0.314	0.008	-0.008	0.314	0.0084
52.683	0.800	14.481	0.323	0.010	-0.012	0.323	0.0075
52.683	0.800	13.801	0.327	0.012	-0.010	0.328	0.0068

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
52.683	0.800	13.120	0.335	0.011	-0.013	0.335	0.0064
52.683	0.800	12.440	0.341	0.011	-0.019	0.341	0.0059
52.683	0.800	11.760	0.345	0.002	-0.020	0.346	0.0058
52.683	0.800	11.079	0.347	0.005	-0.022	0.348	0.0056
52.683	0.800	10.399	0.346	0.005	-0.027	0.347	0.0053
52.683	0.800	9.718	0.346	0.005	-0.028	0.347	0.0052
52.683	0.800	9.038	0.339	0.004	-0.032	0.341	0.0054
52.683	0.800	8.357	0.337	0.005	-0.035	0.338	0.0051
52.683	0.800	7.677	0.327	0.007	-0.032	0.329	0.0051
52.683	0.800	6.997	0.319	0.009	-0.040	0.322	0.0053
52.683	0.800	6.316	0.305	0.006	-0.035	0.307	0.0054
52.683	0.800	5.636	0.285	0.009	-0.030	0.287	0.0056
52.683	0.800	4.955	0.262	0.012	-0.029	0.264	0.0057
52.683	0.800	4.275	0.240	0.014	-0.021	0.242	0.0052
52.683	0.800	3.594	0.218	0.013	-0.016	0.219	0.0052
52.683	0.800	2.914	0.189	0.012	-0.003	0.189	0.0050
53.817	0.800	17.430	0.263	0.006	0.047	0.267	0.0163
53.817	0.800	16.749	0.280	0.011	0.029	0.282	0.0126
53.817	0.800	16.069	0.295	0.011	0.018	0.296	0.0097
53.817	0.800	15.389	0.304	0.016	0.003	0.304	0.0076
53.817	0.800	14.708	0.317	0.011	-0.005	0.317	0.0078
53.817	0.800	14.028	0.326	0.016	-0.002	0.326	0.0070
53.817	0.800	13.347	0.331	0.014	-0.004	0.332	0.0066
53.817	0.800	12.667	0.332	0.010	-0.011	0.332	0.0064
53.817	0.800	11.986	0.339	0.009	-0.013	0.340	0.0057
53.817	0.800	11.306	0.342	0.006	-0.017	0.343	0.0055
53.817	0.800	10.626	0.344	0.008	-0.020	0.345	0.0051
53.817	0.800	9.945	0.344	0.008	-0.021	0.345	0.0056
53.817	0.800	9.265	0.343	0.006	-0.026	0.344	0.0053
53.817	0.800	8.584	0.334	0.006	-0.024	0.335	0.0051
53.817	0.800	7.904	0.333	0.004	-0.031	0.335	0.0051
53.817	0.800	7.223	0.316	0.006	-0.028	0.318	0.0052
53.817	0.800	6.543	0.303	0.007	-0.030	0.304	0.0052
53.817	0.800	5.863	0.290	0.007	-0.030	0.292	0.0055
53.817	0.800	5.182	0.272	0.009	-0.023	0.273	0.0052
53.817	0.800	4.502	0.247	0.009	-0.016	0.248	0.0052
53.817	0.800	3.821	0.227	0.010	-0.009	0.227	0.0055
53.817	0.800	3.141	0.200	0.009	0.000	0.200	0.0055
54.951	0.800	16.976	0.282	0.009	0.029	0.283	0.0138

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
54.951	0.800	16.296	0.294	0.017	0.018	0.295	0.0102
54.951	0.800	15.615	0.309	0.017	-0.002	0.309	0.0084
54.951	0.800	14.935	0.312	0.016	0.006	0.312	0.0078
54.951	0.800	14.254	0.320	0.015	0.011	0.320	0.0072
54.951	0.800	13.574	0.324	0.014	0.008	0.324	0.0066
54.951	0.800	12.894	0.333	0.014	-0.006	0.334	0.0062
54.951	0.800	12.213	0.344	0.013	0.001	0.345	0.0059
54.951	0.800	11.533	0.343	0.008	-0.006	0.343	0.0057
54.951	0.800	10.852	0.346	0.009	-0.013	0.346	0.0053
54.951	0.800	10.172	0.345	0.007	-0.012	0.345	0.0053
54.951	0.800	9.491	0.342	0.007	-0.018	0.342	0.0049
54.951	0.800	8.811	0.336	0.007	-0.018	0.337	0.0051
54.951	0.800	8.131	0.329	0.005	-0.023	0.329	0.0052
54.951	0.800	7.450	0.323	0.002	-0.022	0.324	0.0050
54.951	0.800	6.770	0.307	0.005	-0.018	0.308	0.0051
54.951	0.800	6.089	0.297	0.003	-0.021	0.298	0.0052
54.951	0.800	5.409	0.280	0.003	-0.015	0.281	0.0051
54.951	0.800	4.728	0.260	0.005	-0.011	0.260	0.0049
54.951	0.800	4.048	0.239	0.008	0.002	0.240	0.0050
54.951	0.800	3.368	0.210	0.010	0.009	0.210	0.0054
54.951	0.800	2.687	0.175	0.007	0.035	0.178	0.0063
56.085	0.800	17.203	0.285	0.017	0.033	0.288	0.0140
56.085	0.800	16.523	0.300	0.022	0.022	0.302	0.0109
56.085	0.800	15.842	0.306	0.020	0.023	0.307	0.0094
56.085	0.800	15.162	0.317	0.018	0.018	0.318	0.0084
56.085	0.800	14.481	0.318	0.024	0.023	0.319	0.0076
56.085	0.800	13.801	0.326	0.021	0.021	0.328	0.0066
56.085	0.800	13.120	0.331	0.021	0.015	0.332	0.0063
56.085	0.800	12.440	0.337	0.015	0.011	0.338	0.0059
56.085	0.800	11.760	0.337	0.014	0.005	0.337	0.0057
56.085	0.800	11.079	0.345	0.010	0.005	0.345	0.0055
56.085	0.800	10.399	0.344	0.009	0.004	0.344	0.0051
56.085	0.800	9.718	0.343	0.009	0.000	0.343	0.0051
56.085	0.800	9.038	0.341	0.005	-0.002	0.341	0.0049
56.085	0.800	8.357	0.334	0.005	0.000	0.334	0.0048
56.085	0.800	7.677	0.328	0.006	-0.008	0.328	0.0046
56.085	0.800	6.997	0.318	0.002	-0.007	0.318	0.0049
56.085	0.800	6.316	0.304	0.002	-0.004	0.304	0.0051
56.085	0.800	5.636	0.288	-0.004	-0.006	0.288	0.0053

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
56.085	0.800	4.955	0.273	-0.004	0.001	0.273	0.0053
56.085	0.800	4.275	0.256	-0.002	0.005	0.256	0.0051
56.085	0.800	3.594	0.228	0.002	0.011	0.228	0.0054
56.085	0.800	2.914	0.194	0.006	0.038	0.198	0.0066

Table D.4 Stereo PIV data for backward conic cavity with hydraulically smooth bed.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.642	0.800	10.334	0.442	-0.026	0.037	0.444	0.013
4.642	0.800	6.940	0.338	-0.014	0.267	0.431	0.040
4.869	0.800	10.560	0.450	-0.026	0.026	0.451	0.012
4.869	0.800	7.166	0.350	-0.017	0.223	0.415	0.040
5.095	0.800	10.787	0.449	-0.025	0.028	0.451	0.010
5.095	0.800	7.392	0.355	-0.014	0.225	0.421	0.035
5.321	0.800	11.013	0.459	-0.025	0.006	0.459	0.008
5.321	0.800	7.619	0.368	-0.019	0.182	0.411	0.033
5.548	0.800	11.239	0.462	-0.025	-0.005	0.463	0.008
5.548	0.800	7.845	0.389	-0.024	0.116	0.406	0.030
5.774	0.800	11.465	0.463	-0.024	-0.005	0.464	0.008
5.774	0.800	8.071	0.397	-0.024	0.094	0.409	0.024
6.000	0.800	11.692	0.466	-0.022	-0.009	0.467	0.007
6.000	0.800	8.297	0.412	-0.025	0.059	0.417	0.020
6.226	0.800	11.918	0.470	-0.023	-0.015	0.471	0.006
6.226	0.800	8.524	0.423	-0.026	0.036	0.426	0.017
6.453	0.800	12.144	0.471	-0.021	-0.020	0.472	0.006
6.453	0.800	8.750	0.433	-0.027	0.009	0.434	0.014
6.679	0.800	12.370	0.473	-0.019	-0.019	0.474	0.005
6.679	0.800	8.976	0.439	-0.027	0.006	0.439	0.012
6.905	0.800	12.597	0.472	-0.018	-0.023	0.473	0.005
6.905	0.800	9.203	0.442	-0.027	0.000	0.443	0.011
7.132	0.800	12.823	0.471	-0.016	-0.023	0.472	0.005
7.132	0.800	9.429	0.446	-0.027	0.000	0.447	0.010
7.358	0.800	13.049	0.471	-0.014	-0.023	0.472	0.005
7.358	0.800	9.655	0.448	-0.026	-0.004	0.449	0.009
7.584	0.800	13.276	0.470	-0.013	-0.025	0.470	0.005
7.584	0.800	9.881	0.451	-0.023	-0.006	0.452	0.009
7.810	0.800	13.502	0.468	-0.012	-0.025	0.468	0.005
7.810	0.800	10.108	0.454	-0.024	-0.010	0.455	0.009
7.810	0.800	6.713	0.316	-0.005	0.258	0.408	0.042
8.037	0.800	10.334	0.454	-0.023	-0.012	0.455	0.009
8.037	0.800	6.940	0.315	-0.009	0.274	0.418	0.047
8.263	0.800	10.560	0.453	-0.021	-0.016	0.454	0.008
8.263	0.800	7.166	0.325	-0.012	0.249	0.410	0.044
8.489	0.800	10.787	0.459	-0.021	-0.015	0.460	0.008
8.489	0.800	7.392	0.333	-0.014	0.234	0.407	0.044
8.716	0.800	11.013	0.461	-0.020	-0.018	0.462	0.008

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
8.716	0.800	7.619	0.342	-0.014	0.201	0.397	0.041
8.942	0.800	11.239	0.461	-0.018	-0.017	0.462	0.007
8.942	0.800	7.845	0.353	-0.018	0.174	0.394	0.037
9.168	0.800	11.465	0.465	-0.018	-0.019	0.466	0.007
9.168	0.800	8.071	0.366	-0.016	0.147	0.394	0.036
9.394	0.800	11.692	0.464	-0.019	-0.022	0.465	0.007
9.394	0.800	8.297	0.385	-0.019	0.104	0.400	0.029
9.621	0.800	11.918	0.465	-0.016	-0.019	0.466	0.006
9.621	0.800	8.524	0.395	-0.020	0.066	0.401	0.024
9.847	0.800	12.144	0.465	-0.015	-0.023	0.466	0.006
9.847	0.800	8.750	0.409	-0.020	0.035	0.411	0.020
10.073	0.800	12.370	0.465	-0.013	-0.024	0.466	0.005
10.073	0.800	8.976	0.415	-0.021	0.023	0.416	0.015
10.299	0.800	12.597	0.464	-0.011	-0.025	0.465	0.006
10.299	0.800	9.203	0.425	-0.023	0.010	0.426	0.013
10.526	0.800	12.823	0.466	-0.011	-0.028	0.467	0.005
10.526	0.800	9.429	0.432	-0.020	-0.001	0.432	0.011
10.752	0.800	13.049	0.461	-0.009	-0.027	0.462	0.005
10.752	0.800	9.655	0.434	-0.020	-0.006	0.435	0.011
10.978	0.800	13.276	0.457	-0.007	-0.025	0.458	0.005
10.978	0.800	9.881	0.441	-0.018	-0.010	0.441	0.009
11.205	0.800	13.502	0.457	-0.005	-0.026	0.458	0.005
11.205	0.800	10.108	0.444	-0.019	-0.017	0.445	0.009
11.205	0.800	6.713	0.322	-0.007	0.222	0.392	0.043
11.431	0.800	10.334	0.445	-0.018	-0.017	0.446	0.008
11.431	0.800	6.940	0.330	-0.010	0.190	0.381	0.041
11.657	0.800	10.560	0.448	-0.019	-0.021	0.449	0.008
11.657	0.800	7.166	0.344	-0.010	0.161	0.380	0.040
11.883	0.800	10.787	0.453	-0.016	-0.026	0.454	0.008
11.883	0.800	7.392	0.350	-0.013	0.149	0.380	0.038
12.110	0.800	11.013	0.455	-0.014	-0.028	0.456	0.008
12.110	0.800	7.619	0.368	-0.017	0.097	0.381	0.031
12.336	0.800	11.239	0.455	-0.014	-0.027	0.456	0.008
12.336	0.800	7.845	0.378	-0.017	0.071	0.385	0.030
12.562	0.800	11.465	0.455	-0.013	-0.031	0.456	0.007
12.562	0.800	8.071	0.396	-0.018	0.029	0.398	0.024
12.789	0.800	11.692	0.459	-0.014	-0.031	0.460	0.007
12.789	0.800	8.297	0.405	-0.019	0.029	0.406	0.021
13.015	0.800	11.918	0.458	-0.012	-0.033	0.459	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
13.015	0.800	8.524	0.414	-0.017	0.004	0.415	0.018
13.241	0.800	12.144	0.459	-0.012	-0.032	0.460	0.006
13.241	0.800	8.750	0.423	-0.018	-0.013	0.423	0.015
13.467	0.800	12.370	0.459	-0.010	-0.031	0.460	0.006
13.467	0.800	8.976	0.424	-0.016	-0.008	0.425	0.014
13.694	0.800	12.597	0.456	-0.009	-0.031	0.457	0.006
13.694	0.800	9.203	0.435	-0.018	-0.026	0.436	0.011
13.920	0.800	12.823	0.456	-0.007	-0.033	0.457	0.006
13.920	0.800	9.429	0.440	-0.016	-0.026	0.441	0.010
14.146	0.800	13.049	0.455	-0.004	-0.035	0.456	0.006
14.146	0.800	9.655	0.441	-0.018	-0.030	0.442	0.010
14.373	0.800	13.276	0.453	-0.003	-0.036	0.455	0.006
14.373	0.800	9.881	0.443	-0.017	-0.032	0.444	0.009
15.796	0.800	13.502	0.463	-0.008	-0.029	0.464	0.007
15.796	0.800	12.823	0.467	-0.013	-0.023	0.467	0.007
15.796	0.800	12.144	0.465	-0.013	-0.023	0.466	0.007
15.796	0.800	11.465	0.454	-0.016	-0.003	0.454	0.009
15.796	0.800	10.787	0.454	-0.018	0.005	0.454	0.011
15.796	0.800	10.108	0.440	-0.022	0.016	0.441	0.011
15.796	0.800	9.429	0.432	-0.022	0.018	0.433	0.012
15.796	0.800	8.750	0.423	-0.019	0.051	0.426	0.016
15.796	0.800	8.071	0.403	-0.015	0.075	0.411	0.020
15.796	0.800	7.392	0.371	-0.014	0.178	0.412	0.035
15.796	0.800	6.713	0.351	-0.008	0.213	0.411	0.034
16.927	0.800	13.276	0.464	-0.011	-0.031	0.465	0.007
16.927	0.800	12.597	0.465	-0.015	-0.032	0.466	0.007
16.927	0.800	11.918	0.466	-0.015	-0.027	0.467	0.007
16.927	0.800	11.239	0.458	-0.019	-0.015	0.458	0.008
16.927	0.800	10.560	0.455	-0.023	-0.019	0.456	0.009
16.927	0.800	9.881	0.445	-0.023	-0.009	0.445	0.009
16.927	0.800	9.203	0.445	-0.022	-0.008	0.445	0.011
16.927	0.800	8.524	0.430	-0.020	0.006	0.431	0.013
16.927	0.800	7.845	0.416	-0.022	0.022	0.418	0.016
16.927	0.800	7.166	0.405	-0.023	0.050	0.408	0.019
18.058	0.800	13.049	0.459	-0.010	-0.016	0.460	0.008
18.058	0.800	12.370	0.462	-0.014	-0.020	0.463	0.007
18.058	0.800	11.692	0.451	-0.016	-0.012	0.452	0.008
18.058	0.800	11.013	0.448	-0.020	-0.007	0.449	0.009
18.058	0.800	10.334	0.449	-0.020	-0.007	0.450	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
18.058	0.800	9.655	0.440	-0.020	0.000	0.441	0.009
18.058	0.800	8.976	0.431	-0.023	0.016	0.432	0.010
18.058	0.800	8.297	0.418	-0.021	0.018	0.419	0.012
18.058	0.800	7.619	0.408	-0.025	0.039	0.411	0.016
18.058	0.800	6.940	0.391	-0.017	0.041	0.393	0.018
19.190	0.800	13.502	0.465	-0.010	-0.034	0.466	0.007
19.190	0.800	12.823	0.464	-0.013	-0.032	0.465	0.007
19.190	0.800	12.144	0.463	-0.014	-0.029	0.464	0.007
19.190	0.800	11.465	0.457	-0.019	-0.021	0.458	0.009
19.190	0.800	10.787	0.459	-0.019	-0.031	0.461	0.009
19.190	0.800	10.108	0.453	-0.017	-0.012	0.453	0.008
19.190	0.800	9.429	0.443	-0.021	-0.013	0.444	0.010
19.190	0.800	8.750	0.428	-0.022	-0.005	0.429	0.012
19.190	0.800	8.071	0.424	-0.018	-0.009	0.424	0.014
19.190	0.800	7.392	0.405	-0.018	0.014	0.406	0.019
19.190	0.800	6.713	0.392	-0.019	0.040	0.395	0.020
20.321	0.800	13.276	0.461	-0.010	-0.040	0.463	0.007
20.321	0.800	12.597	0.459	-0.015	-0.036	0.461	0.007
20.321	0.800	11.918	0.455	-0.020	-0.031	0.456	0.007
20.321	0.800	11.239	0.455	-0.020	-0.035	0.457	0.009
20.321	0.800	10.560	0.452	-0.018	-0.021	0.453	0.009
20.321	0.800	9.881	0.437	-0.021	-0.003	0.437	0.010
20.321	0.800	9.203	0.437	-0.022	0.000	0.437	0.010
20.321	0.800	8.524	0.424	-0.021	0.006	0.425	0.013
20.321	0.800	7.845	0.406	-0.020	0.028	0.408	0.016
20.321	0.800	7.166	0.395	-0.018	0.047	0.398	0.021
21.453	0.800	13.049	0.464	-0.013	-0.044	0.467	0.007
21.453	0.800	12.370	0.464	-0.017	-0.039	0.466	0.006
21.453	0.800	11.692	0.463	-0.018	-0.031	0.464	0.008
21.453	0.800	11.013	0.460	-0.017	-0.042	0.462	0.007
21.453	0.800	10.334	0.456	-0.019	-0.041	0.459	0.008
21.453	0.800	9.655	0.447	-0.028	-0.032	0.449	0.009
21.453	0.800	8.976	0.443	-0.022	-0.036	0.445	0.011
21.453	0.800	8.297	0.426	-0.024	-0.025	0.428	0.013
21.453	0.800	7.619	0.419	-0.020	0.003	0.419	0.017
21.453	0.800	6.940	0.390	-0.020	0.026	0.392	0.022
22.584	0.800	13.502	0.464	-0.008	-0.044	0.466	0.006
22.584	0.800	12.823	0.466	-0.010	-0.050	0.468	0.006
22.584	0.800	12.144	0.466	-0.014	-0.045	0.469	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
22.584	0.800	11.465	0.462	-0.017	-0.045	0.464	0.007
22.584	0.800	10.787	0.458	-0.016	-0.047	0.461	0.008
22.584	0.800	10.108	0.452	-0.020	-0.041	0.455	0.008
22.584	0.800	9.429	0.443	-0.019	-0.033	0.444	0.009
22.584	0.800	8.750	0.431	-0.020	-0.036	0.433	0.012
22.584	0.800	8.071	0.416	-0.020	0.012	0.417	0.017
22.584	0.800	7.392	0.400	-0.020	0.025	0.401	0.022
22.584	0.800	6.713	0.371	-0.011	0.065	0.377	0.029
23.716	0.800	13.276	0.465	-0.014	-0.049	0.468	0.006
23.716	0.800	12.597	0.469	-0.018	-0.051	0.472	0.006
23.716	0.800	11.918	0.464	-0.017	-0.047	0.467	0.006
23.716	0.800	11.239	0.462	-0.019	-0.048	0.465	0.007
23.716	0.800	10.560	0.452	-0.019	-0.038	0.454	0.008
23.716	0.800	9.881	0.442	-0.019	-0.038	0.444	0.009
23.716	0.800	9.203	0.439	-0.019	-0.034	0.441	0.010
23.716	0.800	8.524	0.422	-0.018	-0.021	0.423	0.013
23.716	0.800	7.845	0.402	-0.022	0.013	0.403	0.021
23.716	0.800	7.166	0.373	-0.016	0.049	0.377	0.025
24.847	0.800	13.049	0.466	-0.012	-0.051	0.469	0.006
24.847	0.800	12.370	0.465	-0.015	-0.052	0.468	0.006
24.847	0.800	11.692	0.464	-0.021	-0.055	0.468	0.006
24.847	0.800	11.013	0.462	-0.022	-0.052	0.466	0.007
24.847	0.800	10.334	0.458	-0.020	-0.049	0.461	0.008
24.847	0.800	9.655	0.450	-0.027	-0.051	0.454	0.007
24.847	0.800	8.976	0.434	-0.019	-0.035	0.436	0.010
24.847	0.800	8.297	0.418	-0.022	-0.017	0.419	0.014
24.847	0.800	7.619	0.398	-0.017	0.012	0.399	0.024
24.847	0.800	6.940	0.382	-0.016	0.054	0.386	0.027
25.978	0.800	13.502	0.461	-0.015	-0.053	0.464	0.006
25.978	0.800	12.823	0.462	-0.019	-0.056	0.466	0.006
25.978	0.800	12.144	0.467	-0.019	-0.056	0.471	0.007
25.978	0.800	11.465	0.464	-0.020	-0.063	0.468	0.007
25.978	0.800	10.787	0.460	-0.019	-0.060	0.464	0.007
25.978	0.800	10.108	0.452	-0.024	-0.057	0.456	0.007
25.978	0.800	9.429	0.442	-0.022	-0.048	0.446	0.009
25.978	0.800	8.750	0.437	-0.021	-0.037	0.439	0.011
25.978	0.800	8.071	0.421	-0.018	-0.030	0.423	0.013
25.978	0.800	7.392	0.406	-0.023	-0.007	0.406	0.018
25.978	0.800	6.713	0.390	-0.015	0.017	0.390	0.023

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
27.110	0.800	13.276	0.461	-0.017	-0.059	0.465	0.006
27.110	0.800	12.597	0.462	-0.018	-0.057	0.466	0.006
27.110	0.800	11.918	0.461	-0.020	-0.060	0.465	0.006
27.110	0.800	11.239	0.461	-0.022	-0.068	0.467	0.007
27.110	0.800	10.560	0.461	-0.021	-0.067	0.466	0.007
27.110	0.800	9.881	0.452	-0.024	-0.056	0.456	0.007
27.110	0.800	9.203	0.447	-0.019	-0.054	0.451	0.008
27.110	0.800	8.524	0.438	-0.022	-0.059	0.443	0.011
27.110	0.800	7.845	0.432	-0.018	-0.048	0.435	0.014
27.110	0.800	7.166	0.415	-0.021	-0.035	0.417	0.014
28.241	0.800	13.049	0.462	-0.016	-0.054	0.466	0.006
28.241	0.800	12.370	0.463	-0.020	-0.059	0.467	0.006
28.241	0.800	11.692	0.466	-0.016	-0.068	0.471	0.006
28.241	0.800	11.013	0.461	-0.022	-0.067	0.466	0.007
28.241	0.800	10.334	0.458	-0.021	-0.067	0.463	0.007
28.241	0.800	9.655	0.452	-0.023	-0.064	0.457	0.006
28.241	0.800	8.976	0.451	-0.021	-0.069	0.457	0.007
28.241	0.800	8.297	0.444	-0.018	-0.067	0.449	0.010
28.241	0.800	7.619	0.442	-0.020	-0.073	0.448	0.011
28.241	0.800	6.940	0.422	-0.018	-0.059	0.427	0.014
29.373	0.800	13.502	0.451	-0.014	-0.059	0.455	0.006
29.373	0.800	12.823	0.461	-0.019	-0.065	0.466	0.006
29.373	0.800	12.144	0.462	-0.018	-0.064	0.467	0.006
29.373	0.800	11.465	0.463	-0.020	-0.072	0.469	0.006
29.373	0.800	10.787	0.462	-0.021	-0.067	0.467	0.006
29.373	0.800	10.108	0.457	-0.021	-0.072	0.463	0.006
29.373	0.800	9.429	0.451	-0.020	-0.071	0.457	0.007
29.373	0.800	8.750	0.450	-0.021	-0.079	0.458	0.007
29.373	0.800	8.071	0.441	-0.022	-0.084	0.449	0.011
29.373	0.800	7.392	0.437	-0.015	-0.083	0.445	0.011
29.373	0.800	6.713	0.425	-0.016	-0.082	0.433	0.011
30.796	0.800	13.049	0.446	-0.013	-0.055	0.449	0.008
30.796	0.800	12.370	0.446	-0.014	-0.043	0.448	0.009
30.796	0.800	11.692	0.444	-0.015	-0.041	0.446	0.010
30.796	0.800	11.013	0.436	-0.016	-0.042	0.439	0.013
30.796	0.800	10.334	0.431	-0.018	-0.023	0.432	0.014
30.796	0.800	9.655	0.422	-0.015	-0.026	0.423	0.014
30.796	0.800	8.976	0.413	-0.019	-0.021	0.414	0.016
30.796	0.800	8.297	0.399	-0.018	-0.002	0.399	0.019

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
30.796	0.800	7.619	0.383	-0.013	0.043	0.385	0.022
30.796	0.800	6.940	0.363	-0.009	0.078	0.372	0.028
31.927	0.800	13.502	0.441	-0.011	-0.052	0.444	0.007
31.927	0.800	12.823	0.448	-0.016	-0.056	0.452	0.008
31.927	0.800	12.144	0.445	-0.018	-0.057	0.449	0.009
31.927	0.800	11.465	0.443	-0.021	-0.052	0.447	0.010
31.927	0.800	10.787	0.441	-0.019	-0.051	0.445	0.011
31.927	0.800	10.108	0.437	-0.020	-0.057	0.441	0.010
31.927	0.800	9.429	0.433	-0.023	-0.060	0.438	0.011
31.927	0.800	8.750	0.423	-0.018	-0.047	0.426	0.012
31.927	0.800	8.071	0.410	-0.015	-0.043	0.413	0.013
31.927	0.800	7.392	0.392	-0.016	-0.011	0.392	0.018
31.927	0.800	6.713	0.383	-0.014	-0.016	0.384	0.019
33.058	0.800	13.276	0.437	-0.017	-0.053	0.441	0.007
33.058	0.800	12.597	0.439	-0.014	-0.058	0.443	0.008
33.058	0.800	11.918	0.435	-0.019	-0.045	0.438	0.009
33.058	0.800	11.239	0.433	-0.016	-0.040	0.435	0.009
33.058	0.800	10.560	0.428	-0.018	-0.045	0.431	0.010
33.058	0.800	9.881	0.426	-0.019	-0.038	0.428	0.010
33.058	0.800	9.203	0.415	-0.018	-0.041	0.417	0.011
33.058	0.800	8.524	0.414	-0.012	-0.040	0.416	0.012
33.058	0.800	7.845	0.398	-0.011	-0.018	0.398	0.015
33.058	0.800	7.166	0.388	-0.019	-0.024	0.389	0.015
34.190	0.800	13.049	0.440	-0.014	-0.061	0.444	0.007
34.190	0.800	12.370	0.441	-0.016	-0.063	0.446	0.007
34.190	0.800	11.692	0.445	-0.014	-0.069	0.450	0.007
34.190	0.800	11.013	0.438	-0.016	-0.060	0.443	0.008
34.190	0.800	10.334	0.434	-0.014	-0.072	0.441	0.009
34.190	0.800	9.655	0.429	-0.018	-0.069	0.435	0.009
34.190	0.800	8.976	0.419	-0.018	-0.057	0.423	0.011
34.190	0.800	8.297	0.410	-0.012	-0.055	0.414	0.011
34.190	0.800	7.619	0.402	-0.015	-0.052	0.406	0.014
34.190	0.800	6.940	0.387	-0.008	-0.045	0.389	0.015
35.321	0.800	13.502	0.435	-0.013	-0.059	0.439	0.006
35.321	0.800	12.823	0.435	-0.011	-0.054	0.439	0.006
35.321	0.800	12.144	0.435	-0.016	-0.067	0.440	0.007
35.321	0.800	11.465	0.437	-0.015	-0.068	0.443	0.007
35.321	0.800	10.787	0.436	-0.016	-0.069	0.442	0.009
35.321	0.800	10.108	0.431	-0.018	-0.060	0.435	0.008

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
35.321	0.800	9.429	0.420	-0.014	-0.059	0.424	0.008
35.321	0.800	8.750	0.423	-0.013	-0.078	0.430	0.008
35.321	0.800	8.071	0.408	-0.010	-0.066	0.414	0.011
35.321	0.800	7.392	0.399	-0.008	-0.053	0.402	0.012
35.321	0.800	6.713	0.388	-0.003	-0.037	0.390	0.016
36.453	0.800	13.276	0.432	-0.013	-0.066	0.437	0.006
36.453	0.800	12.597	0.435	-0.015	-0.062	0.440	0.006
36.453	0.800	11.918	0.437	-0.015	-0.067	0.442	0.006
36.453	0.800	11.239	0.439	-0.016	-0.072	0.445	0.007
36.453	0.800	10.560	0.437	-0.016	-0.079	0.444	0.007
36.453	0.800	9.881	0.429	-0.018	-0.077	0.436	0.007
36.453	0.800	9.203	0.429	-0.015	-0.081	0.437	0.007
36.453	0.800	8.524	0.416	-0.013	-0.072	0.423	0.008
36.453	0.800	7.845	0.403	-0.010	-0.072	0.409	0.011
36.453	0.800	7.166	0.391	-0.004	-0.071	0.398	0.012
37.584	0.800	13.049	0.431	-0.016	-0.058	0.435	0.005
37.584	0.800	12.370	0.432	-0.017	-0.064	0.437	0.006
37.584	0.800	11.692	0.431	-0.013	-0.070	0.437	0.006
37.584	0.800	11.013	0.437	-0.019	-0.078	0.444	0.006
37.584	0.800	10.334	0.430	-0.014	-0.080	0.437	0.006
37.584	0.800	9.655	0.427	-0.018	-0.076	0.434	0.007
37.584	0.800	8.976	0.421	-0.013	-0.083	0.429	0.007
37.584	0.800	8.297	0.409	-0.010	-0.076	0.416	0.008
37.584	0.800	7.619	0.397	-0.010	-0.079	0.405	0.010
37.584	0.800	6.940	0.384	0.001	-0.066	0.390	0.013
38.716	0.800	13.502	0.421	-0.014	-0.063	0.426	0.006
38.716	0.800	12.823	0.428	-0.018	-0.067	0.433	0.005
38.716	0.800	12.144	0.432	-0.018	-0.075	0.439	0.006
38.716	0.800	11.465	0.435	-0.016	-0.083	0.443	0.006
38.716	0.800	10.787	0.432	-0.014	-0.081	0.440	0.006
38.716	0.800	10.108	0.430	-0.012	-0.081	0.438	0.006
38.716	0.800	9.429	0.425	-0.016	-0.083	0.434	0.006
38.716	0.800	8.750	0.415	-0.014	-0.081	0.423	0.006
38.716	0.800	8.071	0.402	-0.008	-0.079	0.410	0.009
38.716	0.800	7.392	0.388	0.003	-0.066	0.394	0.012
38.716	0.800	6.713	0.380	0.002	-0.076	0.388	0.011
39.847	0.800	13.276	0.420	-0.017	-0.063	0.425	0.005
39.847	0.800	12.597	0.427	-0.018	-0.070	0.433	0.005
39.847	0.800	11.918	0.432	-0.020	-0.072	0.438	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
39.847	0.800	11.239	0.429	-0.017	-0.081	0.437	0.006
39.847	0.800	10.560	0.428	-0.014	-0.076	0.434	0.006
39.847	0.800	9.881	0.427	-0.012	-0.082	0.435	0.006
39.847	0.800	9.203	0.422	-0.009	-0.076	0.429	0.006
39.847	0.800	8.524	0.412	-0.010	-0.081	0.420	0.007
39.847	0.800	7.845	0.398	0.001	-0.065	0.403	0.009
39.847	0.800	7.166	0.393	-0.001	-0.078	0.401	0.010
40.978	0.800	13.049	0.414	-0.019	-0.064	0.419	0.005
40.978	0.800	12.370	0.425	-0.020	-0.069	0.431	0.005
40.978	0.800	11.692	0.426	-0.020	-0.078	0.433	0.005
40.978	0.800	11.013	0.427	-0.015	-0.084	0.435	0.005
40.978	0.800	10.334	0.430	-0.016	-0.081	0.438	0.005
40.978	0.800	9.655	0.424	-0.013	-0.087	0.433	0.005
40.978	0.800	8.976	0.420	-0.007	-0.085	0.429	0.005
40.978	0.800	8.297	0.410	-0.004	-0.084	0.418	0.006
40.978	0.800	7.619	0.402	-0.002	-0.092	0.412	0.007
40.978	0.800	6.940	0.392	0.000	-0.094	0.403	0.009
42.110	0.800	13.502	0.413	-0.016	-0.062	0.418	0.005
42.110	0.800	12.823	0.416	-0.018	-0.070	0.422	0.005
42.110	0.800	12.144	0.426	-0.024	-0.068	0.432	0.005
42.110	0.800	11.465	0.427	-0.022	-0.078	0.435	0.005
42.110	0.800	10.787	0.428	-0.022	-0.078	0.436	0.005
42.110	0.800	10.108	0.424	-0.018	-0.085	0.433	0.005
42.110	0.800	9.429	0.419	-0.015	-0.086	0.428	0.005
42.110	0.800	8.750	0.414	-0.009	-0.088	0.423	0.005
42.110	0.800	8.071	0.409	-0.004	-0.091	0.419	0.006
42.110	0.800	7.392	0.399	0.003	-0.090	0.409	0.006
42.110	0.800	6.713	0.393	0.003	-0.098	0.405	0.008
43.241	0.800	13.276	0.408	-0.023	-0.061	0.413	0.005
43.241	0.800	12.597	0.416	-0.022	-0.072	0.423	0.005
43.241	0.800	11.918	0.420	-0.022	-0.073	0.427	0.005
43.241	0.800	11.239	0.425	-0.023	-0.082	0.434	0.004
43.241	0.800	10.560	0.425	-0.021	-0.080	0.433	0.005
43.241	0.800	9.881	0.423	-0.019	-0.086	0.432	0.004
43.241	0.800	9.203	0.419	-0.017	-0.090	0.429	0.005
43.241	0.800	8.524	0.414	-0.007	-0.091	0.424	0.005
43.241	0.800	7.845	0.408	-0.001	-0.101	0.421	0.006
43.241	0.800	7.166	0.405	0.000	-0.103	0.418	0.006
44.373	0.800	13.049	0.405	-0.027	-0.061	0.411	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.373	0.800	12.370	0.412	-0.027	-0.066	0.418	0.005
44.373	0.800	11.692	0.422	-0.025	-0.075	0.429	0.004
44.373	0.800	11.013	0.425	-0.022	-0.080	0.433	0.005
44.373	0.800	10.334	0.421	-0.022	-0.081	0.430	0.004
44.373	0.800	9.655	0.422	-0.017	-0.085	0.431	0.004
44.373	0.800	8.976	0.417	-0.015	-0.087	0.426	0.005
44.373	0.800	8.297	0.417	-0.005	-0.099	0.428	0.005
44.373	0.800	7.619	0.413	0.000	-0.097	0.424	0.005
44.373	0.800	6.940	0.403	0.003	-0.104	0.416	0.007
44.890	0.800	13.049	0.396	-0.028	-0.048	0.400	0.008
44.890	0.800	9.655	0.414	-0.016	-0.047	0.417	0.009
45.117	0.800	13.502	0.391	-0.028	-0.043	0.394	0.008
45.117	0.800	10.108	0.410	-0.020	-0.054	0.414	0.009
45.117	0.800	6.713	0.380	0.009	-0.032	0.382	0.016
45.343	0.800	10.560	0.413	-0.025	-0.053	0.417	0.009
45.343	0.800	7.166	0.385	0.003	-0.028	0.387	0.012
45.569	0.800	11.013	0.415	-0.027	-0.050	0.419	0.008
45.569	0.800	7.619	0.400	-0.006	-0.052	0.403	0.011
45.796	0.800	11.465	0.414	-0.030	-0.053	0.418	0.007
45.796	0.800	8.071	0.402	-0.009	-0.049	0.405	0.009
46.022	0.800	11.918	0.412	-0.027	-0.058	0.417	0.008
46.022	0.800	8.524	0.413	-0.014	-0.067	0.419	0.008
46.248	0.800	12.370	0.405	-0.028	-0.050	0.410	0.008
46.248	0.800	8.976	0.411	-0.015	-0.055	0.415	0.008
46.474	0.800	12.823	0.398	-0.030	-0.044	0.402	0.007
46.474	0.800	9.429	0.418	-0.022	-0.065	0.423	0.008
46.701	0.800	13.276	0.391	-0.028	-0.041	0.394	0.008
46.701	0.800	9.881	0.418	-0.021	-0.062	0.423	0.007
46.927	0.800	10.334	0.415	-0.026	-0.053	0.419	0.008
46.927	0.800	6.940	0.399	-0.002	-0.074	0.405	0.011
47.153	0.800	10.787	0.419	-0.026	-0.069	0.425	0.008
47.153	0.800	7.392	0.405	-0.005	-0.058	0.409	0.010
47.380	0.800	11.239	0.411	-0.030	-0.054	0.416	0.007
47.380	0.800	7.845	0.411	-0.010	-0.066	0.416	0.009
47.606	0.800	11.692	0.408	-0.033	-0.054	0.413	0.007
47.606	0.800	8.297	0.410	-0.015	-0.059	0.415	0.008
47.832	0.800	12.144	0.399	-0.036	-0.037	0.403	0.006
47.832	0.800	8.750	0.408	-0.017	-0.045	0.411	0.006
48.058	0.800	12.597	0.394	-0.037	-0.032	0.397	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
48.058	0.800	9.203	0.409	-0.020	-0.042	0.411	0.006
48.285	0.800	13.049	0.386	-0.034	-0.035	0.389	0.007
48.285	0.800	9.655	0.413	-0.027	-0.049	0.417	0.006
48.511	0.800	13.502	0.378	-0.035	-0.037	0.382	0.007
48.511	0.800	10.108	0.423	-0.029	-0.062	0.428	0.006
48.511	0.800	6.713	0.401	-0.004	-0.065	0.406	0.009
48.737	0.800	10.560	0.416	-0.029	-0.059	0.421	0.007
48.737	0.800	7.166	0.406	-0.010	-0.072	0.412	0.009
48.964	0.800	11.013	0.417	-0.028	-0.054	0.422	0.006
48.964	0.800	7.619	0.413	-0.014	-0.064	0.418	0.007
49.190	0.800	11.465	0.410	-0.033	-0.049	0.414	0.006
49.190	0.800	8.071	0.417	-0.016	-0.061	0.421	0.007
49.416	0.800	11.918	0.410	-0.031	-0.054	0.414	0.007
49.416	0.800	8.524	0.417	-0.019	-0.062	0.422	0.006
49.642	0.800	12.370	0.392	-0.035	-0.035	0.395	0.006
49.642	0.800	8.976	0.416	-0.024	-0.059	0.421	0.006
49.869	0.800	12.823	0.386	-0.040	-0.026	0.389	0.006
49.869	0.800	9.429	0.415	-0.024	-0.047	0.419	0.006
50.095	0.800	13.276	0.380	-0.041	-0.029	0.383	0.007
50.095	0.800	9.881	0.417	-0.028	-0.049	0.421	0.006
50.321	0.800	10.334	0.420	-0.028	-0.055	0.424	0.006
50.321	0.800	6.940	0.412	-0.017	-0.070	0.418	0.009
50.548	0.800	10.787	0.417	-0.035	-0.044	0.421	0.006
50.548	0.800	7.392	0.412	-0.020	-0.060	0.417	0.007
50.774	0.800	11.239	0.411	-0.034	-0.048	0.415	0.007
50.774	0.800	7.845	0.417	-0.023	-0.066	0.422	0.007
51.000	0.800	11.692	0.408	-0.035	-0.041	0.411	0.006
51.000	0.800	8.297	0.423	-0.025	-0.059	0.428	0.006
51.226	0.800	12.144	0.406	-0.039	-0.034	0.409	0.006
51.226	0.800	8.750	0.422	-0.027	-0.058	0.427	0.006
51.453	0.800	12.597	0.395	-0.040	-0.031	0.398	0.006
51.453	0.800	9.203	0.424	-0.031	-0.048	0.427	0.005
51.679	0.800	13.049	0.385	-0.041	-0.031	0.389	0.006
51.679	0.800	9.655	0.424	-0.031	-0.042	0.427	0.006
51.905	0.800	13.502	0.376	-0.042	-0.025	0.379	0.007
51.905	0.800	10.108	0.421	-0.035	-0.041	0.424	0.006
51.905	0.800	6.713	0.415	-0.031	-0.074	0.423	0.008
52.132	0.800	10.560	0.424	-0.036	-0.044	0.427	0.006
52.132	0.800	7.166	0.423	-0.028	-0.072	0.430	0.008

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
52.358	0.800	11.013	0.418	-0.036	-0.036	0.421	0.006
52.358	0.800	7.619	0.425	-0.033	-0.061	0.431	0.007
52.584	0.800	11.465	0.415	-0.038	-0.037	0.418	0.006
52.584	0.800	8.071	0.429	-0.032	-0.056	0.433	0.007
52.810	0.800	11.918	0.411	-0.039	-0.033	0.414	0.006
52.810	0.800	8.524	0.432	-0.036	-0.050	0.437	0.006
53.037	0.800	12.370	0.401	-0.040	-0.022	0.403	0.006
53.037	0.800	8.976	0.430	-0.034	-0.034	0.432	0.005
53.263	0.800	12.823	0.394	-0.044	-0.015	0.397	0.006
53.263	0.800	9.429	0.431	-0.040	-0.027	0.434	0.005
53.489	0.800	13.276	0.382	-0.045	-0.012	0.385	0.007
53.489	0.800	9.881	0.431	-0.036	-0.032	0.434	0.006
53.716	0.800	10.334	0.432	-0.036	-0.024	0.434	0.006
53.716	0.800	6.940	0.431	-0.042	-0.065	0.438	0.007
53.942	0.800	10.787	0.434	-0.033	-0.032	0.437	0.006
53.942	0.800	7.392	0.434	-0.043	-0.056	0.440	0.008
54.168	0.800	11.239	0.430	-0.032	-0.031	0.432	0.007
54.168	0.800	7.845	0.437	-0.044	-0.054	0.443	0.007
54.394	0.800	11.692	0.429	-0.032	-0.027	0.431	0.007
54.394	0.800	8.297	0.436	-0.041	-0.034	0.439	0.007
54.621	0.800	12.144	0.422	-0.036	-0.020	0.424	0.007
54.621	0.800	8.750	0.439	-0.040	-0.030	0.442	0.006
54.847	0.800	12.597	0.418	-0.032	-0.005	0.419	0.006
54.847	0.800	9.203	0.446	-0.038	-0.017	0.448	0.007
55.073	0.800	13.049	0.412	-0.035	0.002	0.414	0.007
55.073	0.800	9.655	0.450	-0.038	-0.020	0.452	0.007
55.299	0.800	13.502	0.406	-0.030	0.005	0.407	0.008
55.299	0.800	10.108	0.452	-0.037	-0.009	0.454	0.007
55.299	0.800	6.713	0.449	-0.056	-0.059	0.456	0.009
55.526	0.800	10.560	0.458	-0.033	-0.022	0.459	0.008
55.526	0.800	7.166	0.457	-0.051	-0.063	0.464	0.008
55.752	0.800	11.013	0.463	-0.029	-0.017	0.464	0.008
55.752	0.800	7.619	0.459	-0.046	-0.037	0.463	0.008
55.978	0.800	11.465	0.466	-0.029	-0.018	0.468	0.008
55.978	0.800	8.071	0.468	-0.047	-0.027	0.471	0.008
56.205	0.800	11.918	0.459	-0.026	0.002	0.459	0.007
56.205	0.800	8.524	0.475	-0.042	-0.020	0.477	0.008
56.431	0.800	12.370	0.455	-0.019	0.013	0.456	0.008
56.431	0.800	8.976	0.478	-0.041	-0.009	0.480	0.008

Table D.5 Stereo PIV data for backward conic cavity with rough bed at low flow.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
2.693	0.800	11.533	0.318	0.001	0.010	0.318	0.004
2.693	0.800	8.131	0.301	-0.011	0.000	0.301	0.002
2.693	0.800	4.728	0.237	-0.023	0.007	0.238	0.003
2.920	0.800	14.481	0.282	0.006	0.058	0.288	0.009
2.920	0.800	11.079	0.317	-0.002	0.004	0.317	0.004
2.920	0.800	7.677	0.293	-0.014	0.003	0.293	0.003
2.920	0.800	4.275	0.224	-0.027	0.007	0.226	0.003
3.147	0.800	14.028	0.281	0.004	0.080	0.292	0.016
3.147	0.800	10.626	0.317	-0.004	0.006	0.317	0.003
3.147	0.800	7.223	0.288	-0.014	0.005	0.288	0.002
3.147	0.800	3.821	0.217	-0.031	0.002	0.219	0.003
3.373	0.800	13.574	0.313	0.005	0.004	0.313	0.006
3.373	0.800	10.172	0.316	-0.006	0.005	0.316	0.003
3.373	0.800	6.770	0.280	-0.014	0.005	0.280	0.003
3.600	0.800	13.120	0.309	0.005	0.024	0.310	0.005
3.600	0.800	9.718	0.315	-0.005	0.003	0.315	0.003
3.600	0.800	6.316	0.273	-0.017	0.008	0.273	0.003
3.827	0.800	12.667	0.312	0.001	0.019	0.313	0.005
3.827	0.800	9.265	0.309	-0.007	0.004	0.309	0.003
3.827	0.800	5.863	0.263	-0.019	0.009	0.264	0.002
4.054	0.800	12.213	0.319	0.002	0.012	0.320	0.004
4.054	0.800	8.811	0.307	-0.009	0.003	0.307	0.002
4.054	0.800	5.409	0.254	-0.021	0.005	0.255	0.003
4.281	0.800	11.760	0.316	0.000	0.010	0.317	0.003
4.281	0.800	8.357	0.302	-0.010	0.005	0.302	0.002
4.281	0.800	4.955	0.246	-0.023	0.003	0.247	0.003
4.508	0.800	14.708	0.288	0.006	0.034	0.291	0.009
4.508	0.800	11.306	0.319	0.002	0.005	0.319	0.003
4.508	0.800	7.904	0.296	-0.011	0.004	0.296	0.002
4.508	0.800	4.502	0.234	-0.024	0.004	0.236	0.003
4.734	0.800	14.254	0.293	0.006	0.034	0.295	0.007
4.734	0.800	10.852	0.319	-0.002	0.006	0.319	0.003
4.734	0.800	7.450	0.292	-0.013	0.002	0.292	0.003
4.734	0.800	4.048	0.222	-0.025	0.002	0.224	0.003
4.961	0.800	13.801	0.299	0.007	0.035	0.301	0.007
4.961	0.800	10.399	0.315	-0.004	0.006	0.315	0.003
4.961	0.800	6.997	0.283	-0.014	0.002	0.283	0.003
4.961	0.800	3.594	0.209	-0.030	0.000	0.211	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
5.188	0.800	13.347	0.310	0.007	0.011	0.310	0.005
5.188	0.800	9.945	0.315	-0.004	0.007	0.315	0.003
5.188	0.800	6.543	0.280	-0.016	0.002	0.280	0.003
5.415	0.800	12.894	0.312	0.006	0.009	0.312	0.004
5.415	0.800	9.491	0.311	-0.006	0.000	0.311	0.003
5.415	0.800	6.089	0.271	-0.017	0.002	0.272	0.003
5.642	0.800	12.440	0.315	0.004	0.007	0.315	0.004
5.642	0.800	9.038	0.311	-0.008	0.006	0.311	0.002
5.642	0.800	5.636	0.263	-0.020	0.005	0.264	0.003
5.868	0.800	11.986	0.319	0.002	0.009	0.319	0.004
5.868	0.800	8.584	0.306	-0.008	0.000	0.306	0.003
5.868	0.800	5.182	0.251	-0.022	0.002	0.252	0.003
6.095	0.800	11.533	0.320	0.001	0.004	0.320	0.004
6.095	0.800	8.131	0.302	-0.009	0.001	0.302	0.003
6.095	0.800	4.728	0.243	-0.022	0.004	0.244	0.003
6.322	0.800	14.481	0.290	0.006	0.033	0.292	0.009
6.322	0.800	11.079	0.319	0.000	0.004	0.319	0.003
6.322	0.800	7.677	0.295	-0.012	0.002	0.295	0.002
6.322	0.800	4.275	0.231	-0.026	0.001	0.233	0.003
6.549	0.800	14.028	0.300	0.008	0.025	0.301	0.007
6.549	0.800	10.626	0.319	-0.004	0.007	0.319	0.003
6.549	0.800	7.223	0.292	-0.013	0.003	0.292	0.002
6.549	0.800	3.821	0.221	-0.027	-0.002	0.223	0.003
6.776	0.800	13.574	0.307	0.009	0.015	0.307	0.005
6.776	0.800	10.172	0.316	-0.003	0.003	0.316	0.003
6.776	0.800	6.770	0.283	-0.013	0.002	0.284	0.003
7.002	0.800	13.120	0.310	0.004	0.014	0.310	0.005
7.002	0.800	9.718	0.313	-0.003	-0.003	0.313	0.003
7.002	0.800	6.316	0.276	-0.015	0.002	0.276	0.003
7.229	0.800	12.667	0.316	0.005	0.009	0.316	0.004
7.229	0.800	9.265	0.311	-0.006	0.001	0.311	0.003
7.229	0.800	5.863	0.267	-0.019	0.002	0.268	0.003
7.456	0.800	12.213	0.317	0.003	0.003	0.317	0.004
7.456	0.800	8.811	0.308	-0.007	0.002	0.308	0.003
7.456	0.800	5.409	0.257	-0.021	-0.001	0.258	0.003
7.683	0.800	11.760	0.316	0.001	0.005	0.316	0.004
7.683	0.800	8.357	0.304	-0.011	-0.003	0.304	0.003
7.683	0.800	4.955	0.247	-0.023	-0.005	0.248	0.003
7.910	0.800	14.708	0.284	0.008	0.018	0.285	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
7.910	0.800	11.306	0.317	0.000	0.007	0.317	0.003
7.910	0.800	7.904	0.299	-0.011	-0.003	0.299	0.003
7.910	0.800	4.502	0.237	-0.023	-0.005	0.238	0.003
8.136	0.800	14.254	0.294	0.008	0.021	0.295	0.008
8.136	0.800	10.852	0.318	-0.002	0.003	0.318	0.003
8.136	0.800	7.450	0.292	-0.013	-0.002	0.293	0.003
8.136	0.800	4.048	0.226	-0.024	-0.004	0.228	0.003
8.363	0.800	13.801	0.303	0.009	0.014	0.304	0.007
8.363	0.800	10.399	0.315	-0.002	0.003	0.315	0.003
8.363	0.800	6.997	0.287	-0.014	-0.001	0.288	0.003
8.363	0.800	3.594	0.215	-0.027	-0.003	0.217	0.003
8.590	0.800	13.347	0.306	0.005	0.012	0.307	0.005
8.590	0.800	9.945	0.314	-0.003	0.001	0.314	0.003
8.590	0.800	6.543	0.276	-0.015	-0.001	0.277	0.003
8.817	0.800	12.894	0.312	0.006	-0.001	0.312	0.005
8.817	0.800	9.491	0.311	-0.005	0.000	0.311	0.003
8.817	0.800	6.089	0.270	-0.015	-0.001	0.270	0.003
9.044	0.800	12.440	0.318	0.005	0.004	0.318	0.005
9.044	0.800	9.038	0.309	-0.006	0.001	0.309	0.003
9.044	0.800	5.636	0.263	-0.016	-0.002	0.264	0.003
9.271	0.800	11.986	0.316	0.003	0.004	0.316	0.004
9.271	0.800	8.584	0.305	-0.007	0.000	0.305	0.003
9.271	0.800	5.182	0.252	-0.018	-0.004	0.253	0.003
9.497	0.800	11.533	0.318	0.001	0.002	0.318	0.004
9.497	0.800	8.131	0.301	-0.009	-0.003	0.301	0.003
9.497	0.800	4.728	0.245	-0.021	-0.004	0.246	0.003
9.724	0.800	14.481	0.290	0.004	0.025	0.291	0.010
9.724	0.800	11.079	0.315	0.000	0.001	0.315	0.003
9.724	0.800	7.677	0.295	-0.012	0.001	0.295	0.003
9.724	0.800	4.275	0.239	-0.023	-0.006	0.240	0.003
9.951	0.800	14.028	0.297	0.004	0.019	0.297	0.008
9.951	0.800	10.626	0.315	-0.001	0.004	0.315	0.003
9.951	0.800	7.223	0.290	-0.012	-0.003	0.291	0.003
9.951	0.800	3.821	0.224	-0.023	-0.008	0.225	0.003
10.178	0.800	13.574	0.301	0.006	0.013	0.301	0.006
10.178	0.800	10.172	0.314	-0.002	-0.001	0.314	0.003
10.178	0.800	6.770	0.281	-0.012	-0.005	0.282	0.003
10.405	0.800	13.120	0.306	0.005	0.011	0.307	0.005
10.405	0.800	9.718	0.311	-0.004	-0.001	0.311	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
10.405	0.800	6.316	0.274	-0.015	-0.002	0.274	0.003
10.631	0.800	12.667	0.308	0.005	0.003	0.308	0.005
10.631	0.800	9.265	0.311	-0.006	-0.007	0.311	0.003
10.631	0.800	5.863	0.268	-0.015	0.000	0.269	0.003
10.858	0.800	12.213	0.315	0.004	0.006	0.315	0.004
10.858	0.800	8.811	0.306	-0.006	-0.003	0.306	0.003
10.858	0.800	5.409	0.255	-0.018	-0.005	0.255	0.003
11.085	0.800	11.760	0.314	0.003	0.005	0.314	0.004
11.085	0.800	8.357	0.302	-0.008	-0.003	0.302	0.003
11.085	0.800	4.955	0.253	-0.021	-0.004	0.254	0.003
11.312	0.800	14.708	0.279	0.002	0.016	0.279	0.011
11.312	0.800	11.306	0.315	0.000	0.002	0.315	0.004
11.312	0.800	7.904	0.301	-0.013	-0.006	0.301	0.003
11.312	0.800	4.502	0.241	-0.024	-0.008	0.242	0.004
11.539	0.800	14.254	0.287	0.005	0.009	0.287	0.010
11.539	0.800	10.852	0.314	-0.001	0.002	0.314	0.004
11.539	0.800	7.450	0.295	-0.011	-0.008	0.296	0.003
11.539	0.800	4.048	0.235	-0.023	-0.008	0.236	0.003
11.765	0.800	13.801	0.291	0.009	0.011	0.292	0.008
11.765	0.800	10.399	0.312	-0.005	-0.003	0.312	0.003
11.765	0.800	6.997	0.286	-0.012	-0.002	0.286	0.003
11.765	0.800	3.594	0.226	-0.025	-0.006	0.228	0.003
11.992	0.800	13.347	0.300	0.008	-0.003	0.300	0.006
11.992	0.800	9.945	0.311	-0.003	-0.003	0.311	0.003
11.992	0.800	6.543	0.281	-0.016	-0.004	0.281	0.003
12.219	0.800	12.894	0.305	0.004	0.011	0.305	0.006
12.219	0.800	9.491	0.311	-0.005	-0.003	0.311	0.003
12.219	0.800	6.089	0.272	-0.017	-0.002	0.273	0.003
12.446	0.800	12.440	0.308	0.004	0.001	0.308	0.005
12.446	0.800	9.038	0.303	-0.005	-0.005	0.303	0.003
12.446	0.800	5.636	0.264	-0.018	-0.001	0.264	0.003
12.673	0.800	11.986	0.307	0.003	0.000	0.307	0.004
12.673	0.800	8.584	0.303	-0.008	-0.002	0.303	0.003
12.673	0.800	5.182	0.255	-0.020	-0.003	0.256	0.004
12.899	0.800	11.533	0.312	0.002	0.002	0.312	0.005
12.899	0.800	8.131	0.301	-0.009	-0.005	0.301	0.003
12.899	0.800	4.728	0.248	-0.020	-0.003	0.249	0.003
13.126	0.800	14.481	0.275	0.002	0.007	0.275	0.011
13.126	0.800	11.079	0.310	0.000	-0.003	0.310	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
13.126	0.800	7.677	0.295	-0.012	-0.005	0.295	0.003
13.126	0.800	4.275	0.240	-0.023	-0.003	0.241	0.003
13.353	0.800	14.028	0.287	0.004	0.003	0.287	0.010
13.353	0.800	10.626	0.309	0.001	-0.003	0.309	0.004
13.353	0.800	7.223	0.288	-0.014	-0.003	0.288	0.003
13.353	0.800	3.821	0.231	-0.025	-0.008	0.233	0.003
13.580	0.800	13.574	0.291	0.001	0.010	0.291	0.008
13.580	0.800	10.172	0.312	-0.001	-0.001	0.312	0.003
13.580	0.800	6.770	0.282	-0.014	-0.003	0.282	0.003
13.807	0.800	13.120	0.296	0.005	0.007	0.296	0.005
13.807	0.800	9.718	0.308	-0.002	-0.001	0.308	0.003
13.807	0.800	6.316	0.274	-0.017	-0.001	0.275	0.003
14.034	0.800	12.667	0.299	0.004	-0.001	0.299	0.005
14.034	0.800	9.265	0.305	-0.005	-0.003	0.306	0.003
14.034	0.800	5.863	0.266	-0.017	-0.003	0.267	0.003
14.260	0.800	12.213	0.304	0.002	0.006	0.304	0.005
14.260	0.800	8.811	0.300	-0.006	-0.005	0.300	0.003
14.260	0.800	5.409	0.257	-0.020	-0.007	0.258	0.003
14.487	0.800	11.760	0.306	0.004	0.000	0.306	0.005
14.487	0.800	8.357	0.300	-0.006	-0.010	0.301	0.003
14.487	0.800	4.955	0.251	-0.019	-0.005	0.252	0.003
14.971	0.800	14.708	0.242	0.002	0.145	0.282	0.024
14.971	0.800	13.574	0.287	0.007	0.043	0.290	0.013
14.971	0.800	12.440	0.297	0.002	0.036	0.299	0.009
14.971	0.800	11.306	0.308	-0.003	0.006	0.308	0.006
14.971	0.800	10.172	0.307	-0.005	0.005	0.307	0.005
14.971	0.800	9.038	0.305	-0.007	0.001	0.305	0.004
14.971	0.800	7.904	0.294	-0.012	0.000	0.295	0.004
14.971	0.800	6.770	0.282	-0.017	-0.001	0.283	0.004
14.971	0.800	5.636	0.264	-0.020	-0.008	0.264	0.004
14.971	0.800	4.502	0.247	-0.024	-0.004	0.249	0.005
15.652	0.800	14.028	0.276	0.006	0.059	0.283	0.013
15.652	0.800	12.894	0.294	0.005	0.021	0.295	0.008
15.652	0.800	11.760	0.305	0.000	0.011	0.306	0.006
15.652	0.800	10.626	0.307	-0.002	0.003	0.307	0.004
15.652	0.800	9.491	0.304	-0.007	0.003	0.304	0.004
15.652	0.800	8.357	0.299	-0.009	0.001	0.300	0.004
15.652	0.800	7.223	0.286	-0.013	0.001	0.286	0.004
15.652	0.800	6.089	0.273	-0.019	-0.004	0.274	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
15.652	0.800	4.955	0.257	-0.020	-0.008	0.257	0.004
15.652	0.800	3.821	0.230	-0.025	-0.013	0.231	0.004
16.332	0.800	14.481	0.272	0.007	0.029	0.274	0.011
16.332	0.800	13.347	0.291	0.007	0.009	0.291	0.009
16.332	0.800	12.213	0.303	0.004	0.003	0.303	0.006
16.332	0.800	11.079	0.305	-0.004	0.001	0.305	0.005
16.332	0.800	9.945	0.306	-0.005	0.002	0.306	0.004
16.332	0.800	8.811	0.299	-0.008	0.000	0.299	0.004
16.332	0.800	7.677	0.293	-0.011	0.001	0.293	0.004
16.332	0.800	6.543	0.278	-0.013	-0.003	0.278	0.003
16.332	0.800	5.409	0.263	-0.018	-0.008	0.263	0.004
16.332	0.800	4.275	0.243	-0.023	-0.016	0.244	0.005
17.013	0.800	13.801	0.281	0.005	0.012	0.282	0.010
17.013	0.800	12.667	0.296	0.001	0.004	0.296	0.007
17.013	0.800	11.533	0.309	0.000	0.005	0.309	0.006
17.013	0.800	10.399	0.304	-0.002	-0.003	0.304	0.004
17.013	0.800	9.265	0.300	-0.008	0.001	0.301	0.004
17.013	0.800	8.131	0.296	-0.007	0.001	0.296	0.004
17.013	0.800	6.997	0.285	-0.016	-0.005	0.286	0.004
17.013	0.800	5.863	0.271	-0.018	-0.007	0.272	0.004
17.013	0.800	4.728	0.251	-0.022	-0.008	0.253	0.004
17.013	0.800	3.594	0.231	-0.025	-0.012	0.233	0.004
17.693	0.800	14.254	0.272	0.004	0.013	0.273	0.011
17.693	0.800	13.120	0.293	0.004	0.010	0.293	0.007
17.693	0.800	11.986	0.299	0.001	-0.001	0.299	0.005
17.693	0.800	10.852	0.303	-0.002	0.000	0.303	0.005
17.693	0.800	9.718	0.302	-0.005	-0.002	0.302	0.004
17.693	0.800	8.584	0.296	-0.006	-0.002	0.296	0.004
17.693	0.800	7.450	0.287	-0.010	-0.001	0.287	0.004
17.693	0.800	6.316	0.274	-0.017	-0.004	0.275	0.004
17.693	0.800	5.182	0.260	-0.021	-0.009	0.261	0.004
17.693	0.800	4.048	0.241	-0.024	-0.011	0.243	0.004
18.373	0.800	14.708	0.252	0.007	0.054	0.258	0.016
18.373	0.800	13.574	0.285	0.006	0.014	0.285	0.009
18.373	0.800	12.440	0.294	0.003	0.009	0.294	0.007
18.373	0.800	11.306	0.301	0.000	-0.005	0.301	0.005
18.373	0.800	10.172	0.302	-0.003	-0.005	0.302	0.005
18.373	0.800	9.038	0.298	-0.008	-0.004	0.298	0.004
18.373	0.800	7.904	0.290	-0.009	-0.001	0.290	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
18.373	0.800	6.770	0.279	-0.014	-0.008	0.279	0.004
18.373	0.800	5.636	0.265	-0.017	-0.011	0.266	0.004
18.373	0.800	4.502	0.250	-0.021	-0.012	0.251	0.004
19.054	0.800	14.028	0.273	0.006	0.018	0.273	0.010
19.054	0.800	12.894	0.290	0.005	0.006	0.290	0.006
19.054	0.800	11.760	0.302	0.002	0.002	0.302	0.005
19.054	0.800	10.626	0.304	-0.004	-0.002	0.304	0.004
19.054	0.800	9.491	0.302	-0.006	-0.007	0.302	0.004
19.054	0.800	8.357	0.294	-0.009	-0.005	0.294	0.004
19.054	0.800	7.223	0.281	-0.011	-0.006	0.281	0.004
19.054	0.800	6.089	0.270	-0.015	-0.007	0.271	0.004
19.054	0.800	4.955	0.254	-0.019	-0.009	0.255	0.004
19.054	0.800	3.821	0.236	-0.021	-0.014	0.237	0.004
19.734	0.800	14.481	0.259	0.009	0.032	0.261	0.011
19.734	0.800	13.347	0.285	0.003	0.013	0.286	0.008
19.734	0.800	12.213	0.297	0.006	0.000	0.297	0.006
19.734	0.800	11.079	0.300	0.002	-0.003	0.300	0.005
19.734	0.800	9.945	0.301	-0.004	-0.004	0.301	0.004
19.734	0.800	8.811	0.294	-0.007	-0.003	0.295	0.004
19.734	0.800	7.677	0.286	-0.010	-0.004	0.286	0.004
19.734	0.800	6.543	0.276	-0.013	-0.010	0.276	0.003
19.734	0.800	5.409	0.267	-0.018	-0.011	0.267	0.004
19.734	0.800	4.275	0.247	-0.022	-0.007	0.249	0.004
20.415	0.800	13.801	0.268	0.005	0.024	0.269	0.010
20.415	0.800	12.667	0.292	0.004	0.000	0.292	0.007
20.415	0.800	11.533	0.299	0.002	-0.005	0.299	0.005
20.415	0.800	10.399	0.301	-0.002	-0.005	0.301	0.005
20.415	0.800	9.265	0.298	-0.005	-0.007	0.298	0.004
20.415	0.800	8.131	0.293	-0.007	-0.003	0.293	0.004
20.415	0.800	6.997	0.282	-0.012	-0.007	0.283	0.004
20.415	0.800	5.863	0.271	-0.014	-0.011	0.271	0.004
20.415	0.800	4.728	0.257	-0.020	-0.011	0.258	0.004
20.415	0.800	3.594	0.236	-0.021	-0.015	0.237	0.004
21.095	0.800	14.254	0.259	0.006	0.016	0.259	0.012
21.095	0.800	13.120	0.283	0.004	-0.001	0.283	0.008
21.095	0.800	11.986	0.293	0.003	-0.004	0.294	0.006
21.095	0.800	10.852	0.298	0.001	-0.003	0.298	0.005
21.095	0.800	9.718	0.300	-0.004	-0.003	0.300	0.005
21.095	0.800	8.584	0.295	-0.007	-0.007	0.296	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
21.095	0.800	7.450	0.284	-0.010	-0.008	0.284	0.003
21.095	0.800	6.316	0.277	-0.013	-0.010	0.277	0.004
21.095	0.800	5.182	0.262	-0.017	-0.013	0.263	0.004
21.095	0.800	4.048	0.248	-0.020	-0.017	0.249	0.004
21.776	0.800	14.708	0.252	0.004	0.043	0.255	0.015
21.776	0.800	13.574	0.276	0.004	0.008	0.276	0.008
21.776	0.800	12.440	0.293	0.005	0.001	0.293	0.007
21.776	0.800	11.306	0.299	0.001	-0.004	0.299	0.006
21.776	0.800	10.172	0.297	-0.003	-0.007	0.297	0.004
21.776	0.800	9.038	0.300	-0.007	-0.007	0.300	0.004
21.776	0.800	7.904	0.289	-0.007	-0.004	0.289	0.004
21.776	0.800	6.770	0.280	-0.013	-0.005	0.281	0.003
21.776	0.800	5.636	0.270	-0.015	-0.008	0.271	0.004
21.776	0.800	4.502	0.254	-0.018	-0.015	0.256	0.004
22.456	0.800	14.028	0.266	0.005	0.011	0.267	0.010
22.456	0.800	12.894	0.284	0.007	-0.002	0.284	0.007
22.456	0.800	11.760	0.290	0.003	-0.010	0.291	0.005
22.456	0.800	10.626	0.295	0.000	-0.011	0.296	0.005
22.456	0.800	9.491	0.296	-0.006	-0.004	0.296	0.004
22.456	0.800	8.357	0.293	-0.009	-0.010	0.294	0.004
22.456	0.800	7.223	0.281	-0.010	-0.012	0.282	0.004
22.456	0.800	6.089	0.273	-0.015	-0.010	0.274	0.003
22.456	0.800	4.955	0.261	-0.017	-0.018	0.262	0.004
22.456	0.800	3.821	0.243	-0.019	-0.025	0.245	0.004
23.136	0.800	14.481	0.259	0.000	0.022	0.260	0.012
23.136	0.800	13.347	0.275	0.006	0.008	0.276	0.007
23.136	0.800	12.213	0.292	0.005	-0.004	0.292	0.006
23.136	0.800	11.079	0.296	0.000	-0.006	0.296	0.005
23.136	0.800	9.945	0.294	-0.003	-0.006	0.294	0.004
23.136	0.800	8.811	0.294	-0.010	-0.006	0.294	0.004
23.136	0.800	7.677	0.287	-0.010	-0.011	0.288	0.003
23.136	0.800	6.543	0.280	-0.015	-0.012	0.280	0.003
23.136	0.800	5.409	0.265	-0.014	-0.018	0.266	0.004
23.136	0.800	4.275	0.255	-0.017	-0.021	0.257	0.004
23.817	0.800	13.801	0.264	0.005	0.004	0.264	0.009
23.817	0.800	12.667	0.285	0.002	-0.010	0.285	0.006
23.817	0.800	11.533	0.296	0.004	-0.012	0.297	0.005
23.817	0.800	10.399	0.297	-0.001	-0.005	0.297	0.004
23.817	0.800	9.265	0.293	-0.006	-0.009	0.294	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
23.817	0.800	8.131	0.288	-0.010	-0.009	0.289	0.004
23.817	0.800	6.997	0.280	-0.012	-0.007	0.281	0.003
23.817	0.800	5.863	0.271	-0.013	-0.019	0.272	0.004
23.817	0.800	4.728	0.263	-0.015	-0.023	0.265	0.004
23.817	0.800	3.594	0.247	-0.015	-0.020	0.248	0.004
24.497	0.800	14.254	0.257	0.005	0.023	0.258	0.010
24.497	0.800	13.120	0.280	0.004	0.003	0.280	0.007
24.497	0.800	11.986	0.291	0.005	-0.003	0.291	0.005
24.497	0.800	10.852	0.294	0.002	-0.004	0.294	0.005
24.497	0.800	9.718	0.294	-0.004	-0.003	0.294	0.004
24.497	0.800	8.584	0.294	-0.007	-0.008	0.294	0.004
24.497	0.800	7.450	0.284	-0.012	-0.007	0.284	0.004
24.497	0.800	6.316	0.276	-0.016	-0.014	0.277	0.004
24.497	0.800	5.182	0.270	-0.015	-0.020	0.271	0.004
24.497	0.800	4.048	0.253	-0.016	-0.026	0.255	0.004
25.178	0.800	14.708	0.242	0.000	0.027	0.243	0.017
25.178	0.800	13.574	0.269	0.004	0.002	0.269	0.008
25.178	0.800	12.440	0.286	0.007	-0.002	0.286	0.006
25.178	0.800	11.306	0.295	0.003	-0.007	0.295	0.005
25.178	0.800	10.172	0.293	-0.004	-0.004	0.293	0.004
25.178	0.800	9.038	0.294	-0.006	-0.006	0.294	0.004
25.178	0.800	7.904	0.288	-0.009	-0.014	0.289	0.004
25.178	0.800	6.770	0.281	-0.014	-0.011	0.282	0.003
25.178	0.800	5.636	0.271	-0.013	-0.016	0.272	0.004
25.178	0.800	4.502	0.260	-0.015	-0.023	0.261	0.004
25.858	0.800	14.028	0.265	0.003	0.001	0.265	0.009
25.858	0.800	12.894	0.282	0.005	-0.001	0.282	0.008
25.858	0.800	11.760	0.286	0.001	-0.004	0.286	0.006
25.858	0.800	10.626	0.291	-0.004	-0.011	0.291	0.005
25.858	0.800	9.491	0.293	-0.007	-0.006	0.294	0.004
25.858	0.800	8.357	0.292	-0.008	-0.011	0.292	0.004
25.858	0.800	7.223	0.286	-0.010	-0.017	0.287	0.004
25.858	0.800	6.089	0.275	-0.011	-0.017	0.275	0.004
25.858	0.800	4.955	0.268	-0.017	-0.022	0.270	0.003
25.858	0.800	3.821	0.251	-0.016	-0.025	0.253	0.003
26.539	0.800	14.481	0.259	0.002	0.005	0.259	0.013
26.539	0.800	13.347	0.273	0.005	-0.005	0.273	0.008
26.539	0.800	12.213	0.284	0.001	-0.003	0.284	0.006
26.539	0.800	11.079	0.287	0.002	-0.006	0.287	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
26.539	0.800	9.945	0.294	-0.003	-0.009	0.294	0.004
26.539	0.800	8.811	0.292	-0.008	-0.012	0.292	0.004
26.539	0.800	7.677	0.288	-0.009	-0.009	0.288	0.004
26.539	0.800	6.543	0.279	-0.010	-0.011	0.279	0.004
26.539	0.800	5.409	0.271	-0.015	-0.016	0.272	0.004
26.539	0.800	4.275	0.257	-0.018	-0.021	0.258	0.004
27.219	0.800	13.801	0.266	0.006	0.007	0.266	0.010
27.219	0.800	12.667	0.280	0.006	-0.004	0.280	0.007
27.219	0.800	11.533	0.288	0.001	-0.007	0.288	0.005
27.219	0.800	10.399	0.289	-0.002	-0.003	0.289	0.005
27.219	0.800	9.265	0.290	-0.008	-0.007	0.290	0.004
27.219	0.800	8.131	0.287	-0.005	-0.012	0.287	0.004
27.219	0.800	6.997	0.283	-0.009	-0.014	0.284	0.003
27.219	0.800	5.863	0.273	-0.014	-0.016	0.274	0.004
27.219	0.800	4.728	0.264	-0.016	-0.020	0.265	0.003
27.219	0.800	3.594	0.250	-0.016	-0.022	0.251	0.003
27.899	0.800	14.254	0.251	0.003	0.012	0.252	0.012
27.899	0.800	13.120	0.277	0.003	0.000	0.277	0.008
27.899	0.800	11.986	0.282	0.004	-0.003	0.282	0.006
27.899	0.800	10.852	0.289	-0.002	-0.013	0.289	0.005
27.899	0.800	9.718	0.292	-0.005	-0.012	0.292	0.004
27.899	0.800	8.584	0.291	-0.006	-0.009	0.291	0.004
27.899	0.800	7.450	0.287	-0.008	-0.012	0.288	0.003
27.899	0.800	6.316	0.279	-0.012	-0.015	0.280	0.004
27.899	0.800	5.182	0.267	-0.016	-0.016	0.268	0.003
27.899	0.800	4.048	0.253	-0.016	-0.021	0.254	0.003
28.580	0.800	14.708	0.249	0.001	-0.004	0.250	0.014
28.580	0.800	13.574	0.264	0.003	0.002	0.264	0.009
28.580	0.800	12.440	0.277	0.003	-0.005	0.277	0.006
28.580	0.800	11.306	0.285	0.003	-0.006	0.286	0.006
28.580	0.800	10.172	0.289	-0.003	-0.011	0.290	0.004
28.580	0.800	9.038	0.292	-0.006	-0.010	0.292	0.004
28.580	0.800	7.904	0.290	-0.005	-0.014	0.291	0.004
28.580	0.800	6.770	0.282	-0.011	-0.013	0.283	0.003
28.580	0.800	5.636	0.272	-0.014	-0.017	0.273	0.004
28.580	0.800	4.502	0.260	-0.017	-0.023	0.262	0.004
29.260	0.800	14.028	0.254	0.002	-0.005	0.254	0.009
29.260	0.800	12.894	0.270	0.001	-0.002	0.270	0.008
29.260	0.800	11.760	0.286	0.003	-0.004	0.286	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
29.260	0.800	10.626	0.291	0.000	-0.011	0.292	0.005
29.260	0.800	9.491	0.291	-0.004	-0.012	0.292	0.004
29.260	0.800	8.357	0.288	-0.006	-0.012	0.288	0.004
29.260	0.800	7.223	0.286	-0.010	-0.015	0.286	0.003
29.260	0.800	6.089	0.276	-0.012	-0.018	0.277	0.004
29.260	0.800	4.955	0.264	-0.016	-0.021	0.265	0.004
29.260	0.800	3.821	0.251	-0.015	-0.022	0.252	0.004
29.971	0.800	14.708	0.214	-0.002	0.129	0.250	0.027
29.971	0.800	13.574	0.247	0.001	0.066	0.256	0.020
29.971	0.800	12.440	0.277	-0.003	0.024	0.278	0.010
29.971	0.800	11.306	0.288	-0.003	0.008	0.288	0.008
29.971	0.800	10.172	0.296	-0.002	-0.002	0.296	0.005
29.971	0.800	9.038	0.294	-0.006	-0.003	0.294	0.005
29.971	0.800	7.904	0.288	-0.012	-0.011	0.288	0.005
29.971	0.800	6.770	0.289	-0.012	-0.016	0.289	0.004
29.971	0.800	5.636	0.276	-0.016	-0.022	0.278	0.004
29.971	0.800	4.502	0.263	-0.017	-0.027	0.265	0.005
30.652	0.800	14.028	0.251	-0.001	0.028	0.253	0.014
30.652	0.800	12.894	0.273	0.000	0.004	0.273	0.009
30.652	0.800	11.760	0.289	0.002	-0.006	0.289	0.007
30.652	0.800	10.626	0.295	-0.002	-0.006	0.295	0.005
30.652	0.800	9.491	0.293	-0.007	-0.010	0.293	0.005
30.652	0.800	8.357	0.294	-0.008	-0.014	0.294	0.004
30.652	0.800	7.223	0.290	-0.009	-0.017	0.290	0.004
30.652	0.800	6.089	0.280	-0.014	-0.022	0.281	0.004
30.652	0.800	4.955	0.267	-0.016	-0.024	0.268	0.004
30.652	0.800	3.821	0.251	-0.015	-0.027	0.253	0.004
31.332	0.800	14.481	0.248	0.004	0.029	0.250	0.014
31.332	0.800	13.347	0.268	0.003	0.000	0.268	0.009
31.332	0.800	12.213	0.283	0.005	-0.004	0.283	0.008
31.332	0.800	11.079	0.291	0.000	-0.011	0.291	0.006
31.332	0.800	9.945	0.295	-0.005	-0.014	0.295	0.005
31.332	0.800	8.811	0.294	-0.006	-0.015	0.295	0.005
31.332	0.800	7.677	0.291	-0.008	-0.020	0.292	0.004
31.332	0.800	6.543	0.287	-0.014	-0.021	0.288	0.004
31.332	0.800	5.409	0.275	-0.014	-0.025	0.277	0.004
31.332	0.800	4.275	0.261	-0.016	-0.026	0.263	0.004
32.013	0.800	13.801	0.260	0.001	0.004	0.260	0.011
32.013	0.800	12.667	0.273	0.000	-0.007	0.274	0.008

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
32.013	0.800	11.533	0.285	0.000	-0.006	0.285	0.006
32.013	0.800	10.399	0.297	-0.003	-0.014	0.298	0.005
32.013	0.800	9.265	0.293	-0.006	-0.017	0.294	0.004
32.013	0.800	8.131	0.294	-0.007	-0.018	0.294	0.004
32.013	0.800	6.997	0.291	-0.011	-0.024	0.292	0.004
32.013	0.800	5.863	0.278	-0.014	-0.025	0.279	0.004
32.013	0.800	4.728	0.262	-0.015	-0.025	0.264	0.004
32.013	0.800	3.594	0.244	-0.015	-0.032	0.247	0.004
32.693	0.800	14.254	0.250	-0.003	0.003	0.250	0.012
32.693	0.800	13.120	0.269	0.002	-0.007	0.269	0.009
32.693	0.800	11.986	0.283	0.001	-0.005	0.283	0.006
32.693	0.800	10.852	0.288	-0.002	-0.016	0.288	0.005
32.693	0.800	9.718	0.295	-0.002	-0.013	0.295	0.004
32.693	0.800	8.584	0.292	-0.006	-0.015	0.293	0.004
32.693	0.800	7.450	0.289	-0.010	-0.021	0.290	0.004
32.693	0.800	6.316	0.282	-0.011	-0.026	0.283	0.004
32.693	0.800	5.182	0.271	-0.014	-0.028	0.273	0.004
32.693	0.800	4.048	0.255	-0.014	-0.032	0.258	0.004
33.373	0.800	14.708	0.238	-0.004	0.022	0.239	0.015
33.373	0.800	13.574	0.263	-0.001	0.003	0.263	0.010
33.373	0.800	12.440	0.275	-0.002	-0.003	0.275	0.007
33.373	0.800	11.306	0.283	-0.004	-0.013	0.283	0.005
33.373	0.800	10.172	0.290	-0.003	-0.015	0.290	0.005
33.373	0.800	9.038	0.292	-0.003	-0.015	0.292	0.004
33.373	0.800	7.904	0.294	-0.006	-0.022	0.294	0.004
33.373	0.800	6.770	0.286	-0.010	-0.025	0.287	0.004
33.373	0.800	5.636	0.270	-0.011	-0.028	0.272	0.004
33.373	0.800	4.502	0.259	-0.012	-0.028	0.261	0.004
34.054	0.800	14.028	0.253	0.001	0.008	0.253	0.011
34.054	0.800	12.894	0.270	0.000	-0.011	0.270	0.008
34.054	0.800	11.760	0.281	-0.002	-0.016	0.282	0.005
34.054	0.800	10.626	0.284	-0.002	-0.015	0.284	0.004
34.054	0.800	9.491	0.290	-0.004	-0.019	0.291	0.004
34.054	0.800	8.357	0.290	-0.005	-0.020	0.291	0.004
34.054	0.800	7.223	0.288	-0.008	-0.025	0.289	0.004
34.054	0.800	6.089	0.282	-0.012	-0.026	0.283	0.003
34.054	0.800	4.955	0.267	-0.012	-0.031	0.269	0.004
34.054	0.800	3.821	0.246	-0.011	-0.034	0.249	0.004
34.734	0.800	14.481	0.241	0.002	0.013	0.241	0.014

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
34.734	0.800	13.347	0.259	-0.001	-0.005	0.259	0.009
34.734	0.800	12.213	0.277	-0.003	-0.008	0.277	0.006
34.734	0.800	11.079	0.284	-0.004	-0.014	0.285	0.006
34.734	0.800	9.945	0.288	-0.004	-0.017	0.288	0.005
34.734	0.800	8.811	0.292	-0.005	-0.018	0.293	0.004
34.734	0.800	7.677	0.291	-0.006	-0.026	0.292	0.004
34.734	0.800	6.543	0.282	-0.008	-0.025	0.284	0.003
34.734	0.800	5.409	0.269	-0.013	-0.031	0.271	0.004
34.734	0.800	4.275	0.253	-0.010	-0.033	0.256	0.003
35.415	0.800	13.801	0.250	-0.001	0.000	0.250	0.010
35.415	0.800	12.667	0.276	-0.001	-0.011	0.277	0.007
35.415	0.800	11.533	0.277	-0.001	-0.013	0.278	0.006
35.415	0.800	10.399	0.286	-0.003	-0.021	0.287	0.005
35.415	0.800	9.265	0.287	-0.007	-0.019	0.287	0.004
35.415	0.800	8.131	0.290	-0.006	-0.019	0.291	0.004
35.415	0.800	6.997	0.285	-0.007	-0.024	0.286	0.004
35.415	0.800	5.863	0.274	-0.010	-0.034	0.276	0.003
35.415	0.800	4.728	0.259	-0.009	-0.034	0.262	0.004
35.415	0.800	3.594	0.241	-0.011	-0.036	0.244	0.003
36.095	0.800	14.254	0.243	0.001	0.003	0.243	0.012
36.095	0.800	13.120	0.261	0.000	-0.013	0.261	0.007
36.095	0.800	11.986	0.278	-0.002	-0.018	0.279	0.006
36.095	0.800	10.852	0.282	-0.005	-0.021	0.283	0.005
36.095	0.800	9.718	0.289	-0.006	-0.025	0.290	0.004
36.095	0.800	8.584	0.289	-0.007	-0.022	0.290	0.004
36.095	0.800	7.450	0.288	-0.007	-0.027	0.289	0.003
36.095	0.800	6.316	0.274	-0.009	-0.032	0.276	0.004
36.095	0.800	5.182	0.263	-0.007	-0.031	0.265	0.004
36.095	0.800	4.048	0.245	-0.007	-0.033	0.248	0.004
36.776	0.800	14.708	0.226	0.005	0.035	0.229	0.016
36.776	0.800	13.574	0.253	-0.003	-0.011	0.254	0.009
36.776	0.800	12.440	0.271	-0.005	-0.011	0.271	0.007
36.776	0.800	11.306	0.280	-0.003	-0.014	0.281	0.006
36.776	0.800	10.172	0.285	-0.005	-0.019	0.286	0.004
36.776	0.800	9.038	0.288	-0.004	-0.023	0.289	0.004
36.776	0.800	7.904	0.289	-0.006	-0.029	0.291	0.004
36.776	0.800	6.770	0.280	-0.006	-0.033	0.282	0.003
36.776	0.800	5.636	0.269	-0.009	-0.032	0.271	0.004
36.776	0.800	4.502	0.252	-0.009	-0.035	0.254	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
37.456	0.800	14.028	0.238	-0.002	0.008	0.238	0.011
37.456	0.800	12.894	0.259	-0.003	-0.009	0.260	0.007
37.456	0.800	11.760	0.274	-0.004	-0.020	0.275	0.006
37.456	0.800	10.626	0.287	-0.007	-0.021	0.288	0.005
37.456	0.800	9.491	0.288	-0.004	-0.020	0.289	0.004
37.456	0.800	8.357	0.289	-0.006	-0.023	0.290	0.004
37.456	0.800	7.223	0.287	-0.008	-0.028	0.288	0.003
37.456	0.800	6.089	0.274	-0.007	-0.029	0.276	0.003
37.456	0.800	4.955	0.260	-0.008	-0.038	0.263	0.003
37.456	0.800	3.821	0.237	-0.004	-0.036	0.240	0.004
38.136	0.800	14.481	0.228	0.001	-0.003	0.228	0.012
38.136	0.800	13.347	0.256	-0.004	-0.012	0.256	0.008
38.136	0.800	12.213	0.269	-0.004	-0.017	0.270	0.007
38.136	0.800	11.079	0.280	-0.005	-0.024	0.281	0.005
38.136	0.800	9.945	0.283	-0.007	-0.026	0.284	0.004
38.136	0.800	8.811	0.291	-0.007	-0.027	0.292	0.004
38.136	0.800	7.677	0.286	-0.006	-0.034	0.288	0.003
38.136	0.800	6.543	0.278	-0.007	-0.031	0.280	0.003
38.136	0.800	5.409	0.266	-0.007	-0.033	0.269	0.004
38.136	0.800	4.275	0.245	-0.004	-0.037	0.247	0.004
38.817	0.800	13.801	0.241	0.000	0.004	0.241	0.011
38.817	0.800	12.667	0.261	-0.003	-0.007	0.261	0.007
38.817	0.800	11.533	0.273	-0.006	-0.017	0.274	0.006
38.817	0.800	10.399	0.284	-0.004	-0.021	0.285	0.004
38.817	0.800	9.265	0.287	-0.007	-0.024	0.288	0.004
38.817	0.800	8.131	0.287	-0.008	-0.028	0.289	0.004
38.817	0.800	6.997	0.283	-0.008	-0.033	0.285	0.003
38.817	0.800	5.863	0.272	-0.009	-0.034	0.274	0.003
38.817	0.800	4.728	0.254	-0.005	-0.037	0.256	0.004
38.817	0.800	3.594	0.228	0.000	-0.037	0.231	0.004
39.497	0.800	14.254	0.227	-0.003	0.013	0.228	0.012
39.497	0.800	13.120	0.251	-0.005	-0.006	0.251	0.008
39.497	0.800	11.986	0.265	-0.004	-0.014	0.265	0.006
39.497	0.800	10.852	0.276	-0.006	-0.022	0.277	0.006
39.497	0.800	9.718	0.285	-0.007	-0.020	0.285	0.004
39.497	0.800	8.584	0.288	-0.006	-0.022	0.289	0.004
39.497	0.800	7.450	0.286	-0.004	-0.027	0.287	0.003
39.497	0.800	6.316	0.276	-0.007	-0.038	0.278	0.003
39.497	0.800	5.182	0.261	-0.004	-0.035	0.263	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
39.497	0.800	4.048	0.239	-0.001	-0.036	0.242	0.003
40.178	0.800	14.708	0.210	-0.007	0.009	0.211	0.015
40.178	0.800	13.574	0.239	-0.002	-0.012	0.239	0.009
40.178	0.800	12.440	0.261	-0.004	-0.017	0.262	0.007
40.178	0.800	11.306	0.271	-0.006	-0.017	0.272	0.005
40.178	0.800	10.172	0.280	-0.004	-0.020	0.281	0.004
40.178	0.800	9.038	0.288	-0.006	-0.025	0.289	0.004
40.178	0.800	7.904	0.284	-0.006	-0.031	0.286	0.004
40.178	0.800	6.770	0.280	-0.006	-0.033	0.282	0.004
40.178	0.800	5.636	0.268	-0.005	-0.039	0.271	0.003
40.178	0.800	4.502	0.248	-0.001	-0.039	0.251	0.004
40.858	0.800	14.028	0.226	-0.004	-0.002	0.226	0.011
40.858	0.800	12.894	0.245	-0.003	-0.009	0.245	0.008
40.858	0.800	11.760	0.268	-0.006	-0.022	0.269	0.006
40.858	0.800	10.626	0.281	-0.006	-0.020	0.281	0.005
40.858	0.800	9.491	0.284	-0.006	-0.027	0.285	0.004
40.858	0.800	8.357	0.287	-0.007	-0.026	0.288	0.004
40.858	0.800	7.223	0.283	-0.006	-0.029	0.285	0.004
40.858	0.800	6.089	0.273	-0.004	-0.035	0.275	0.003
40.858	0.800	4.955	0.256	-0.002	-0.040	0.259	0.003
40.858	0.800	3.821	0.229	0.003	-0.036	0.231	0.004
41.539	0.800	14.481	0.210	-0.009	0.007	0.210	0.013
41.539	0.800	13.347	0.243	-0.005	-0.009	0.243	0.009
41.539	0.800	12.213	0.260	-0.004	-0.015	0.261	0.006
41.539	0.800	11.079	0.270	-0.008	-0.019	0.271	0.005
41.539	0.800	9.945	0.282	-0.007	-0.020	0.283	0.004
41.539	0.800	8.811	0.287	-0.006	-0.026	0.288	0.003
41.539	0.800	7.677	0.284	-0.004	-0.034	0.286	0.003
41.539	0.800	6.543	0.276	-0.003	-0.036	0.279	0.003
41.539	0.800	5.409	0.262	-0.001	-0.038	0.265	0.004
41.539	0.800	4.275	0.238	0.002	-0.038	0.242	0.004
42.219	0.800	13.801	0.228	-0.005	-0.003	0.228	0.010
42.219	0.800	12.667	0.249	-0.007	-0.013	0.249	0.008
42.219	0.800	11.533	0.269	-0.006	-0.018	0.269	0.006
42.219	0.800	10.399	0.275	-0.006	-0.023	0.276	0.004
42.219	0.800	9.265	0.282	-0.006	-0.029	0.283	0.004
42.219	0.800	8.131	0.286	-0.007	-0.031	0.288	0.004
42.219	0.800	6.997	0.280	-0.005	-0.034	0.282	0.003
42.219	0.800	5.863	0.266	-0.002	-0.036	0.268	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
42.219	0.800	4.728	0.248	0.000	-0.036	0.250	0.003
42.219	0.800	3.594	0.219	0.005	-0.038	0.222	0.004
42.899	0.800	14.254	0.217	-0.003	0.010	0.217	0.013
42.899	0.800	13.120	0.240	-0.009	-0.008	0.240	0.008
42.899	0.800	11.986	0.260	-0.010	-0.015	0.261	0.006
42.899	0.800	10.852	0.273	-0.006	-0.017	0.273	0.005
42.899	0.800	9.718	0.283	-0.006	-0.018	0.284	0.004
42.899	0.800	8.584	0.282	-0.007	-0.026	0.283	0.003
42.899	0.800	7.450	0.281	-0.004	-0.032	0.283	0.003
42.899	0.800	6.316	0.274	-0.002	-0.034	0.276	0.003
42.899	0.800	5.182	0.253	0.001	-0.035	0.256	0.004
42.899	0.800	4.048	0.230	0.007	-0.037	0.233	0.003
43.580	0.800	14.708	0.201	-0.011	0.022	0.202	0.015
43.580	0.800	13.574	0.225	-0.010	-0.013	0.225	0.010
43.580	0.800	12.440	0.249	-0.011	-0.012	0.250	0.006
43.580	0.800	11.306	0.266	-0.011	-0.017	0.267	0.006
43.580	0.800	10.172	0.280	-0.009	-0.017	0.280	0.004
43.580	0.800	9.038	0.282	-0.006	-0.028	0.283	0.004
43.580	0.800	7.904	0.281	-0.005	-0.030	0.283	0.003
43.580	0.800	6.770	0.275	-0.004	-0.038	0.277	0.003
43.580	0.800	5.636	0.260	-0.001	-0.036	0.262	0.004
43.580	0.800	4.502	0.237	0.002	-0.035	0.240	0.004
44.260	0.800	14.028	0.215	-0.010	0.003	0.215	0.012
44.260	0.800	12.894	0.237	-0.011	-0.003	0.238	0.007
44.260	0.800	11.760	0.260	-0.011	-0.009	0.261	0.005
44.260	0.800	10.626	0.273	-0.011	-0.015	0.273	0.005
44.260	0.800	9.491	0.279	-0.005	-0.022	0.280	0.004
44.260	0.800	8.357	0.282	-0.005	-0.029	0.283	0.003
44.260	0.800	7.223	0.281	-0.004	-0.035	0.283	0.003
44.260	0.800	6.089	0.270	-0.001	-0.033	0.272	0.003
44.260	0.800	4.955	0.247	0.002	-0.037	0.250	0.003
44.260	0.800	3.821	0.220	0.004	-0.036	0.223	0.003
44.745	0.800	13.801	0.221	-0.010	0.036	0.225	0.012
44.745	0.800	10.399	0.280	-0.010	-0.011	0.281	0.006
44.745	0.800	6.997	0.282	-0.004	-0.027	0.283	0.004
44.745	0.800	3.594	0.206	0.009	-0.029	0.209	0.005
44.971	0.800	13.574	0.230	-0.009	0.037	0.233	0.012
44.971	0.800	10.172	0.282	-0.009	-0.015	0.283	0.005
44.971	0.800	6.770	0.277	-0.002	-0.029	0.278	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
45.198	0.800	13.347	0.238	-0.010	0.015	0.239	0.010
45.198	0.800	9.945	0.286	-0.008	-0.017	0.287	0.005
45.198	0.800	6.543	0.274	-0.003	-0.029	0.275	0.004
45.425	0.800	13.120	0.237	-0.016	0.010	0.237	0.008
45.425	0.800	9.718	0.285	-0.010	-0.017	0.285	0.004
45.425	0.800	6.316	0.272	-0.003	-0.032	0.274	0.004
45.652	0.800	12.894	0.245	-0.018	0.005	0.246	0.008
45.652	0.800	9.491	0.288	-0.008	-0.021	0.289	0.004
45.652	0.800	6.089	0.268	-0.002	-0.031	0.270	0.004
45.879	0.800	12.667	0.249	-0.018	-0.004	0.249	0.007
45.879	0.800	9.265	0.287	-0.007	-0.022	0.288	0.004
45.879	0.800	5.863	0.262	0.002	-0.031	0.263	0.004
46.105	0.800	12.440	0.254	-0.016	-0.001	0.254	0.008
46.105	0.800	9.038	0.288	-0.006	-0.026	0.290	0.004
46.105	0.800	5.636	0.258	0.000	-0.031	0.260	0.004
46.332	0.800	12.213	0.258	-0.018	0.001	0.259	0.007
46.332	0.800	8.811	0.289	-0.008	-0.021	0.289	0.004
46.332	0.800	5.409	0.253	0.003	-0.033	0.255	0.004
46.559	0.800	11.986	0.261	-0.016	-0.004	0.261	0.006
46.559	0.800	8.584	0.291	-0.008	-0.022	0.292	0.004
46.559	0.800	5.182	0.250	0.006	-0.033	0.252	0.004
46.786	0.800	11.760	0.267	-0.015	0.001	0.268	0.007
46.786	0.800	8.357	0.289	-0.010	-0.025	0.290	0.003
46.786	0.800	4.955	0.245	0.006	-0.026	0.246	0.004
47.013	0.800	11.533	0.264	-0.013	-0.006	0.264	0.006
47.013	0.800	8.131	0.286	-0.007	-0.025	0.287	0.004
47.013	0.800	4.728	0.238	0.007	-0.030	0.240	0.004
47.239	0.800	14.708	0.181	-0.017	0.025	0.184	0.015
47.239	0.800	11.306	0.270	-0.016	-0.007	0.270	0.006
47.239	0.800	7.904	0.288	-0.005	-0.025	0.289	0.003
47.239	0.800	4.502	0.233	0.008	-0.028	0.235	0.004
47.466	0.800	14.481	0.190	-0.024	0.027	0.194	0.012
47.466	0.800	11.079	0.274	-0.014	-0.011	0.275	0.005
47.466	0.800	7.677	0.286	-0.005	-0.027	0.287	0.003
47.466	0.800	4.275	0.227	0.009	-0.028	0.229	0.004
47.693	0.800	14.254	0.201	-0.020	0.015	0.202	0.011
47.693	0.800	10.852	0.274	-0.014	-0.010	0.275	0.005
47.693	0.800	7.450	0.285	-0.002	-0.028	0.287	0.003
47.693	0.800	4.048	0.217	0.008	-0.025	0.218	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
47.920	0.800	14.028	0.207	-0.022	0.018	0.209	0.010
47.920	0.800	10.626	0.278	-0.013	-0.015	0.278	0.005
47.920	0.800	7.223	0.283	-0.003	-0.025	0.285	0.003
47.920	0.800	3.821	0.213	0.008	-0.020	0.214	0.004
48.147	0.800	13.801	0.207	-0.021	0.025	0.209	0.010
48.147	0.800	10.399	0.280	-0.014	-0.010	0.280	0.004
48.147	0.800	6.997	0.281	-0.003	-0.029	0.282	0.003
48.147	0.800	3.594	0.201	0.006	-0.015	0.202	0.005
48.373	0.800	13.574	0.222	-0.021	0.009	0.223	0.008
48.373	0.800	10.172	0.281	-0.011	-0.016	0.282	0.004
48.373	0.800	6.770	0.278	-0.001	-0.027	0.279	0.003
48.600	0.800	13.347	0.229	-0.017	-0.002	0.229	0.008
48.600	0.800	9.945	0.287	-0.012	-0.018	0.288	0.004
48.600	0.800	6.543	0.272	0.000	-0.025	0.273	0.003
48.827	0.800	13.120	0.235	-0.021	0.004	0.236	0.007
48.827	0.800	9.718	0.286	-0.009	-0.017	0.287	0.003
48.827	0.800	6.316	0.268	-0.001	-0.028	0.270	0.003
49.054	0.800	12.894	0.240	-0.021	-0.001	0.241	0.007
49.054	0.800	9.491	0.289	-0.009	-0.015	0.289	0.003
49.054	0.800	6.089	0.264	-0.001	-0.021	0.265	0.003
49.281	0.800	12.667	0.243	-0.020	-0.004	0.244	0.007
49.281	0.800	9.265	0.289	-0.010	-0.018	0.290	0.003
49.281	0.800	5.863	0.260	0.000	-0.020	0.261	0.003
49.508	0.800	12.440	0.251	-0.020	-0.004	0.251	0.006
49.508	0.800	9.038	0.289	-0.011	-0.019	0.290	0.003
49.508	0.800	5.636	0.258	0.001	-0.024	0.259	0.003
49.734	0.800	12.213	0.253	-0.020	-0.007	0.253	0.006
49.734	0.800	8.811	0.289	-0.008	-0.017	0.290	0.003
49.734	0.800	5.409	0.252	0.001	-0.020	0.253	0.004
49.961	0.800	11.986	0.257	-0.016	0.004	0.257	0.005
49.961	0.800	8.584	0.288	-0.006	-0.019	0.289	0.003
49.961	0.800	5.182	0.246	0.002	-0.023	0.247	0.003
50.188	0.800	11.760	0.264	-0.015	-0.012	0.265	0.005
50.188	0.800	8.357	0.290	-0.009	-0.019	0.291	0.003
50.188	0.800	4.955	0.242	0.002	-0.016	0.243	0.004
50.415	0.800	11.533	0.270	-0.013	-0.008	0.270	0.005
50.415	0.800	8.131	0.288	-0.007	-0.019	0.288	0.003
50.415	0.800	4.728	0.241	0.001	-0.012	0.242	0.004
50.642	0.800	14.708	0.160	-0.035	0.041	0.169	0.015

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
50.642	0.800	11.306	0.271	-0.015	-0.009	0.272	0.005
50.642	0.800	7.904	0.289	-0.006	-0.019	0.290	0.003
50.642	0.800	4.502	0.229	0.002	-0.011	0.229	0.004
50.868	0.800	14.481	0.177	-0.035	0.021	0.182	0.013
50.868	0.800	11.079	0.275	-0.010	-0.010	0.275	0.004
50.868	0.800	7.677	0.288	-0.006	-0.020	0.289	0.003
50.868	0.800	4.275	0.223	-0.001	-0.007	0.223	0.004
51.095	0.800	14.254	0.195	-0.031	0.030	0.199	0.011
51.095	0.800	10.852	0.276	-0.010	-0.008	0.276	0.004
51.095	0.800	7.450	0.283	-0.006	-0.017	0.284	0.003
51.095	0.800	4.048	0.218	-0.002	-0.003	0.218	0.004
51.322	0.800	14.028	0.200	-0.029	0.026	0.203	0.011
51.322	0.800	10.626	0.279	-0.010	-0.009	0.280	0.004
51.322	0.800	7.223	0.281	-0.007	-0.012	0.282	0.003
51.322	0.800	3.821	0.209	-0.004	0.002	0.209	0.004
51.549	0.800	13.801	0.210	-0.032	0.019	0.213	0.010
51.549	0.800	10.399	0.280	-0.006	-0.003	0.280	0.004
51.549	0.800	6.997	0.279	-0.004	-0.014	0.280	0.003
51.549	0.800	3.594	0.198	-0.004	0.007	0.198	0.004
51.776	0.800	13.574	0.219	-0.022	0.013	0.221	0.009
51.776	0.800	10.172	0.280	-0.008	-0.007	0.280	0.003
51.776	0.800	6.770	0.276	-0.004	-0.013	0.277	0.003
52.002	0.800	13.347	0.230	-0.020	0.006	0.231	0.008
52.002	0.800	9.945	0.284	-0.007	-0.004	0.284	0.004
52.002	0.800	6.543	0.272	-0.007	-0.012	0.272	0.003
52.229	0.800	13.120	0.237	-0.018	0.004	0.238	0.007
52.229	0.800	9.718	0.284	-0.007	-0.004	0.284	0.003
52.229	0.800	6.316	0.268	-0.008	-0.011	0.269	0.003
52.456	0.800	12.894	0.247	-0.013	0.000	0.247	0.006
52.456	0.800	9.491	0.286	-0.007	-0.001	0.286	0.003
52.456	0.800	6.089	0.266	-0.006	-0.006	0.266	0.003
52.683	0.800	12.667	0.249	-0.011	0.002	0.249	0.007
52.683	0.800	9.265	0.287	-0.005	-0.001	0.287	0.003
52.683	0.800	5.863	0.261	-0.008	-0.008	0.262	0.003
52.910	0.800	12.440	0.254	-0.009	0.002	0.254	0.006
52.910	0.800	9.038	0.288	-0.003	-0.004	0.288	0.003
52.910	0.800	5.636	0.259	-0.009	-0.003	0.259	0.003
53.136	0.800	12.213	0.258	-0.005	0.006	0.258	0.006
53.136	0.800	8.811	0.290	-0.004	0.001	0.290	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
53.136	0.800	5.409	0.254	-0.009	-0.005	0.254	0.003
53.363	0.800	11.986	0.266	-0.004	0.005	0.266	0.006
53.363	0.800	8.584	0.289	-0.005	0.001	0.289	0.003
53.363	0.800	5.182	0.250	-0.012	-0.004	0.251	0.003
53.590	0.800	11.760	0.269	-0.004	0.009	0.269	0.005
53.590	0.800	8.357	0.286	-0.006	0.004	0.286	0.003
53.590	0.800	4.955	0.243	-0.010	0.000	0.243	0.003
53.817	0.800	11.533	0.270	0.000	0.005	0.270	0.005
53.817	0.800	8.131	0.287	-0.006	0.003	0.287	0.003
53.817	0.800	4.728	0.240	-0.011	0.002	0.240	0.003
54.044	0.800	14.708	0.178	-0.019	0.053	0.186	0.014
54.044	0.800	11.306	0.275	0.004	0.002	0.275	0.005
54.044	0.800	7.904	0.287	-0.008	0.004	0.287	0.003
54.044	0.800	4.502	0.234	-0.014	0.004	0.234	0.003
54.271	0.800	14.481	0.190	-0.008	0.045	0.195	0.016
54.271	0.800	11.079	0.276	0.001	0.010	0.276	0.005
54.271	0.800	7.677	0.285	-0.009	0.005	0.286	0.003
54.271	0.800	4.275	0.231	-0.013	0.009	0.232	0.004
54.497	0.800	14.254	0.206	-0.009	0.045	0.211	0.012
54.497	0.800	10.852	0.276	0.005	0.011	0.276	0.004
54.497	0.800	7.450	0.287	-0.009	0.010	0.287	0.003
54.497	0.800	4.048	0.222	-0.014	0.011	0.222	0.004
54.724	0.800	14.028	0.222	0.002	0.040	0.226	0.011
54.724	0.800	10.626	0.281	0.008	0.011	0.281	0.004
54.724	0.800	7.223	0.284	-0.011	0.012	0.284	0.003
54.724	0.800	3.821	0.214	-0.016	0.011	0.215	0.004
54.951	0.800	13.801	0.230	0.005	0.025	0.232	0.010
54.951	0.800	10.399	0.285	0.009	0.016	0.285	0.004
54.951	0.800	6.997	0.281	-0.009	0.013	0.282	0.003
54.951	0.800	3.594	0.200	-0.016	0.018	0.201	0.005

Table D.6 Stereo PIV data for backward conic cavity with rough bed at high flow.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
2.693	0.800	12.667	0.394	0.003	0.006	0.394	0.005
2.693	0.800	9.265	0.361	-0.010	0.005	0.362	0.003
2.693	0.800	5.863	0.305	-0.022	0.007	0.305	0.003
2.920	0.800	15.615	0.369	0.008	0.131	0.392	0.023
2.920	0.800	12.213	0.397	0.000	0.000	0.397	0.004
2.920	0.800	8.811	0.354	-0.011	0.004	0.354	0.003
2.920	0.800	5.409	0.295	-0.027	0.004	0.297	0.003
3.147	0.800	15.162	0.393	0.005	0.058	0.397	0.017
3.147	0.800	11.760	0.392	-0.003	0.006	0.392	0.004
3.147	0.800	8.357	0.348	-0.013	0.006	0.348	0.003
3.147	0.800	4.955	0.282	-0.030	0.001	0.284	0.003
3.373	0.800	14.708	0.396	0.009	0.030	0.397	0.011
3.373	0.800	11.306	0.392	-0.004	0.002	0.392	0.003
3.373	0.800	7.904	0.345	-0.012	0.011	0.345	0.003
3.373	0.800	4.502	0.268	-0.033	0.008	0.271	0.003
3.600	0.800	14.254	0.394	0.009	0.040	0.396	0.007
3.600	0.800	10.852	0.384	-0.004	0.002	0.385	0.004
3.600	0.800	7.450	0.333	-0.014	0.005	0.334	0.003
3.600	0.800	4.048	0.259	-0.036	0.005	0.262	0.003
3.827	0.800	13.801	0.401	0.007	0.026	0.402	0.006
3.827	0.800	10.399	0.382	-0.007	0.002	0.383	0.003
3.827	0.800	6.997	0.326	-0.017	0.003	0.326	0.003
3.827	0.800	3.594	0.244	-0.038	0.004	0.247	0.003
4.054	0.800	13.347	0.403	0.004	0.013	0.403	0.005
4.054	0.800	9.945	0.373	-0.010	0.003	0.373	0.003
4.054	0.800	6.543	0.316	-0.020	0.006	0.317	0.003
4.281	0.800	12.894	0.403	0.001	0.004	0.403	0.005
4.281	0.800	9.491	0.367	-0.011	0.003	0.367	0.003
4.281	0.800	6.089	0.313	-0.023	0.003	0.314	0.003
4.508	0.800	15.842	0.359	0.008	0.168	0.397	0.030
4.508	0.800	12.440	0.398	0.000	0.007	0.398	0.004
4.508	0.800	9.038	0.360	-0.009	0.006	0.360	0.003
4.508	0.800	5.636	0.302	-0.023	0.007	0.303	0.003
4.734	0.800	15.389	0.379	0.012	0.101	0.392	0.018
4.734	0.800	11.986	0.397	-0.003	0.003	0.397	0.004
4.734	0.800	8.584	0.353	-0.011	0.004	0.353	0.003
4.734	0.800	5.182	0.294	-0.028	0.004	0.296	0.003
4.961	0.800	14.935	0.391	0.011	0.069	0.397	0.014

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.961	0.800	11.533	0.394	-0.004	0.003	0.395	0.004
4.961	0.800	8.131	0.348	-0.011	0.005	0.348	0.003
4.961	0.800	4.728	0.281	-0.029	0.005	0.283	0.003
5.188	0.800	14.481	0.399	0.009	0.028	0.400	0.010
5.188	0.800	11.079	0.393	-0.004	0.005	0.393	0.004
5.188	0.800	7.677	0.344	-0.015	0.007	0.345	0.003
5.188	0.800	4.275	0.270	-0.030	0.004	0.272	0.003
5.415	0.800	14.028	0.403	0.007	0.016	0.403	0.007
5.415	0.800	10.626	0.385	-0.008	0.005	0.385	0.003
5.415	0.800	7.223	0.335	-0.017	0.006	0.335	0.003
5.415	0.800	3.821	0.253	-0.034	-0.003	0.255	0.003
5.642	0.800	13.574	0.405	0.009	0.011	0.405	0.005
5.642	0.800	10.172	0.379	-0.009	0.007	0.379	0.003
5.642	0.800	6.770	0.326	-0.019	0.006	0.326	0.003
5.642	0.800	3.368	0.238	-0.034	0.003	0.241	0.004
5.868	0.800	13.120	0.404	0.003	0.004	0.404	0.005
5.868	0.800	9.718	0.374	-0.008	0.005	0.374	0.003
5.868	0.800	6.316	0.317	-0.020	0.005	0.318	0.003
6.095	0.800	12.667	0.402	0.002	0.007	0.402	0.004
6.095	0.800	9.265	0.364	-0.009	0.008	0.365	0.004
6.095	0.800	5.863	0.308	-0.023	0.000	0.309	0.003
6.322	0.800	15.615	0.348	0.006	0.193	0.399	0.029
6.322	0.800	12.213	0.398	0.001	0.009	0.398	0.004
6.322	0.800	8.811	0.360	-0.010	0.005	0.360	0.003
6.322	0.800	5.409	0.299	-0.022	0.003	0.300	0.003
6.549	0.800	15.162	0.380	0.004	0.104	0.394	0.021
6.549	0.800	11.760	0.398	-0.001	0.007	0.398	0.004
6.549	0.800	8.357	0.354	-0.011	0.004	0.354	0.003
6.549	0.800	4.955	0.288	-0.025	0.004	0.289	0.003
6.776	0.800	14.708	0.392	0.003	0.058	0.396	0.013
6.776	0.800	11.306	0.392	-0.003	0.005	0.392	0.003
6.776	0.800	7.904	0.345	-0.012	0.000	0.345	0.004
6.776	0.800	4.502	0.277	-0.028	0.001	0.278	0.004
7.002	0.800	14.254	0.398	0.005	0.024	0.399	0.010
7.002	0.800	10.852	0.385	-0.002	0.003	0.385	0.004
7.002	0.800	7.450	0.337	-0.013	0.000	0.337	0.004
7.002	0.800	4.048	0.263	-0.031	-0.003	0.265	0.003
7.229	0.800	13.801	0.401	0.005	0.009	0.401	0.007
7.229	0.800	10.399	0.384	-0.005	0.000	0.384	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
7.229	0.800	6.997	0.324	-0.016	-0.001	0.325	0.004
7.229	0.800	3.594	0.250	-0.033	-0.004	0.252	0.004
7.456	0.800	13.347	0.404	0.005	0.009	0.405	0.005
7.456	0.800	9.945	0.374	-0.006	0.004	0.374	0.004
7.456	0.800	6.543	0.323	-0.019	-0.001	0.323	0.003
7.683	0.800	12.894	0.402	0.004	0.006	0.402	0.005
7.683	0.800	9.491	0.370	-0.008	0.000	0.370	0.004
7.683	0.800	6.089	0.311	-0.019	0.002	0.312	0.003
7.910	0.800	15.842	0.320	0.005	0.254	0.409	0.038
7.910	0.800	12.440	0.400	0.003	0.003	0.400	0.004
7.910	0.800	9.038	0.363	-0.008	0.002	0.363	0.004
7.910	0.800	5.636	0.303	-0.023	0.003	0.304	0.003
8.136	0.800	15.389	0.355	0.000	0.139	0.382	0.026
8.136	0.800	11.986	0.394	0.000	0.000	0.394	0.004
8.136	0.800	8.584	0.357	-0.011	0.001	0.358	0.003
8.136	0.800	5.182	0.292	-0.024	-0.003	0.293	0.003
8.363	0.800	14.935	0.372	0.006	0.078	0.380	0.018
8.363	0.800	11.533	0.392	-0.003	-0.001	0.392	0.004
8.363	0.800	8.131	0.349	-0.015	-0.001	0.349	0.004
8.363	0.800	4.728	0.283	-0.025	-0.004	0.284	0.004
8.590	0.800	14.481	0.386	0.006	0.042	0.388	0.011
8.590	0.800	11.079	0.386	-0.005	0.001	0.386	0.004
8.590	0.800	7.677	0.344	-0.016	0.000	0.344	0.004
8.590	0.800	4.275	0.272	-0.027	-0.001	0.273	0.003
8.817	0.800	14.028	0.400	0.007	0.014	0.401	0.008
8.817	0.800	10.626	0.386	-0.006	0.002	0.386	0.004
8.817	0.800	7.223	0.332	-0.016	0.001	0.333	0.004
8.817	0.800	3.821	0.260	-0.029	-0.003	0.262	0.004
9.044	0.800	13.574	0.405	0.005	0.003	0.406	0.007
9.044	0.800	10.172	0.378	-0.007	0.002	0.378	0.004
9.044	0.800	6.770	0.324	-0.018	-0.003	0.325	0.004
9.044	0.800	3.368	0.248	-0.029	-0.001	0.250	0.003
9.271	0.800	13.120	0.403	0.002	0.003	0.403	0.005
9.271	0.800	9.718	0.371	-0.010	0.001	0.371	0.004
9.271	0.800	6.316	0.316	-0.021	-0.004	0.317	0.004
9.497	0.800	12.667	0.403	-0.001	-0.001	0.403	0.005
9.497	0.800	9.265	0.367	-0.009	0.001	0.367	0.004
9.497	0.800	5.863	0.309	-0.020	-0.002	0.310	0.004
9.724	0.800	15.615	0.339	0.007	0.180	0.384	0.030

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
9.724	0.800	12.213	0.400	0.000	-0.001	0.400	0.004
9.724	0.800	8.811	0.356	-0.012	0.004	0.356	0.004
9.724	0.800	5.409	0.299	-0.023	-0.004	0.300	0.004
9.951	0.800	15.162	0.375	0.003	0.091	0.386	0.021
9.951	0.800	11.760	0.396	-0.002	-0.006	0.396	0.004
9.951	0.800	8.357	0.349	-0.012	0.002	0.350	0.004
9.951	0.800	4.955	0.286	-0.022	-0.005	0.287	0.004
10.178	0.800	14.708	0.385	0.007	0.039	0.387	0.014
10.178	0.800	11.306	0.389	-0.004	-0.003	0.389	0.004
10.178	0.800	7.904	0.345	-0.013	0.003	0.345	0.004
10.178	0.800	4.502	0.285	-0.026	-0.004	0.286	0.004
10.405	0.800	14.254	0.393	0.006	0.017	0.393	0.009
10.405	0.800	10.852	0.384	-0.005	0.002	0.384	0.004
10.405	0.800	7.450	0.336	-0.014	-0.001	0.336	0.004
10.405	0.800	4.048	0.270	-0.027	-0.010	0.271	0.004
10.631	0.800	13.801	0.402	0.005	0.000	0.402	0.007
10.631	0.800	10.399	0.380	-0.006	0.001	0.380	0.004
10.631	0.800	6.997	0.332	-0.017	-0.004	0.333	0.004
10.631	0.800	3.594	0.259	-0.028	-0.003	0.261	0.004
10.858	0.800	13.347	0.406	0.003	-0.002	0.406	0.006
10.858	0.800	9.945	0.373	-0.009	0.001	0.373	0.004
10.858	0.800	6.543	0.324	-0.016	-0.001	0.324	0.004
11.085	0.800	12.894	0.399	0.001	0.002	0.399	0.005
11.085	0.800	9.491	0.368	-0.008	-0.004	0.368	0.004
11.085	0.800	6.089	0.310	-0.020	-0.002	0.310	0.004
11.312	0.800	15.842	0.341	0.002	0.181	0.386	0.033
11.312	0.800	12.440	0.397	0.002	0.001	0.397	0.005
11.312	0.800	9.038	0.362	-0.013	0.000	0.362	0.004
11.312	0.800	5.636	0.306	-0.021	-0.003	0.307	0.004
11.539	0.800	15.389	0.369	0.007	0.094	0.381	0.022
11.539	0.800	11.986	0.390	0.000	-0.004	0.390	0.005
11.539	0.800	8.584	0.358	-0.013	-0.009	0.358	0.004
11.539	0.800	5.182	0.297	-0.023	-0.004	0.298	0.004
11.765	0.800	14.935	0.388	0.010	0.046	0.391	0.015
11.765	0.800	11.533	0.386	-0.004	-0.002	0.386	0.004
11.765	0.800	8.131	0.351	-0.014	-0.007	0.352	0.004
11.765	0.800	4.728	0.284	-0.023	-0.005	0.285	0.004
11.992	0.800	14.481	0.398	0.007	0.011	0.398	0.011
11.992	0.800	11.079	0.383	-0.006	-0.004	0.383	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
11.992	0.800	7.677	0.343	-0.013	-0.004	0.343	0.004
11.992	0.800	4.275	0.275	-0.026	0.000	0.276	0.004
12.219	0.800	14.028	0.399	0.002	0.007	0.399	0.010
12.219	0.800	10.626	0.382	-0.006	-0.002	0.382	0.004
12.219	0.800	7.223	0.332	-0.014	-0.003	0.333	0.004
12.219	0.800	3.821	0.265	-0.025	-0.004	0.266	0.004
12.446	0.800	13.574	0.403	0.002	-0.004	0.403	0.007
12.446	0.800	10.172	0.375	-0.006	-0.003	0.375	0.004
12.446	0.800	6.770	0.325	-0.016	-0.002	0.325	0.004
12.446	0.800	3.368	0.257	-0.028	-0.004	0.258	0.004
12.673	0.800	13.120	0.403	-0.001	-0.003	0.403	0.006
12.673	0.800	9.718	0.368	-0.010	-0.003	0.368	0.004
12.673	0.800	6.316	0.315	-0.017	-0.003	0.316	0.004
12.899	0.800	12.667	0.397	-0.003	-0.004	0.397	0.006
12.899	0.800	9.265	0.364	-0.008	-0.006	0.365	0.004
12.899	0.800	5.863	0.311	-0.016	-0.005	0.312	0.004
13.126	0.800	15.615	0.368	0.004	0.080	0.376	0.022
13.126	0.800	12.213	0.394	-0.004	0.000	0.394	0.005
13.126	0.800	8.811	0.362	-0.010	-0.004	0.362	0.004
13.126	0.800	5.409	0.302	-0.020	-0.003	0.302	0.004
13.353	0.800	15.162	0.380	0.002	0.042	0.382	0.017
13.353	0.800	11.760	0.391	-0.002	-0.005	0.391	0.005
13.353	0.800	8.357	0.353	-0.012	-0.004	0.354	0.004
13.353	0.800	4.955	0.294	-0.021	-0.006	0.294	0.004
13.580	0.800	14.708	0.395	0.006	0.008	0.395	0.012
13.580	0.800	11.306	0.384	-0.005	-0.003	0.384	0.005
13.580	0.800	7.904	0.345	-0.013	-0.007	0.345	0.004
13.580	0.800	4.502	0.282	-0.024	-0.003	0.283	0.004
13.807	0.800	14.254	0.402	0.003	-0.006	0.402	0.010
13.807	0.800	10.852	0.382	-0.006	-0.002	0.382	0.004
13.807	0.800	7.450	0.335	-0.015	-0.001	0.335	0.004
13.807	0.800	4.048	0.271	-0.025	-0.011	0.272	0.004
14.034	0.800	13.801	0.398	0.000	-0.004	0.398	0.009
14.034	0.800	10.399	0.377	-0.007	-0.006	0.377	0.005
14.034	0.800	6.997	0.326	-0.017	-0.008	0.326	0.004
14.034	0.800	3.594	0.266	-0.026	-0.005	0.267	0.004
14.260	0.800	13.347	0.391	-0.002	-0.003	0.391	0.007
14.260	0.800	9.945	0.370	-0.010	-0.006	0.370	0.005
14.260	0.800	6.543	0.321	-0.019	-0.003	0.321	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
14.487	0.800	12.894	0.393	0.000	-0.002	0.393	0.006
14.487	0.800	9.491	0.365	-0.009	-0.006	0.366	0.004
14.487	0.800	6.089	0.313	-0.020	-0.006	0.314	0.004
14.971	0.800	15.389	0.386	0.005	0.040	0.388	0.014
14.971	0.800	14.254	0.388	0.003	0.010	0.389	0.008
14.971	0.800	13.120	0.392	-0.001	0.004	0.392	0.006
14.971	0.800	11.986	0.383	-0.003	0.004	0.384	0.005
14.971	0.800	10.852	0.378	-0.008	-0.002	0.378	0.005
14.971	0.800	9.718	0.371	-0.010	-0.002	0.371	0.005
14.971	0.800	8.584	0.355	-0.012	-0.004	0.355	0.004
14.971	0.800	7.450	0.339	-0.015	0.000	0.340	0.004
14.971	0.800	6.316	0.319	-0.017	-0.004	0.320	0.004
14.971	0.800	5.182	0.296	-0.024	-0.004	0.297	0.004
14.971	0.800	4.048	0.270	-0.027	-0.003	0.272	0.004
15.652	0.800	15.842	0.372	0.002	0.079	0.381	0.018
15.652	0.800	14.708	0.389	0.003	0.021	0.390	0.009
15.652	0.800	13.574	0.389	0.003	0.005	0.389	0.007
15.652	0.800	12.440	0.388	-0.003	0.003	0.388	0.006
15.652	0.800	11.306	0.384	-0.003	-0.002	0.384	0.005
15.652	0.800	10.172	0.372	-0.007	-0.008	0.372	0.004
15.652	0.800	9.038	0.357	-0.010	0.000	0.357	0.004
15.652	0.800	7.904	0.347	-0.013	-0.004	0.347	0.004
15.652	0.800	6.770	0.330	-0.018	-0.002	0.330	0.004
15.652	0.800	5.636	0.306	-0.022	-0.008	0.307	0.004
15.652	0.800	4.502	0.282	-0.024	-0.007	0.283	0.004
15.652	0.800	3.368	0.251	-0.029	-0.008	0.252	0.004
16.332	0.800	15.162	0.387	0.002	0.027	0.388	0.012
16.332	0.800	14.028	0.390	0.004	0.011	0.390	0.008
16.332	0.800	12.894	0.389	0.004	-0.003	0.389	0.006
16.332	0.800	11.760	0.386	-0.002	-0.002	0.386	0.005
16.332	0.800	10.626	0.376	-0.006	-0.004	0.376	0.005
16.332	0.800	9.491	0.365	-0.007	-0.006	0.365	0.004
16.332	0.800	8.357	0.351	-0.011	-0.006	0.352	0.004
16.332	0.800	7.223	0.334	-0.017	-0.006	0.334	0.004
16.332	0.800	6.089	0.315	-0.021	-0.012	0.315	0.004
16.332	0.800	4.955	0.290	-0.023	-0.012	0.291	0.004
16.332	0.800	3.821	0.265	-0.029	-0.009	0.267	0.004
17.013	0.800	15.615	0.380	0.004	0.045	0.383	0.016
17.013	0.800	14.481	0.385	0.003	0.003	0.385	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
17.013	0.800	13.347	0.393	0.003	-0.003	0.393	0.006
17.013	0.800	12.213	0.387	-0.002	-0.003	0.387	0.005
17.013	0.800	11.079	0.378	-0.003	-0.007	0.378	0.005
17.013	0.800	9.945	0.366	-0.006	-0.005	0.366	0.004
17.013	0.800	8.811	0.354	-0.012	-0.006	0.354	0.004
17.013	0.800	7.677	0.340	-0.015	-0.006	0.341	0.004
17.013	0.800	6.543	0.321	-0.018	-0.004	0.321	0.004
17.013	0.800	5.409	0.302	-0.021	-0.009	0.303	0.004
17.013	0.800	4.275	0.276	-0.025	-0.009	0.277	0.004
17.693	0.800	14.935	0.387	0.002	0.013	0.387	0.011
17.693	0.800	13.801	0.386	-0.001	0.001	0.386	0.008
17.693	0.800	12.667	0.384	-0.003	-0.004	0.384	0.006
17.693	0.800	11.533	0.379	-0.006	-0.008	0.379	0.005
17.693	0.800	10.399	0.369	-0.006	-0.006	0.370	0.005
17.693	0.800	9.265	0.364	-0.010	-0.002	0.364	0.004
17.693	0.800	8.131	0.346	-0.014	-0.010	0.347	0.004
17.693	0.800	6.997	0.330	-0.016	-0.011	0.331	0.004
17.693	0.800	5.863	0.311	-0.020	-0.010	0.312	0.004
17.693	0.800	4.728	0.288	-0.023	-0.011	0.289	0.004
17.693	0.800	3.594	0.261	-0.024	-0.011	0.262	0.004
18.373	0.800	15.389	0.370	0.005	0.042	0.373	0.013
18.373	0.800	14.254	0.385	0.000	0.002	0.385	0.008
18.373	0.800	13.120	0.385	-0.001	-0.005	0.385	0.006
18.373	0.800	11.986	0.382	-0.004	-0.001	0.382	0.005
18.373	0.800	10.852	0.376	-0.008	-0.008	0.376	0.005
18.373	0.800	9.718	0.367	-0.009	-0.011	0.367	0.005
18.373	0.800	8.584	0.355	-0.010	-0.010	0.355	0.004
18.373	0.800	7.450	0.333	-0.016	-0.010	0.333	0.004
18.373	0.800	6.316	0.319	-0.018	-0.007	0.320	0.004
18.373	0.800	5.182	0.295	-0.020	-0.010	0.296	0.004
18.373	0.800	4.048	0.273	-0.024	-0.014	0.274	0.004
19.054	0.800	15.842	0.369	-0.001	0.054	0.373	0.017
19.054	0.800	14.708	0.387	0.004	0.008	0.387	0.011
19.054	0.800	13.574	0.383	-0.001	-0.002	0.383	0.007
19.054	0.800	12.440	0.383	-0.002	-0.006	0.384	0.006
19.054	0.800	11.306	0.380	-0.005	-0.006	0.380	0.005
19.054	0.800	10.172	0.368	-0.007	-0.008	0.368	0.005
19.054	0.800	9.038	0.357	-0.008	-0.010	0.357	0.005
19.054	0.800	7.904	0.340	-0.011	-0.007	0.340	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
19.054	0.800	6.770	0.326	-0.017	-0.005	0.327	0.004
19.054	0.800	5.636	0.305	-0.018	-0.013	0.306	0.004
19.054	0.800	4.502	0.281	-0.022	-0.009	0.282	0.004
19.054	0.800	3.368	0.255	-0.023	-0.015	0.257	0.004
19.734	0.800	15.162	0.372	0.001	0.032	0.374	0.014
19.734	0.800	14.028	0.382	0.001	-0.004	0.382	0.008
19.734	0.800	12.894	0.383	-0.001	-0.010	0.383	0.006
19.734	0.800	11.760	0.380	-0.001	-0.012	0.380	0.006
19.734	0.800	10.626	0.369	-0.005	-0.012	0.369	0.005
19.734	0.800	9.491	0.362	-0.007	-0.010	0.362	0.004
19.734	0.800	8.357	0.348	-0.009	-0.011	0.348	0.004
19.734	0.800	7.223	0.329	-0.011	-0.007	0.329	0.004
19.734	0.800	6.089	0.313	-0.014	-0.015	0.314	0.004
19.734	0.800	4.955	0.293	-0.019	-0.014	0.294	0.004
19.734	0.800	3.821	0.269	-0.021	-0.015	0.270	0.004
20.415	0.800	15.615	0.348	0.000	0.093	0.361	0.020
20.415	0.800	14.481	0.375	-0.002	0.024	0.376	0.011
20.415	0.800	13.347	0.382	0.000	-0.009	0.382	0.006
20.415	0.800	12.213	0.385	0.003	-0.014	0.385	0.005
20.415	0.800	11.079	0.376	-0.003	-0.013	0.376	0.005
20.415	0.800	9.945	0.365	-0.008	-0.012	0.366	0.004
20.415	0.800	8.811	0.355	-0.009	-0.010	0.355	0.004
20.415	0.800	7.677	0.338	-0.011	-0.010	0.338	0.004
20.415	0.800	6.543	0.321	-0.011	-0.012	0.321	0.004
20.415	0.800	5.409	0.303	-0.016	-0.012	0.304	0.004
20.415	0.800	4.275	0.279	-0.018	-0.014	0.280	0.004
21.095	0.800	14.935	0.368	0.006	0.030	0.369	0.014
21.095	0.800	13.801	0.379	-0.001	0.000	0.379	0.008
21.095	0.800	12.667	0.384	0.000	-0.008	0.384	0.006
21.095	0.800	11.533	0.375	-0.003	-0.010	0.375	0.006
21.095	0.800	10.399	0.370	-0.004	-0.006	0.370	0.005
21.095	0.800	9.265	0.358	-0.008	-0.013	0.358	0.004
21.095	0.800	8.131	0.346	-0.012	-0.011	0.346	0.004
21.095	0.800	6.997	0.326	-0.010	-0.008	0.326	0.004
21.095	0.800	5.863	0.312	-0.015	-0.015	0.313	0.004
21.095	0.800	4.728	0.289	-0.018	-0.014	0.290	0.004
21.095	0.800	3.594	0.264	-0.019	-0.015	0.265	0.004
21.776	0.800	15.389	0.360	0.003	0.048	0.363	0.016
21.776	0.800	14.254	0.375	0.003	0.010	0.375	0.008

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
21.776	0.800	13.120	0.383	0.002	-0.013	0.384	0.006
21.776	0.800	11.986	0.375	-0.003	-0.008	0.376	0.005
21.776	0.800	10.852	0.372	-0.003	-0.014	0.372	0.005
21.776	0.800	9.718	0.363	-0.007	-0.014	0.364	0.005
21.776	0.800	8.584	0.353	-0.005	-0.012	0.353	0.004
21.776	0.800	7.450	0.334	-0.011	-0.014	0.334	0.004
21.776	0.800	6.316	0.317	-0.015	-0.016	0.317	0.004
21.776	0.800	5.182	0.297	-0.015	-0.013	0.297	0.004
21.776	0.800	4.048	0.274	-0.018	-0.018	0.275	0.003
22.456	0.800	15.842	0.346	0.000	0.107	0.362	0.022
22.456	0.800	14.708	0.368	0.003	0.021	0.368	0.012
22.456	0.800	13.574	0.381	0.001	-0.003	0.381	0.007
22.456	0.800	12.440	0.379	0.000	-0.010	0.379	0.006
22.456	0.800	11.306	0.375	-0.002	-0.011	0.375	0.005
22.456	0.800	10.172	0.371	-0.005	-0.015	0.371	0.005
22.456	0.800	9.038	0.360	-0.008	-0.016	0.360	0.004
22.456	0.800	7.904	0.341	-0.008	-0.013	0.341	0.004
22.456	0.800	6.770	0.323	-0.011	-0.018	0.324	0.004
22.456	0.800	5.636	0.307	-0.015	-0.018	0.308	0.004
22.456	0.800	4.502	0.287	-0.015	-0.019	0.288	0.004
22.456	0.800	3.368	0.265	-0.014	-0.017	0.266	0.004
23.136	0.800	15.162	0.361	0.004	0.038	0.363	0.015
23.136	0.800	14.028	0.381	0.002	-0.002	0.381	0.009
23.136	0.800	12.894	0.379	0.003	0.002	0.379	0.006
23.136	0.800	11.760	0.377	0.001	-0.009	0.377	0.006
23.136	0.800	10.626	0.374	-0.002	-0.013	0.374	0.005
23.136	0.800	9.491	0.362	-0.003	-0.016	0.362	0.004
23.136	0.800	8.357	0.349	-0.006	-0.014	0.349	0.005
23.136	0.800	7.223	0.332	-0.009	-0.015	0.332	0.005
23.136	0.800	6.089	0.318	-0.013	-0.019	0.319	0.004
23.136	0.800	4.955	0.298	-0.013	-0.014	0.299	0.004
23.136	0.800	3.821	0.272	-0.012	-0.020	0.273	0.004
23.817	0.800	15.615	0.353	-0.001	0.068	0.359	0.019
23.817	0.800	14.481	0.376	-0.001	0.008	0.376	0.010
23.817	0.800	13.347	0.382	0.003	-0.008	0.382	0.007
23.817	0.800	12.213	0.376	-0.001	-0.014	0.376	0.006
23.817	0.800	11.079	0.375	-0.001	-0.016	0.376	0.005
23.817	0.800	9.945	0.365	-0.004	-0.014	0.365	0.005
23.817	0.800	8.811	0.354	-0.008	-0.011	0.354	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
23.817	0.800	7.677	0.337	-0.010	-0.016	0.338	0.004
23.817	0.800	6.543	0.320	-0.014	-0.010	0.320	0.004
23.817	0.800	5.409	0.306	-0.011	-0.021	0.307	0.004
23.817	0.800	4.275	0.282	-0.017	-0.017	0.283	0.004
24.497	0.800	14.935	0.362	-0.001	0.023	0.363	0.014
24.497	0.800	13.801	0.382	-0.002	-0.009	0.382	0.007
24.497	0.800	12.667	0.378	-0.002	-0.012	0.378	0.006
24.497	0.800	11.533	0.375	0.000	-0.013	0.375	0.006
24.497	0.800	10.399	0.369	0.001	-0.019	0.369	0.005
24.497	0.800	9.265	0.359	-0.005	-0.017	0.359	0.005
24.497	0.800	8.131	0.343	-0.009	-0.013	0.343	0.004
24.497	0.800	6.997	0.331	-0.012	-0.015	0.332	0.004
24.497	0.800	5.863	0.317	-0.011	-0.018	0.317	0.005
24.497	0.800	4.728	0.292	-0.015	-0.019	0.293	0.004
24.497	0.800	3.594	0.269	-0.015	-0.017	0.270	0.004
25.178	0.800	15.389	0.356	0.002	0.043	0.358	0.017
25.178	0.800	14.254	0.380	0.004	-0.003	0.380	0.009
25.178	0.800	13.120	0.380	-0.001	-0.013	0.381	0.006
25.178	0.800	11.986	0.375	-0.002	-0.016	0.376	0.005
25.178	0.800	10.852	0.369	0.000	-0.015	0.370	0.005
25.178	0.800	9.718	0.363	-0.005	-0.017	0.363	0.005
25.178	0.800	8.584	0.348	-0.007	-0.014	0.348	0.005
25.178	0.800	7.450	0.337	-0.010	-0.017	0.338	0.004
25.178	0.800	6.316	0.323	-0.010	-0.021	0.324	0.004
25.178	0.800	5.182	0.301	-0.014	-0.020	0.302	0.004
25.178	0.800	4.048	0.279	-0.013	-0.023	0.280	0.004
25.858	0.800	15.842	0.352	0.003	0.065	0.358	0.019
25.858	0.800	14.708	0.372	0.003	0.006	0.372	0.012
25.858	0.800	13.574	0.383	0.003	-0.009	0.383	0.007
25.858	0.800	12.440	0.382	0.004	-0.020	0.383	0.005
25.858	0.800	11.306	0.372	0.000	-0.015	0.372	0.005
25.858	0.800	10.172	0.367	-0.002	-0.018	0.367	0.005
25.858	0.800	9.038	0.353	-0.002	-0.021	0.354	0.005
25.858	0.800	7.904	0.345	-0.005	-0.021	0.346	0.004
25.858	0.800	6.770	0.327	-0.010	-0.021	0.328	0.004
25.858	0.800	5.636	0.308	-0.010	-0.023	0.309	0.004
25.858	0.800	4.502	0.284	-0.011	-0.024	0.285	0.004
25.858	0.800	3.368	0.262	-0.014	-0.023	0.263	0.004
26.539	0.800	15.162	0.371	0.007	0.018	0.372	0.014

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
26.539	0.800	14.028	0.380	0.002	-0.008	0.380	0.008
26.539	0.800	12.894	0.382	0.005	-0.014	0.383	0.007
26.539	0.800	11.760	0.375	0.004	-0.010	0.375	0.006
26.539	0.800	10.626	0.370	0.001	-0.020	0.371	0.005
26.539	0.800	9.491	0.360	-0.002	-0.017	0.361	0.005
26.539	0.800	8.357	0.350	-0.006	-0.019	0.351	0.005
26.539	0.800	7.223	0.335	-0.008	-0.017	0.335	0.004
26.539	0.800	6.089	0.317	-0.008	-0.023	0.318	0.005
26.539	0.800	4.955	0.295	-0.012	-0.020	0.296	0.004
26.539	0.800	3.821	0.273	-0.014	-0.024	0.275	0.004
27.219	0.800	15.615	0.362	0.007	0.019	0.363	0.016
27.219	0.800	14.481	0.378	0.005	-0.006	0.379	0.009
27.219	0.800	13.347	0.377	0.005	-0.009	0.377	0.007
27.219	0.800	12.213	0.377	0.004	-0.019	0.378	0.005
27.219	0.800	11.079	0.370	0.003	-0.021	0.370	0.005
27.219	0.800	9.945	0.363	-0.001	-0.018	0.363	0.005
27.219	0.800	8.811	0.355	-0.004	-0.019	0.356	0.005
27.219	0.800	7.677	0.337	-0.007	-0.017	0.337	0.005
27.219	0.800	6.543	0.321	-0.006	-0.019	0.322	0.005
27.219	0.800	5.409	0.303	-0.010	-0.025	0.304	0.005
27.219	0.800	4.275	0.280	-0.011	-0.018	0.280	0.004
27.899	0.800	14.935	0.378	0.006	-0.015	0.379	0.011
27.899	0.800	13.801	0.379	0.005	-0.014	0.379	0.008
27.899	0.800	12.667	0.379	0.005	-0.013	0.379	0.006
27.899	0.800	11.533	0.376	0.005	-0.021	0.377	0.005
27.899	0.800	10.399	0.365	-0.002	-0.016	0.365	0.005
27.899	0.800	9.265	0.359	-0.001	-0.018	0.359	0.004
27.899	0.800	8.131	0.346	-0.002	-0.019	0.347	0.005
27.899	0.800	6.997	0.328	-0.009	-0.019	0.329	0.005
27.899	0.800	5.863	0.311	-0.008	-0.024	0.312	0.004
27.899	0.800	4.728	0.287	-0.010	-0.024	0.289	0.004
27.899	0.800	3.594	0.264	-0.009	-0.023	0.266	0.004
28.580	0.800	15.389	0.376	0.007	-0.010	0.376	0.014
28.580	0.800	14.254	0.382	0.008	-0.028	0.383	0.010
28.580	0.800	13.120	0.378	0.005	-0.016	0.379	0.007
28.580	0.800	11.986	0.375	0.003	-0.025	0.376	0.006
28.580	0.800	10.852	0.371	0.002	-0.019	0.371	0.005
28.580	0.800	9.718	0.361	0.003	-0.023	0.362	0.004
28.580	0.800	8.584	0.351	-0.004	-0.027	0.352	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
28.580	0.800	7.450	0.336	-0.003	-0.026	0.337	0.004
28.580	0.800	6.316	0.321	-0.008	-0.027	0.322	0.004
28.580	0.800	5.182	0.299	-0.009	-0.025	0.300	0.004
28.580	0.800	4.048	0.273	-0.011	-0.025	0.275	0.004
29.260	0.800	15.842	0.367	0.009	0.019	0.367	0.017
29.260	0.800	14.708	0.381	0.008	-0.023	0.382	0.011
29.260	0.800	13.574	0.380	0.005	-0.019	0.381	0.008
29.260	0.800	12.440	0.378	0.003	-0.015	0.378	0.006
29.260	0.800	11.306	0.370	0.003	-0.018	0.371	0.005
29.260	0.800	10.172	0.363	0.003	-0.018	0.363	0.005
29.260	0.800	9.038	0.355	0.000	-0.023	0.355	0.004
29.260	0.800	7.904	0.338	-0.003	-0.021	0.338	0.005
29.260	0.800	6.770	0.324	-0.008	-0.024	0.325	0.005
29.260	0.800	5.636	0.305	-0.009	-0.025	0.306	0.005
29.260	0.800	4.502	0.281	-0.009	-0.020	0.282	0.004
29.260	0.800	3.368	0.261	-0.010	-0.025	0.262	0.004
29.971	0.800	15.615	0.352	0.008	0.052	0.356	0.018
29.971	0.800	14.481	0.376	0.003	-0.002	0.376	0.009
29.971	0.800	13.347	0.380	0.004	-0.010	0.380	0.007
29.971	0.800	12.213	0.376	0.000	-0.015	0.377	0.006
29.971	0.800	11.079	0.372	-0.001	-0.022	0.373	0.006
29.971	0.800	9.945	0.365	-0.004	-0.023	0.366	0.006
29.971	0.800	8.811	0.350	-0.009	-0.018	0.350	0.005
29.971	0.800	7.677	0.335	-0.009	-0.019	0.335	0.005
29.971	0.800	6.543	0.319	-0.012	-0.019	0.320	0.005
29.971	0.800	5.409	0.300	-0.012	-0.018	0.301	0.004
29.971	0.800	4.275	0.279	-0.011	-0.020	0.280	0.004
30.652	0.800	14.935	0.365	0.004	0.023	0.365	0.013
30.652	0.800	13.801	0.375	-0.002	0.002	0.375	0.009
30.652	0.800	12.667	0.379	-0.002	-0.011	0.379	0.007
30.652	0.800	11.533	0.372	-0.003	-0.016	0.373	0.006
30.652	0.800	10.399	0.371	0.001	-0.016	0.371	0.005
30.652	0.800	9.265	0.359	-0.008	-0.021	0.359	0.005
30.652	0.800	8.131	0.342	-0.011	-0.021	0.342	0.005
30.652	0.800	6.997	0.323	-0.009	-0.020	0.323	0.004
30.652	0.800	5.863	0.307	-0.011	-0.024	0.308	0.004
30.652	0.800	4.728	0.286	-0.010	-0.025	0.287	0.005
30.652	0.800	3.594	0.264	-0.008	-0.021	0.265	0.004
31.332	0.800	15.389	0.363	0.007	0.030	0.364	0.016

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
31.332	0.800	14.254	0.376	-0.001	-0.007	0.376	0.010
31.332	0.800	13.120	0.377	0.002	-0.014	0.377	0.007
31.332	0.800	11.986	0.370	-0.001	-0.017	0.371	0.006
31.332	0.800	10.852	0.368	-0.002	-0.024	0.369	0.006
31.332	0.800	9.718	0.363	-0.002	-0.025	0.364	0.005
31.332	0.800	8.584	0.350	-0.009	-0.024	0.350	0.005
31.332	0.800	7.450	0.332	-0.011	-0.020	0.333	0.004
31.332	0.800	6.316	0.318	-0.012	-0.023	0.319	0.005
31.332	0.800	5.182	0.294	-0.009	-0.024	0.295	0.004
31.332	0.800	4.048	0.273	-0.011	-0.024	0.274	0.004
32.013	0.800	15.842	0.354	0.009	0.046	0.357	0.017
32.013	0.800	14.708	0.371	0.003	-0.010	0.371	0.012
32.013	0.800	13.574	0.379	0.001	-0.020	0.379	0.007
32.013	0.800	12.440	0.376	0.002	-0.014	0.377	0.006
32.013	0.800	11.306	0.373	-0.001	-0.025	0.374	0.006
32.013	0.800	10.172	0.364	-0.007	-0.019	0.364	0.005
32.013	0.800	9.038	0.354	-0.006	-0.029	0.355	0.005
32.013	0.800	7.904	0.339	-0.007	-0.023	0.340	0.005
32.013	0.800	6.770	0.320	-0.008	-0.025	0.321	0.004
32.013	0.800	5.636	0.305	-0.008	-0.022	0.306	0.004
32.013	0.800	4.502	0.279	-0.007	-0.026	0.281	0.004
32.013	0.800	3.368	0.258	-0.009	-0.030	0.260	0.004
32.693	0.800	15.162	0.366	-0.002	0.013	0.366	0.012
32.693	0.800	14.028	0.378	0.001	-0.016	0.378	0.008
32.693	0.800	12.894	0.377	0.005	-0.018	0.377	0.006
32.693	0.800	11.760	0.373	0.003	-0.023	0.374	0.006
32.693	0.800	10.626	0.367	-0.001	-0.025	0.368	0.005
32.693	0.800	9.491	0.356	-0.001	-0.025	0.356	0.005
32.693	0.800	8.357	0.341	-0.003	-0.027	0.342	0.005
32.693	0.800	7.223	0.327	-0.009	-0.024	0.328	0.005
32.693	0.800	6.089	0.309	-0.009	-0.033	0.311	0.005
32.693	0.800	4.955	0.290	-0.007	-0.024	0.291	0.004
32.693	0.800	3.821	0.262	-0.010	-0.028	0.263	0.004
33.373	0.800	15.615	0.356	0.007	0.027	0.357	0.014
33.373	0.800	14.481	0.372	0.004	0.004	0.372	0.009
33.373	0.800	13.347	0.378	0.002	-0.023	0.378	0.007
33.373	0.800	12.213	0.374	0.004	-0.019	0.375	0.006
33.373	0.800	11.079	0.369	-0.001	-0.022	0.369	0.006
33.373	0.800	9.945	0.361	-0.003	-0.023	0.361	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
33.373	0.800	8.811	0.348	-0.008	-0.026	0.349	0.005
33.373	0.800	7.677	0.333	-0.006	-0.026	0.334	0.004
33.373	0.800	6.543	0.316	-0.007	-0.027	0.317	0.004
33.373	0.800	5.409	0.295	-0.007	-0.027	0.297	0.004
33.373	0.800	4.275	0.272	-0.011	-0.025	0.274	0.004
34.054	0.800	14.935	0.369	0.005	-0.011	0.369	0.012
34.054	0.800	13.801	0.378	0.003	-0.012	0.378	0.007
34.054	0.800	12.667	0.373	0.002	-0.020	0.374	0.006
34.054	0.800	11.533	0.368	-0.001	-0.022	0.369	0.006
34.054	0.800	10.399	0.361	-0.003	-0.028	0.362	0.005
34.054	0.800	9.265	0.357	-0.004	-0.027	0.358	0.005
34.054	0.800	8.131	0.342	-0.007	-0.029	0.343	0.005
34.054	0.800	6.997	0.321	-0.003	-0.031	0.322	0.005
34.054	0.800	5.863	0.303	-0.006	-0.026	0.304	0.004
34.054	0.800	4.728	0.278	-0.007	-0.035	0.280	0.004
34.054	0.800	3.594	0.256	-0.006	-0.029	0.258	0.004
34.734	0.800	15.389	0.356	0.006	0.043	0.359	0.017
34.734	0.800	14.254	0.374	0.005	-0.010	0.374	0.010
34.734	0.800	13.120	0.373	0.002	-0.019	0.374	0.007
34.734	0.800	11.986	0.367	0.000	-0.021	0.368	0.006
34.734	0.800	10.852	0.362	-0.005	-0.025	0.363	0.005
34.734	0.800	9.718	0.357	-0.002	-0.032	0.358	0.005
34.734	0.800	8.584	0.346	-0.004	-0.034	0.347	0.005
34.734	0.800	7.450	0.329	-0.004	-0.034	0.331	0.005
34.734	0.800	6.316	0.308	-0.005	-0.026	0.309	0.004
34.734	0.800	5.182	0.287	-0.002	-0.029	0.288	0.005
34.734	0.800	4.048	0.266	-0.006	-0.028	0.268	0.004
35.415	0.800	15.842	0.331	0.008	0.079	0.341	0.020
35.415	0.800	14.708	0.362	0.002	0.003	0.362	0.011
35.415	0.800	13.574	0.375	0.003	-0.014	0.375	0.008
35.415	0.800	12.440	0.373	0.001	-0.020	0.373	0.006
35.415	0.800	11.306	0.364	0.000	-0.024	0.365	0.006
35.415	0.800	10.172	0.359	-0.001	-0.031	0.360	0.005
35.415	0.800	9.038	0.350	-0.004	-0.037	0.352	0.005
35.415	0.800	7.904	0.337	-0.003	-0.034	0.339	0.005
35.415	0.800	6.770	0.313	-0.003	-0.029	0.314	0.004
35.415	0.800	5.636	0.293	-0.005	-0.026	0.295	0.004
35.415	0.800	4.502	0.269	-0.003	-0.032	0.271	0.004
35.415	0.800	3.368	0.245	-0.001	-0.033	0.248	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
36.095	0.800	15.162	0.351	0.003	0.030	0.352	0.015
36.095	0.800	14.028	0.375	0.004	-0.018	0.376	0.008
36.095	0.800	12.894	0.375	-0.004	-0.028	0.376	0.007
36.095	0.800	11.760	0.368	0.003	-0.031	0.370	0.006
36.095	0.800	10.626	0.360	-0.002	-0.031	0.361	0.005
36.095	0.800	9.491	0.356	-0.004	-0.034	0.358	0.005
36.095	0.800	8.357	0.340	-0.002	-0.031	0.341	0.005
36.095	0.800	7.223	0.325	-0.003	-0.035	0.327	0.004
36.095	0.800	6.089	0.302	-0.004	-0.032	0.304	0.004
36.095	0.800	4.955	0.280	-0.003	-0.032	0.282	0.004
36.095	0.800	3.821	0.253	-0.002	-0.031	0.255	0.004
36.776	0.800	15.615	0.340	0.002	0.046	0.343	0.017
36.776	0.800	14.481	0.369	0.008	-0.006	0.369	0.009
36.776	0.800	13.347	0.376	0.001	-0.027	0.377	0.007
36.776	0.800	12.213	0.370	0.000	-0.023	0.370	0.006
36.776	0.800	11.079	0.363	-0.001	-0.031	0.364	0.005
36.776	0.800	9.945	0.356	-0.001	-0.032	0.358	0.005
36.776	0.800	8.811	0.348	-0.002	-0.038	0.350	0.005
36.776	0.800	7.677	0.333	-0.002	-0.033	0.334	0.005
36.776	0.800	6.543	0.312	-0.004	-0.033	0.313	0.004
36.776	0.800	5.409	0.288	-0.002	-0.036	0.290	0.004
36.776	0.800	4.275	0.265	-0.002	-0.034	0.267	0.004
37.456	0.800	14.935	0.349	0.008	0.005	0.350	0.013
37.456	0.800	13.801	0.369	0.004	-0.021	0.370	0.007
37.456	0.800	12.667	0.368	0.000	-0.025	0.369	0.006
37.456	0.800	11.533	0.366	0.001	-0.032	0.368	0.005
37.456	0.800	10.399	0.358	0.000	-0.037	0.360	0.005
37.456	0.800	9.265	0.348	-0.002	-0.038	0.350	0.005
37.456	0.800	8.131	0.340	0.000	-0.034	0.342	0.004
37.456	0.800	6.997	0.319	-0.002	-0.036	0.321	0.005
37.456	0.800	5.863	0.297	-0.002	-0.036	0.299	0.004
37.456	0.800	4.728	0.273	-0.002	-0.035	0.275	0.004
37.456	0.800	3.594	0.243	0.004	-0.033	0.245	0.004
38.136	0.800	15.389	0.340	0.002	0.019	0.341	0.018
38.136	0.800	14.254	0.364	0.007	-0.018	0.365	0.009
38.136	0.800	13.120	0.370	0.006	-0.024	0.371	0.007
38.136	0.800	11.986	0.371	0.002	-0.032	0.373	0.005
38.136	0.800	10.852	0.366	-0.003	-0.034	0.368	0.005
38.136	0.800	9.718	0.352	0.002	-0.036	0.354	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
38.136	0.800	8.584	0.341	0.000	-0.040	0.344	0.005
38.136	0.800	7.450	0.327	-0.002	-0.036	0.329	0.005
38.136	0.800	6.316	0.302	0.000	-0.035	0.304	0.005
38.136	0.800	5.182	0.281	0.000	-0.036	0.283	0.004
38.136	0.800	4.048	0.251	0.002	-0.032	0.253	0.004
38.817	0.800	15.842	0.321	0.001	0.083	0.332	0.023
38.817	0.800	14.708	0.356	0.005	0.004	0.356	0.012
38.817	0.800	13.574	0.372	0.005	-0.018	0.372	0.007
38.817	0.800	12.440	0.367	0.005	-0.028	0.368	0.006
38.817	0.800	11.306	0.363	0.000	-0.036	0.364	0.005
38.817	0.800	10.172	0.358	0.000	-0.034	0.360	0.005
38.817	0.800	9.038	0.346	-0.001	-0.034	0.347	0.005
38.817	0.800	7.904	0.333	0.000	-0.041	0.336	0.004
38.817	0.800	6.770	0.310	0.000	-0.034	0.312	0.004
38.817	0.800	5.636	0.289	0.004	-0.029	0.290	0.004
38.817	0.800	4.502	0.263	0.002	-0.036	0.266	0.004
38.817	0.800	3.368	0.234	0.002	-0.032	0.236	0.004
39.497	0.800	15.162	0.346	0.010	0.015	0.346	0.016
39.497	0.800	14.028	0.363	0.007	-0.017	0.363	0.008
39.497	0.800	12.894	0.366	0.003	-0.027	0.367	0.006
39.497	0.800	11.760	0.364	0.004	-0.033	0.366	0.006
39.497	0.800	10.626	0.356	0.001	-0.035	0.358	0.005
39.497	0.800	9.491	0.350	0.001	-0.032	0.351	0.005
39.497	0.800	8.357	0.337	0.002	-0.035	0.338	0.005
39.497	0.800	7.223	0.320	0.003	-0.039	0.322	0.004
39.497	0.800	6.089	0.294	0.005	-0.037	0.297	0.004
39.497	0.800	4.955	0.271	0.005	-0.036	0.273	0.004
39.497	0.800	3.821	0.240	0.006	-0.034	0.243	0.004
40.178	0.800	15.615	0.335	0.004	0.033	0.337	0.017
40.178	0.800	14.481	0.362	0.004	-0.013	0.362	0.010
40.178	0.800	13.347	0.370	0.004	-0.027	0.371	0.007
40.178	0.800	12.213	0.363	0.001	-0.031	0.364	0.007
40.178	0.800	11.079	0.358	0.000	-0.033	0.359	0.005
40.178	0.800	9.945	0.353	0.000	-0.039	0.355	0.005
40.178	0.800	8.811	0.340	0.002	-0.041	0.343	0.005
40.178	0.800	7.677	0.322	0.004	-0.038	0.324	0.005
40.178	0.800	6.543	0.302	0.004	-0.037	0.305	0.004
40.178	0.800	5.409	0.281	0.005	-0.035	0.283	0.004
40.178	0.800	4.275	0.254	0.005	-0.034	0.256	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
40.858	0.800	14.935	0.354	0.001	-0.010	0.354	0.013
40.858	0.800	13.801	0.363	0.006	-0.021	0.364	0.008
40.858	0.800	12.667	0.362	0.002	-0.026	0.363	0.006
40.858	0.800	11.533	0.359	0.003	-0.029	0.360	0.006
40.858	0.800	10.399	0.351	0.002	-0.034	0.353	0.005
40.858	0.800	9.265	0.343	0.000	-0.038	0.345	0.005
40.858	0.800	8.131	0.330	0.004	-0.044	0.333	0.005
40.858	0.800	6.997	0.308	0.002	-0.037	0.310	0.004
40.858	0.800	5.863	0.286	0.006	-0.032	0.288	0.004
40.858	0.800	4.728	0.256	0.007	-0.037	0.259	0.004
40.858	0.800	3.594	0.228	0.010	-0.038	0.232	0.004
41.539	0.800	15.389	0.346	0.001	0.015	0.346	0.015
41.539	0.800	14.254	0.360	0.003	-0.016	0.361	0.009
41.539	0.800	13.120	0.366	0.004	-0.029	0.367	0.007
41.539	0.800	11.986	0.359	0.005	-0.027	0.360	0.006
41.539	0.800	10.852	0.357	0.002	-0.035	0.359	0.005
41.539	0.800	9.718	0.347	0.004	-0.037	0.349	0.005
41.539	0.800	8.584	0.334	0.005	-0.037	0.336	0.005
41.539	0.800	7.450	0.320	0.004	-0.038	0.322	0.005
41.539	0.800	6.316	0.295	0.008	-0.034	0.297	0.005
41.539	0.800	5.182	0.264	0.009	-0.029	0.266	0.004
41.539	0.800	4.048	0.239	0.009	-0.034	0.241	0.004
42.219	0.800	15.842	0.329	0.006	0.037	0.331	0.019
42.219	0.800	14.708	0.357	0.007	-0.018	0.358	0.011
42.219	0.800	13.574	0.360	0.006	-0.021	0.361	0.007
42.219	0.800	12.440	0.365	0.008	-0.031	0.366	0.006
42.219	0.800	11.306	0.355	0.003	-0.033	0.357	0.005
42.219	0.800	10.172	0.350	0.005	-0.035	0.351	0.005
42.219	0.800	9.038	0.338	0.003	-0.029	0.339	0.005
42.219	0.800	7.904	0.321	0.007	-0.036	0.323	0.005
42.219	0.800	6.770	0.300	0.006	-0.036	0.302	0.005
42.219	0.800	5.636	0.275	0.007	-0.032	0.277	0.005
42.219	0.800	4.502	0.245	0.010	-0.031	0.247	0.004
42.219	0.800	3.368	0.216	0.010	-0.032	0.219	0.004
42.899	0.800	15.162	0.352	0.010	-0.007	0.352	0.012
42.899	0.800	14.028	0.363	0.007	-0.027	0.364	0.008
42.899	0.800	12.894	0.363	0.003	-0.022	0.363	0.007
42.899	0.800	11.760	0.356	0.003	-0.038	0.358	0.006
42.899	0.800	10.626	0.350	0.002	-0.026	0.351	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
42.899	0.800	9.491	0.343	0.004	-0.038	0.345	0.005
42.899	0.800	8.357	0.329	0.006	-0.039	0.331	0.005
42.899	0.800	7.223	0.310	0.004	-0.040	0.312	0.005
42.899	0.800	6.089	0.284	0.008	-0.035	0.286	0.005
42.899	0.800	4.955	0.255	0.009	-0.030	0.257	0.005
42.899	0.800	3.821	0.223	0.013	-0.033	0.226	0.004
43.580	0.800	15.615	0.340	0.006	0.023	0.341	0.015
43.580	0.800	14.481	0.364	0.006	-0.027	0.365	0.011
43.580	0.800	13.347	0.363	0.002	-0.025	0.364	0.007
43.580	0.800	12.213	0.354	0.006	-0.028	0.356	0.006
43.580	0.800	11.079	0.352	0.006	-0.033	0.354	0.005
43.580	0.800	9.945	0.345	0.004	-0.032	0.347	0.005
43.580	0.800	8.811	0.332	0.003	-0.037	0.334	0.005
43.580	0.800	7.677	0.312	0.009	-0.036	0.315	0.005
43.580	0.800	6.543	0.294	0.010	-0.036	0.296	0.004
43.580	0.800	5.409	0.266	0.013	-0.036	0.269	0.005
43.580	0.800	4.275	0.236	0.013	-0.031	0.238	0.004
44.260	0.800	14.935	0.358	0.010	-0.025	0.359	0.011
44.260	0.800	13.801	0.358	0.006	-0.026	0.359	0.008
44.260	0.800	12.667	0.360	0.004	-0.029	0.361	0.006
44.260	0.800	11.533	0.354	0.006	-0.032	0.355	0.006
44.260	0.800	10.399	0.344	0.003	-0.033	0.346	0.005
44.260	0.800	9.265	0.338	0.003	-0.041	0.340	0.005
44.260	0.800	8.131	0.325	0.004	-0.040	0.327	0.005
44.260	0.800	6.997	0.298	0.006	-0.036	0.300	0.005
44.260	0.800	5.863	0.277	0.012	-0.034	0.279	0.005
44.260	0.800	4.728	0.248	0.011	-0.031	0.251	0.004
44.260	0.800	3.594	0.212	0.012	-0.028	0.214	0.004
44.745	0.800	15.615	0.335	0.006	0.076	0.344	0.021
44.745	0.800	14.935	0.351	0.007	0.027	0.352	0.016
44.745	0.800	14.254	0.360	0.006	-0.001	0.360	0.011
44.745	0.800	13.574	0.363	0.005	-0.010	0.363	0.009
44.745	0.800	12.894	0.362	0.002	-0.019	0.363	0.008
44.745	0.800	12.213	0.359	0.000	-0.022	0.359	0.007
44.745	0.800	11.533	0.358	0.001	-0.028	0.359	0.007
44.745	0.800	10.852	0.357	0.006	-0.027	0.358	0.006
44.745	0.800	10.172	0.351	0.005	-0.037	0.353	0.005
44.745	0.800	9.491	0.342	0.003	-0.032	0.344	0.005
44.745	0.800	8.811	0.331	0.006	-0.031	0.333	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.745	0.800	8.131	0.324	0.008	-0.033	0.326	0.005
44.745	0.800	7.450	0.313	0.009	-0.037	0.315	0.005
44.745	0.800	6.770	0.299	0.011	-0.034	0.301	0.005
44.745	0.800	6.089	0.282	0.013	-0.037	0.285	0.005
44.745	0.800	5.409	0.270	0.012	-0.035	0.272	0.005
44.745	0.800	4.728	0.252	0.017	-0.032	0.255	0.004
44.745	0.800	4.048	0.226	0.018	-0.027	0.228	0.005
44.745	0.800	3.368	0.198	0.016	-0.027	0.200	0.005
45.879	0.800	15.842	0.328	0.001	0.060	0.334	0.023
45.879	0.800	15.162	0.342	0.004	0.029	0.343	0.018
45.879	0.800	14.481	0.356	0.001	-0.011	0.357	0.012
45.879	0.800	13.801	0.362	0.004	-0.021	0.363	0.009
45.879	0.800	13.120	0.361	0.000	-0.021	0.361	0.007
45.879	0.800	12.440	0.359	0.005	-0.026	0.360	0.007
45.879	0.800	11.760	0.358	0.007	-0.029	0.359	0.006
45.879	0.800	11.079	0.355	0.003	-0.031	0.356	0.006
45.879	0.800	10.399	0.347	0.002	-0.027	0.348	0.006
45.879	0.800	9.718	0.344	0.005	-0.029	0.345	0.005
45.879	0.800	9.038	0.336	0.004	-0.029	0.337	0.005
45.879	0.800	8.357	0.325	0.005	-0.032	0.327	0.005
45.879	0.800	7.677	0.315	0.010	-0.033	0.317	0.004
45.879	0.800	6.997	0.302	0.010	-0.037	0.304	0.004
45.879	0.800	6.316	0.288	0.011	-0.035	0.290	0.005
45.879	0.800	5.636	0.274	0.012	-0.030	0.276	0.004
45.879	0.800	4.955	0.257	0.016	-0.031	0.259	0.005
45.879	0.800	4.275	0.239	0.015	-0.027	0.241	0.005
45.879	0.800	3.594	0.209	0.018	-0.022	0.211	0.005
47.013	0.800	15.389	0.337	-0.001	0.026	0.338	0.017
47.013	0.800	14.708	0.346	0.005	0.009	0.346	0.013
47.013	0.800	14.028	0.361	0.001	-0.016	0.361	0.009
47.013	0.800	13.347	0.358	-0.001	-0.019	0.358	0.007
47.013	0.800	12.667	0.361	0.002	-0.022	0.361	0.007
47.013	0.800	11.986	0.357	0.003	-0.032	0.359	0.006
47.013	0.800	11.306	0.355	0.005	-0.020	0.355	0.006
47.013	0.800	10.626	0.349	0.003	-0.033	0.351	0.005
47.013	0.800	9.945	0.341	0.007	-0.030	0.342	0.005
47.013	0.800	9.265	0.339	0.005	-0.031	0.340	0.005
47.013	0.800	8.584	0.325	0.004	-0.033	0.327	0.005
47.013	0.800	7.904	0.317	0.005	-0.034	0.319	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
47.013	0.800	7.223	0.305	0.008	-0.028	0.306	0.005
47.013	0.800	6.543	0.293	0.012	-0.027	0.295	0.004
47.013	0.800	5.863	0.278	0.013	-0.029	0.279	0.004
47.013	0.800	5.182	0.260	0.018	-0.027	0.262	0.005
47.013	0.800	4.502	0.237	0.019	-0.022	0.239	0.004
47.013	0.800	3.821	0.216	0.018	-0.020	0.218	0.005
48.147	0.800	15.615	0.309	0.001	0.092	0.322	0.021
48.147	0.800	14.935	0.333	0.001	0.040	0.335	0.014
48.147	0.800	14.254	0.343	0.000	0.017	0.344	0.011
48.147	0.800	13.574	0.353	0.002	-0.004	0.353	0.008
48.147	0.800	12.894	0.354	0.003	-0.017	0.354	0.007
48.147	0.800	12.213	0.355	0.005	-0.016	0.356	0.006
48.147	0.800	11.533	0.348	0.004	-0.020	0.349	0.006
48.147	0.800	10.852	0.346	0.003	-0.020	0.347	0.005
48.147	0.800	10.172	0.341	0.003	-0.026	0.342	0.005
48.147	0.800	9.491	0.335	0.005	-0.028	0.336	0.005
48.147	0.800	8.811	0.331	0.007	-0.030	0.332	0.005
48.147	0.800	8.131	0.321	0.009	-0.030	0.323	0.004
48.147	0.800	7.450	0.310	0.007	-0.029	0.312	0.004
48.147	0.800	6.770	0.296	0.008	-0.030	0.298	0.004
48.147	0.800	6.089	0.278	0.010	-0.025	0.280	0.004
48.147	0.800	5.409	0.264	0.013	-0.023	0.265	0.004
48.147	0.800	4.728	0.246	0.016	-0.014	0.247	0.005
48.147	0.800	4.048	0.219	0.014	-0.012	0.220	0.005
48.147	0.800	3.368	0.189	0.014	0.011	0.190	0.005
49.281	0.800	15.842	0.306	-0.001	0.081	0.316	0.021
49.281	0.800	15.162	0.331	0.013	0.038	0.333	0.016
49.281	0.800	14.481	0.346	0.006	0.008	0.346	0.011
49.281	0.800	13.801	0.352	0.007	-0.009	0.352	0.008
49.281	0.800	13.120	0.354	0.003	-0.018	0.355	0.007
49.281	0.800	12.440	0.348	0.004	-0.017	0.348	0.007
49.281	0.800	11.760	0.351	0.003	-0.018	0.351	0.006
49.281	0.800	11.079	0.348	0.001	-0.020	0.349	0.006
49.281	0.800	10.399	0.342	-0.001	-0.020	0.343	0.005
49.281	0.800	9.718	0.338	0.001	-0.022	0.339	0.005
49.281	0.800	9.038	0.331	0.003	-0.026	0.332	0.005
49.281	0.800	8.357	0.320	0.003	-0.024	0.321	0.004
49.281	0.800	7.677	0.312	0.004	-0.024	0.313	0.004
49.281	0.800	6.997	0.299	0.006	-0.024	0.300	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
49.281	0.800	6.316	0.287	0.007	-0.018	0.288	0.004
49.281	0.800	5.636	0.271	0.008	-0.017	0.271	0.005
49.281	0.800	4.955	0.252	0.011	-0.012	0.253	0.005
49.281	0.800	4.275	0.231	0.011	-0.011	0.231	0.005
49.281	0.800	3.594	0.206	0.012	0.000	0.206	0.005
50.415	0.800	15.389	0.314	0.002	0.087	0.326	0.019
50.415	0.800	14.708	0.331	0.005	0.033	0.332	0.013
50.415	0.800	14.028	0.345	0.005	-0.006	0.345	0.008
50.415	0.800	13.347	0.344	0.006	-0.005	0.344	0.007
50.415	0.800	12.667	0.347	0.004	-0.010	0.347	0.006
50.415	0.800	11.986	0.347	0.000	-0.012	0.348	0.006
50.415	0.800	11.306	0.350	-0.001	-0.010	0.350	0.005
50.415	0.800	10.626	0.343	0.001	-0.012	0.343	0.005
50.415	0.800	9.945	0.338	0.002	-0.014	0.338	0.005
50.415	0.800	9.265	0.327	-0.001	-0.012	0.327	0.005
50.415	0.800	8.584	0.319	0.000	-0.017	0.319	0.005
50.415	0.800	7.904	0.310	0.003	-0.017	0.310	0.005
50.415	0.800	7.223	0.302	0.001	-0.016	0.303	0.004
50.415	0.800	6.543	0.293	0.005	-0.015	0.294	0.004
50.415	0.800	5.863	0.275	0.004	-0.011	0.276	0.005
50.415	0.800	5.182	0.257	0.010	-0.008	0.257	0.004
50.415	0.800	4.502	0.239	0.011	-0.010	0.239	0.005
50.415	0.800	3.821	0.218	0.006	0.001	0.218	0.005
51.549	0.800	15.615	0.304	0.001	0.094	0.318	0.021
51.549	0.800	14.935	0.327	0.008	0.037	0.329	0.015
51.549	0.800	14.254	0.341	0.007	0.009	0.341	0.011
51.549	0.800	13.574	0.348	0.004	-0.006	0.348	0.007
51.549	0.800	12.894	0.347	0.004	-0.004	0.347	0.007
51.549	0.800	12.213	0.346	0.008	-0.002	0.346	0.006
51.549	0.800	11.533	0.348	0.005	-0.011	0.348	0.006
51.549	0.800	10.852	0.345	0.003	-0.007	0.345	0.005
51.549	0.800	10.172	0.337	0.001	-0.010	0.337	0.005
51.549	0.800	9.491	0.324	-0.003	-0.007	0.324	0.004
51.549	0.800	8.811	0.322	0.000	-0.009	0.322	0.004
51.549	0.800	8.131	0.315	0.001	-0.008	0.315	0.004
51.549	0.800	7.450	0.303	-0.002	-0.012	0.303	0.004
51.549	0.800	6.770	0.292	-0.003	-0.013	0.293	0.004
51.549	0.800	6.089	0.281	0.003	-0.009	0.281	0.005
51.549	0.800	5.409	0.268	0.004	-0.004	0.268	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
51.549	0.800	4.728	0.244	0.004	-0.007	0.244	0.005
51.549	0.800	4.048	0.222	0.004	0.004	0.222	0.005
51.549	0.800	3.368	0.189	0.001	0.021	0.190	0.006
52.683	0.800	15.842	0.288	0.000	0.141	0.321	0.026
52.683	0.800	15.162	0.328	0.002	0.060	0.333	0.016
52.683	0.800	14.481	0.338	0.007	0.028	0.339	0.011
52.683	0.800	13.801	0.344	0.004	0.007	0.344	0.008
52.683	0.800	13.120	0.348	0.004	0.011	0.349	0.007
52.683	0.800	12.440	0.347	0.004	0.007	0.347	0.006
52.683	0.800	11.760	0.347	0.001	0.003	0.347	0.006
52.683	0.800	11.079	0.341	0.002	0.004	0.341	0.005
52.683	0.800	10.399	0.338	-0.002	0.004	0.338	0.005
52.683	0.800	9.718	0.327	-0.003	0.004	0.327	0.005
52.683	0.800	9.038	0.322	-0.005	0.003	0.322	0.005
52.683	0.800	8.357	0.318	-0.008	-0.004	0.318	0.004
52.683	0.800	7.677	0.307	-0.009	0.004	0.307	0.004
52.683	0.800	6.997	0.296	-0.008	0.003	0.296	0.004
52.683	0.800	6.316	0.285	-0.005	-0.001	0.285	0.004
52.683	0.800	5.636	0.268	-0.005	0.004	0.268	0.005
52.683	0.800	4.955	0.256	-0.007	0.004	0.256	0.005
52.683	0.800	4.275	0.232	-0.004	0.004	0.232	0.005
52.683	0.800	3.594	0.199	-0.002	0.023	0.200	0.005
53.817	0.800	15.389	0.304	0.007	0.103	0.321	0.022
53.817	0.800	14.708	0.330	0.003	0.044	0.333	0.013
53.817	0.800	14.028	0.343	0.009	0.022	0.344	0.008
53.817	0.800	13.347	0.347	0.008	0.012	0.347	0.007
53.817	0.800	12.667	0.349	0.003	0.019	0.350	0.006
53.817	0.800	11.986	0.351	0.001	0.013	0.351	0.005
53.817	0.800	11.306	0.344	0.001	0.009	0.344	0.005
53.817	0.800	10.626	0.341	-0.001	0.013	0.341	0.005
53.817	0.800	9.945	0.334	-0.006	0.012	0.334	0.005
53.817	0.800	9.265	0.326	-0.005	0.011	0.327	0.005
53.817	0.800	8.584	0.318	-0.008	0.011	0.318	0.004
53.817	0.800	7.904	0.311	-0.010	0.009	0.311	0.004
53.817	0.800	7.223	0.300	-0.014	0.010	0.301	0.004
53.817	0.800	6.543	0.289	-0.017	0.008	0.289	0.005
53.817	0.800	5.863	0.279	-0.016	0.005	0.280	0.005
53.817	0.800	5.182	0.262	-0.011	0.005	0.263	0.005
53.817	0.800	4.502	0.244	-0.011	0.006	0.245	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
53.817	0.800	3.821	0.216	-0.006	0.016	0.217	0.005
54.951	0.800	15.615	0.311	0.011	0.121	0.334	0.022
54.951	0.800	14.935	0.334	0.006	0.063	0.340	0.015
54.951	0.800	14.254	0.345	0.012	0.050	0.349	0.011
54.951	0.800	13.574	0.355	0.008	0.035	0.357	0.008
54.951	0.800	12.894	0.354	0.009	0.028	0.356	0.006
54.951	0.800	12.213	0.353	0.009	0.030	0.354	0.006
54.951	0.800	11.533	0.348	0.002	0.028	0.350	0.005
54.951	0.800	10.852	0.346	0.000	0.024	0.347	0.005
54.951	0.800	10.172	0.340	-0.004	0.025	0.341	0.005
54.951	0.800	9.491	0.331	-0.008	0.024	0.332	0.004
54.951	0.800	8.811	0.325	-0.009	0.028	0.326	0.005
54.951	0.800	8.131	0.318	-0.013	0.020	0.319	0.004
54.951	0.800	7.450	0.305	-0.016	0.024	0.307	0.004
54.951	0.800	6.770	0.297	-0.023	0.021	0.298	0.004
54.951	0.800	6.089	0.287	-0.025	0.014	0.288	0.004
54.951	0.800	5.409	0.270	-0.021	0.015	0.271	0.005
54.951	0.800	4.728	0.259	-0.025	0.011	0.261	0.005
54.951	0.800	4.048	0.239	-0.023	0.013	0.240	0.005
54.951	0.800	3.368	0.191	-0.010	0.053	0.199	0.010
56.085	0.800	15.842	0.304	0.018	0.159	0.344	0.024
56.085	0.800	15.162	0.327	0.013	0.108	0.345	0.018
56.085	0.800	14.481	0.353	0.016	0.062	0.359	0.012
56.085	0.800	13.801	0.358	0.012	0.056	0.362	0.008
56.085	0.800	13.120	0.366	0.012	0.042	0.369	0.006
56.085	0.800	12.440	0.364	0.013	0.045	0.367	0.006
56.085	0.800	11.760	0.361	0.009	0.044	0.363	0.006
56.085	0.800	11.079	0.354	0.003	0.041	0.357	0.006
56.085	0.800	10.399	0.346	-0.001	0.042	0.349	0.005
56.085	0.800	9.718	0.338	-0.004	0.043	0.341	0.005
56.085	0.800	9.038	0.332	-0.009	0.045	0.336	0.005
56.085	0.800	8.357	0.325	-0.015	0.041	0.328	0.004
56.085	0.800	7.677	0.315	-0.019	0.036	0.317	0.004
56.085	0.800	6.997	0.308	-0.024	0.035	0.311	0.005
56.085	0.800	6.316	0.295	-0.029	0.031	0.298	0.005
56.085	0.800	5.636	0.284	-0.030	0.025	0.286	0.005
56.085	0.800	4.955	0.271	-0.033	0.022	0.274	0.005
56.085	0.800	4.275	0.256	-0.040	0.022	0.260	0.005
56.085	0.800	3.594	0.225	-0.032	0.043	0.232	0.006

Table D.7 Stereo PIV data for forward conic cavity with hydraulically smooth bed.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
5.718	0.800	11.717	0.420	-0.001	0.027	0.420	0.012
5.718	0.800	8.306	0.314	0.019	0.182	0.363	0.030
5.718	0.800	4.896	0.181	0.018	0.288	0.341	0.038
5.946	0.800	11.944	0.423	-0.003	0.013	0.423	0.011
5.946	0.800	8.534	0.327	0.019	0.148	0.360	0.028
5.946	0.800	5.123	0.182	0.026	0.301	0.352	0.036
6.173	0.800	12.172	0.429	-0.001	-0.002	0.429	0.010
6.173	0.800	8.761	0.343	0.021	0.111	0.362	0.026
6.173	0.800	5.351	0.189	0.025	0.274	0.334	0.036
6.401	0.800	12.399	0.439	-0.003	-0.022	0.439	0.011
6.401	0.800	8.989	0.366	0.020	0.069	0.373	0.021
6.401	0.800	5.578	0.204	0.026	0.221	0.302	0.041
6.401	0.800	2.168	0.115	0.011	0.233	0.260	0.040
6.628	0.800	12.626	0.433	-0.002	-0.011	0.433	0.010
6.628	0.800	9.216	0.377	0.017	0.036	0.379	0.017
6.628	0.800	5.805	0.223	0.024	0.209	0.307	0.041
6.628	0.800	2.395	0.124	0.007	0.199	0.234	0.043
6.855	0.800	12.854	0.440	-0.002	-0.029	0.441	0.009
6.855	0.800	9.443	0.397	0.018	-0.004	0.398	0.015
6.855	0.800	6.033	0.228	0.027	0.179	0.291	0.040
6.855	0.800	2.622	0.129	0.001	0.172	0.215	0.045
7.083	0.800	13.081	0.439	-0.003	-0.028	0.440	0.009
7.083	0.800	9.671	0.403	0.017	-0.015	0.404	0.014
7.083	0.800	6.260	0.250	0.025	0.141	0.288	0.039
7.083	0.800	2.850	0.123	0.001	0.176	0.215	0.042
7.310	0.800	13.309	0.435	-0.001	-0.029	0.436	0.009
7.310	0.800	9.898	0.405	0.021	-0.006	0.406	0.012
7.310	0.800	6.488	0.260	0.028	0.126	0.290	0.035
7.310	0.800	3.077	0.133	0.004	0.155	0.204	0.044
7.537	0.800	13.536	0.435	0.002	-0.034	0.437	0.009
7.537	0.800	10.125	0.417	0.018	-0.026	0.419	0.011
7.537	0.800	6.715	0.259	0.030	0.126	0.290	0.037
7.537	0.800	3.304	0.136	0.006	0.124	0.184	0.043
7.765	0.800	13.763	0.433	0.000	-0.027	0.434	0.009
7.765	0.800	10.353	0.420	0.017	-0.030	0.421	0.010
7.765	0.800	6.942	0.282	0.029	0.083	0.295	0.030
7.765	0.800	3.532	0.145	0.011	0.113	0.185	0.044
7.992	0.800	13.991	0.430	0.002	-0.033	0.431	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
7.992	0.800	10.580	0.425	0.017	-0.035	0.426	0.011
7.992	0.800	7.170	0.280	0.032	0.092	0.296	0.032
7.992	0.800	3.759	0.143	0.006	0.112	0.182	0.042
8.219	0.800	14.218	0.426	0.001	-0.035	0.428	0.009
8.219	0.800	10.808	0.433	0.018	-0.040	0.435	0.010
8.219	0.800	7.397	0.313	0.029	0.033	0.316	0.025
8.219	0.800	3.987	0.158	0.006	0.062	0.170	0.040
8.447	0.800	14.445	0.419	0.002	-0.029	0.420	0.009
8.447	0.800	11.035	0.433	0.014	-0.039	0.435	0.009
8.447	0.800	7.624	0.328	0.029	-0.001	0.329	0.021
8.447	0.800	4.214	0.164	0.011	0.061	0.176	0.038
8.674	0.800	14.673	0.412	0.003	-0.033	0.414	0.009
8.674	0.800	11.262	0.433	0.015	-0.048	0.436	0.009
8.674	0.800	7.852	0.341	0.030	-0.018	0.343	0.018
8.674	0.800	4.441	0.155	0.009	0.098	0.184	0.034
8.902	0.800	14.900	0.408	0.003	-0.031	0.409	0.009
8.902	0.800	11.490	0.437	0.016	-0.051	0.440	0.009
8.902	0.800	8.079	0.352	0.029	-0.025	0.354	0.016
8.902	0.800	4.669	0.186	0.012	0.045	0.192	0.038
9.129	0.800	11.717	0.436	0.016	-0.046	0.439	0.009
9.129	0.800	8.306	0.362	0.029	-0.035	0.365	0.016
9.129	0.800	4.896	0.195	0.013	0.030	0.197	0.035
9.356	0.800	11.944	0.438	0.016	-0.046	0.441	0.009
9.356	0.800	8.534	0.373	0.032	-0.039	0.376	0.016
9.356	0.800	5.123	0.204	0.015	0.014	0.205	0.035
9.584	0.800	12.172	0.438	0.018	-0.046	0.440	0.009
9.584	0.800	8.761	0.379	0.031	-0.044	0.383	0.015
9.584	0.800	5.351	0.214	0.018	0.007	0.215	0.035
9.811	0.800	12.399	0.440	0.013	-0.048	0.443	0.009
9.811	0.800	8.989	0.379	0.031	-0.043	0.383	0.014
9.811	0.800	5.578	0.224	0.018	-0.005	0.225	0.034
9.811	0.800	2.168	0.105	-0.003	0.102	0.146	0.032
10.038	0.800	12.626	0.439	0.011	-0.048	0.442	0.009
10.038	0.800	9.216	0.392	0.029	-0.055	0.397	0.012
10.038	0.800	5.805	0.238	0.021	-0.020	0.240	0.032
10.038	0.800	2.395	0.123	-0.011	0.062	0.138	0.039
10.266	0.800	12.854	0.438	0.012	-0.046	0.440	0.009
10.266	0.800	9.443	0.398	0.029	-0.047	0.402	0.012
10.266	0.800	6.033	0.247	0.020	-0.024	0.249	0.030

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
10.266	0.800	2.622	0.126	-0.010	0.037	0.132	0.036
10.493	0.800	13.081	0.438	0.014	-0.045	0.440	0.008
10.493	0.800	9.671	0.404	0.031	-0.049	0.408	0.011
10.493	0.800	6.260	0.262	0.021	-0.026	0.264	0.029
10.493	0.800	2.850	0.121	-0.006	0.049	0.130	0.035
10.720	0.800	13.309	0.436	0.014	-0.046	0.438	0.009
10.720	0.800	9.898	0.409	0.030	-0.051	0.413	0.011
10.720	0.800	6.488	0.274	0.022	-0.045	0.278	0.027
10.720	0.800	3.077	0.132	-0.008	0.011	0.133	0.033
10.948	0.800	13.536	0.435	0.015	-0.047	0.438	0.009
10.948	0.800	10.125	0.412	0.029	-0.053	0.416	0.011
10.948	0.800	6.715	0.284	0.025	-0.056	0.291	0.025
10.948	0.800	3.304	0.145	-0.005	-0.001	0.145	0.036
11.175	0.800	13.763	0.434	0.015	-0.046	0.437	0.009
11.175	0.800	10.353	0.418	0.027	-0.052	0.422	0.011
11.175	0.800	6.942	0.294	0.026	-0.058	0.301	0.024
11.175	0.800	3.532	0.150	-0.005	-0.007	0.151	0.035
11.403	0.800	13.991	0.433	0.014	-0.046	0.435	0.009
11.403	0.800	10.580	0.424	0.029	-0.057	0.429	0.010
11.403	0.800	7.170	0.304	0.025	-0.065	0.312	0.022
11.403	0.800	3.759	0.155	-0.006	-0.013	0.156	0.038
11.630	0.800	14.218	0.427	0.014	-0.046	0.430	0.009
11.630	0.800	10.808	0.428	0.025	-0.059	0.433	0.010
11.630	0.800	7.397	0.315	0.026	-0.066	0.323	0.021
11.630	0.800	3.987	0.160	-0.003	-0.017	0.161	0.037
11.857	0.800	14.445	0.424	0.015	-0.047	0.427	0.009
11.857	0.800	11.035	0.429	0.027	-0.059	0.434	0.009
11.857	0.800	7.624	0.319	0.028	-0.060	0.326	0.020
11.857	0.800	4.214	0.161	0.003	-0.031	0.164	0.037
12.085	0.800	14.673	0.418	0.016	-0.046	0.421	0.010
12.085	0.800	11.262	0.433	0.026	-0.058	0.438	0.009
12.085	0.800	7.852	0.328	0.029	-0.067	0.336	0.019
12.085	0.800	4.441	0.174	0.002	-0.035	0.177	0.034
12.312	0.800	14.900	0.410	0.017	-0.042	0.413	0.010
12.312	0.800	11.490	0.434	0.026	-0.059	0.438	0.009
12.312	0.800	8.079	0.333	0.029	-0.063	0.340	0.018
12.312	0.800	4.669	0.179	0.003	-0.038	0.183	0.034
12.539	0.800	11.717	0.437	0.025	-0.059	0.442	0.009
12.539	0.800	8.306	0.346	0.030	-0.063	0.353	0.017

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
12.539	0.800	4.896	0.186	0.003	-0.043	0.191	0.034
12.767	0.800	11.944	0.438	0.023	-0.065	0.443	0.009
12.767	0.800	8.534	0.353	0.032	-0.063	0.360	0.017
12.767	0.800	5.123	0.199	0.006	-0.057	0.207	0.035
12.994	0.800	12.172	0.441	0.024	-0.063	0.446	0.009
12.994	0.800	8.761	0.363	0.032	-0.070	0.371	0.016
12.994	0.800	5.351	0.214	0.011	-0.066	0.224	0.033
13.221	0.800	12.399	0.439	0.023	-0.065	0.445	0.009
13.221	0.800	8.989	0.370	0.033	-0.068	0.378	0.016
13.221	0.800	5.578	0.222	0.010	-0.078	0.235	0.031
13.221	0.800	2.168	0.154	-0.012	-0.012	0.155	0.033
13.449	0.800	12.626	0.442	0.024	-0.063	0.447	0.009
13.449	0.800	9.216	0.378	0.031	-0.074	0.387	0.014
13.449	0.800	5.805	0.197	0.009	-0.012	0.198	0.029
13.449	0.800	2.395	0.133	-0.011	0.021	0.135	0.031
13.676	0.800	12.854	0.438	0.025	-0.065	0.443	0.009
13.676	0.800	9.443	0.385	0.032	-0.072	0.393	0.013
13.676	0.800	6.033	0.222	0.013	-0.044	0.227	0.029
13.676	0.800	2.622	0.153	-0.020	-0.026	0.156	0.031
13.904	0.800	13.081	0.437	0.022	-0.065	0.442	0.009
13.904	0.800	9.671	0.392	0.029	-0.071	0.400	0.013
13.904	0.800	6.260	0.243	0.013	-0.083	0.257	0.030
13.904	0.800	2.850	0.173	-0.017	-0.068	0.187	0.032
14.131	0.800	13.309	0.438	0.025	-0.064	0.444	0.009
14.131	0.800	9.898	0.399	0.030	-0.076	0.407	0.013
14.131	0.800	6.488	0.256	0.016	-0.086	0.271	0.029
14.131	0.800	3.077	0.173	-0.015	-0.061	0.184	0.032
14.358	0.800	13.536	0.435	0.024	-0.066	0.441	0.010
14.358	0.800	10.125	0.402	0.027	-0.069	0.409	0.012
14.358	0.800	6.715	0.277	0.018	-0.112	0.299	0.028
14.358	0.800	3.304	0.186	-0.015	-0.083	0.204	0.035
14.586	0.800	13.763	0.434	0.024	-0.065	0.440	0.010
14.586	0.800	10.353	0.409	0.029	-0.075	0.416	0.012
14.586	0.800	6.942	0.289	0.019	-0.117	0.313	0.027
14.586	0.800	3.532	0.189	-0.018	-0.090	0.210	0.037
14.813	0.800	13.991	0.429	0.021	-0.068	0.435	0.010
14.813	0.800	10.580	0.416	0.029	-0.074	0.423	0.011
14.813	0.800	7.170	0.294	0.019	-0.112	0.316	0.025
14.813	0.800	3.759	0.191	-0.012	-0.098	0.215	0.035

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
15.040	0.800	14.218	0.429	0.023	-0.065	0.434	0.010
15.040	0.800	10.808	0.418	0.029	-0.075	0.425	0.011
15.040	0.800	7.397	0.308	0.017	-0.116	0.329	0.024
15.040	0.800	3.987	0.207	-0.010	-0.113	0.236	0.034
15.268	0.800	14.445	0.422	0.020	-0.067	0.428	0.010
15.268	0.800	11.035	0.422	0.030	-0.076	0.430	0.011
15.268	0.800	7.624	0.318	0.017	-0.118	0.340	0.023
15.268	0.800	4.214	0.214	-0.009	-0.135	0.254	0.035
15.495	0.800	14.673	0.418	0.020	-0.062	0.423	0.010
15.495	0.800	11.262	0.429	0.028	-0.080	0.438	0.010
15.495	0.800	7.852	0.335	0.022	-0.124	0.358	0.022
15.495	0.800	4.441	0.231	-0.013	-0.162	0.283	0.034
15.716	0.800	14.673	0.371	0.012	0.034	0.372	0.014
15.716	0.800	13.536	0.391	0.022	0.039	0.393	0.015
15.716	0.800	12.399	0.400	0.022	0.043	0.402	0.017
15.716	0.800	11.262	0.386	0.029	0.061	0.391	0.022
15.716	0.800	10.125	0.355	0.034	0.079	0.366	0.022
15.716	0.800	8.989	0.310	0.032	0.066	0.318	0.025
15.716	0.800	7.852	0.242	0.032	0.130	0.276	0.030
15.716	0.800	6.715	0.167	0.026	0.200	0.262	0.032
15.716	0.800	5.578	0.119	0.003	0.239	0.267	0.024
15.716	0.800	4.441	0.106	0.005	0.225	0.248	0.038
15.716	0.800	3.304	0.095	-0.005	0.233	0.252	0.036
15.716	0.800	2.168	0.092	-0.006	0.262	0.278	0.036
16.398	0.800	13.991	0.392	0.020	-0.003	0.392	0.013
16.398	0.800	12.854	0.410	0.021	-0.008	0.410	0.014
16.398	0.800	11.717	0.407	0.021	-0.006	0.408	0.015
16.398	0.800	10.580	0.387	0.031	0.000	0.388	0.016
16.398	0.800	9.443	0.345	0.038	0.020	0.348	0.018
16.398	0.800	8.306	0.286	0.029	0.038	0.290	0.022
16.398	0.800	7.170	0.217	0.022	0.088	0.235	0.027
16.398	0.800	6.033	0.176	0.007	0.082	0.195	0.032
16.398	0.800	4.896	0.137	0.007	0.142	0.197	0.028
16.398	0.800	3.759	0.130	-0.004	0.122	0.179	0.038
16.398	0.800	2.622	0.106	-0.005	0.199	0.225	0.036
17.081	0.800	14.445	0.387	0.016	-0.006	0.387	0.013
17.081	0.800	13.309	0.410	0.026	-0.023	0.412	0.013
17.081	0.800	12.172	0.410	0.021	-0.018	0.411	0.014
17.081	0.800	11.035	0.396	0.026	-0.012	0.397	0.014

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
17.081	0.800	9.898	0.363	0.030	0.004	0.364	0.016
17.081	0.800	8.761	0.309	0.030	0.036	0.313	0.021
17.081	0.800	7.624	0.250	0.020	0.041	0.254	0.025
17.081	0.800	6.488	0.186	0.021	0.085	0.206	0.029
17.081	0.800	5.351	0.151	0.004	0.105	0.184	0.029
17.081	0.800	4.214	0.135	-0.005	0.138	0.193	0.029
17.081	0.800	3.077	0.121	-0.014	0.119	0.170	0.029
17.763	0.800	14.900	0.375	0.017	-0.010	0.375	0.012
17.763	0.800	13.763	0.409	0.017	-0.014	0.409	0.013
17.763	0.800	12.626	0.409	0.029	-0.007	0.410	0.011
17.763	0.800	11.490	0.404	0.029	-0.024	0.406	0.015
17.763	0.800	10.353	0.375	0.031	-0.009	0.376	0.016
17.763	0.800	9.216	0.335	0.022	0.018	0.336	0.018
17.763	0.800	8.079	0.278	0.022	0.018	0.279	0.020
17.763	0.800	6.942	0.207	0.014	0.068	0.218	0.027
17.763	0.800	5.805	0.161	0.000	0.086	0.183	0.028
17.763	0.800	4.669	0.139	-0.004	0.100	0.171	0.031
17.763	0.800	3.532	0.123	-0.014	0.102	0.161	0.031
17.763	0.800	2.395	0.111	-0.011	0.151	0.188	0.029
18.445	0.800	14.218	0.388	0.014	0.008	0.389	0.015
18.445	0.800	13.081	0.411	0.021	-0.005	0.412	0.013
18.445	0.800	11.944	0.403	0.027	0.004	0.404	0.011
18.445	0.800	10.808	0.385	0.024	-0.001	0.386	0.016
18.445	0.800	9.671	0.343	0.030	0.009	0.344	0.019
18.445	0.800	8.534	0.288	0.015	0.044	0.292	0.025
18.445	0.800	7.397	0.227	0.022	0.032	0.230	0.024
18.445	0.800	6.260	0.185	-0.002	0.071	0.198	0.033
18.445	0.800	5.123	0.111	-0.004	0.207	0.235	0.030
18.445	0.800	3.987	0.123	-0.013	0.137	0.185	0.028
18.445	0.800	2.850	0.118	-0.013	0.124	0.172	0.029
19.127	0.800	14.673	0.397	0.011	-0.013	0.398	0.012
19.127	0.800	13.536	0.411	0.021	-0.023	0.412	0.011
19.127	0.800	12.399	0.408	0.027	-0.017	0.409	0.012
19.127	0.800	11.262	0.383	0.031	-0.003	0.384	0.012
19.127	0.800	10.125	0.342	0.029	0.014	0.344	0.015
19.127	0.800	8.989	0.307	0.027	0.048	0.312	0.016
19.127	0.800	7.852	0.230	0.014	0.073	0.242	0.017
19.127	0.800	6.715	0.171	0.004	0.110	0.203	0.018
19.127	0.800	5.578	0.139	-0.003	0.149	0.203	0.018

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
19.127	0.800	4.441	0.106	-0.017	0.191	0.219	0.019
19.127	0.800	3.304	0.102	-0.019	0.190	0.216	0.016
19.127	0.800	2.168	0.107	-0.003	0.212	0.238	0.019
19.809	0.800	13.991	0.409	0.017	-0.037	0.411	0.013
19.809	0.800	12.854	0.418	0.019	-0.042	0.420	0.012
19.809	0.800	11.717	0.406	0.020	-0.024	0.407	0.013
19.809	0.800	10.580	0.361	0.026	-0.003	0.362	0.015
19.809	0.800	9.443	0.327	0.024	-0.001	0.328	0.016
19.809	0.800	8.306	0.266	0.016	0.028	0.268	0.020
19.809	0.800	7.170	0.224	-0.003	0.066	0.233	0.022
19.809	0.800	6.033	0.169	-0.006	0.100	0.196	0.025
19.809	0.800	4.896	0.137	-0.014	0.116	0.180	0.022
19.809	0.800	3.759	0.133	-0.017	0.111	0.174	0.022
19.809	0.800	2.622	0.133	-0.024	0.135	0.191	0.021
20.491	0.800	14.445	0.396	0.010	-0.002	0.396	0.013
20.491	0.800	13.309	0.410	0.019	-0.023	0.411	0.012
20.491	0.800	12.172	0.396	0.020	-0.021	0.397	0.015
20.491	0.800	11.035	0.378	0.020	-0.010	0.379	0.014
20.491	0.800	9.898	0.335	0.022	-0.004	0.336	0.017
20.491	0.800	8.761	0.286	0.010	0.022	0.287	0.017
20.491	0.800	7.624	0.236	0.002	0.054	0.242	0.022
20.491	0.800	6.488	0.178	0.002	0.091	0.200	0.022
20.491	0.800	5.351	0.161	-0.015	0.097	0.189	0.020
20.491	0.800	4.214	0.145	-0.024	0.108	0.182	0.021
20.491	0.800	3.077	0.128	-0.025	0.128	0.183	0.021
21.173	0.800	14.900	0.406	0.010	-0.042	0.408	0.012
21.173	0.800	13.763	0.421	0.015	-0.047	0.424	0.012
21.173	0.800	12.626	0.424	0.018	-0.050	0.427	0.011
21.173	0.800	11.490	0.397	0.021	-0.035	0.399	0.013
21.173	0.800	10.353	0.368	0.020	-0.011	0.369	0.015
21.173	0.800	9.216	0.322	0.020	-0.004	0.322	0.017
21.173	0.800	8.079	0.258	0.010	0.018	0.259	0.018
21.173	0.800	6.942	0.211	0.002	0.070	0.222	0.022
21.173	0.800	5.805	0.160	-0.016	0.113	0.197	0.021
21.173	0.800	4.669	0.151	-0.012	0.100	0.182	0.020
21.173	0.800	3.532	0.136	-0.024	0.114	0.179	0.019
21.173	0.800	2.395	0.137	-0.014	0.123	0.185	0.020
21.855	0.800	14.218	0.422	0.014	-0.051	0.426	0.011
21.855	0.800	13.081	0.427	0.021	-0.052	0.431	0.011

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
21.855	0.800	11.944	0.418	0.024	-0.052	0.422	0.012
21.855	0.800	10.808	0.376	0.016	-0.010	0.377	0.014
21.855	0.800	9.671	0.341	0.015	-0.007	0.341	0.016
21.855	0.800	8.534	0.292	0.012	0.015	0.293	0.018
21.855	0.800	7.397	0.227	0.003	0.035	0.230	0.019
21.855	0.800	6.260	0.196	-0.011	0.046	0.201	0.019
21.855	0.800	5.123	0.164	-0.014	0.088	0.187	0.022
21.855	0.800	3.987	0.153	-0.020	0.095	0.182	0.024
21.855	0.800	2.850	0.150	-0.019	0.084	0.173	0.021
22.537	0.800	14.673	0.413	0.015	-0.048	0.416	0.011
22.537	0.800	13.536	0.432	0.016	-0.057	0.436	0.011
22.537	0.800	12.399	0.425	0.018	-0.054	0.428	0.012
22.537	0.800	11.262	0.397	0.024	-0.033	0.399	0.013
22.537	0.800	10.125	0.359	0.013	-0.004	0.359	0.016
22.537	0.800	8.989	0.310	0.010	0.007	0.310	0.018
22.537	0.800	7.852	0.257	0.000	0.027	0.258	0.018
22.537	0.800	6.715	0.210	0.000	0.056	0.217	0.021
22.537	0.800	5.578	0.157	-0.013	0.108	0.191	0.017
22.537	0.800	4.441	0.163	-0.028	0.068	0.179	0.022
22.537	0.800	3.304	0.161	-0.026	0.071	0.178	0.021
22.537	0.800	2.168	0.149	-0.023	0.096	0.179	0.020
23.219	0.800	13.991	0.425	0.018	-0.057	0.429	0.010
23.219	0.800	12.854	0.439	0.013	-0.061	0.444	0.011
23.219	0.800	11.717	0.415	0.022	-0.041	0.417	0.013
23.219	0.800	10.580	0.381	0.020	-0.028	0.382	0.014
23.219	0.800	9.443	0.324	0.010	-0.003	0.324	0.016
23.219	0.800	8.306	0.266	0.010	0.024	0.268	0.019
23.219	0.800	7.170	0.228	-0.007	0.036	0.231	0.019
23.219	0.800	6.033	0.169	-0.012	0.123	0.210	0.020
23.219	0.800	4.896	0.166	-0.020	0.081	0.186	0.022
23.219	0.800	3.759	0.162	-0.016	0.064	0.175	0.021
23.219	0.800	2.622	0.163	-0.021	0.088	0.187	0.020
23.902	0.800	14.445	0.433	0.012	-0.066	0.439	0.011
23.902	0.800	13.309	0.438	0.013	-0.059	0.442	0.010
23.902	0.800	12.172	0.426	0.018	-0.058	0.430	0.012
23.902	0.800	11.035	0.399	0.016	-0.044	0.402	0.014
23.902	0.800	9.898	0.346	0.012	-0.016	0.346	0.016
23.902	0.800	8.761	0.303	0.002	0.007	0.303	0.017
23.902	0.800	7.624	0.244	0.000	0.032	0.246	0.020

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
23.902	0.800	6.488	0.201	-0.005	0.070	0.213	0.019
23.902	0.800	5.351	0.174	-0.021	0.091	0.198	0.017
23.902	0.800	4.214	0.166	-0.021	0.061	0.178	0.019
23.902	0.800	3.077	0.167	-0.024	0.066	0.181	0.018
24.584	0.800	14.900	0.427	0.008	-0.061	0.431	0.010
24.584	0.800	13.763	0.442	0.013	-0.063	0.446	0.010
24.584	0.800	12.626	0.430	0.015	-0.056	0.434	0.012
24.584	0.800	11.490	0.406	0.017	-0.054	0.410	0.013
24.584	0.800	10.353	0.375	0.020	-0.040	0.378	0.014
24.584	0.800	9.216	0.326	0.008	0.001	0.326	0.016
24.584	0.800	8.079	0.285	0.000	-0.003	0.285	0.017
24.584	0.800	6.942	0.237	-0.004	0.036	0.240	0.018
24.584	0.800	5.805	0.197	-0.012	0.040	0.202	0.018
24.584	0.800	4.669	0.185	-0.028	0.053	0.194	0.022
24.584	0.800	3.532	0.175	-0.018	0.069	0.189	0.019
24.584	0.800	2.395	0.165	-0.024	0.074	0.183	0.020
25.266	0.800	14.218	0.442	0.011	-0.062	0.446	0.010
25.266	0.800	13.081	0.440	0.017	-0.059	0.445	0.011
25.266	0.800	11.944	0.423	0.014	-0.053	0.427	0.011
25.266	0.800	10.808	0.383	0.014	-0.040	0.385	0.014
25.266	0.800	9.671	0.336	0.008	-0.018	0.336	0.015
25.266	0.800	8.534	0.293	0.002	-0.005	0.293	0.018
25.266	0.800	7.397	0.263	-0.005	0.011	0.263	0.018
25.266	0.800	6.260	0.219	-0.012	0.036	0.222	0.020
25.266	0.800	5.123	0.190	-0.026	0.043	0.196	0.020
25.266	0.800	3.987	0.185	-0.027	0.046	0.192	0.019
25.266	0.800	2.850	0.165	-0.023	0.093	0.191	0.016
25.948	0.800	14.673	0.437	0.014	-0.062	0.442	0.010
25.948	0.800	13.536	0.440	0.011	-0.064	0.444	0.010
25.948	0.800	12.399	0.430	0.015	-0.072	0.436	0.011
25.948	0.800	11.262	0.408	0.013	-0.051	0.411	0.013
25.948	0.800	10.125	0.361	0.010	-0.039	0.363	0.014
25.948	0.800	8.989	0.310	-0.003	0.004	0.310	0.016
25.948	0.800	7.852	0.275	-0.009	0.021	0.276	0.018
25.948	0.800	6.715	0.222	-0.015	0.032	0.225	0.018
25.948	0.800	5.578	0.207	-0.021	0.043	0.213	0.021
25.948	0.800	4.441	0.192	-0.026	0.039	0.198	0.019
25.948	0.800	3.304	0.181	-0.024	0.055	0.190	0.019
25.948	0.800	2.168	0.178	-0.022	0.079	0.196	0.018

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
26.630	0.800	13.991	0.449	0.013	-0.071	0.455	0.010
26.630	0.800	12.854	0.442	0.015	-0.066	0.447	0.012
26.630	0.800	11.717	0.417	0.018	-0.051	0.420	0.013
26.630	0.800	10.580	0.377	0.012	-0.036	0.379	0.014
26.630	0.800	9.443	0.334	0.005	-0.021	0.334	0.016
26.630	0.800	8.306	0.291	0.006	-0.005	0.291	0.015
26.630	0.800	7.170	0.257	-0.014	0.009	0.257	0.018
26.630	0.800	6.033	0.232	-0.017	0.006	0.233	0.020
26.630	0.800	4.896	0.203	-0.023	0.038	0.208	0.021
26.630	0.800	3.759	0.187	-0.023	0.036	0.192	0.020
26.630	0.800	2.622	0.189	-0.018	0.037	0.194	0.018
27.312	0.800	14.445	0.445	0.011	-0.067	0.450	0.010
27.312	0.800	13.309	0.450	0.013	-0.069	0.456	0.011
27.312	0.800	12.172	0.429	0.014	-0.060	0.433	0.012
27.312	0.800	11.035	0.400	0.011	-0.047	0.403	0.014
27.312	0.800	9.898	0.356	0.006	-0.036	0.357	0.016
27.312	0.800	8.761	0.311	0.005	-0.018	0.312	0.017
27.312	0.800	7.624	0.267	-0.014	0.000	0.268	0.018
27.312	0.800	6.488	0.246	-0.022	0.001	0.247	0.019
27.312	0.800	5.351	0.224	-0.025	0.015	0.226	0.018
27.312	0.800	4.214	0.204	-0.018	0.008	0.205	0.020
27.312	0.800	3.077	0.208	-0.021	0.017	0.209	0.019
27.994	0.800	14.900	0.443	0.017	-0.061	0.448	0.010
27.994	0.800	13.763	0.454	0.017	-0.065	0.459	0.010
27.994	0.800	12.626	0.431	0.015	-0.057	0.435	0.012
27.994	0.800	11.490	0.419	0.012	-0.062	0.423	0.012
27.994	0.800	10.353	0.377	0.005	-0.045	0.380	0.014
27.994	0.800	9.216	0.329	0.001	-0.020	0.330	0.015
27.994	0.800	8.079	0.287	-0.009	-0.012	0.287	0.017
27.994	0.800	6.942	0.258	-0.012	-0.020	0.259	0.018
27.994	0.800	5.805	0.226	-0.022	0.001	0.227	0.020
27.994	0.800	4.669	0.213	-0.023	-0.013	0.215	0.018
27.994	0.800	3.532	0.212	-0.022	-0.004	0.213	0.020
27.994	0.800	2.395	0.216	-0.016	-0.006	0.217	0.018
28.676	0.800	14.218	0.453	0.021	-0.069	0.459	0.011
28.676	0.800	13.081	0.442	0.016	-0.060	0.446	0.010
28.676	0.800	11.944	0.435	0.017	-0.072	0.441	0.012
28.676	0.800	10.808	0.387	0.014	-0.049	0.390	0.014
28.676	0.800	9.671	0.349	0.008	-0.026	0.350	0.016

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
28.676	0.800	8.534	0.312	-0.006	-0.034	0.314	0.018
28.676	0.800	7.397	0.271	-0.006	-0.014	0.271	0.018
28.676	0.800	6.260	0.250	-0.020	-0.021	0.251	0.020
28.676	0.800	5.123	0.225	-0.016	0.000	0.226	0.020
28.676	0.800	3.987	0.220	-0.022	-0.015	0.222	0.019
28.676	0.800	2.850	0.218	-0.022	-0.006	0.219	0.018
29.358	0.800	14.673	0.453	0.021	-0.076	0.459	0.011
29.358	0.800	13.536	0.453	0.014	-0.066	0.458	0.010
29.358	0.800	12.399	0.445	0.018	-0.068	0.450	0.012
29.358	0.800	11.262	0.412	0.014	-0.061	0.417	0.014
29.358	0.800	10.125	0.376	0.015	-0.043	0.379	0.015
29.358	0.800	8.989	0.328	0.003	-0.030	0.330	0.017
29.358	0.800	7.852	0.294	-0.005	-0.029	0.295	0.018
29.358	0.800	6.715	0.263	-0.019	-0.035	0.266	0.018
29.358	0.800	5.578	0.243	-0.020	-0.042	0.247	0.019
29.358	0.800	4.441	0.230	-0.023	-0.031	0.233	0.021
29.358	0.800	3.304	0.232	-0.019	-0.035	0.235	0.018
29.358	0.800	2.168	0.235	-0.019	-0.030	0.238	0.017
30.040	0.800	13.991	0.452	0.018	-0.070	0.458	0.011
30.040	0.800	12.854	0.445	0.019	-0.073	0.452	0.012
30.040	0.800	11.717	0.423	0.013	-0.065	0.428	0.013
30.040	0.800	10.580	0.393	0.012	-0.066	0.399	0.016
30.040	0.800	9.443	0.357	0.005	-0.062	0.362	0.017
30.040	0.800	8.306	0.317	-0.008	-0.041	0.320	0.017
30.040	0.800	7.170	0.290	-0.012	-0.061	0.296	0.020
30.040	0.800	6.033	0.270	-0.016	-0.088	0.285	0.021
30.040	0.800	4.896	0.254	-0.024	-0.082	0.268	0.022
30.040	0.800	3.759	0.246	-0.025	-0.049	0.252	0.019
30.040	0.800	2.622	0.241	-0.020	-0.047	0.246	0.019
30.716	0.800	13.991	0.421	0.013	-0.001	0.421	0.014
30.716	0.800	12.854	0.413	0.015	0.014	0.414	0.016
30.716	0.800	11.717	0.389	0.020	0.019	0.390	0.016
30.716	0.800	10.580	0.335	0.005	0.035	0.337	0.019
30.716	0.800	9.443	0.298	0.010	0.046	0.301	0.018
30.716	0.800	8.306	0.249	-0.003	0.085	0.263	0.021
30.716	0.800	7.170	0.215	-0.008	0.114	0.243	0.023
30.716	0.800	6.033	0.182	-0.009	0.132	0.225	0.025
30.716	0.800	4.896	0.175	-0.013	0.127	0.216	0.030
30.716	0.800	3.759	0.172	-0.015	0.149	0.228	0.029

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
30.716	0.800	2.622	0.164	-0.005	0.191	0.251	0.028
31.398	0.800	14.445	0.425	0.013	-0.006	0.425	0.014
31.398	0.800	13.309	0.427	0.015	-0.024	0.428	0.015
31.398	0.800	12.172	0.403	0.019	-0.003	0.403	0.015
31.398	0.800	11.035	0.373	0.016	-0.012	0.374	0.020
31.398	0.800	9.898	0.328	0.014	0.038	0.330	0.018
31.398	0.800	8.761	0.285	0.001	0.031	0.286	0.021
31.398	0.800	7.624	0.237	-0.003	0.076	0.249	0.022
31.398	0.800	6.488	0.209	-0.011	0.082	0.224	0.023
31.398	0.800	5.351	0.187	-0.008	0.103	0.214	0.024
31.398	0.800	4.214	0.178	-0.022	0.130	0.221	0.025
31.398	0.800	3.077	0.175	-0.012	0.145	0.227	0.027
32.081	0.800	14.900	0.427	0.008	-0.018	0.428	0.014
32.081	0.800	13.763	0.434	0.009	-0.024	0.434	0.013
32.081	0.800	12.626	0.421	0.013	-0.020	0.422	0.015
32.081	0.800	11.490	0.391	0.009	-0.020	0.392	0.015
32.081	0.800	10.353	0.341	0.004	0.025	0.341	0.017
32.081	0.800	9.216	0.301	0.002	0.037	0.303	0.018
32.081	0.800	8.079	0.262	0.002	0.047	0.266	0.020
32.081	0.800	6.942	0.227	-0.007	0.053	0.233	0.020
32.081	0.800	5.805	0.195	-0.011	0.081	0.212	0.024
32.081	0.800	4.669	0.190	-0.019	0.097	0.214	0.023
32.081	0.800	3.532	0.185	-0.015	0.103	0.212	0.026
32.081	0.800	2.395	0.182	-0.010	0.121	0.218	0.023
32.763	0.800	14.218	0.439	0.013	-0.024	0.440	0.013
32.763	0.800	13.081	0.426	0.010	-0.025	0.427	0.014
32.763	0.800	11.944	0.405	0.009	-0.023	0.405	0.015
32.763	0.800	10.808	0.373	0.004	-0.013	0.374	0.016
32.763	0.800	9.671	0.322	0.004	0.006	0.322	0.016
32.763	0.800	8.534	0.286	-0.001	0.024	0.287	0.019
32.763	0.800	7.397	0.238	-0.003	0.031	0.240	0.018
32.763	0.800	6.260	0.201	-0.020	0.066	0.213	0.021
32.763	0.800	5.123	0.185	-0.010	0.087	0.204	0.021
32.763	0.800	3.987	0.192	-0.014	0.085	0.211	0.023
32.763	0.800	2.850	0.198	-0.017	0.067	0.210	0.023
33.445	0.800	14.673	0.435	0.014	-0.027	0.436	0.013
33.445	0.800	13.536	0.431	0.011	-0.011	0.431	0.013
33.445	0.800	12.399	0.398	0.007	0.016	0.399	0.014
33.445	0.800	11.262	0.378	0.007	-0.005	0.378	0.014

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
33.445	0.800	10.125	0.342	0.005	-0.004	0.343	0.015
33.445	0.800	8.989	0.295	-0.002	0.010	0.295	0.019
33.445	0.800	7.852	0.249	-0.004	0.040	0.252	0.020
33.445	0.800	6.715	0.213	-0.009	0.062	0.222	0.022
33.445	0.800	5.578	0.193	-0.007	0.076	0.207	0.021
33.445	0.800	4.441	0.188	-0.015	0.091	0.210	0.024
33.445	0.800	3.304	0.190	-0.013	0.102	0.216	0.023
33.445	0.800	2.168	0.189	-0.010	0.115	0.222	0.020
34.127	0.800	13.991	0.446	0.012	-0.057	0.450	0.013
34.127	0.800	12.854	0.431	0.016	-0.042	0.434	0.014
34.127	0.800	11.717	0.403	0.011	-0.035	0.405	0.014
34.127	0.800	10.580	0.366	0.012	-0.025	0.367	0.013
34.127	0.800	9.443	0.310	0.000	0.010	0.311	0.015
34.127	0.800	8.306	0.276	-0.006	0.020	0.277	0.015
34.127	0.800	7.170	0.230	-0.006	0.057	0.237	0.018
34.127	0.800	6.033	0.209	-0.006	0.058	0.217	0.018
34.127	0.800	4.896	0.188	-0.008	0.082	0.205	0.016
34.127	0.800	3.759	0.179	-0.018	0.109	0.210	0.019
34.127	0.800	2.622	0.177	-0.012	0.113	0.210	0.018
34.809	0.800	14.445	0.434	0.015	-0.031	0.435	0.013
34.809	0.800	13.309	0.421	0.009	-0.033	0.423	0.014
34.809	0.800	12.172	0.256	0.003	0.396	0.471	0.032
34.809	0.800	11.035	0.381	0.000	-0.026	0.382	0.015
34.809	0.800	9.898	0.338	0.007	-0.017	0.339	0.017
34.809	0.800	8.761	0.281	0.005	0.019	0.281	0.016
34.809	0.800	7.624	0.257	-0.004	0.021	0.258	0.016
34.809	0.800	6.488	0.210	-0.016	0.041	0.214	0.020
34.809	0.800	5.351	0.201	-0.009	0.057	0.209	0.020
34.809	0.800	4.214	0.187	-0.013	0.066	0.199	0.022
34.809	0.800	3.077	0.198	-0.015	0.058	0.206	0.019
35.491	0.800	14.900	0.434	0.016	-0.030	0.436	0.013
35.491	0.800	13.763	0.425	0.011	-0.032	0.426	0.013
35.491	0.800	12.626	0.416	0.007	-0.028	0.417	0.015
35.491	0.800	11.490	0.388	0.004	-0.014	0.388	0.015
35.491	0.800	10.353	0.347	0.003	-0.003	0.347	0.016
35.491	0.800	9.216	0.310	-0.005	0.015	0.310	0.017
35.491	0.800	8.079	0.266	-0.013	0.018	0.267	0.017
35.491	0.800	6.942	0.226	-0.010	0.035	0.229	0.018
35.491	0.800	5.805	0.211	-0.014	0.042	0.216	0.019

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
35.491	0.800	4.669	0.194	-0.014	0.049	0.200	0.018
35.491	0.800	3.532	0.184	-0.002	0.073	0.198	0.017
35.491	0.800	2.395	0.196	-0.011	0.080	0.212	0.016
36.173	0.800	14.218	0.439	0.015	-0.048	0.442	0.012
36.173	0.800	13.081	0.433	0.014	-0.048	0.436	0.012
36.173	0.800	11.944	0.408	0.003	-0.038	0.410	0.014
36.173	0.800	10.808	0.378	0.003	-0.040	0.380	0.014
36.173	0.800	9.671	0.328	0.000	-0.005	0.328	0.016
36.173	0.800	8.534	0.288	-0.006	-0.003	0.288	0.017
36.173	0.800	7.397	0.255	-0.009	0.013	0.255	0.015
36.173	0.800	6.260	0.218	-0.011	0.022	0.220	0.019
36.173	0.800	5.123	0.200	-0.009	0.054	0.208	0.019
36.173	0.800	3.987	0.198	-0.016	0.025	0.200	0.019
36.173	0.800	2.850	0.199	-0.011	0.032	0.202	0.017
36.855	0.800	14.673	0.450	0.012	-0.060	0.454	0.011
36.855	0.800	13.536	0.430	0.013	-0.060	0.434	0.012
36.855	0.800	12.399	0.424	0.004	-0.051	0.427	0.013
36.855	0.800	11.262	0.391	0.006	-0.031	0.392	0.013
36.855	0.800	10.125	0.355	-0.007	-0.022	0.356	0.015
36.855	0.800	8.989	0.306	-0.002	-0.013	0.307	0.014
36.855	0.800	7.852	0.275	-0.007	0.002	0.275	0.017
36.855	0.800	6.715	0.237	-0.012	0.012	0.237	0.017
36.855	0.800	5.578	0.221	-0.018	0.001	0.222	0.019
36.855	0.800	4.441	0.203	-0.010	0.007	0.203	0.019
36.855	0.800	3.304	0.209	-0.013	0.021	0.210	0.019
36.855	0.800	2.168	0.209	-0.008	0.016	0.210	0.019
37.537	0.800	13.991	0.433	0.011	-0.052	0.436	0.013
37.537	0.800	12.854	0.431	0.013	-0.059	0.435	0.012
37.537	0.800	11.717	0.404	0.005	-0.053	0.408	0.013
37.537	0.800	10.580	0.359	-0.002	-0.041	0.362	0.013
37.537	0.800	9.443	0.326	-0.005	-0.031	0.327	0.014
37.537	0.800	8.306	0.298	-0.008	-0.014	0.298	0.015
37.537	0.800	7.170	0.262	-0.013	-0.006	0.263	0.018
37.537	0.800	6.033	0.236	-0.006	0.005	0.236	0.018
37.537	0.800	4.896	0.216	-0.009	0.011	0.217	0.016
37.537	0.800	3.759	0.205	-0.006	0.012	0.205	0.017
37.537	0.800	2.622	0.208	-0.012	0.004	0.208	0.018
38.219	0.800	14.445	0.444	0.012	-0.070	0.450	0.011
38.219	0.800	13.309	0.438	0.008	-0.068	0.443	0.011

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
38.219	0.800	12.172	0.420	0.010	-0.052	0.423	0.012
38.219	0.800	11.035	0.380	0.003	-0.040	0.382	0.014
38.219	0.800	9.898	0.354	0.002	-0.026	0.355	0.014
38.219	0.800	8.761	0.310	-0.003	-0.018	0.310	0.016
38.219	0.800	7.624	0.273	-0.013	-0.022	0.274	0.015
38.219	0.800	6.488	0.241	-0.010	-0.012	0.241	0.017
38.219	0.800	5.351	0.224	-0.009	0.000	0.224	0.016
38.219	0.800	4.214	0.212	-0.007	-0.003	0.212	0.017
38.219	0.800	3.077	0.202	-0.004	0.008	0.202	0.016
38.902	0.800	14.900	0.438	0.016	-0.062	0.442	0.011
38.902	0.800	13.763	0.436	0.015	-0.058	0.440	0.012
38.902	0.800	12.626	0.434	0.009	-0.053	0.437	0.011
38.902	0.800	11.490	0.393	0.005	-0.046	0.395	0.012
38.902	0.800	10.353	0.361	0.005	-0.034	0.363	0.013
38.902	0.800	9.216	0.328	-0.007	-0.029	0.330	0.014
38.902	0.800	8.079	0.289	0.000	-0.017	0.290	0.016
38.902	0.800	6.942	0.259	-0.008	-0.028	0.261	0.017
38.902	0.800	5.805	0.234	-0.008	-0.009	0.235	0.017
38.902	0.800	4.669	0.218	-0.008	-0.016	0.218	0.017
38.902	0.800	3.532	0.212	-0.003	-0.002	0.212	0.015
38.902	0.800	2.395	0.211	-0.005	-0.014	0.212	0.018
39.584	0.800	14.218	0.438	0.013	-0.062	0.443	0.011
39.584	0.800	13.081	0.422	0.011	-0.062	0.427	0.011
39.584	0.800	11.944	0.412	0.008	-0.066	0.418	0.012
39.584	0.800	10.808	0.382	-0.001	-0.051	0.385	0.013
39.584	0.800	9.671	0.347	-0.002	-0.044	0.350	0.014
39.584	0.800	8.534	0.303	-0.006	-0.039	0.305	0.014
39.584	0.800	7.397	0.272	-0.004	-0.030	0.274	0.016
39.584	0.800	6.260	0.249	-0.005	-0.025	0.251	0.017
39.584	0.800	5.123	0.225	-0.007	-0.025	0.227	0.016
39.584	0.800	3.987	0.216	-0.008	-0.029	0.218	0.017
39.584	0.800	2.850	0.213	-0.007	-0.027	0.215	0.014
40.266	0.800	14.673	0.438	0.016	-0.060	0.442	0.011
40.266	0.800	13.536	0.435	0.014	-0.065	0.440	0.011
40.266	0.800	12.399	0.427	0.013	-0.070	0.433	0.012
40.266	0.800	11.262	0.405	0.003	-0.057	0.409	0.013
40.266	0.800	10.125	0.368	-0.005	-0.055	0.372	0.014
40.266	0.800	8.989	0.329	-0.003	-0.039	0.332	0.016
40.266	0.800	7.852	0.292	-0.005	-0.052	0.297	0.016

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
40.266	0.800	6.715	0.263	-0.011	-0.036	0.266	0.017
40.266	0.800	5.578	0.243	-0.006	-0.043	0.246	0.017
40.266	0.800	4.441	0.222	-0.003	-0.026	0.224	0.015
40.266	0.800	3.304	0.214	-0.002	-0.024	0.216	0.016
40.266	0.800	2.168	0.217	-0.002	-0.028	0.218	0.015
40.948	0.800	13.991	0.441	0.013	-0.073	0.447	0.011
40.948	0.800	12.854	0.430	0.007	-0.074	0.436	0.012
40.948	0.800	11.717	0.409	0.008	-0.070	0.415	0.011
40.948	0.800	10.580	0.379	0.003	-0.059	0.384	0.013
40.948	0.800	9.443	0.342	0.000	-0.048	0.345	0.013
40.948	0.800	8.306	0.311	-0.003	-0.056	0.316	0.016
40.948	0.800	7.170	0.277	-0.013	-0.033	0.280	0.015
40.948	0.800	6.033	0.260	-0.009	-0.050	0.265	0.016
40.948	0.800	4.896	0.230	0.000	-0.032	0.232	0.017
40.948	0.800	3.759	0.226	-0.002	-0.031	0.228	0.016
40.948	0.800	2.622	0.230	0.000	-0.041	0.233	0.016
41.630	0.800	14.445	0.444	0.014	-0.082	0.452	0.010
41.630	0.800	13.309	0.435	0.011	-0.070	0.441	0.011
41.630	0.800	12.172	0.421	0.010	-0.073	0.427	0.011
41.630	0.800	11.035	0.394	0.003	-0.067	0.400	0.013
41.630	0.800	9.898	0.375	0.001	-0.057	0.379	0.013
41.630	0.800	8.761	0.324	-0.004	-0.051	0.328	0.013
41.630	0.800	7.624	0.301	-0.009	-0.063	0.308	0.016
41.630	0.800	6.488	0.271	-0.003	-0.050	0.275	0.016
41.630	0.800	5.351	0.256	-0.008	-0.072	0.266	0.018
41.630	0.800	4.214	0.230	-0.004	-0.049	0.236	0.016
41.630	0.800	3.077	0.227	-0.004	-0.039	0.230	0.015
42.312	0.800	14.900	0.443	0.013	-0.069	0.449	0.010
42.312	0.800	13.763	0.444	0.014	-0.078	0.451	0.011
42.312	0.800	12.626	0.431	0.005	-0.079	0.438	0.011
42.312	0.800	11.490	0.404	0.008	-0.083	0.413	0.011
42.312	0.800	10.353	0.384	0.004	-0.066	0.389	0.013
42.312	0.800	9.216	0.347	-0.002	-0.052	0.351	0.013
42.312	0.800	8.079	0.309	-0.002	-0.068	0.316	0.015
42.312	0.800	6.942	0.289	-0.004	-0.055	0.294	0.015
42.312	0.800	5.805	0.264	-0.005	-0.063	0.272	0.018
42.312	0.800	4.669	0.247	-0.004	-0.067	0.256	0.016
42.312	0.800	3.532	0.235	-0.005	-0.070	0.246	0.015
42.312	0.800	2.395	0.229	0.000	-0.053	0.235	0.015

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
42.994	0.800	14.218	0.438	0.009	-0.079	0.445	0.010
42.994	0.800	13.081	0.437	0.011	-0.088	0.446	0.010
42.994	0.800	11.944	0.423	0.008	-0.091	0.433	0.011
42.994	0.800	10.808	0.396	0.005	-0.081	0.404	0.012
42.994	0.800	9.671	0.360	0.004	-0.066	0.366	0.012
42.994	0.800	8.534	0.322	-0.005	-0.050	0.325	0.015
42.994	0.800	7.397	0.307	-0.006	-0.091	0.320	0.016
42.994	0.800	6.260	0.273	-0.004	-0.074	0.282	0.016
42.994	0.800	5.123	0.268	-0.004	-0.100	0.286	0.019
42.994	0.800	3.987	0.246	-0.006	-0.083	0.260	0.018
42.994	0.800	2.850	0.242	-0.003	-0.073	0.252	0.015
43.676	0.800	14.673	0.447	0.016	-0.085	0.455	0.010
43.676	0.800	13.536	0.435	0.007	-0.092	0.445	0.011
43.676	0.800	12.399	0.425	0.009	-0.097	0.436	0.010
43.676	0.800	11.262	0.410	0.007	-0.098	0.422	0.012
43.676	0.800	10.125	0.381	0.002	-0.089	0.391	0.013
43.676	0.800	8.989	0.341	-0.008	-0.071	0.348	0.015
43.676	0.800	7.852	0.311	0.000	-0.074	0.319	0.015
43.676	0.800	6.715	0.302	-0.003	-0.091	0.316	0.017
43.676	0.800	5.578	0.281	-0.006	-0.096	0.297	0.017
43.676	0.800	4.441	0.260	-0.002	-0.096	0.277	0.018
43.676	0.800	3.304	0.245	0.003	-0.084	0.259	0.015
43.676	0.800	2.168	0.240	-0.002	-0.083	0.254	0.014
44.358	0.800	13.991	0.442	0.014	-0.097	0.453	0.011
44.358	0.800	12.854	0.433	0.012	-0.088	0.442	0.010
44.358	0.800	11.717	0.420	0.007	-0.102	0.432	0.012
44.358	0.800	10.580	0.393	0.009	-0.096	0.404	0.013
44.358	0.800	9.443	0.364	0.002	-0.090	0.375	0.014
44.358	0.800	8.306	0.340	0.003	-0.099	0.354	0.015
44.358	0.800	7.170	0.315	0.004	-0.126	0.340	0.017
44.358	0.800	6.033	0.298	-0.001	-0.143	0.331	0.020
44.358	0.800	4.896	0.272	0.000	-0.122	0.298	0.017
44.358	0.800	3.759	0.266	-0.001	-0.125	0.294	0.016
44.358	0.800	2.622	0.251	-0.003	-0.105	0.272	0.015
45.040	0.800	14.445	0.456	0.015	-0.097	0.466	0.011
45.040	0.800	13.309	0.444	0.012	-0.086	0.452	0.010
45.040	0.800	12.172	0.429	0.008	-0.104	0.441	0.011
45.040	0.800	11.035	0.413	0.007	-0.105	0.426	0.012
45.040	0.800	9.898	0.386	0.011	-0.102	0.399	0.013

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
45.040	0.800	8.761	0.361	0.005	-0.123	0.381	0.015
45.040	0.800	7.624	0.338	0.005	-0.141	0.367	0.017
45.040	0.800	6.488	0.323	-0.010	-0.161	0.361	0.019
45.040	0.800	5.351	0.299	-0.009	-0.158	0.338	0.020
45.040	0.800	4.214	0.276	-0.009	-0.151	0.315	0.019
45.040	0.800	3.077	0.262	-0.004	-0.134	0.294	0.016
45.716	0.800	13.081	0.394	0.006	0.001	0.394	0.014
45.716	0.800	9.671	0.310	0.004	0.016	0.310	0.017
45.716	0.800	6.260	0.204	-0.001	0.074	0.217	0.024
45.716	0.800	2.850	0.167	0.005	0.107	0.199	0.028
45.944	0.800	13.536	0.397	0.007	-0.002	0.397	0.014
45.944	0.800	10.125	0.328	-0.002	0.017	0.328	0.017
45.944	0.800	6.715	0.220	-0.005	0.075	0.233	0.021
45.944	0.800	3.304	0.162	0.002	0.107	0.194	0.024
46.171	0.800	13.991	0.408	0.010	-0.011	0.408	0.014
46.171	0.800	10.580	0.348	0.003	-0.005	0.348	0.017
46.171	0.800	7.170	0.240	-0.007	0.038	0.243	0.019
46.171	0.800	3.759	0.167	0.002	0.118	0.204	0.025
46.398	0.800	14.445	0.408	0.010	-0.029	0.410	0.013
46.398	0.800	11.035	0.350	0.001	-0.007	0.350	0.015
46.398	0.800	7.624	0.238	-0.001	0.039	0.241	0.019
46.398	0.800	4.214	0.174	-0.002	0.122	0.212	0.024
46.626	0.800	14.900	0.414	0.004	-0.013	0.414	0.014
46.626	0.800	11.490	0.363	0.001	-0.017	0.364	0.015
46.626	0.800	8.079	0.271	-0.011	0.001	0.271	0.017
46.626	0.800	4.669	0.180	0.003	0.048	0.186	0.024
46.853	0.800	11.944	0.376	-0.001	-0.023	0.376	0.014
46.853	0.800	8.534	0.279	-0.003	0.007	0.279	0.017
46.853	0.800	5.123	0.193	-0.005	0.063	0.203	0.025
47.081	0.800	12.399	0.388	0.004	-0.038	0.390	0.013
47.081	0.800	8.989	0.302	-0.006	0.001	0.302	0.016
47.081	0.800	5.578	0.210	-0.007	0.045	0.215	0.024
47.081	0.800	2.168	0.156	0.006	0.104	0.188	0.030
47.308	0.800	12.854	0.392	0.008	-0.041	0.394	0.013
47.308	0.800	9.443	0.304	-0.002	-0.007	0.304	0.015
47.308	0.800	6.033	0.218	-0.008	0.026	0.220	0.022
47.308	0.800	2.622	0.155	0.005	0.086	0.177	0.026
47.535	0.800	13.309	0.397	0.004	-0.030	0.398	0.012
47.535	0.800	9.898	0.320	-0.002	-0.015	0.320	0.015

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
47.535	0.800	6.488	0.241	-0.004	-0.003	0.241	0.018
47.535	0.800	3.077	0.165	0.001	0.064	0.177	0.025
47.763	0.800	13.763	0.407	0.006	-0.049	0.410	0.013
47.763	0.800	10.353	0.338	0.001	-0.029	0.340	0.014
47.763	0.800	6.942	0.250	0.002	-0.003	0.250	0.018
47.763	0.800	3.532	0.182	0.006	0.050	0.189	0.025
47.990	0.800	14.218	0.407	0.007	-0.031	0.408	0.012
47.990	0.800	10.808	0.345	0.007	-0.029	0.346	0.013
47.990	0.800	7.397	0.253	0.003	-0.003	0.253	0.018
47.990	0.800	3.987	0.177	0.002	0.066	0.189	0.024
48.217	0.800	14.673	0.407	0.008	-0.025	0.408	0.011
48.217	0.800	11.262	0.360	-0.002	-0.026	0.361	0.012
48.217	0.800	7.852	0.263	-0.005	-0.002	0.263	0.016
48.217	0.800	4.441	0.183	0.007	0.044	0.189	0.022
48.445	0.800	11.717	0.370	-0.005	-0.018	0.370	0.012
48.445	0.800	8.306	0.273	-0.010	-0.002	0.274	0.014
48.445	0.800	4.896	0.191	0.005	0.072	0.204	0.021
48.672	0.800	12.172	0.379	-0.005	-0.042	0.381	0.012
48.672	0.800	8.761	0.292	0.000	-0.022	0.293	0.015
48.672	0.800	5.351	0.194	0.005	0.048	0.200	0.022
48.899	0.800	12.626	0.382	-0.001	-0.024	0.383	0.012
48.899	0.800	9.216	0.295	0.002	-0.013	0.295	0.014
48.899	0.800	5.805	0.220	-0.009	0.013	0.221	0.019
48.899	0.800	2.395	0.145	0.010	0.056	0.156	0.024
49.127	0.800	13.081	0.401	-0.001	-0.051	0.405	0.011
49.127	0.800	9.671	0.317	0.000	-0.035	0.318	0.013
49.127	0.800	6.260	0.233	0.000	0.002	0.234	0.017
49.127	0.800	2.850	0.153	0.009	0.069	0.168	0.021
49.354	0.800	13.536	0.397	0.000	-0.051	0.400	0.012
49.354	0.800	10.125	0.333	0.000	-0.049	0.337	0.012
49.354	0.800	6.715	0.246	0.000	-0.015	0.246	0.017
49.354	0.800	3.304	0.161	0.013	0.058	0.172	0.021
49.582	0.800	13.991	0.402	0.001	-0.054	0.406	0.012
49.582	0.800	10.580	0.338	0.007	-0.035	0.340	0.013
49.582	0.800	7.170	0.260	0.004	-0.036	0.262	0.016
49.582	0.800	3.759	0.180	0.018	0.011	0.181	0.024
49.809	0.800	14.445	0.408	0.003	-0.044	0.410	0.010
49.809	0.800	11.035	0.354	0.001	-0.050	0.357	0.011
49.809	0.800	7.624	0.263	-0.006	-0.024	0.264	0.015

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
49.809	0.800	4.214	0.189	0.007	0.017	0.190	0.022
50.036	0.800	14.900	0.413	0.005	-0.046	0.416	0.011
50.036	0.800	11.490	0.362	-0.004	-0.053	0.366	0.011
50.036	0.800	8.079	0.269	-0.007	-0.027	0.271	0.015
50.036	0.800	4.669	0.203	0.012	0.006	0.203	0.020
50.264	0.800	11.944	0.370	0.001	-0.040	0.373	0.011
50.264	0.800	8.534	0.284	-0.011	-0.014	0.284	0.014
50.264	0.800	5.123	0.205	0.013	0.008	0.206	0.018
50.491	0.800	12.399	0.377	-0.005	-0.049	0.380	0.012
50.491	0.800	8.989	0.288	-0.006	-0.039	0.291	0.014
50.491	0.800	5.578	0.218	0.007	0.002	0.218	0.018
50.491	0.800	2.168	0.144	0.014	0.032	0.148	0.018
50.718	0.800	12.854	0.386	0.000	-0.045	0.389	0.012
50.718	0.800	9.443	0.306	0.006	-0.037	0.309	0.014
50.718	0.800	6.033	0.239	-0.002	-0.030	0.241	0.017
50.718	0.800	2.622	0.156	0.012	0.031	0.160	0.022
50.946	0.800	13.309	0.393	0.000	-0.054	0.397	0.011
50.946	0.800	9.898	0.319	-0.005	-0.042	0.322	0.013
50.946	0.800	6.488	0.252	0.001	-0.043	0.255	0.018
50.946	0.800	3.077	0.163	0.006	0.016	0.164	0.019
51.173	0.800	13.763	0.404	0.000	-0.061	0.408	0.011
51.173	0.800	10.353	0.335	-0.009	-0.051	0.339	0.013
51.173	0.800	6.942	0.261	-0.008	-0.052	0.266	0.016
51.173	0.800	3.532	0.182	0.009	-0.008	0.183	0.022
51.401	0.800	14.218	0.410	0.001	-0.055	0.413	0.011
51.401	0.800	10.808	0.346	-0.004	-0.053	0.350	0.012
51.401	0.800	7.397	0.261	0.004	-0.048	0.266	0.015
51.401	0.800	3.987	0.203	0.006	-0.030	0.205	0.020
51.628	0.800	14.673	0.409	0.003	-0.069	0.414	0.010
51.628	0.800	11.262	0.354	-0.005	-0.068	0.361	0.011
51.628	0.800	7.852	0.274	-0.002	-0.056	0.280	0.015
51.628	0.800	4.441	0.221	0.006	-0.045	0.226	0.021
51.855	0.800	11.717	0.364	-0.002	-0.066	0.369	0.011
51.855	0.800	8.306	0.283	-0.011	-0.042	0.287	0.014
51.855	0.800	4.896	0.232	0.000	-0.059	0.240	0.020
52.083	0.800	12.172	0.377	-0.006	-0.056	0.381	0.010
52.083	0.800	8.761	0.295	-0.015	-0.044	0.299	0.013
52.083	0.800	5.351	0.225	0.008	-0.040	0.229	0.017
52.310	0.800	12.626	0.381	-0.003	-0.060	0.385	0.010

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
52.310	0.800	9.216	0.304	-0.012	-0.045	0.308	0.012
52.310	0.800	5.805	0.252	-0.003	-0.047	0.257	0.018
52.310	0.800	2.395	0.160	0.011	-0.021	0.162	0.020
52.537	0.800	13.081	0.393	-0.007	-0.069	0.399	0.010
52.537	0.800	9.671	0.321	-0.010	-0.070	0.329	0.012
52.537	0.800	6.260	0.259	-0.009	-0.057	0.266	0.015
52.537	0.800	2.850	0.185	0.007	-0.037	0.189	0.022
52.765	0.800	13.536	0.404	-0.008	-0.066	0.409	0.009
52.765	0.800	10.125	0.332	-0.008	-0.069	0.339	0.012
52.765	0.800	6.715	0.266	-0.012	-0.059	0.273	0.015
52.765	0.800	3.304	0.203	0.004	-0.058	0.211	0.018
52.992	0.800	13.991	0.404	-0.002	-0.071	0.410	0.010
52.992	0.800	10.580	0.341	-0.013	-0.068	0.348	0.012
52.992	0.800	7.170	0.268	-0.015	-0.062	0.276	0.014
52.992	0.800	3.759	0.221	-0.002	-0.071	0.232	0.019
53.219	0.800	14.445	0.403	-0.004	-0.071	0.410	0.009
53.219	0.800	11.035	0.351	-0.017	-0.067	0.357	0.011
53.219	0.800	7.624	0.281	-0.016	-0.072	0.290	0.013
53.219	0.800	4.214	0.225	-0.003	-0.052	0.231	0.016
53.447	0.800	14.900	0.399	-0.002	-0.062	0.404	0.009
53.447	0.800	11.490	0.364	-0.015	-0.067	0.370	0.010
53.447	0.800	8.079	0.288	-0.015	-0.063	0.295	0.014
53.447	0.800	4.669	0.244	-0.005	-0.073	0.254	0.015
53.674	0.800	11.944	0.373	-0.013	-0.076	0.381	0.010
53.674	0.800	8.534	0.299	-0.016	-0.064	0.306	0.013
53.674	0.800	5.123	0.250	-0.010	-0.079	0.262	0.015
53.902	0.800	12.399	0.373	-0.014	-0.068	0.380	0.009
53.902	0.800	8.989	0.309	-0.018	-0.060	0.315	0.013
53.902	0.800	5.578	0.264	-0.014	-0.093	0.280	0.015
53.902	0.800	2.168	0.170	-0.001	-0.042	0.175	0.022
54.129	0.800	12.854	0.385	-0.006	-0.075	0.392	0.009
54.129	0.800	9.443	0.318	-0.019	-0.071	0.326	0.013
54.129	0.800	6.033	0.272	-0.020	-0.075	0.283	0.014
54.129	0.800	2.622	0.194	-0.008	-0.071	0.207	0.020
54.356	0.800	13.309	0.393	-0.012	-0.072	0.400	0.009
54.356	0.800	9.898	0.325	-0.019	-0.061	0.332	0.011
54.356	0.800	6.488	0.271	-0.016	-0.084	0.284	0.015
54.356	0.800	3.077	0.208	-0.010	-0.064	0.218	0.018
54.584	0.800	13.763	0.392	-0.008	-0.059	0.397	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
54.584	0.800	10.353	0.339	-0.022	-0.057	0.344	0.012
54.584	0.800	6.942	0.280	-0.017	-0.083	0.293	0.015
54.584	0.800	3.532	0.229	-0.009	-0.071	0.240	0.016
54.811	0.800	14.218	0.396	-0.005	-0.061	0.401	0.009
54.811	0.800	10.808	0.351	-0.020	-0.064	0.357	0.011
54.811	0.800	7.397	0.293	-0.029	-0.086	0.307	0.015
54.811	0.800	3.987	0.246	-0.011	-0.075	0.257	0.017
55.038	0.800	14.673	0.397	-0.006	-0.064	0.403	0.009
55.038	0.800	11.262	0.361	-0.019	-0.067	0.368	0.010
55.038	0.800	7.852	0.295	-0.021	-0.083	0.307	0.015
55.038	0.800	4.441	0.256	-0.016	-0.097	0.274	0.016
55.266	0.800	11.717	0.370	-0.018	-0.067	0.376	0.010
55.266	0.800	8.306	0.304	-0.022	-0.088	0.317	0.014
55.266	0.800	4.896	0.274	-0.019	-0.105	0.294	0.017
55.493	0.800	12.172	0.378	-0.015	-0.066	0.384	0.010
55.493	0.800	8.761	0.323	-0.032	-0.077	0.333	0.013
55.493	0.800	5.351	0.277	-0.027	-0.121	0.304	0.020
55.720	0.800	12.626	0.388	-0.017	-0.060	0.393	0.009
55.720	0.800	9.216	0.331	-0.023	-0.077	0.340	0.014
55.720	0.800	5.805	0.288	-0.021	-0.085	0.301	0.016
55.720	0.800	2.395	0.203	-0.028	-0.098	0.227	0.021
55.948	0.800	13.081	0.390	-0.016	-0.049	0.394	0.008
55.948	0.800	9.671	0.333	-0.023	-0.065	0.340	0.012
55.948	0.800	6.260	0.300	-0.033	-0.124	0.326	0.016
55.948	0.800	2.850	0.228	-0.022	-0.091	0.247	0.018
56.175	0.800	13.536	0.396	-0.013	-0.056	0.400	0.010
56.175	0.800	10.125	0.354	-0.032	-0.063	0.361	0.012
56.175	0.800	6.715	0.307	-0.027	-0.106	0.325	0.016
56.175	0.800	3.304	0.247	-0.029	-0.090	0.265	0.019
56.403	0.800	13.991	0.402	-0.016	-0.047	0.405	0.009
56.403	0.800	10.580	0.365	-0.027	-0.062	0.371	0.012
56.403	0.800	7.170	0.321	-0.029	-0.114	0.342	0.016
56.403	0.800	3.759	0.260	-0.033	-0.082	0.275	0.018
56.630	0.800	14.445	0.412	-0.017	-0.038	0.415	0.008
56.630	0.800	11.035	0.375	-0.026	-0.057	0.380	0.013
56.630	0.800	7.624	0.325	-0.032	-0.096	0.340	0.015
56.630	0.800	4.214	0.266	-0.032	-0.095	0.284	0.019
56.857	0.800	14.900	0.413	-0.018	-0.030	0.414	0.009
56.857	0.800	11.490	0.386	-0.024	-0.045	0.389	0.011

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
56.857	0.800	8.079	0.330	-0.030	-0.082	0.341	0.017
56.857	0.800	4.669	0.294	-0.031	-0.126	0.322	0.020
57.085	0.800	11.944	0.405	-0.026	-0.049	0.409	0.011
57.085	0.800	8.534	0.345	-0.032	-0.063	0.352	0.014
57.085	0.800	5.123	0.306	-0.038	-0.121	0.331	0.019
57.312	0.800	12.399	0.418	-0.028	-0.043	0.422	0.010
57.312	0.800	8.989	0.364	-0.032	-0.077	0.373	0.015
57.312	0.800	5.578	0.320	-0.038	-0.131	0.348	0.018
57.312	0.800	2.168	0.234	-0.038	-0.101	0.257	0.023

Table D.8 Stereo PIV data for forward conic cavity with rough bed at low flow.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.054	0.800	11.079	0.303	0.003	0.008	0.304	0.002
4.054	0.800	7.677	0.278	-0.011	0.008	0.278	0.002
4.054	0.800	4.275	0.228	-0.026	-0.003	0.230	0.002
4.281	0.800	12.667	0.302	0.009	0.011	0.303	0.002
4.281	0.800	9.265	0.293	-0.005	0.004	0.293	0.002
4.281	0.800	5.863	0.258	-0.020	0.000	0.259	0.002
4.508	0.800	14.254	0.284	0.010	0.035	0.287	0.004
4.508	0.800	10.852	0.302	0.002	0.006	0.302	0.002
4.508	0.800	7.450	0.277	-0.013	0.002	0.278	0.002
4.508	0.800	4.048	0.223	-0.026	-0.007	0.225	0.002
4.734	0.800	12.440	0.306	0.009	0.006	0.306	0.002
4.734	0.800	9.038	0.293	-0.008	0.008	0.293	0.002
4.734	0.800	5.636	0.255	-0.020	-0.004	0.256	0.002
4.961	0.800	14.028	0.292	0.010	0.014	0.292	0.003
4.961	0.800	10.626	0.301	0.000	0.005	0.301	0.002
4.961	0.800	7.223	0.271	-0.013	0.002	0.271	0.003
4.961	0.800	3.821	0.217	-0.028	-0.005	0.219	0.003
5.188	0.800	12.213	0.305	0.006	0.003	0.305	0.002
5.188	0.800	8.811	0.288	-0.009	0.005	0.289	0.002
5.188	0.800	5.409	0.249	-0.021	-0.002	0.250	0.002
5.415	0.800	13.801	0.298	0.011	0.011	0.298	0.002
5.415	0.800	10.399	0.300	0.002	0.004	0.300	0.002
5.415	0.800	6.997	0.272	-0.015	-0.002	0.272	0.003
5.415	0.800	3.594	0.211	-0.029	-0.006	0.213	0.003
5.642	0.800	11.986	0.303	0.005	0.001	0.303	0.002
5.642	0.800	8.584	0.284	-0.009	0.002	0.285	0.003
5.642	0.800	5.182	0.246	-0.024	-0.002	0.247	0.002
5.868	0.800	13.574	0.295	0.011	0.007	0.295	0.002
5.868	0.800	10.172	0.296	-0.001	0.004	0.296	0.002
5.868	0.800	6.770	0.267	-0.017	-0.002	0.267	0.003
5.868	0.800	3.368	0.204	-0.029	-0.008	0.206	0.003
6.095	0.800	11.760	0.303	0.007	0.002	0.303	0.002
6.095	0.800	8.357	0.278	-0.010	0.000	0.279	0.003
6.095	0.800	4.955	0.242	-0.024	-0.004	0.243	0.003
6.322	0.800	13.347	0.296	0.010	0.008	0.296	0.002
6.322	0.800	9.945	0.293	-0.002	0.003	0.293	0.003
6.322	0.800	6.543	0.264	-0.018	-0.001	0.264	0.003
6.549	0.800	11.533	0.299	0.006	0.002	0.299	0.002

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
6.549	0.800	8.131	0.276	-0.013	0.002	0.276	0.003
6.549	0.800	4.728	0.235	-0.024	-0.007	0.237	0.003
6.776	0.800	13.120	0.296	0.010	0.002	0.296	0.002
6.776	0.800	9.718	0.288	-0.005	-0.002	0.288	0.003
6.776	0.800	6.316	0.258	-0.020	-0.004	0.259	0.003
7.002	0.800	11.306	0.297	0.005	0.000	0.297	0.002
7.002	0.800	7.904	0.273	-0.012	-0.002	0.273	0.003
7.002	0.800	4.502	0.233	-0.025	-0.008	0.235	0.003
7.229	0.800	12.894	0.295	0.007	0.002	0.295	0.003
7.229	0.800	9.491	0.284	-0.004	-0.001	0.284	0.003
7.229	0.800	6.089	0.256	-0.019	-0.004	0.256	0.003
7.456	0.800	11.079	0.296	0.001	-0.002	0.296	0.003
7.456	0.800	7.677	0.268	-0.013	-0.002	0.269	0.003
7.456	0.800	4.275	0.227	-0.026	-0.011	0.229	0.003
7.683	0.800	12.667	0.295	0.007	0.001	0.295	0.003
7.683	0.800	9.265	0.283	-0.004	-0.002	0.283	0.003
7.683	0.800	5.863	0.250	-0.019	-0.004	0.251	0.003
7.910	0.800	14.254	0.284	0.011	0.005	0.284	0.003
7.910	0.800	10.852	0.291	0.002	0.002	0.291	0.003
7.910	0.800	7.450	0.264	-0.013	-0.001	0.264	0.003
7.910	0.800	4.048	0.222	-0.024	-0.013	0.224	0.003
8.136	0.800	12.440	0.294	0.009	-0.001	0.294	0.002
8.136	0.800	9.038	0.277	-0.007	-0.003	0.277	0.003
8.136	0.800	5.636	0.243	-0.020	-0.009	0.244	0.003
8.363	0.800	14.028	0.283	0.011	0.002	0.283	0.003
8.363	0.800	10.626	0.288	0.000	-0.001	0.288	0.003
8.363	0.800	7.223	0.262	-0.013	-0.006	0.262	0.003
8.363	0.800	3.821	0.216	-0.025	-0.016	0.218	0.003
8.590	0.800	12.213	0.291	0.008	0.000	0.291	0.003
8.590	0.800	8.811	0.270	-0.008	0.000	0.270	0.003
8.590	0.800	5.409	0.241	-0.019	-0.011	0.242	0.003
8.817	0.800	13.801	0.285	0.011	0.003	0.285	0.003
8.817	0.800	10.399	0.281	-0.003	-0.005	0.281	0.003
8.817	0.800	6.997	0.256	-0.012	-0.004	0.257	0.003
8.817	0.800	3.594	0.211	-0.024	-0.018	0.213	0.003
9.044	0.800	11.986	0.291	0.007	-0.001	0.291	0.003
9.044	0.800	8.584	0.270	-0.011	0.000	0.270	0.003
9.044	0.800	5.182	0.236	-0.019	-0.012	0.237	0.003
9.271	0.800	13.574	0.284	0.011	0.005	0.284	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
9.271	0.800	10.172	0.276	-0.001	-0.001	0.276	0.003
9.271	0.800	6.770	0.252	-0.014	-0.010	0.252	0.003
9.271	0.800	3.368	0.203	-0.022	-0.018	0.205	0.003
9.497	0.800	11.760	0.287	0.003	-0.004	0.287	0.003
9.497	0.800	8.357	0.264	-0.010	-0.003	0.264	0.003
9.497	0.800	4.955	0.234	-0.021	-0.011	0.235	0.003
9.724	0.800	13.347	0.285	0.011	0.002	0.285	0.003
9.724	0.800	9.945	0.272	-0.002	-0.001	0.272	0.003
9.724	0.800	6.543	0.248	-0.015	-0.007	0.248	0.004
9.951	0.800	11.533	0.281	0.003	-0.006	0.282	0.003
9.951	0.800	8.131	0.261	-0.010	-0.004	0.261	0.003
9.951	0.800	4.728	0.227	-0.021	-0.015	0.229	0.003
10.178	0.800	13.120	0.282	0.010	0.000	0.282	0.003
10.178	0.800	9.718	0.266	-0.005	-0.003	0.266	0.003
10.178	0.800	6.316	0.242	-0.017	-0.009	0.243	0.003
10.405	0.800	11.306	0.278	0.001	-0.001	0.278	0.003
10.405	0.800	7.904	0.253	-0.010	-0.002	0.254	0.004
10.405	0.800	4.502	0.228	-0.023	-0.018	0.230	0.003
10.631	0.800	12.894	0.281	0.010	0.001	0.281	0.003
10.631	0.800	9.491	0.263	-0.006	-0.002	0.263	0.003
10.631	0.800	6.089	0.241	-0.015	-0.012	0.242	0.004
10.858	0.800	11.079	0.277	0.002	-0.002	0.278	0.003
10.858	0.800	7.677	0.251	-0.009	-0.002	0.251	0.004
10.858	0.800	4.275	0.222	-0.022	-0.020	0.224	0.003
11.085	0.800	12.667	0.277	0.005	0.000	0.277	0.004
11.085	0.800	9.265	0.262	-0.006	-0.003	0.262	0.003
11.085	0.800	5.863	0.235	-0.016	-0.010	0.235	0.004
11.312	0.800	14.254	0.271	0.010	0.004	0.271	0.004
11.312	0.800	10.852	0.269	-0.001	-0.003	0.269	0.003
11.312	0.800	7.450	0.247	-0.012	-0.007	0.248	0.004
11.312	0.800	4.048	0.217	-0.020	-0.019	0.219	0.003
11.539	0.800	12.440	0.274	0.005	0.001	0.274	0.004
11.539	0.800	9.038	0.256	-0.004	-0.005	0.256	0.004
11.539	0.800	5.636	0.237	-0.019	-0.008	0.238	0.003
11.765	0.800	14.028	0.271	0.010	0.004	0.271	0.004
11.765	0.800	10.626	0.266	-0.002	-0.005	0.266	0.004
11.765	0.800	7.223	0.246	-0.009	-0.001	0.246	0.004
11.765	0.800	3.821	0.215	-0.020	-0.018	0.217	0.003
11.992	0.800	12.213	0.274	0.005	-0.001	0.274	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
11.992	0.800	8.811	0.247	-0.005	-0.003	0.247	0.004
11.992	0.800	5.409	0.231	-0.018	-0.009	0.232	0.004
12.219	0.800	13.801	0.267	0.010	0.002	0.268	0.004
12.219	0.800	10.399	0.262	-0.001	0.002	0.262	0.004
12.219	0.800	6.997	0.240	-0.011	-0.006	0.240	0.004
12.219	0.800	3.594	0.210	-0.023	-0.020	0.212	0.003
12.446	0.800	11.986	0.272	0.007	-0.002	0.272	0.004
12.446	0.800	8.584	0.247	-0.005	-0.002	0.247	0.004
12.446	0.800	5.182	0.228	-0.018	-0.010	0.229	0.004
12.673	0.800	13.574	0.267	0.008	0.003	0.268	0.004
12.673	0.800	10.172	0.254	-0.002	-0.002	0.254	0.004
12.673	0.800	6.770	0.232	-0.012	-0.003	0.233	0.004
12.673	0.800	3.368	0.209	-0.023	-0.015	0.211	0.004
12.899	0.800	11.760	0.265	0.005	0.000	0.265	0.004
12.899	0.800	8.357	0.244	-0.006	0.003	0.244	0.004
12.899	0.800	4.955	0.225	-0.020	-0.009	0.226	0.004
13.126	0.800	13.347	0.264	0.007	0.002	0.264	0.004
13.126	0.800	9.945	0.254	-0.001	-0.003	0.254	0.004
13.126	0.800	6.543	0.232	-0.016	-0.002	0.233	0.004
13.353	0.800	11.533	0.261	0.004	-0.004	0.261	0.004
13.353	0.800	8.131	0.238	-0.007	0.001	0.238	0.004
13.353	0.800	4.728	0.224	-0.024	-0.010	0.226	0.004
13.580	0.800	13.120	0.259	0.007	0.001	0.260	0.004
13.580	0.800	9.718	0.245	-0.003	-0.004	0.245	0.004
13.580	0.800	6.316	0.233	-0.017	-0.006	0.234	0.004
13.807	0.800	11.306	0.258	0.001	0.003	0.258	0.004
13.807	0.800	7.904	0.235	-0.008	-0.003	0.235	0.004
13.807	0.800	4.502	0.221	-0.022	-0.013	0.222	0.004
14.034	0.800	12.894	0.257	0.009	0.005	0.257	0.004
14.034	0.800	9.491	0.245	-0.004	0.000	0.245	0.004
14.034	0.800	6.089	0.226	-0.017	0.003	0.227	0.004
14.260	0.800	11.079	0.253	0.000	-0.002	0.253	0.004
14.260	0.800	7.677	0.233	-0.008	0.006	0.233	0.004
14.260	0.800	4.275	0.221	-0.024	-0.011	0.222	0.004
14.487	0.800	12.667	0.253	0.008	0.004	0.253	0.004
14.487	0.800	9.265	0.242	-0.005	0.003	0.242	0.004
14.487	0.800	5.863	0.222	-0.018	0.000	0.223	0.004
15.198	0.800	13.574	0.252	0.007	0.032	0.254	0.009
15.198	0.800	12.440	0.256	0.002	0.024	0.257	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
15.198	0.800	11.306	0.252	-0.002	0.018	0.252	0.006
15.198	0.800	10.172	0.251	-0.006	0.018	0.251	0.005
15.198	0.800	9.038	0.245	-0.012	0.009	0.246	0.005
15.198	0.800	7.904	0.243	-0.015	0.008	0.243	0.005
15.198	0.800	6.770	0.243	-0.020	0.007	0.244	0.005
15.198	0.800	5.636	0.237	-0.024	0.006	0.239	0.005
15.198	0.800	4.502	0.230	-0.028	-0.005	0.232	0.004
15.198	0.800	3.368	0.221	-0.025	-0.016	0.223	0.004
15.879	0.800	14.028	0.248	0.012	0.028	0.250	0.010
15.879	0.800	12.894	0.252	0.007	0.023	0.253	0.008
15.879	0.800	11.760	0.247	0.001	0.016	0.248	0.007
15.879	0.800	10.626	0.249	-0.004	0.012	0.249	0.006
15.879	0.800	9.491	0.246	-0.011	0.015	0.247	0.006
15.879	0.800	8.357	0.239	-0.016	0.011	0.239	0.005
15.879	0.800	7.223	0.239	-0.021	0.013	0.241	0.006
15.879	0.800	6.089	0.237	-0.025	0.008	0.238	0.005
15.879	0.800	4.955	0.232	-0.028	-0.003	0.234	0.005
15.879	0.800	3.821	0.228	-0.031	-0.006	0.230	0.004
16.559	0.800	13.347	0.248	0.011	0.024	0.249	0.009
16.559	0.800	12.213	0.246	0.003	0.015	0.247	0.007
16.559	0.800	11.079	0.248	-0.002	0.020	0.249	0.006
16.559	0.800	9.945	0.240	-0.008	0.012	0.240	0.006
16.559	0.800	8.811	0.237	-0.012	0.012	0.238	0.006
16.559	0.800	7.677	0.232	-0.017	0.011	0.233	0.006
16.559	0.800	6.543	0.239	-0.026	0.004	0.240	0.005
16.559	0.800	5.409	0.231	-0.027	0.000	0.233	0.005
16.559	0.800	4.275	0.230	-0.035	-0.007	0.232	0.004
17.239	0.800	13.801	0.240	0.010	0.025	0.241	0.010
17.239	0.800	12.667	0.243	0.007	0.016	0.243	0.007
17.239	0.800	11.533	0.243	0.003	0.009	0.243	0.006
17.239	0.800	10.399	0.240	-0.007	0.013	0.240	0.006
17.239	0.800	9.265	0.233	-0.009	0.012	0.234	0.005
17.239	0.800	8.131	0.233	-0.015	0.011	0.234	0.005
17.239	0.800	6.997	0.232	-0.024	0.008	0.233	0.005
17.239	0.800	5.863	0.230	-0.025	0.007	0.232	0.005
17.239	0.800	4.728	0.228	-0.029	-0.004	0.229	0.005
17.239	0.800	3.594	0.222	-0.033	-0.012	0.225	0.004
17.920	0.800	14.254	0.236	0.011	0.028	0.238	0.010
17.920	0.800	13.120	0.243	0.008	0.015	0.243	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
17.920	0.800	11.986	0.233	0.005	0.014	0.234	0.007
17.920	0.800	10.852	0.236	0.000	0.016	0.236	0.006
17.920	0.800	9.718	0.235	-0.005	0.008	0.235	0.006
17.920	0.800	8.584	0.230	-0.010	0.017	0.231	0.006
17.920	0.800	7.450	0.228	-0.018	0.012	0.229	0.005
17.920	0.800	6.316	0.228	-0.021	0.009	0.229	0.005
17.920	0.800	5.182	0.227	-0.028	0.005	0.228	0.005
17.920	0.800	4.048	0.223	-0.032	-0.009	0.226	0.004
18.600	0.800	13.574	0.229	0.014	0.016	0.230	0.008
18.600	0.800	12.440	0.234	0.007	0.014	0.234	0.007
18.600	0.800	11.306	0.239	0.006	0.018	0.239	0.006
18.600	0.800	10.172	0.232	-0.001	0.011	0.233	0.006
18.600	0.800	9.038	0.228	-0.011	0.013	0.229	0.005
18.600	0.800	7.904	0.222	-0.013	0.014	0.223	0.005
18.600	0.800	6.770	0.228	-0.019	0.003	0.229	0.005
18.600	0.800	5.636	0.223	-0.026	0.001	0.225	0.004
18.600	0.800	4.502	0.223	-0.029	-0.002	0.225	0.004
18.600	0.800	3.368	0.222	-0.029	-0.013	0.225	0.004
19.281	0.800	14.028	0.233	0.012	0.028	0.235	0.008
19.281	0.800	12.894	0.228	0.011	0.020	0.229	0.007
19.281	0.800	11.760	0.231	0.005	0.017	0.231	0.006
19.281	0.800	10.626	0.230	0.001	0.013	0.230	0.005
19.281	0.800	9.491	0.223	-0.004	0.012	0.224	0.006
19.281	0.800	8.357	0.223	-0.013	0.013	0.224	0.005
19.281	0.800	7.223	0.223	-0.018	0.010	0.224	0.005
19.281	0.800	6.089	0.227	-0.020	0.003	0.228	0.005
19.281	0.800	4.955	0.223	-0.026	0.001	0.224	0.004
19.281	0.800	3.821	0.224	-0.031	-0.009	0.226	0.004
19.961	0.800	13.347	0.231	0.011	0.020	0.232	0.007
19.961	0.800	12.213	0.227	0.007	0.016	0.228	0.007
19.961	0.800	11.079	0.224	0.003	0.014	0.224	0.005
19.961	0.800	9.945	0.223	-0.001	0.014	0.223	0.005
19.961	0.800	8.811	0.223	-0.008	0.020	0.224	0.005
19.961	0.800	7.677	0.220	-0.014	0.017	0.221	0.005
19.961	0.800	6.543	0.222	-0.020	0.013	0.223	0.005
19.961	0.800	5.409	0.221	-0.027	0.005	0.223	0.005
19.961	0.800	4.275	0.223	-0.027	-0.004	0.225	0.004
20.642	0.800	13.801	0.227	0.015	0.020	0.229	0.008
20.642	0.800	12.667	0.225	0.009	0.017	0.226	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
20.642	0.800	11.533	0.228	0.006	0.019	0.229	0.006
20.642	0.800	10.399	0.217	0.002	0.016	0.218	0.005
20.642	0.800	9.265	0.215	-0.004	0.020	0.216	0.005
20.642	0.800	8.131	0.218	-0.012	0.012	0.219	0.005
20.642	0.800	6.997	0.223	-0.021	0.016	0.225	0.005
20.642	0.800	5.863	0.220	-0.023	0.004	0.222	0.005
20.642	0.800	4.728	0.222	-0.029	-0.001	0.224	0.004
20.642	0.800	3.594	0.222	-0.028	-0.009	0.224	0.004
21.322	0.800	14.254	0.226	0.007	0.023	0.227	0.009
21.322	0.800	13.120	0.224	0.013	0.015	0.225	0.008
21.322	0.800	11.986	0.221	0.008	0.017	0.222	0.006
21.322	0.800	10.852	0.221	0.005	0.017	0.221	0.006
21.322	0.800	9.718	0.215	0.000	0.025	0.216	0.005
21.322	0.800	8.584	0.212	-0.006	0.021	0.213	0.005
21.322	0.800	7.450	0.215	-0.016	0.018	0.216	0.005
21.322	0.800	6.316	0.219	-0.020	0.010	0.220	0.005
21.322	0.800	5.182	0.222	-0.022	-0.002	0.223	0.004
21.322	0.800	4.048	0.222	-0.027	-0.005	0.224	0.004
22.002	0.800	13.574	0.221	0.012	0.019	0.222	0.007
22.002	0.800	12.440	0.213	0.007	0.016	0.214	0.006
22.002	0.800	11.306	0.222	0.005	0.020	0.223	0.005
22.002	0.800	10.172	0.215	0.005	0.021	0.216	0.005
22.002	0.800	9.038	0.216	-0.004	0.019	0.217	0.005
22.002	0.800	7.904	0.209	-0.010	0.017	0.210	0.005
22.002	0.800	6.770	0.215	-0.017	0.017	0.217	0.005
22.002	0.800	5.636	0.219	-0.023	0.003	0.220	0.005
22.002	0.800	4.502	0.222	-0.026	-0.004	0.223	0.004
22.002	0.800	3.368	0.222	-0.028	-0.012	0.224	0.004
22.683	0.800	14.028	0.222	0.014	0.022	0.223	0.008
22.683	0.800	12.894	0.220	0.012	0.015	0.220	0.006
22.683	0.800	11.760	0.217	0.007	0.018	0.217	0.006
22.683	0.800	10.626	0.217	0.005	0.021	0.218	0.005
22.683	0.800	9.491	0.208	0.004	0.025	0.209	0.005
22.683	0.800	8.357	0.209	-0.007	0.019	0.210	0.005
22.683	0.800	7.223	0.212	-0.011	0.012	0.213	0.005
22.683	0.800	6.089	0.218	-0.017	0.006	0.219	0.005
22.683	0.800	4.955	0.221	-0.024	0.000	0.222	0.004
22.683	0.800	3.821	0.224	-0.029	-0.009	0.226	0.004
23.363	0.800	13.347	0.218	0.014	0.024	0.220	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
23.363	0.800	12.213	0.220	0.008	0.019	0.221	0.005
23.363	0.800	11.079	0.218	0.007	0.021	0.219	0.005
23.363	0.800	9.945	0.208	0.005	0.021	0.209	0.005
23.363	0.800	8.811	0.210	-0.002	0.022	0.212	0.004
23.363	0.800	7.677	0.209	-0.009	0.016	0.210	0.005
23.363	0.800	6.543	0.216	-0.013	0.014	0.216	0.005
23.363	0.800	5.409	0.218	-0.020	0.006	0.219	0.004
23.363	0.800	4.275	0.223	-0.026	-0.004	0.224	0.004
24.044	0.800	13.801	0.218	0.013	0.020	0.220	0.007
24.044	0.800	12.667	0.219	0.012	0.018	0.221	0.006
24.044	0.800	11.533	0.217	0.008	0.018	0.218	0.005
24.044	0.800	10.399	0.214	0.006	0.021	0.215	0.005
24.044	0.800	9.265	0.208	-0.002	0.020	0.209	0.004
24.044	0.800	8.131	0.205	-0.006	0.021	0.206	0.004
24.044	0.800	6.997	0.214	-0.008	0.019	0.215	0.004
24.044	0.800	5.863	0.217	-0.016	0.005	0.218	0.004
24.044	0.800	4.728	0.221	-0.022	-0.002	0.222	0.004
24.044	0.800	3.594	0.226	-0.026	-0.010	0.228	0.004
24.724	0.800	14.254	0.223	0.013	0.019	0.224	0.008
24.724	0.800	13.120	0.219	0.011	0.020	0.220	0.006
24.724	0.800	11.986	0.218	0.009	0.020	0.219	0.005
24.724	0.800	10.852	0.214	0.007	0.022	0.215	0.004
24.724	0.800	9.718	0.206	0.001	0.022	0.207	0.004
24.724	0.800	8.584	0.204	-0.002	0.022	0.205	0.005
24.724	0.800	7.450	0.209	-0.005	0.017	0.210	0.005
24.724	0.800	6.316	0.217	-0.011	0.012	0.217	0.004
24.724	0.800	5.182	0.221	-0.018	0.003	0.222	0.004
24.724	0.800	4.048	0.223	-0.021	-0.004	0.224	0.004
25.405	0.800	13.574	0.217	0.013	0.019	0.219	0.007
25.405	0.800	12.440	0.212	0.009	0.016	0.213	0.005
25.405	0.800	11.306	0.217	0.008	0.015	0.218	0.005
25.405	0.800	10.172	0.208	0.005	0.018	0.209	0.004
25.405	0.800	9.038	0.207	-0.001	0.024	0.208	0.004
25.405	0.800	7.904	0.207	-0.004	0.021	0.208	0.004
25.405	0.800	6.770	0.211	-0.010	0.020	0.212	0.004
25.405	0.800	5.636	0.218	-0.014	0.008	0.219	0.004
25.405	0.800	4.502	0.223	-0.020	-0.001	0.224	0.004
25.405	0.800	3.368	0.225	-0.025	-0.016	0.227	0.003
26.085	0.800	14.028	0.219	0.012	0.020	0.220	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
26.085	0.800	12.894	0.220	0.010	0.018	0.221	0.006
26.085	0.800	11.760	0.213	0.006	0.023	0.214	0.005
26.085	0.800	10.626	0.209	0.005	0.021	0.210	0.005
26.085	0.800	9.491	0.207	0.001	0.020	0.208	0.004
26.085	0.800	8.357	0.205	-0.001	0.021	0.206	0.004
26.085	0.800	7.223	0.209	-0.005	0.018	0.210	0.004
26.085	0.800	6.089	0.218	-0.012	0.008	0.218	0.004
26.085	0.800	4.955	0.220	-0.019	0.004	0.221	0.004
26.085	0.800	3.821	0.225	-0.022	-0.009	0.227	0.004
26.765	0.800	13.347	0.218	0.011	0.022	0.219	0.006
26.765	0.800	12.213	0.214	0.008	0.025	0.215	0.005
26.765	0.800	11.079	0.213	0.006	0.021	0.214	0.004
26.765	0.800	9.945	0.209	0.004	0.021	0.210	0.004
26.765	0.800	8.811	0.205	0.002	0.023	0.206	0.004
26.765	0.800	7.677	0.210	-0.002	0.019	0.211	0.004
26.765	0.800	6.543	0.215	-0.010	0.012	0.215	0.004
26.765	0.800	5.409	0.221	-0.016	0.007	0.222	0.004
26.765	0.800	4.275	0.225	-0.018	-0.008	0.226	0.004
27.446	0.800	13.801	0.217	0.011	0.024	0.219	0.006
27.446	0.800	12.667	0.219	0.008	0.018	0.220	0.005
27.446	0.800	11.533	0.210	0.006	0.019	0.211	0.004
27.446	0.800	10.399	0.209	0.005	0.014	0.210	0.004
27.446	0.800	9.265	0.209	0.005	0.017	0.210	0.004
27.446	0.800	8.131	0.205	-0.003	0.021	0.206	0.004
27.446	0.800	6.997	0.210	-0.007	0.014	0.211	0.004
27.446	0.800	5.863	0.220	-0.013	0.003	0.220	0.004
27.446	0.800	4.728	0.220	-0.016	-0.003	0.220	0.004
27.446	0.800	3.594	0.223	-0.022	-0.009	0.225	0.004
28.126	0.800	14.254	0.221	0.013	0.021	0.223	0.007
28.126	0.800	13.120	0.214	0.012	0.020	0.215	0.006
28.126	0.800	11.986	0.211	0.009	0.022	0.212	0.005
28.126	0.800	10.852	0.210	0.006	0.021	0.211	0.004
28.126	0.800	9.718	0.204	0.003	0.022	0.206	0.004
28.126	0.800	8.584	0.206	0.000	0.018	0.207	0.004
28.126	0.800	7.450	0.208	-0.002	0.016	0.208	0.004
28.126	0.800	6.316	0.216	-0.007	0.011	0.216	0.004
28.126	0.800	5.182	0.222	-0.015	0.001	0.222	0.004
28.126	0.800	4.048	0.226	-0.021	-0.001	0.227	0.004
28.807	0.800	13.574	0.215	0.013	0.018	0.216	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
28.807	0.800	12.440	0.210	0.009	0.024	0.212	0.005
28.807	0.800	11.306	0.209	0.004	0.022	0.210	0.005
28.807	0.800	10.172	0.207	0.005	0.020	0.208	0.004
28.807	0.800	9.038	0.209	0.001	0.016	0.210	0.004
28.807	0.800	7.904	0.207	-0.001	0.016	0.208	0.004
28.807	0.800	6.770	0.212	-0.007	0.015	0.212	0.004
28.807	0.800	5.636	0.218	-0.012	0.008	0.219	0.004
28.807	0.800	4.502	0.219	-0.013	0.001	0.220	0.004
28.807	0.800	3.368	0.224	-0.019	-0.014	0.225	0.004
29.487	0.800	14.028	0.217	0.013	0.021	0.218	0.006
29.487	0.800	12.894	0.211	0.009	0.019	0.212	0.005
29.487	0.800	11.760	0.206	0.007	0.017	0.206	0.004
29.487	0.800	10.626	0.203	0.007	0.020	0.204	0.004
29.487	0.800	9.491	0.206	0.003	0.021	0.208	0.004
29.487	0.800	8.357	0.209	0.001	0.017	0.209	0.004
29.487	0.800	7.223	0.212	-0.001	0.014	0.212	0.004
29.487	0.800	6.089	0.218	-0.010	0.009	0.218	0.004
29.487	0.800	4.955	0.224	-0.015	-0.004	0.224	0.004
29.487	0.800	3.821	0.224	-0.016	-0.011	0.225	0.004
30.198	0.800	13.347	0.218	0.011	0.027	0.220	0.009
30.198	0.800	12.213	0.213	0.011	0.020	0.214	0.007
30.198	0.800	11.079	0.216	0.006	0.017	0.217	0.006
30.198	0.800	9.945	0.219	0.004	0.017	0.220	0.005
30.198	0.800	8.811	0.214	0.002	0.014	0.214	0.005
30.198	0.800	7.677	0.217	-0.004	0.016	0.217	0.005
30.198	0.800	6.543	0.223	-0.007	0.017	0.224	0.005
30.198	0.800	5.409	0.228	-0.011	0.006	0.228	0.005
30.198	0.800	4.275	0.232	-0.011	-0.004	0.232	0.004
30.879	0.800	13.801	0.218	0.014	0.025	0.220	0.009
30.879	0.800	12.667	0.215	0.013	0.012	0.216	0.007
30.879	0.800	11.533	0.218	0.011	0.018	0.219	0.006
30.879	0.800	10.399	0.214	0.007	0.020	0.215	0.005
30.879	0.800	9.265	0.215	0.001	0.021	0.216	0.005
30.879	0.800	8.131	0.218	0.001	0.016	0.219	0.005
30.879	0.800	6.997	0.222	-0.004	0.015	0.222	0.005
30.879	0.800	5.863	0.227	-0.010	0.004	0.227	0.005
30.879	0.800	4.728	0.229	-0.010	-0.005	0.229	0.004
30.879	0.800	3.594	0.232	-0.012	-0.014	0.233	0.004
31.559	0.800	14.254	0.219	0.013	0.023	0.221	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
31.559	0.800	13.120	0.218	0.012	0.013	0.219	0.007
31.559	0.800	11.986	0.216	0.012	0.019	0.217	0.006
31.559	0.800	10.852	0.213	0.009	0.014	0.213	0.005
31.559	0.800	9.718	0.215	0.006	0.014	0.215	0.005
31.559	0.800	8.584	0.215	0.002	0.014	0.216	0.005
31.559	0.800	7.450	0.219	-0.003	0.014	0.219	0.005
31.559	0.800	6.316	0.228	-0.007	0.004	0.228	0.004
31.559	0.800	5.182	0.233	-0.010	0.000	0.233	0.004
31.559	0.800	4.048	0.234	-0.011	-0.011	0.235	0.004
32.239	0.800	13.574	0.223	0.015	0.008	0.224	0.008
32.239	0.800	12.440	0.215	0.011	0.009	0.215	0.006
32.239	0.800	11.306	0.215	0.010	0.012	0.215	0.005
32.239	0.800	10.172	0.212	0.008	0.018	0.213	0.004
32.239	0.800	9.038	0.216	0.005	0.013	0.217	0.005
32.239	0.800	7.904	0.219	0.001	0.014	0.219	0.005
32.239	0.800	6.770	0.226	-0.001	0.010	0.227	0.004
32.239	0.800	5.636	0.228	-0.009	-0.001	0.228	0.004
32.239	0.800	4.502	0.233	-0.010	-0.009	0.233	0.004
32.239	0.800	3.368	0.223	-0.005	-0.005	0.223	0.004
32.920	0.800	14.028	0.217	0.015	0.014	0.218	0.008
32.920	0.800	12.894	0.215	0.012	0.011	0.216	0.006
32.920	0.800	11.760	0.216	0.010	0.013	0.216	0.005
32.920	0.800	10.626	0.211	0.009	0.013	0.211	0.005
32.920	0.800	9.491	0.213	0.005	0.011	0.213	0.005
32.920	0.800	8.357	0.223	0.002	0.010	0.223	0.004
32.920	0.800	7.223	0.220	-0.001	0.010	0.220	0.005
32.920	0.800	6.089	0.229	-0.007	0.002	0.229	0.004
32.920	0.800	4.955	0.233	-0.008	-0.010	0.234	0.004
32.920	0.800	3.821	0.233	-0.005	-0.012	0.234	0.004
33.600	0.800	13.347	0.214	0.011	0.008	0.215	0.007
33.600	0.800	12.213	0.213	0.011	0.008	0.213	0.005
33.600	0.800	11.079	0.212	0.008	0.011	0.212	0.005
33.600	0.800	9.945	0.215	0.008	0.014	0.215	0.004
33.600	0.800	8.811	0.213	0.002	0.011	0.213	0.004
33.600	0.800	7.677	0.220	0.001	0.008	0.220	0.005
33.600	0.800	6.543	0.225	-0.004	0.004	0.225	0.004
33.600	0.800	5.409	0.234	-0.004	-0.005	0.235	0.004
33.600	0.800	4.275	0.239	-0.008	-0.016	0.239	0.003
34.281	0.800	13.801	0.215	0.006	0.016	0.216	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
34.281	0.800	12.667	0.212	0.014	0.009	0.212	0.006
34.281	0.800	11.533	0.214	0.010	0.016	0.215	0.005
34.281	0.800	10.399	0.211	0.009	0.010	0.211	0.004
34.281	0.800	9.265	0.213	0.006	0.011	0.213	0.004
34.281	0.800	8.131	0.220	0.001	0.010	0.220	0.004
34.281	0.800	6.997	0.227	0.000	0.005	0.227	0.004
34.281	0.800	5.863	0.231	-0.003	0.001	0.231	0.004
34.281	0.800	4.728	0.236	-0.004	-0.014	0.236	0.004
34.281	0.800	3.594	0.238	-0.004	-0.027	0.240	0.003
34.961	0.800	14.254	0.211	0.009	0.016	0.212	0.008
34.961	0.800	13.120	0.218	0.013	0.012	0.219	0.006
34.961	0.800	11.986	0.210	0.010	0.009	0.210	0.005
34.961	0.800	10.852	0.211	0.009	0.005	0.211	0.005
34.961	0.800	9.718	0.212	0.007	0.006	0.212	0.004
34.961	0.800	8.584	0.212	0.004	0.008	0.212	0.004
34.961	0.800	7.450	0.224	0.002	0.008	0.224	0.005
34.961	0.800	6.316	0.228	-0.004	-0.001	0.228	0.004
34.961	0.800	5.182	0.238	-0.003	-0.013	0.238	0.004
34.961	0.800	4.048	0.242	-0.007	-0.025	0.243	0.003
35.642	0.800	13.574	0.220	0.015	0.005	0.221	0.007
35.642	0.800	12.440	0.213	0.011	0.006	0.214	0.005
35.642	0.800	11.306	0.212	0.008	0.009	0.213	0.004
35.642	0.800	10.172	0.211	0.006	0.005	0.211	0.005
35.642	0.800	9.038	0.214	0.006	0.011	0.215	0.004
35.642	0.800	7.904	0.221	0.004	0.003	0.221	0.004
35.642	0.800	6.770	0.226	0.000	-0.001	0.226	0.004
35.642	0.800	5.636	0.232	-0.002	-0.008	0.232	0.004
35.642	0.800	4.502	0.243	-0.004	-0.021	0.244	0.003
35.642	0.800	3.368	0.234	-0.002	-0.021	0.235	0.003
36.322	0.800	14.028	0.219	0.011	0.007	0.219	0.007
36.322	0.800	12.894	0.218	0.012	0.004	0.219	0.006
36.322	0.800	11.760	0.214	0.013	0.008	0.214	0.005
36.322	0.800	10.626	0.208	0.009	0.006	0.209	0.004
36.322	0.800	9.491	0.210	0.009	0.010	0.211	0.004
36.322	0.800	8.357	0.217	0.004	0.003	0.217	0.004
36.322	0.800	7.223	0.224	0.001	0.004	0.224	0.004
36.322	0.800	6.089	0.231	-0.002	-0.004	0.231	0.004
36.322	0.800	4.955	0.240	-0.005	-0.016	0.241	0.004
36.322	0.800	3.821	0.241	-0.005	-0.030	0.243	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
37.002	0.800	13.347	0.213	0.012	0.011	0.214	0.006
37.002	0.800	12.213	0.213	0.009	0.005	0.213	0.005
37.002	0.800	11.079	0.209	0.012	0.005	0.209	0.004
37.002	0.800	9.945	0.209	0.008	0.002	0.210	0.004
37.002	0.800	8.811	0.215	0.006	0.005	0.215	0.004
37.002	0.800	7.677	0.223	0.003	0.000	0.223	0.004
37.002	0.800	6.543	0.229	-0.001	-0.001	0.229	0.004
37.002	0.800	5.409	0.238	-0.001	-0.014	0.238	0.004
37.002	0.800	4.275	0.241	-0.003	-0.030	0.243	0.004
37.683	0.800	13.801	0.217	0.011	0.006	0.217	0.007
37.683	0.800	12.667	0.213	0.010	0.009	0.213	0.005
37.683	0.800	11.533	0.210	0.008	0.003	0.210	0.004
37.683	0.800	10.399	0.213	0.013	0.005	0.213	0.004
37.683	0.800	9.265	0.210	0.008	0.006	0.210	0.004
37.683	0.800	8.131	0.213	0.004	0.004	0.213	0.004
37.683	0.800	6.997	0.228	0.004	-0.003	0.228	0.004
37.683	0.800	5.863	0.238	0.000	-0.013	0.239	0.004
37.683	0.800	4.728	0.240	-0.002	-0.025	0.242	0.004
37.683	0.800	3.594	0.240	0.000	-0.036	0.242	0.003
38.363	0.800	14.254	0.219	0.009	0.002	0.219	0.006
38.363	0.800	13.120	0.214	0.007	0.001	0.214	0.005
38.363	0.800	11.986	0.213	0.010	0.006	0.213	0.005
38.363	0.800	10.852	0.215	0.010	0.002	0.215	0.004
38.363	0.800	9.718	0.213	0.009	-0.002	0.213	0.004
38.363	0.800	8.584	0.217	0.007	0.004	0.217	0.004
38.363	0.800	7.450	0.224	0.005	0.001	0.224	0.004
38.363	0.800	6.316	0.234	0.004	-0.012	0.234	0.004
38.363	0.800	5.182	0.241	0.002	-0.024	0.242	0.004
38.363	0.800	4.048	0.244	0.001	-0.038	0.247	0.004
39.044	0.800	13.574	0.213	0.009	0.005	0.213	0.006
39.044	0.800	12.440	0.212	0.007	0.006	0.212	0.005
39.044	0.800	11.306	0.214	0.008	-0.005	0.215	0.004
39.044	0.800	10.172	0.211	0.009	-0.003	0.212	0.004
39.044	0.800	9.038	0.217	0.009	0.004	0.217	0.004
39.044	0.800	7.904	0.221	0.007	-0.003	0.221	0.004
39.044	0.800	6.770	0.231	0.005	-0.009	0.231	0.004
39.044	0.800	5.636	0.240	0.004	-0.018	0.241	0.004
39.044	0.800	4.502	0.244	0.005	-0.034	0.246	0.003
39.044	0.800	3.368	0.241	0.006	-0.041	0.244	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
39.724	0.800	14.028	0.216	0.012	0.001	0.216	0.006
39.724	0.800	12.894	0.215	0.009	0.001	0.215	0.005
39.724	0.800	11.760	0.211	0.011	0.004	0.212	0.004
39.724	0.800	10.626	0.212	0.008	-0.004	0.212	0.004
39.724	0.800	9.491	0.216	0.009	0.001	0.217	0.004
39.724	0.800	8.357	0.221	0.006	-0.005	0.221	0.003
39.724	0.800	7.223	0.229	0.007	-0.009	0.230	0.004
39.724	0.800	6.089	0.238	0.006	-0.020	0.239	0.003
39.724	0.800	4.955	0.247	0.003	-0.030	0.249	0.004
39.724	0.800	3.821	0.242	0.007	-0.041	0.246	0.003
40.405	0.800	13.347	0.211	0.009	-0.002	0.212	0.005
40.405	0.800	12.213	0.213	0.009	0.001	0.213	0.004
40.405	0.800	11.079	0.214	0.010	-0.003	0.215	0.004
40.405	0.800	9.945	0.216	0.010	-0.003	0.216	0.004
40.405	0.800	8.811	0.219	0.010	-0.005	0.219	0.004
40.405	0.800	7.677	0.228	0.007	-0.013	0.228	0.004
40.405	0.800	6.543	0.234	0.006	-0.015	0.234	0.004
40.405	0.800	5.409	0.244	0.006	-0.026	0.246	0.003
40.405	0.800	4.275	0.246	0.007	-0.042	0.250	0.003
41.085	0.800	13.801	0.210	0.007	0.005	0.210	0.006
41.085	0.800	12.667	0.211	0.007	0.001	0.211	0.004
41.085	0.800	11.533	0.214	0.009	-0.001	0.215	0.004
41.085	0.800	10.399	0.215	0.009	-0.005	0.215	0.004
41.085	0.800	9.265	0.216	0.010	-0.008	0.216	0.004
41.085	0.800	8.131	0.221	0.009	-0.007	0.222	0.004
41.085	0.800	6.997	0.232	0.008	-0.015	0.233	0.004
41.085	0.800	5.863	0.244	0.008	-0.022	0.245	0.003
41.085	0.800	4.728	0.246	0.008	-0.039	0.249	0.003
41.085	0.800	3.594	0.242	0.007	-0.052	0.248	0.003
41.765	0.800	14.254	0.212	0.006	-0.001	0.212	0.006
41.765	0.800	13.120	0.212	0.009	0.001	0.213	0.005
41.765	0.800	11.986	0.214	0.007	-0.003	0.214	0.004
41.765	0.800	10.852	0.215	0.007	-0.006	0.215	0.004
41.765	0.800	9.718	0.218	0.009	-0.006	0.218	0.004
41.765	0.800	8.584	0.220	0.009	-0.010	0.220	0.004
41.765	0.800	7.450	0.227	0.007	-0.012	0.227	0.004
41.765	0.800	6.316	0.237	0.007	-0.022	0.238	0.004
41.765	0.800	5.182	0.247	0.008	-0.029	0.249	0.003
41.765	0.800	4.048	0.246	0.009	-0.046	0.251	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
42.446	0.800	13.574	0.212	0.004	-0.004	0.212	0.006
42.446	0.800	12.440	0.212	0.006	-0.002	0.212	0.004
42.446	0.800	11.306	0.215	0.008	0.000	0.215	0.004
42.446	0.800	10.172	0.218	0.009	-0.007	0.218	0.004
42.446	0.800	9.038	0.221	0.007	-0.009	0.221	0.004
42.446	0.800	7.904	0.225	0.009	-0.012	0.226	0.004
42.446	0.800	6.770	0.238	0.008	-0.020	0.239	0.004
42.446	0.800	5.636	0.249	0.009	-0.032	0.251	0.003
42.446	0.800	4.502	0.251	0.010	-0.046	0.255	0.003
42.446	0.800	3.368	0.239	0.009	-0.057	0.246	0.003
43.126	0.800	14.028	0.207	0.007	-0.003	0.208	0.006
43.126	0.800	12.894	0.212	0.006	-0.001	0.212	0.005
43.126	0.800	11.760	0.214	0.008	-0.003	0.214	0.004
43.126	0.800	10.626	0.218	0.007	-0.007	0.218	0.004
43.126	0.800	9.491	0.217	0.009	-0.007	0.217	0.004
43.126	0.800	8.357	0.223	0.007	-0.011	0.223	0.004
43.126	0.800	7.223	0.234	0.011	-0.018	0.235	0.004
43.126	0.800	6.089	0.245	0.009	-0.030	0.247	0.003
43.126	0.800	4.955	0.253	0.008	-0.044	0.257	0.003
43.126	0.800	3.821	0.244	0.009	-0.058	0.251	0.003
43.807	0.800	13.347	0.207	0.008	-0.001	0.207	0.005
43.807	0.800	12.213	0.215	0.007	-0.009	0.215	0.004
43.807	0.800	11.079	0.215	0.008	-0.006	0.216	0.004
43.807	0.800	9.945	0.221	0.009	-0.008	0.222	0.004
43.807	0.800	8.811	0.222	0.010	-0.012	0.222	0.004
43.807	0.800	7.677	0.230	0.012	-0.016	0.231	0.004
43.807	0.800	6.543	0.245	0.010	-0.029	0.247	0.003
43.807	0.800	5.409	0.251	0.009	-0.040	0.255	0.003
43.807	0.800	4.275	0.252	0.011	-0.055	0.258	0.003
44.487	0.800	13.801	0.207	0.006	-0.001	0.207	0.005
44.487	0.800	12.667	0.212	0.005	-0.007	0.213	0.004
44.487	0.800	11.533	0.215	0.007	-0.010	0.216	0.004
44.487	0.800	10.399	0.217	0.005	-0.008	0.217	0.004
44.487	0.800	9.265	0.223	0.008	-0.015	0.224	0.004
44.487	0.800	8.131	0.230	0.013	-0.018	0.231	0.004
44.487	0.800	6.997	0.241	0.011	-0.027	0.243	0.003
44.487	0.800	5.863	0.250	0.011	-0.037	0.253	0.003
44.487	0.800	4.728	0.252	0.012	-0.050	0.258	0.003
44.487	0.800	3.594	0.243	0.011	-0.064	0.252	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.971	0.800	14.028	0.226	0.011	0.002	0.226	0.007
44.971	0.800	13.347	0.232	0.010	-0.004	0.232	0.006
44.971	0.800	12.667	0.236	0.009	-0.003	0.236	0.006
44.971	0.800	11.986	0.234	0.010	-0.011	0.234	0.006
44.971	0.800	11.306	0.239	0.009	-0.012	0.239	0.005
44.971	0.800	10.626	0.239	0.008	-0.014	0.240	0.005
44.971	0.800	9.945	0.242	0.009	-0.018	0.243	0.004
44.971	0.800	9.265	0.241	0.011	-0.014	0.241	0.004
44.971	0.800	8.584	0.243	0.013	-0.024	0.244	0.004
44.971	0.800	7.904	0.244	0.012	-0.023	0.245	0.004
44.971	0.800	7.223	0.249	0.012	-0.028	0.250	0.004
44.971	0.800	6.543	0.250	0.012	-0.033	0.252	0.004
44.971	0.800	5.863	0.249	0.014	-0.039	0.252	0.004
44.971	0.800	5.182	0.250	0.013	-0.043	0.254	0.004
44.971	0.800	4.502	0.242	0.014	-0.051	0.248	0.004
44.971	0.800	3.821	0.236	0.014	-0.061	0.244	0.003
46.105	0.800	14.254	0.225	0.010	-0.006	0.225	0.006
46.105	0.800	13.574	0.227	0.011	-0.007	0.228	0.006
46.105	0.800	12.894	0.231	0.009	-0.009	0.231	0.006
46.105	0.800	12.213	0.234	0.013	-0.008	0.235	0.006
46.105	0.800	11.533	0.233	0.010	-0.012	0.233	0.005
46.105	0.800	10.852	0.238	0.010	-0.015	0.239	0.004
46.105	0.800	10.172	0.239	0.006	-0.017	0.239	0.005
46.105	0.800	9.491	0.244	0.009	-0.021	0.245	0.004
46.105	0.800	8.811	0.244	0.014	-0.025	0.246	0.004
46.105	0.800	8.131	0.249	0.010	-0.028	0.250	0.004
46.105	0.800	7.450	0.249	0.011	-0.033	0.251	0.004
46.105	0.800	6.770	0.251	0.012	-0.035	0.253	0.004
46.105	0.800	6.089	0.248	0.011	-0.041	0.251	0.004
46.105	0.800	5.409	0.251	0.013	-0.049	0.256	0.003
46.105	0.800	4.728	0.246	0.013	-0.055	0.253	0.003
46.105	0.800	4.048	0.238	0.016	-0.061	0.246	0.003
46.105	0.800	3.368	0.225	0.013	-0.071	0.237	0.004
47.239	0.800	13.801	0.223	0.010	-0.011	0.224	0.006
47.239	0.800	13.120	0.226	0.011	-0.008	0.226	0.005
47.239	0.800	12.440	0.230	0.008	-0.009	0.230	0.005
47.239	0.800	11.760	0.231	0.009	-0.015	0.231	0.005
47.239	0.800	11.079	0.237	0.009	-0.014	0.238	0.005
47.239	0.800	10.399	0.240	0.010	-0.022	0.241	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
47.239	0.800	9.718	0.241	0.011	-0.023	0.242	0.004
47.239	0.800	9.038	0.243	0.009	-0.027	0.245	0.004
47.239	0.800	8.357	0.246	0.007	-0.031	0.248	0.004
47.239	0.800	7.677	0.249	0.009	-0.030	0.251	0.004
47.239	0.800	6.997	0.253	0.010	-0.037	0.256	0.004
47.239	0.800	6.316	0.256	0.013	-0.043	0.260	0.003
47.239	0.800	5.636	0.253	0.011	-0.050	0.259	0.003
47.239	0.800	4.955	0.254	0.013	-0.052	0.259	0.003
47.239	0.800	4.275	0.244	0.012	-0.064	0.253	0.003
47.239	0.800	3.594	0.234	0.009	-0.066	0.243	0.003
48.373	0.800	14.028	0.215	0.009	-0.008	0.216	0.006
48.373	0.800	13.347	0.223	0.007	-0.018	0.224	0.005
48.373	0.800	12.667	0.226	0.008	-0.014	0.227	0.005
48.373	0.800	11.986	0.232	0.012	-0.019	0.233	0.005
48.373	0.800	11.306	0.236	0.010	-0.019	0.237	0.004
48.373	0.800	10.626	0.238	0.010	-0.022	0.239	0.004
48.373	0.800	9.945	0.240	0.008	-0.022	0.242	0.004
48.373	0.800	9.265	0.241	0.008	-0.023	0.242	0.004
48.373	0.800	8.584	0.244	0.007	-0.028	0.246	0.003
48.373	0.800	7.904	0.248	0.010	-0.033	0.250	0.003
48.373	0.800	7.223	0.251	0.009	-0.039	0.254	0.004
48.373	0.800	6.543	0.251	0.009	-0.043	0.254	0.003
48.373	0.800	5.863	0.253	0.008	-0.052	0.259	0.003
48.373	0.800	5.182	0.253	0.010	-0.053	0.258	0.003
48.373	0.800	4.502	0.252	0.006	-0.062	0.260	0.003
48.373	0.800	3.821	0.240	0.006	-0.075	0.252	0.003
49.508	0.800	14.254	0.213	0.008	-0.004	0.213	0.005
49.508	0.800	13.574	0.223	0.009	-0.012	0.223	0.005
49.508	0.800	12.894	0.227	0.006	-0.014	0.228	0.005
49.508	0.800	12.213	0.230	0.007	-0.023	0.231	0.005
49.508	0.800	11.533	0.230	0.010	-0.021	0.231	0.004
49.508	0.800	10.852	0.234	0.007	-0.023	0.236	0.004
49.508	0.800	10.172	0.236	0.007	-0.020	0.237	0.003
49.508	0.800	9.491	0.244	0.008	-0.025	0.245	0.004
49.508	0.800	8.811	0.245	0.009	-0.028	0.247	0.003
49.508	0.800	8.131	0.251	0.009	-0.031	0.254	0.004
49.508	0.800	7.450	0.249	0.008	-0.035	0.252	0.004
49.508	0.800	6.770	0.254	0.006	-0.041	0.257	0.003
49.508	0.800	6.089	0.254	0.007	-0.052	0.260	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
49.508	0.800	5.409	0.253	0.009	-0.052	0.259	0.003
49.508	0.800	4.728	0.249	0.007	-0.063	0.257	0.003
49.508	0.800	4.048	0.239	0.004	-0.067	0.248	0.003
49.508	0.800	3.368	0.223	0.001	-0.073	0.234	0.004
50.642	0.800	13.801	0.216	0.006	-0.006	0.216	0.005
50.642	0.800	13.120	0.221	0.008	-0.013	0.221	0.005
50.642	0.800	12.440	0.226	0.007	-0.016	0.226	0.005
50.642	0.800	11.760	0.228	0.009	-0.018	0.229	0.004
50.642	0.800	11.079	0.230	0.005	-0.016	0.231	0.004
50.642	0.800	10.399	0.234	0.007	-0.024	0.235	0.003
50.642	0.800	9.718	0.238	0.006	-0.025	0.239	0.003
50.642	0.800	9.038	0.240	0.006	-0.029	0.242	0.003
50.642	0.800	8.357	0.248	0.006	-0.028	0.249	0.004
50.642	0.800	7.677	0.253	0.006	-0.033	0.255	0.003
50.642	0.800	6.997	0.252	0.005	-0.038	0.255	0.003
50.642	0.800	6.316	0.255	0.006	-0.048	0.260	0.003
50.642	0.800	5.636	0.254	0.005	-0.051	0.259	0.003
50.642	0.800	4.955	0.250	0.007	-0.059	0.257	0.003
50.642	0.800	4.275	0.246	0.005	-0.066	0.255	0.003
50.642	0.800	3.594	0.223	-0.004	-0.069	0.233	0.004
51.776	0.800	14.028	0.208	0.008	-0.004	0.208	0.005
51.776	0.800	13.347	0.217	0.005	-0.010	0.217	0.005
51.776	0.800	12.667	0.218	0.007	-0.013	0.219	0.004
51.776	0.800	11.986	0.224	0.006	-0.015	0.225	0.004
51.776	0.800	11.306	0.224	0.007	-0.019	0.225	0.004
51.776	0.800	10.626	0.232	0.006	-0.021	0.233	0.004
51.776	0.800	9.945	0.235	0.006	-0.023	0.236	0.003
51.776	0.800	9.265	0.241	0.007	-0.027	0.242	0.003
51.776	0.800	8.584	0.244	0.008	-0.027	0.246	0.003
51.776	0.800	7.904	0.245	0.004	-0.036	0.248	0.003
51.776	0.800	7.223	0.251	0.003	-0.038	0.254	0.003
51.776	0.800	6.543	0.254	0.005	-0.044	0.258	0.003
51.776	0.800	5.863	0.253	0.005	-0.050	0.258	0.003
51.776	0.800	5.182	0.252	0.004	-0.057	0.259	0.003
51.776	0.800	4.502	0.244	0.001	-0.059	0.251	0.003
51.776	0.800	3.821	0.223	-0.004	-0.063	0.232	0.004
52.910	0.800	14.254	0.206	0.006	-0.010	0.206	0.005
52.910	0.800	13.574	0.210	0.006	-0.015	0.211	0.005
52.910	0.800	12.894	0.215	0.007	-0.017	0.216	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
52.910	0.800	12.213	0.218	0.007	-0.010	0.219	0.004
52.910	0.800	11.533	0.226	0.006	-0.014	0.226	0.004
52.910	0.800	10.852	0.227	0.006	-0.014	0.228	0.004
52.910	0.800	10.172	0.231	0.006	-0.018	0.232	0.003
52.910	0.800	9.491	0.234	0.006	-0.022	0.235	0.003
52.910	0.800	8.811	0.244	0.007	-0.027	0.246	0.003
52.910	0.800	8.131	0.245	0.004	-0.027	0.247	0.003
52.910	0.800	7.450	0.248	0.004	-0.034	0.251	0.003
52.910	0.800	6.770	0.251	0.003	-0.037	0.254	0.003
52.910	0.800	6.089	0.253	0.002	-0.044	0.257	0.003
52.910	0.800	5.409	0.249	0.000	-0.047	0.253	0.003
52.910	0.800	4.728	0.242	-0.002	-0.054	0.248	0.003
52.910	0.800	4.048	0.227	-0.009	-0.057	0.235	0.004
52.910	0.800	3.368	0.182	-0.015	-0.048	0.189	0.005
54.044	0.800	13.801	0.206	0.002	-0.001	0.206	0.005
54.044	0.800	13.120	0.213	0.004	-0.006	0.213	0.004
54.044	0.800	12.440	0.219	0.006	-0.010	0.219	0.004
54.044	0.800	11.760	0.219	0.007	-0.011	0.220	0.004
54.044	0.800	11.079	0.223	0.007	-0.010	0.223	0.004
54.044	0.800	10.399	0.229	0.005	-0.015	0.230	0.003
54.044	0.800	9.718	0.234	0.003	-0.018	0.235	0.003
54.044	0.800	9.038	0.241	0.004	-0.022	0.242	0.003
54.044	0.800	8.357	0.244	0.000	-0.023	0.245	0.003
54.044	0.800	7.677	0.246	0.002	-0.029	0.248	0.003
54.044	0.800	6.997	0.252	0.000	-0.033	0.254	0.003
54.044	0.800	6.316	0.255	0.003	-0.039	0.258	0.003
54.044	0.800	5.636	0.250	-0.003	-0.043	0.254	0.003
54.044	0.800	4.955	0.245	-0.004	-0.046	0.250	0.003
54.044	0.800	4.275	0.226	-0.009	-0.055	0.232	0.004
54.044	0.800	3.594	0.186	-0.017	-0.038	0.191	0.004
55.178	0.800	14.028	0.207	0.004	0.004	0.207	0.005
55.178	0.800	13.347	0.209	0.003	0.002	0.209	0.004
55.178	0.800	12.667	0.216	0.003	0.003	0.216	0.004
55.178	0.800	11.986	0.221	0.004	-0.001	0.221	0.003
55.178	0.800	11.306	0.223	0.005	-0.005	0.223	0.003
55.178	0.800	10.626	0.225	0.005	-0.005	0.225	0.003
55.178	0.800	9.945	0.232	0.005	-0.013	0.232	0.003
55.178	0.800	9.265	0.238	0.004	-0.015	0.239	0.003
55.178	0.800	8.584	0.243	0.000	-0.018	0.243	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
55.178	0.800	7.904	0.243	0.001	-0.022	0.244	0.003
55.178	0.800	7.223	0.249	-0.001	-0.027	0.250	0.003
55.178	0.800	6.543	0.252	-0.003	-0.034	0.254	0.003
55.178	0.800	5.863	0.252	-0.005	-0.040	0.255	0.003
55.178	0.800	5.182	0.245	-0.007	-0.041	0.249	0.003
55.178	0.800	4.502	0.228	-0.014	-0.044	0.233	0.003
55.178	0.800	3.821	0.194	-0.017	-0.040	0.199	0.004
56.312	0.800	14.254	0.210	0.000	0.012	0.210	0.005
56.312	0.800	13.574	0.212	0.004	0.011	0.212	0.004
56.312	0.800	12.894	0.217	0.007	0.007	0.217	0.004
56.312	0.800	12.213	0.220	0.006	0.013	0.221	0.004
56.312	0.800	11.533	0.225	0.007	0.007	0.225	0.003
56.312	0.800	10.852	0.226	0.005	0.006	0.226	0.003
56.312	0.800	10.172	0.231	0.005	0.000	0.231	0.003
56.312	0.800	9.491	0.240	0.006	-0.005	0.240	0.003
56.312	0.800	8.811	0.243	0.005	-0.007	0.243	0.003
56.312	0.800	8.131	0.246	0.002	-0.013	0.247	0.003
56.312	0.800	7.450	0.249	0.001	-0.018	0.249	0.003
56.312	0.800	6.770	0.251	-0.001	-0.021	0.252	0.003
56.312	0.800	6.089	0.250	-0.005	-0.028	0.252	0.003
56.312	0.800	5.409	0.245	-0.008	-0.033	0.247	0.003
56.312	0.800	4.728	0.234	-0.016	-0.030	0.237	0.003
56.312	0.800	4.048	0.206	-0.020	-0.029	0.209	0.004
56.312	0.800	3.368	0.163	-0.020	-0.016	0.165	0.004

Table D.9 Stereo PIV data for forward conic cavity with rough bed at high flow.

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.508	0.800	12.894	0.404	-0.011	0.001	0.404	0.004
4.508	0.800	12.667	0.403	-0.010	-0.004	0.404	0.004
4.508	0.800	12.440	0.400	-0.012	-0.003	0.400	0.004
4.508	0.800	12.213	0.398	-0.011	-0.005	0.398	0.004
4.508	0.800	11.986	0.396	-0.011	-0.004	0.396	0.004
4.508	0.800	11.760	0.392	-0.008	-0.005	0.392	0.004
4.508	0.800	11.533	0.390	-0.008	-0.007	0.390	0.004
4.508	0.800	11.306	0.389	-0.010	-0.006	0.389	0.003
4.508	0.800	11.079	0.390	-0.010	-0.006	0.391	0.003
4.508	0.800	10.852	0.387	-0.012	-0.007	0.387	0.003
4.508	0.800	10.626	0.389	-0.012	-0.005	0.389	0.003
4.508	0.800	10.399	0.384	-0.010	-0.004	0.384	0.003
4.508	0.800	10.172	0.383	-0.012	-0.009	0.383	0.004
4.508	0.800	9.945	0.381	-0.014	-0.007	0.382	0.004
4.508	0.800	9.718	0.382	-0.015	-0.010	0.382	0.003
4.508	0.800	9.491	0.376	-0.014	-0.006	0.377	0.003
4.508	0.800	9.265	0.371	-0.012	-0.008	0.371	0.003
4.508	0.800	9.038	0.368	-0.013	-0.009	0.369	0.004
4.508	0.800	8.811	0.365	-0.016	-0.007	0.365	0.003
4.508	0.800	8.584	0.363	-0.017	-0.009	0.363	0.003
4.508	0.800	8.357	0.359	-0.016	-0.007	0.359	0.003
4.508	0.800	8.131	0.358	-0.019	-0.006	0.359	0.003
4.508	0.800	7.904	0.353	-0.019	-0.007	0.353	0.004
4.508	0.800	7.677	0.347	-0.018	-0.005	0.348	0.003
4.508	0.800	7.450	0.342	-0.018	-0.004	0.343	0.003
4.508	0.800	7.223	0.337	-0.017	-0.001	0.338	0.004
4.508	0.800	6.997	0.333	-0.019	-0.002	0.334	0.004
4.508	0.800	6.770	0.330	-0.019	-0.008	0.330	0.004
4.508	0.800	6.543	0.325	-0.022	-0.007	0.326	0.003
4.508	0.800	6.316	0.321	-0.021	0.002	0.322	0.004
4.508	0.800	6.089	0.319	-0.024	-0.003	0.320	0.003
4.508	0.800	5.863	0.314	-0.025	-0.004	0.315	0.003
4.508	0.800	5.636	0.311	-0.025	-0.004	0.312	0.003
4.508	0.800	5.409	0.306	-0.027	-0.003	0.307	0.003
4.508	0.800	5.182	0.302	-0.027	-0.003	0.303	0.003
4.508	0.800	4.955	0.294	-0.030	-0.008	0.296	0.003
4.508	0.800	4.728	0.289	-0.029	-0.010	0.290	0.003
4.508	0.800	4.502	0.285	-0.030	-0.013	0.287	0.003

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
4.508	0.800	4.275	0.278	-0.029	-0.011	0.279	0.003
4.508	0.800	4.048	0.272	-0.028	-0.010	0.273	0.003
4.508	0.800	3.821	0.261	-0.028	-0.011	0.263	0.003
4.508	0.800	3.594	0.255	-0.028	-0.008	0.256	0.004
4.508	0.800	3.368	0.242	-0.028	-0.009	0.244	0.003
7.910	0.800	12.894	0.396	-0.019	-0.015	0.397	0.005
7.910	0.800	12.667	0.397	-0.020	-0.014	0.398	0.005
7.910	0.800	12.440	0.396	-0.019	-0.016	0.397	0.004
7.910	0.800	12.213	0.394	-0.020	-0.016	0.395	0.004
7.910	0.800	11.986	0.392	-0.020	-0.013	0.393	0.004
7.910	0.800	11.760	0.389	-0.021	-0.016	0.390	0.005
7.910	0.800	11.533	0.387	-0.021	-0.019	0.388	0.004
7.910	0.800	11.306	0.385	-0.020	-0.018	0.386	0.004
7.910	0.800	11.079	0.384	-0.022	-0.021	0.385	0.004
7.910	0.800	10.852	0.380	-0.018	-0.017	0.381	0.005
7.910	0.800	10.626	0.379	-0.018	-0.020	0.380	0.004
7.910	0.800	10.399	0.378	-0.022	-0.020	0.379	0.004
7.910	0.800	10.172	0.379	-0.022	-0.023	0.380	0.004
7.910	0.800	9.945	0.375	-0.021	-0.020	0.376	0.004
7.910	0.800	9.718	0.374	-0.022	-0.021	0.375	0.004
7.910	0.800	9.491	0.369	-0.025	-0.019	0.370	0.004
7.910	0.800	9.265	0.366	-0.024	-0.026	0.368	0.005
7.910	0.800	9.038	0.363	-0.021	-0.023	0.364	0.004
7.910	0.800	8.811	0.360	-0.023	-0.023	0.361	0.005
7.910	0.800	8.584	0.357	-0.021	-0.025	0.358	0.005
7.910	0.800	8.357	0.347	-0.020	-0.025	0.349	0.005
7.910	0.800	8.131	0.346	-0.020	-0.021	0.347	0.004
7.910	0.800	7.904	0.341	-0.019	-0.022	0.343	0.004
7.910	0.800	7.677	0.342	-0.022	-0.023	0.344	0.004
7.910	0.800	7.450	0.339	-0.021	-0.019	0.340	0.004
7.910	0.800	7.223	0.335	-0.021	-0.015	0.336	0.004
7.910	0.800	6.997	0.328	-0.022	-0.022	0.330	0.004
7.910	0.800	6.770	0.325	-0.022	-0.021	0.326	0.004
7.910	0.800	6.543	0.320	-0.021	-0.021	0.321	0.004
7.910	0.800	6.316	0.319	-0.023	-0.019	0.320	0.004
7.910	0.800	6.089	0.312	-0.022	-0.022	0.314	0.004
7.910	0.800	5.863	0.310	-0.021	-0.019	0.312	0.004
7.910	0.800	5.636	0.306	-0.023	-0.015	0.307	0.004
7.910	0.800	5.409	0.303	-0.022	-0.014	0.304	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
7.910	0.800	5.182	0.299	-0.024	-0.017	0.301	0.004
7.910	0.800	4.955	0.292	-0.024	-0.018	0.294	0.004
7.910	0.800	4.728	0.288	-0.025	-0.018	0.290	0.004
7.910	0.800	4.502	0.284	-0.026	-0.016	0.286	0.004
7.910	0.800	4.275	0.276	-0.025	-0.016	0.277	0.004
7.910	0.800	4.048	0.269	-0.027	-0.018	0.271	0.004
7.910	0.800	3.821	0.262	-0.029	-0.019	0.264	0.004
7.910	0.800	3.594	0.258	-0.029	-0.019	0.260	0.004
7.910	0.800	3.368	0.248	-0.028	-0.019	0.251	0.004
11.312	0.800	12.894	0.376	-0.023	-0.017	0.377	0.006
11.312	0.800	12.667	0.375	-0.024	-0.017	0.376	0.006
11.312	0.800	12.440	0.374	-0.024	-0.018	0.375	0.006
11.312	0.800	12.213	0.376	-0.028	-0.021	0.378	0.006
11.312	0.800	11.986	0.374	-0.025	-0.017	0.375	0.006
11.312	0.800	11.760	0.372	-0.028	-0.013	0.373	0.006
11.312	0.800	11.533	0.372	-0.028	-0.019	0.373	0.005
11.312	0.800	11.306	0.372	-0.027	-0.023	0.374	0.005
11.312	0.800	11.079	0.372	-0.029	-0.020	0.373	0.005
11.312	0.800	10.852	0.367	-0.030	-0.021	0.369	0.006
11.312	0.800	10.626	0.365	-0.030	-0.021	0.367	0.005
11.312	0.800	10.399	0.366	-0.028	-0.023	0.368	0.005
11.312	0.800	10.172	0.366	-0.032	-0.026	0.368	0.005
11.312	0.800	9.945	0.360	-0.028	-0.029	0.362	0.005
11.312	0.800	9.718	0.360	-0.027	-0.027	0.362	0.005
11.312	0.800	9.491	0.356	-0.030	-0.027	0.359	0.006
11.312	0.800	9.265	0.352	-0.028	-0.027	0.354	0.006
11.312	0.800	9.038	0.348	-0.027	-0.025	0.350	0.005
11.312	0.800	8.811	0.345	-0.028	-0.025	0.347	0.005
11.312	0.800	8.584	0.344	-0.027	-0.022	0.345	0.006
11.312	0.800	8.357	0.343	-0.023	-0.027	0.345	0.005
11.312	0.800	8.131	0.341	-0.025	-0.024	0.343	0.006
11.312	0.800	7.904	0.340	-0.024	-0.027	0.342	0.005
11.312	0.800	7.677	0.335	-0.024	-0.023	0.337	0.005
11.312	0.800	7.450	0.327	-0.024	-0.021	0.329	0.006
11.312	0.800	7.223	0.326	-0.024	-0.025	0.328	0.005
11.312	0.800	6.997	0.324	-0.022	-0.026	0.326	0.005
11.312	0.800	6.770	0.323	-0.022	-0.022	0.324	0.005
11.312	0.800	6.543	0.316	-0.021	-0.024	0.318	0.005
11.312	0.800	6.316	0.311	-0.019	-0.023	0.313	0.005

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
11.312	0.800	6.089	0.309	-0.020	-0.020	0.310	0.005
11.312	0.800	5.863	0.307	-0.020	-0.024	0.309	0.005
11.312	0.800	5.636	0.302	-0.019	-0.025	0.304	0.005
11.312	0.800	5.409	0.295	-0.020	-0.022	0.296	0.005
11.312	0.800	5.182	0.294	-0.021	-0.025	0.296	0.005
11.312	0.800	4.955	0.291	-0.021	-0.022	0.293	0.005
11.312	0.800	4.728	0.288	-0.022	-0.022	0.290	0.005
11.312	0.800	4.502	0.281	-0.020	-0.026	0.283	0.004
11.312	0.800	4.275	0.277	-0.021	-0.027	0.279	0.004
11.312	0.800	4.048	0.268	-0.014	-0.024	0.270	0.004
11.312	0.800	3.821	0.265	-0.018	-0.022	0.267	0.004
11.312	0.800	3.594	0.259	-0.019	-0.019	0.260	0.005
11.312	0.800	3.368	0.254	-0.016	-0.022	0.256	0.004
14.745	0.800	11.986	0.365	-0.038	-0.009	0.367	0.008
14.745	0.800	10.852	0.368	-0.037	-0.020	0.371	0.006
14.745	0.800	9.718	0.365	-0.039	-0.019	0.367	0.006
14.745	0.800	8.584	0.355	-0.032	-0.022	0.358	0.006
14.745	0.800	7.450	0.340	-0.030	-0.029	0.343	0.006
14.745	0.800	6.316	0.326	-0.023	-0.024	0.328	0.005
14.745	0.800	5.182	0.311	-0.023	-0.027	0.313	0.005
14.745	0.800	4.048	0.287	-0.016	-0.022	0.289	0.005
15.425	0.800	12.440	0.363	-0.042	-0.001	0.365	0.009
15.425	0.800	11.306	0.367	-0.039	-0.017	0.369	0.007
15.425	0.800	10.172	0.367	-0.037	-0.023	0.369	0.006
15.425	0.800	9.038	0.362	-0.032	-0.025	0.365	0.006
15.425	0.800	7.904	0.346	-0.031	-0.028	0.348	0.006
15.425	0.800	6.770	0.332	-0.025	-0.024	0.334	0.006
15.425	0.800	5.636	0.316	-0.022	-0.028	0.318	0.005
15.425	0.800	4.502	0.297	-0.018	-0.023	0.298	0.005
15.425	0.800	3.368	0.271	-0.016	-0.021	0.272	0.005
16.105	0.800	12.894	0.357	-0.038	-0.002	0.359	0.009
16.105	0.800	11.760	0.366	-0.041	-0.019	0.369	0.008
16.105	0.800	10.626	0.370	-0.040	-0.022	0.372	0.007
16.105	0.800	9.491	0.366	-0.035	-0.022	0.369	0.006
16.105	0.800	8.357	0.355	-0.037	-0.023	0.358	0.006
16.105	0.800	7.223	0.344	-0.029	-0.031	0.346	0.006
16.105	0.800	6.089	0.324	-0.026	-0.028	0.326	0.006
16.105	0.800	4.955	0.308	-0.022	-0.025	0.310	0.005
16.105	0.800	3.821	0.284	-0.020	-0.025	0.286	0.004

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
16.786	0.800	12.213	0.362	-0.036	-0.009	0.363	0.008
16.786	0.800	11.079	0.366	-0.040	-0.018	0.368	0.007
16.786	0.800	9.945	0.362	-0.036	-0.024	0.365	0.007
16.786	0.800	8.811	0.358	-0.035	-0.027	0.361	0.006
16.786	0.800	7.677	0.350	-0.035	-0.032	0.353	0.006
16.786	0.800	6.543	0.331	-0.027	-0.029	0.333	0.006
16.786	0.800	5.409	0.314	-0.020	-0.028	0.316	0.005
16.786	0.800	4.275	0.291	-0.019	-0.020	0.293	0.005
17.466	0.800	12.667	0.353	-0.035	-0.005	0.355	0.009
17.466	0.800	11.533	0.362	-0.039	-0.020	0.365	0.007
17.466	0.800	10.399	0.366	-0.039	-0.020	0.369	0.007
17.466	0.800	9.265	0.361	-0.039	-0.021	0.364	0.007
17.466	0.800	8.131	0.351	-0.034	-0.025	0.354	0.006
17.466	0.800	6.997	0.339	-0.028	-0.035	0.342	0.006
17.466	0.800	5.863	0.323	-0.025	-0.031	0.326	0.006
17.466	0.800	4.728	0.301	-0.019	-0.028	0.303	0.005
17.466	0.800	3.594	0.275	-0.021	-0.024	0.277	0.005
18.147	0.800	11.986	0.355	-0.038	-0.013	0.357	0.008
18.147	0.800	10.852	0.361	-0.037	-0.016	0.363	0.008
18.147	0.800	9.718	0.359	-0.042	-0.023	0.363	0.007
18.147	0.800	8.584	0.358	-0.037	-0.025	0.361	0.006
18.147	0.800	7.450	0.347	-0.029	-0.030	0.350	0.006
18.147	0.800	6.316	0.329	-0.024	-0.033	0.332	0.005
18.147	0.800	5.182	0.310	-0.025	-0.030	0.312	0.006
18.147	0.800	4.048	0.288	-0.021	-0.026	0.290	0.005
18.827	0.800	12.440	0.346	-0.032	-0.004	0.347	0.009
18.827	0.800	11.306	0.360	-0.042	-0.014	0.363	0.008
18.827	0.800	10.172	0.361	-0.036	-0.022	0.363	0.007
18.827	0.800	9.038	0.360	-0.039	-0.027	0.363	0.006
18.827	0.800	7.904	0.353	-0.033	-0.025	0.356	0.006
18.827	0.800	6.770	0.342	-0.030	-0.034	0.345	0.006
18.827	0.800	5.636	0.317	-0.023	-0.031	0.320	0.006
18.827	0.800	4.502	0.297	-0.020	-0.028	0.299	0.005
18.827	0.800	3.368	0.271	-0.018	-0.026	0.273	0.005
19.508	0.800	12.894	0.334	-0.029	0.007	0.336	0.010
19.508	0.800	11.760	0.348	-0.038	-0.015	0.350	0.008
19.508	0.800	10.626	0.354	-0.036	-0.021	0.357	0.007
19.508	0.800	9.491	0.361	-0.037	-0.022	0.364	0.007
19.508	0.800	8.357	0.363	-0.038	-0.033	0.367	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
19.508	0.800	7.223	0.345	-0.030	-0.029	0.347	0.006
19.508	0.800	6.089	0.332	-0.022	-0.032	0.334	0.006
19.508	0.800	4.955	0.309	-0.025	-0.029	0.311	0.005
19.508	0.800	3.821	0.286	-0.022	-0.022	0.288	0.005
20.188	0.800	12.213	0.339	-0.033	-0.001	0.341	0.008
20.188	0.800	11.079	0.351	-0.034	-0.011	0.353	0.008
20.188	0.800	9.945	0.361	-0.038	-0.023	0.364	0.007
20.188	0.800	8.811	0.359	-0.037	-0.024	0.362	0.007
20.188	0.800	7.677	0.354	-0.033	-0.034	0.357	0.006
20.188	0.800	6.543	0.339	-0.030	-0.031	0.341	0.006
20.188	0.800	5.409	0.322	-0.028	-0.037	0.325	0.005
20.188	0.800	4.275	0.295	-0.022	-0.031	0.297	0.005
20.868	0.800	12.667	0.329	-0.025	0.002	0.330	0.010
20.868	0.800	11.533	0.347	-0.035	-0.011	0.349	0.008
20.868	0.800	10.399	0.356	-0.036	-0.018	0.359	0.007
20.868	0.800	9.265	0.358	-0.034	-0.024	0.360	0.007
20.868	0.800	8.131	0.357	-0.033	-0.031	0.360	0.006
20.868	0.800	6.997	0.343	-0.033	-0.028	0.346	0.006
20.868	0.800	5.863	0.334	-0.030	-0.037	0.337	0.006
20.868	0.800	4.728	0.308	-0.022	-0.029	0.310	0.005
20.868	0.800	3.594	0.282	-0.017	-0.025	0.283	0.005
21.549	0.800	11.986	0.341	-0.030	0.000	0.343	0.009
21.549	0.800	10.852	0.351	-0.034	-0.013	0.352	0.008
21.549	0.800	9.718	0.361	-0.035	-0.022	0.363	0.006
21.549	0.800	8.584	0.358	-0.036	-0.022	0.360	0.007
21.549	0.800	7.450	0.354	-0.033	-0.027	0.357	0.006
21.549	0.800	6.316	0.340	-0.029	-0.032	0.343	0.006
21.549	0.800	5.182	0.318	-0.026	-0.031	0.320	0.006
21.549	0.800	4.048	0.292	-0.024	-0.031	0.295	0.005
22.229	0.800	12.440	0.330	-0.028	-0.001	0.331	0.010
22.229	0.800	11.306	0.345	-0.030	-0.010	0.347	0.008
22.229	0.800	10.172	0.355	-0.036	-0.015	0.357	0.008
22.229	0.800	9.038	0.357	-0.034	-0.025	0.359	0.007
22.229	0.800	7.904	0.358	-0.037	-0.026	0.361	0.006
22.229	0.800	6.770	0.341	-0.031	-0.028	0.344	0.006
22.229	0.800	5.636	0.328	-0.028	-0.039	0.332	0.006
22.229	0.800	4.502	0.303	-0.018	-0.032	0.306	0.006
22.229	0.800	3.368	0.280	-0.020	-0.028	0.282	0.005
22.910	0.800	12.894	0.322	-0.020	0.006	0.322	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
22.910	0.800	11.760	0.339	-0.026	-0.006	0.340	0.008
22.910	0.800	10.626	0.346	-0.028	-0.013	0.347	0.008
22.910	0.800	9.491	0.358	-0.032	-0.024	0.360	0.007
22.910	0.800	8.357	0.355	-0.032	-0.029	0.358	0.007
22.910	0.800	7.223	0.353	-0.029	-0.033	0.356	0.006
22.910	0.800	6.089	0.335	-0.025	-0.031	0.337	0.006
22.910	0.800	4.955	0.315	-0.020	-0.033	0.318	0.005
22.910	0.800	3.821	0.292	-0.018	-0.034	0.294	0.005
23.590	0.800	12.213	0.325	-0.023	0.000	0.326	0.009
23.590	0.800	11.079	0.342	-0.031	-0.002	0.344	0.008
23.590	0.800	9.945	0.354	-0.029	-0.017	0.356	0.007
23.590	0.800	8.811	0.354	-0.032	-0.028	0.357	0.007
23.590	0.800	7.677	0.357	-0.029	-0.028	0.359	0.006
23.590	0.800	6.543	0.345	-0.025	-0.036	0.348	0.006
23.590	0.800	5.409	0.328	-0.023	-0.033	0.330	0.006
23.590	0.800	4.275	0.302	-0.018	-0.033	0.304	0.005
24.271	0.800	12.667	0.317	-0.018	0.001	0.318	0.010
24.271	0.800	11.533	0.338	-0.024	-0.007	0.339	0.008
24.271	0.800	10.399	0.349	-0.024	-0.014	0.350	0.008
24.271	0.800	9.265	0.356	-0.028	-0.027	0.358	0.007
24.271	0.800	8.131	0.356	-0.030	-0.028	0.358	0.007
24.271	0.800	6.997	0.350	-0.026	-0.033	0.352	0.006
24.271	0.800	5.863	0.336	-0.025	-0.035	0.339	0.006
24.271	0.800	4.728	0.321	-0.019	-0.039	0.323	0.005
24.271	0.800	3.594	0.287	-0.017	-0.025	0.289	0.005
24.951	0.800	11.986	0.326	-0.016	0.001	0.326	0.008
24.951	0.800	10.852	0.346	-0.023	-0.015	0.347	0.008
24.951	0.800	9.718	0.349	-0.029	-0.016	0.351	0.008
24.951	0.800	8.584	0.355	-0.028	-0.025	0.357	0.007
24.951	0.800	7.450	0.353	-0.023	-0.032	0.356	0.006
24.951	0.800	6.316	0.346	-0.024	-0.034	0.349	0.006
24.951	0.800	5.182	0.325	-0.022	-0.031	0.327	0.006
24.951	0.800	4.048	0.302	-0.016	-0.030	0.304	0.005
25.631	0.800	12.440	0.315	-0.016	0.006	0.316	0.009
25.631	0.800	11.306	0.338	-0.022	-0.006	0.339	0.009
25.631	0.800	10.172	0.345	-0.020	-0.015	0.346	0.008
25.631	0.800	9.038	0.354	-0.023	-0.024	0.356	0.007
25.631	0.800	7.904	0.351	-0.027	-0.028	0.353	0.007
25.631	0.800	6.770	0.349	-0.028	-0.028	0.351	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
25.631	0.800	5.636	0.331	-0.026	-0.031	0.334	0.006
25.631	0.800	4.502	0.316	-0.021	-0.035	0.318	0.005
25.631	0.800	3.368	0.287	-0.015	-0.029	0.289	0.005
26.312	0.800	12.894	0.315	-0.010	0.005	0.316	0.010
26.312	0.800	11.760	0.327	-0.016	-0.002	0.328	0.009
26.312	0.800	10.626	0.342	-0.015	-0.011	0.342	0.008
26.312	0.800	9.491	0.354	-0.022	-0.021	0.355	0.007
26.312	0.800	8.357	0.355	-0.023	-0.027	0.357	0.007
26.312	0.800	7.223	0.351	-0.029	-0.026	0.353	0.007
26.312	0.800	6.089	0.339	-0.028	-0.028	0.341	0.007
26.312	0.800	4.955	0.326	-0.019	-0.033	0.328	0.006
26.312	0.800	3.821	0.300	-0.015	-0.026	0.302	0.006
26.992	0.800	12.213	0.316	-0.013	0.004	0.317	0.009
26.992	0.800	11.079	0.333	-0.012	-0.007	0.334	0.009
26.992	0.800	9.945	0.349	-0.021	-0.017	0.350	0.008
26.992	0.800	8.811	0.353	-0.024	-0.022	0.354	0.007
26.992	0.800	7.677	0.355	-0.027	-0.030	0.357	0.007
26.992	0.800	6.543	0.346	-0.024	-0.032	0.348	0.006
26.992	0.800	5.409	0.332	-0.019	-0.035	0.335	0.006
26.992	0.800	4.275	0.311	-0.018	-0.032	0.313	0.006
27.673	0.800	12.667	0.307	-0.006	0.013	0.307	0.009
27.673	0.800	11.533	0.322	-0.010	0.004	0.322	0.009
27.673	0.800	10.399	0.345	-0.016	-0.011	0.345	0.008
27.673	0.800	9.265	0.348	-0.025	-0.020	0.350	0.008
27.673	0.800	8.131	0.345	-0.025	-0.020	0.347	0.007
27.673	0.800	6.997	0.349	-0.022	-0.031	0.351	0.007
27.673	0.800	5.863	0.337	-0.023	-0.035	0.340	0.006
27.673	0.800	4.728	0.320	-0.017	-0.036	0.322	0.006
27.673	0.800	3.594	0.292	-0.014	-0.030	0.293	0.005
28.353	0.800	11.986	0.313	-0.008	0.003	0.313	0.009
28.353	0.800	10.852	0.333	-0.010	-0.006	0.333	0.009
28.353	0.800	9.718	0.345	-0.019	-0.019	0.346	0.008
28.353	0.800	8.584	0.348	-0.020	-0.020	0.349	0.008
28.353	0.800	7.450	0.350	-0.019	-0.031	0.352	0.007
28.353	0.800	6.316	0.343	-0.021	-0.028	0.345	0.007
28.353	0.800	5.182	0.326	-0.016	-0.036	0.328	0.005
28.353	0.800	4.048	0.310	-0.016	-0.037	0.313	0.005
29.034	0.800	12.440	0.314	-0.007	0.004	0.314	0.009
29.034	0.800	11.306	0.328	-0.012	0.004	0.328	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
29.034	0.800	10.172	0.339	-0.019	-0.008	0.340	0.008
29.034	0.800	9.038	0.344	-0.018	-0.017	0.345	0.007
29.034	0.800	7.904	0.348	-0.020	-0.026	0.349	0.008
29.034	0.800	6.770	0.344	-0.020	-0.026	0.346	0.007
29.034	0.800	5.636	0.329	-0.021	-0.033	0.332	0.007
29.034	0.800	4.502	0.315	-0.014	-0.036	0.317	0.006
29.034	0.800	3.368	0.287	-0.011	-0.031	0.289	0.005
29.745	0.800	12.667	0.297	-0.008	0.032	0.299	0.014
29.745	0.800	11.533	0.326	-0.014	0.001	0.326	0.011
29.745	0.800	10.399	0.346	-0.016	-0.005	0.346	0.009
29.745	0.800	9.265	0.357	-0.018	-0.015	0.358	0.009
29.745	0.800	8.131	0.360	-0.014	-0.022	0.361	0.008
29.745	0.800	6.997	0.357	-0.019	-0.029	0.358	0.007
29.745	0.800	5.863	0.346	-0.018	-0.034	0.349	0.006
29.745	0.800	4.728	0.328	-0.016	-0.036	0.330	0.006
29.745	0.800	3.594	0.300	-0.009	-0.033	0.302	0.006
30.425	0.800	11.986	0.319	-0.012	0.018	0.320	0.012
30.425	0.800	10.852	0.342	-0.012	-0.004	0.343	0.009
30.425	0.800	9.718	0.357	-0.015	-0.024	0.358	0.008
30.425	0.800	8.584	0.360	-0.018	-0.026	0.361	0.008
30.425	0.800	7.450	0.360	-0.017	-0.033	0.362	0.007
30.425	0.800	6.316	0.350	-0.016	-0.036	0.353	0.007
30.425	0.800	5.182	0.335	-0.014	-0.042	0.338	0.006
30.425	0.800	4.048	0.314	-0.012	-0.036	0.316	0.006
31.105	0.800	12.440	0.314	-0.006	0.011	0.315	0.012
31.105	0.800	11.306	0.335	-0.011	0.000	0.335	0.010
31.105	0.800	10.172	0.350	-0.011	-0.007	0.351	0.009
31.105	0.800	9.038	0.354	-0.012	-0.029	0.355	0.008
31.105	0.800	7.904	0.357	-0.019	-0.022	0.358	0.008
31.105	0.800	6.770	0.353	-0.014	-0.033	0.355	0.007
31.105	0.800	5.636	0.348	-0.021	-0.040	0.351	0.006
31.105	0.800	4.502	0.328	-0.011	-0.040	0.331	0.006
31.105	0.800	3.368	0.290	-0.004	-0.027	0.291	0.006
31.786	0.800	12.894	0.305	-0.004	0.013	0.305	0.013
31.786	0.800	11.760	0.322	-0.005	-0.002	0.322	0.011
31.786	0.800	10.626	0.343	-0.012	-0.010	0.343	0.009
31.786	0.800	9.491	0.352	-0.015	-0.018	0.353	0.008
31.786	0.800	8.357	0.360	-0.017	-0.026	0.361	0.008
31.786	0.800	7.223	0.356	-0.019	-0.032	0.358	0.007

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
31.786	0.800	6.089	0.352	-0.014	-0.043	0.355	0.006
31.786	0.800	4.955	0.339	-0.015	-0.043	0.342	0.006
31.786	0.800	3.821	0.306	-0.008	-0.034	0.308	0.005
32.466	0.800	12.213	0.318	-0.007	0.006	0.318	0.011
32.466	0.800	11.079	0.333	-0.010	-0.011	0.333	0.010
32.466	0.800	9.945	0.350	-0.011	-0.012	0.350	0.008
32.466	0.800	8.811	0.354	-0.013	-0.025	0.356	0.009
32.466	0.800	7.677	0.361	-0.013	-0.041	0.363	0.007
32.466	0.800	6.543	0.358	-0.016	-0.042	0.360	0.006
32.466	0.800	5.409	0.344	-0.015	-0.043	0.347	0.006
32.466	0.800	4.275	0.323	-0.010	-0.033	0.324	0.006
33.147	0.800	12.667	0.313	-0.005	0.015	0.314	0.012
33.147	0.800	11.533	0.323	-0.004	-0.002	0.323	0.010
33.147	0.800	10.399	0.338	-0.005	-0.007	0.338	0.009
33.147	0.800	9.265	0.353	-0.010	-0.023	0.354	0.009
33.147	0.800	8.131	0.361	-0.011	-0.032	0.362	0.008
33.147	0.800	6.997	0.354	-0.017	-0.039	0.356	0.007
33.147	0.800	5.863	0.352	-0.012	-0.038	0.354	0.006
33.147	0.800	4.728	0.333	-0.009	-0.046	0.336	0.005
33.147	0.800	3.594	0.294	-0.002	-0.022	0.295	0.006
33.827	0.800	11.986	0.327	-0.003	-0.007	0.327	0.010
33.827	0.800	10.852	0.337	-0.002	-0.011	0.337	0.009
33.827	0.800	9.718	0.341	-0.003	-0.016	0.341	0.009
33.827	0.800	8.584	0.362	-0.007	-0.030	0.363	0.008
33.827	0.800	7.450	0.360	-0.013	-0.035	0.361	0.008
33.827	0.800	6.316	0.356	-0.011	-0.045	0.359	0.006
33.827	0.800	5.182	0.343	-0.010	-0.047	0.346	0.006
33.827	0.800	4.048	0.318	-0.005	-0.044	0.321	0.005
34.508	0.800	12.440	0.312	0.000	0.008	0.312	0.012
34.508	0.800	11.306	0.328	0.001	-0.009	0.329	0.009
34.508	0.800	10.172	0.344	0.001	-0.024	0.345	0.008
34.508	0.800	9.038	0.356	-0.006	-0.034	0.357	0.008
34.508	0.800	7.904	0.361	-0.006	-0.043	0.364	0.007
34.508	0.800	6.770	0.358	-0.013	-0.038	0.360	0.007
34.508	0.800	5.636	0.352	-0.013	-0.046	0.355	0.006
34.508	0.800	4.502	0.333	-0.009	-0.045	0.336	0.005
34.508	0.800	3.368	0.300	-0.002	-0.044	0.304	0.006
35.188	0.800	12.894	0.299	0.000	0.012	0.299	0.012
35.188	0.800	11.760	0.323	0.004	-0.003	0.323	0.011

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
35.188	0.800	10.626	0.337	0.001	-0.016	0.337	0.008
35.188	0.800	9.491	0.349	-0.003	-0.021	0.350	0.008
35.188	0.800	8.357	0.360	-0.008	-0.039	0.362	0.007
35.188	0.800	7.223	0.358	-0.012	-0.040	0.360	0.007
35.188	0.800	6.089	0.355	-0.010	-0.040	0.357	0.006
35.188	0.800	4.955	0.340	-0.011	-0.049	0.343	0.005
35.188	0.800	3.821	0.311	-0.003	-0.044	0.314	0.005
35.868	0.800	12.213	0.314	0.003	0.004	0.314	0.010
35.868	0.800	11.079	0.332	0.002	-0.007	0.333	0.009
35.868	0.800	9.945	0.344	-0.001	-0.022	0.344	0.008
35.868	0.800	8.811	0.353	-0.003	-0.029	0.354	0.008
35.868	0.800	7.677	0.357	-0.007	-0.031	0.359	0.008
35.868	0.800	6.543	0.358	-0.009	-0.048	0.361	0.006
35.868	0.800	5.409	0.350	-0.012	-0.055	0.354	0.005
35.868	0.800	4.275	0.329	-0.004	-0.051	0.333	0.005
36.549	0.800	12.667	0.306	0.001	0.000	0.306	0.011
36.549	0.800	11.533	0.327	-0.001	-0.002	0.327	0.010
36.549	0.800	10.399	0.339	-0.002	-0.025	0.340	0.008
36.549	0.800	9.265	0.349	-0.003	-0.021	0.350	0.008
36.549	0.800	8.131	0.359	-0.005	-0.031	0.361	0.008
36.549	0.800	6.997	0.360	-0.007	-0.039	0.363	0.007
36.549	0.800	5.863	0.351	-0.008	-0.046	0.354	0.006
36.549	0.800	4.728	0.333	-0.008	-0.053	0.337	0.006
36.549	0.800	3.594	0.308	-0.006	-0.048	0.311	0.005
37.229	0.800	11.986	0.317	0.002	-0.002	0.317	0.010
37.229	0.800	10.852	0.335	0.002	-0.008	0.335	0.008
37.229	0.800	9.718	0.341	-0.001	-0.020	0.342	0.008
37.229	0.800	8.584	0.351	-0.002	-0.031	0.353	0.008
37.229	0.800	7.450	0.357	-0.005	-0.042	0.360	0.007
37.229	0.800	6.316	0.351	-0.003	-0.041	0.354	0.006
37.229	0.800	5.182	0.341	-0.006	-0.056	0.346	0.006
37.229	0.800	4.048	0.322	-0.005	-0.053	0.326	0.006
37.910	0.800	12.440	0.307	0.008	-0.004	0.307	0.011
37.910	0.800	11.306	0.324	-0.001	-0.009	0.324	0.009
37.910	0.800	10.172	0.339	-0.002	-0.019	0.340	0.008
37.910	0.800	9.038	0.345	-0.005	-0.024	0.346	0.008
37.910	0.800	7.904	0.355	-0.007	-0.035	0.357	0.008
37.910	0.800	6.770	0.352	0.000	-0.041	0.354	0.007
37.910	0.800	5.636	0.346	-0.004	-0.052	0.350	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
37.910	0.800	4.502	0.327	-0.004	-0.053	0.332	0.006
37.910	0.800	3.368	0.302	-0.002	-0.057	0.308	0.006
38.590	0.800	12.894	0.300	0.007	0.005	0.300	0.012
38.590	0.800	11.760	0.319	0.006	-0.003	0.319	0.009
38.590	0.800	10.626	0.335	0.005	-0.012	0.336	0.009
38.590	0.800	9.491	0.344	0.002	-0.024	0.345	0.008
38.590	0.800	8.357	0.350	0.000	-0.031	0.351	0.008
38.590	0.800	7.223	0.356	0.000	-0.045	0.359	0.007
38.590	0.800	6.089	0.349	-0.003	-0.055	0.353	0.006
38.590	0.800	4.955	0.338	-0.004	-0.059	0.343	0.006
38.590	0.800	3.821	0.314	0.000	-0.057	0.319	0.006
39.271	0.800	12.213	0.313	0.006	-0.009	0.313	0.009
39.271	0.800	11.079	0.329	0.006	-0.014	0.329	0.009
39.271	0.800	9.945	0.339	0.003	-0.020	0.340	0.008
39.271	0.800	8.811	0.349	0.004	-0.033	0.350	0.008
39.271	0.800	7.677	0.355	-0.002	-0.041	0.357	0.007
39.271	0.800	6.543	0.352	-0.006	-0.048	0.356	0.007
39.271	0.800	5.409	0.342	-0.001	-0.064	0.348	0.006
39.271	0.800	4.275	0.326	0.000	-0.058	0.331	0.006
39.951	0.800	12.667	0.298	0.006	0.003	0.298	0.010
39.951	0.800	11.533	0.319	0.003	-0.005	0.319	0.009
39.951	0.800	10.399	0.340	0.003	-0.021	0.341	0.009
39.951	0.800	9.265	0.349	0.000	-0.029	0.351	0.008
39.951	0.800	8.131	0.356	-0.001	-0.044	0.358	0.008
39.951	0.800	6.997	0.351	-0.001	-0.051	0.354	0.007
39.951	0.800	5.863	0.350	-0.002	-0.062	0.355	0.006
39.951	0.800	4.728	0.333	-0.002	-0.063	0.339	0.006
39.951	0.800	3.594	0.308	0.000	-0.062	0.314	0.006
40.631	0.800	11.986	0.314	0.007	-0.006	0.314	0.010
40.631	0.800	10.852	0.328	0.009	-0.014	0.328	0.009
40.631	0.800	9.718	0.343	0.003	-0.021	0.344	0.009
40.631	0.800	8.584	0.348	-0.002	-0.035	0.349	0.008
40.631	0.800	7.450	0.353	-0.003	-0.048	0.357	0.007
40.631	0.800	6.316	0.352	-0.004	-0.055	0.356	0.006
40.631	0.800	5.182	0.341	0.001	-0.059	0.347	0.006
40.631	0.800	4.048	0.322	0.004	-0.065	0.328	0.005
41.312	0.800	12.440	0.305	0.007	0.001	0.306	0.010
41.312	0.800	11.306	0.318	0.005	-0.021	0.319	0.009
41.312	0.800	10.172	0.336	0.006	-0.024	0.336	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
41.312	0.800	9.038	0.351	0.000	-0.032	0.353	0.008
41.312	0.800	7.904	0.349	-0.004	-0.043	0.352	0.008
41.312	0.800	6.770	0.358	-0.005	-0.057	0.363	0.006
41.312	0.800	5.636	0.345	0.000	-0.060	0.350	0.006
41.312	0.800	4.502	0.329	0.004	-0.066	0.336	0.006
41.312	0.800	3.368	0.300	0.007	-0.066	0.307	0.006
41.992	0.800	12.894	0.299	0.003	0.005	0.299	0.012
41.992	0.800	11.760	0.319	0.009	-0.011	0.319	0.009
41.992	0.800	10.626	0.332	0.009	-0.015	0.333	0.009
41.992	0.800	9.491	0.343	0.011	-0.030	0.345	0.008
41.992	0.800	8.357	0.346	0.001	-0.037	0.348	0.008
41.992	0.800	7.223	0.353	0.000	-0.047	0.357	0.007
41.992	0.800	6.089	0.355	0.000	-0.058	0.359	0.006
41.992	0.800	4.955	0.332	0.005	-0.064	0.338	0.006
41.992	0.800	3.821	0.311	0.009	-0.068	0.319	0.005
42.673	0.800	12.213	0.313	0.008	-0.015	0.313	0.010
42.673	0.800	11.079	0.328	0.008	-0.020	0.329	0.009
42.673	0.800	9.945	0.343	0.008	-0.028	0.344	0.009
42.673	0.800	8.811	0.344	0.001	-0.033	0.346	0.008
42.673	0.800	7.677	0.351	0.002	-0.042	0.353	0.008
42.673	0.800	6.543	0.353	0.003	-0.053	0.357	0.007
42.673	0.800	5.409	0.339	0.004	-0.059	0.344	0.006
42.673	0.800	4.275	0.319	0.008	-0.065	0.326	0.006
43.353	0.800	12.667	0.304	0.008	0.004	0.304	0.011
43.353	0.800	11.533	0.322	0.007	-0.016	0.322	0.010
43.353	0.800	10.399	0.333	0.003	-0.023	0.334	0.009
43.353	0.800	9.265	0.345	0.004	-0.033	0.346	0.008
43.353	0.800	8.131	0.350	0.003	-0.043	0.352	0.008
43.353	0.800	6.997	0.358	0.001	-0.054	0.362	0.007
43.353	0.800	5.863	0.352	0.003	-0.062	0.357	0.006
43.353	0.800	4.728	0.328	0.006	-0.069	0.335	0.006
43.353	0.800	3.594	0.306	0.010	-0.071	0.315	0.006
44.034	0.800	11.986	0.316	0.007	-0.008	0.316	0.010
44.034	0.800	10.852	0.332	0.010	-0.022	0.333	0.009
44.034	0.800	9.718	0.346	0.007	-0.026	0.347	0.009
44.034	0.800	8.584	0.354	0.005	-0.041	0.357	0.008
44.034	0.800	7.450	0.354	0.001	-0.046	0.357	0.007
44.034	0.800	6.316	0.352	0.003	-0.060	0.357	0.006
44.034	0.800	5.182	0.333	0.007	-0.066	0.339	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
44.034	0.800	4.048	0.317	0.009	-0.075	0.326	0.006
44.971	0.800	12.894	0.290	0.007	0.008	0.290	0.012
44.971	0.800	12.213	0.304	0.009	-0.004	0.304	0.011
44.971	0.800	11.533	0.325	0.003	-0.011	0.325	0.010
44.971	0.800	10.852	0.335	0.012	-0.028	0.337	0.009
44.971	0.800	10.172	0.348	0.010	-0.038	0.350	0.008
44.971	0.800	9.491	0.359	0.007	-0.041	0.362	0.008
44.971	0.800	8.811	0.359	0.006	-0.051	0.362	0.007
44.971	0.800	8.131	0.360	0.006	-0.047	0.363	0.007
44.971	0.800	7.450	0.361	0.009	-0.061	0.366	0.006
44.971	0.800	6.770	0.356	0.008	-0.069	0.363	0.007
44.971	0.800	6.089	0.351	0.011	-0.069	0.358	0.006
44.971	0.800	5.409	0.349	0.010	-0.074	0.357	0.006
44.971	0.800	4.728	0.337	0.016	-0.080	0.347	0.006
44.971	0.800	4.048	0.317	0.016	-0.084	0.328	0.005
44.971	0.800	3.368	0.296	0.018	-0.086	0.309	0.006
46.105	0.800	12.440	0.306	0.010	-0.006	0.307	0.012
46.105	0.800	11.760	0.318	0.010	-0.022	0.319	0.011
46.105	0.800	11.079	0.327	0.015	-0.028	0.329	0.010
46.105	0.800	10.399	0.345	0.008	-0.034	0.347	0.008
46.105	0.800	9.718	0.349	0.013	-0.043	0.352	0.008
46.105	0.800	9.038	0.362	0.007	-0.055	0.366	0.008
46.105	0.800	8.357	0.361	0.010	-0.054	0.365	0.007
46.105	0.800	7.677	0.357	0.007	-0.053	0.361	0.007
46.105	0.800	6.997	0.357	0.007	-0.062	0.362	0.007
46.105	0.800	6.316	0.355	0.011	-0.071	0.363	0.006
46.105	0.800	5.636	0.349	0.014	-0.078	0.358	0.006
46.105	0.800	4.955	0.336	0.013	-0.079	0.345	0.006
46.105	0.800	4.275	0.324	0.017	-0.084	0.335	0.005
46.105	0.800	3.594	0.304	0.016	-0.083	0.315	0.006
47.239	0.800	12.667	0.301	0.012	-0.013	0.301	0.011
47.239	0.800	11.986	0.318	0.011	-0.017	0.319	0.010
47.239	0.800	11.306	0.328	0.015	-0.033	0.330	0.009
47.239	0.800	10.626	0.341	0.011	-0.042	0.344	0.009
47.239	0.800	9.945	0.349	0.011	-0.037	0.351	0.008
47.239	0.800	9.265	0.356	0.012	-0.051	0.360	0.007
47.239	0.800	8.584	0.359	0.007	-0.056	0.364	0.007
47.239	0.800	7.904	0.359	0.010	-0.058	0.364	0.007
47.239	0.800	7.223	0.359	0.009	-0.067	0.365	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
47.239	0.800	6.543	0.356	0.010	-0.072	0.363	0.006
47.239	0.800	5.863	0.353	0.013	-0.080	0.362	0.006
47.239	0.800	5.182	0.347	0.014	-0.085	0.358	0.006
47.239	0.800	4.502	0.334	0.012	-0.086	0.345	0.006
47.239	0.800	3.821	0.318	0.014	-0.089	0.331	0.006
48.373	0.800	12.894	0.297	0.012	-0.009	0.298	0.011
48.373	0.800	12.213	0.314	0.012	-0.017	0.314	0.010
48.373	0.800	11.533	0.323	0.018	-0.035	0.326	0.009
48.373	0.800	10.852	0.335	0.013	-0.030	0.337	0.009
48.373	0.800	10.172	0.343	0.015	-0.043	0.346	0.008
48.373	0.800	9.491	0.353	0.012	-0.051	0.356	0.007
48.373	0.800	8.811	0.355	0.007	-0.057	0.360	0.007
48.373	0.800	8.131	0.358	0.009	-0.056	0.362	0.007
48.373	0.800	7.450	0.359	0.010	-0.064	0.364	0.007
48.373	0.800	6.770	0.362	0.009	-0.075	0.370	0.006
48.373	0.800	6.089	0.352	0.012	-0.074	0.360	0.006
48.373	0.800	5.409	0.351	0.010	-0.080	0.360	0.005
48.373	0.800	4.728	0.338	0.011	-0.088	0.349	0.006
48.373	0.800	4.048	0.318	0.012	-0.089	0.330	0.006
48.373	0.800	3.368	0.288	0.008	-0.061	0.295	0.007
49.508	0.800	12.440	0.301	0.009	-0.013	0.301	0.010
49.508	0.800	11.760	0.324	0.014	-0.030	0.325	0.010
49.508	0.800	11.079	0.328	0.012	-0.031	0.330	0.009
49.508	0.800	10.399	0.340	0.014	-0.036	0.342	0.008
49.508	0.800	9.718	0.349	0.012	-0.047	0.352	0.008
49.508	0.800	9.038	0.353	0.013	-0.052	0.357	0.007
49.508	0.800	8.357	0.360	0.011	-0.059	0.365	0.007
49.508	0.800	7.677	0.359	0.010	-0.064	0.365	0.007
49.508	0.800	6.997	0.354	0.011	-0.067	0.361	0.007
49.508	0.800	6.316	0.350	0.012	-0.070	0.357	0.006
49.508	0.800	5.636	0.345	0.011	-0.078	0.354	0.006
49.508	0.800	4.955	0.339	0.014	-0.084	0.349	0.006
49.508	0.800	4.275	0.328	0.009	-0.088	0.340	0.006
49.508	0.800	3.594	0.305	0.004	-0.089	0.318	0.006
50.642	0.800	12.667	0.308	0.016	-0.020	0.310	0.010
50.642	0.800	11.986	0.318	0.015	-0.019	0.319	0.009
50.642	0.800	11.306	0.329	0.012	-0.031	0.331	0.008
50.642	0.800	10.626	0.341	0.015	-0.039	0.344	0.007
50.642	0.800	9.945	0.345	0.013	-0.042	0.348	0.008

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
50.642	0.800	9.265	0.349	0.014	-0.051	0.353	0.007
50.642	0.800	8.584	0.357	0.007	-0.065	0.363	0.007
50.642	0.800	7.904	0.356	0.007	-0.064	0.362	0.006
50.642	0.800	7.223	0.355	0.010	-0.067	0.361	0.006
50.642	0.800	6.543	0.356	0.011	-0.073	0.364	0.006
50.642	0.800	5.863	0.345	0.011	-0.081	0.354	0.006
50.642	0.800	5.182	0.337	0.011	-0.079	0.346	0.006
50.642	0.800	4.502	0.333	0.011	-0.088	0.345	0.006
50.642	0.800	3.821	0.306	0.004	-0.083	0.318	0.007
51.776	0.800	12.894	0.303	0.015	-0.020	0.304	0.011
51.776	0.800	12.213	0.314	0.017	-0.025	0.316	0.010
51.776	0.800	11.533	0.322	0.014	-0.027	0.323	0.008
51.776	0.800	10.852	0.332	0.012	-0.034	0.334	0.007
51.776	0.800	10.172	0.339	0.010	-0.045	0.342	0.007
51.776	0.800	9.491	0.350	0.012	-0.049	0.353	0.007
51.776	0.800	8.811	0.347	0.011	-0.044	0.350	0.007
51.776	0.800	8.131	0.352	0.009	-0.058	0.357	0.007
51.776	0.800	7.450	0.349	0.011	-0.062	0.355	0.006
51.776	0.800	6.770	0.349	0.010	-0.067	0.356	0.006
51.776	0.800	6.089	0.346	0.009	-0.068	0.353	0.006
51.776	0.800	5.409	0.338	0.012	-0.078	0.347	0.005
51.776	0.800	4.728	0.331	0.006	-0.080	0.340	0.006
51.776	0.800	4.048	0.306	0.002	-0.080	0.317	0.006
51.776	0.800	3.368	0.258	-0.009	-0.064	0.266	0.008
52.910	0.800	12.440	0.306	0.021	-0.023	0.308	0.009
52.910	0.800	11.760	0.322	0.019	-0.029	0.324	0.008
52.910	0.800	11.079	0.328	0.015	-0.033	0.330	0.008
52.910	0.800	10.399	0.341	0.017	-0.035	0.344	0.007
52.910	0.800	9.718	0.342	0.015	-0.042	0.344	0.007
52.910	0.800	9.038	0.349	0.014	-0.048	0.353	0.006
52.910	0.800	8.357	0.347	0.012	-0.054	0.351	0.006
52.910	0.800	7.677	0.353	0.009	-0.051	0.357	0.006
52.910	0.800	6.997	0.349	0.013	-0.064	0.355	0.006
52.910	0.800	6.316	0.346	0.011	-0.064	0.352	0.006
52.910	0.800	5.636	0.345	0.007	-0.067	0.351	0.006
52.910	0.800	4.955	0.331	0.006	-0.071	0.338	0.006
52.910	0.800	4.275	0.300	-0.001	-0.072	0.309	0.006
52.910	0.800	3.594	0.255	-0.012	-0.058	0.262	0.008
54.044	0.800	12.667	0.309	0.021	-0.012	0.310	0.009

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
54.044	0.800	11.986	0.314	0.020	-0.013	0.315	0.008
54.044	0.800	11.306	0.327	0.021	-0.031	0.329	0.008
54.044	0.800	10.626	0.330	0.015	-0.031	0.332	0.007
54.044	0.800	9.945	0.344	0.020	-0.034	0.346	0.006
54.044	0.800	9.265	0.347	0.016	-0.045	0.350	0.006
54.044	0.800	8.584	0.346	0.012	-0.046	0.349	0.006
54.044	0.800	7.904	0.346	0.013	-0.050	0.350	0.006
54.044	0.800	7.223	0.353	0.009	-0.055	0.357	0.006
54.044	0.800	6.543	0.343	0.007	-0.063	0.349	0.005
54.044	0.800	5.863	0.337	0.008	-0.061	0.342	0.006
54.044	0.800	5.182	0.326	0.003	-0.064	0.332	0.006
54.044	0.800	4.502	0.301	-0.004	-0.053	0.306	0.007
54.044	0.800	3.821	0.257	-0.013	-0.046	0.261	0.007
55.178	0.800	12.894	0.306	0.017	-0.009	0.307	0.009
55.178	0.800	12.213	0.317	0.020	-0.014	0.318	0.008
55.178	0.800	11.533	0.320	0.019	-0.011	0.321	0.008
55.178	0.800	10.852	0.329	0.020	-0.021	0.331	0.007
55.178	0.800	10.172	0.336	0.018	-0.024	0.338	0.007
55.178	0.800	9.491	0.345	0.016	-0.027	0.346	0.006
55.178	0.800	8.811	0.347	0.014	-0.035	0.349	0.006
55.178	0.800	8.131	0.351	0.012	-0.042	0.354	0.006
55.178	0.800	7.450	0.348	0.010	-0.047	0.351	0.006
55.178	0.800	6.770	0.346	0.010	-0.047	0.349	0.005
55.178	0.800	6.089	0.338	0.005	-0.051	0.342	0.005
55.178	0.800	5.409	0.328	-0.003	-0.050	0.332	0.005
55.178	0.800	4.728	0.310	-0.011	-0.047	0.314	0.006
55.178	0.800	4.048	0.264	-0.014	-0.038	0.267	0.007
55.178	0.800	3.368	0.207	-0.016	-0.018	0.208	0.007
56.312	0.800	12.440	0.319	0.028	-0.002	0.320	0.007
56.312	0.800	11.760	0.325	0.025	-0.006	0.326	0.007
56.312	0.800	11.079	0.332	0.021	-0.008	0.333	0.007
56.312	0.800	10.399	0.342	0.019	-0.011	0.342	0.007
56.312	0.800	9.718	0.345	0.018	-0.012	0.346	0.006
56.312	0.800	9.038	0.350	0.014	-0.017	0.350	0.006
56.312	0.800	8.357	0.349	0.011	-0.019	0.350	0.006
56.312	0.800	7.677	0.351	0.009	-0.030	0.352	0.006
56.312	0.800	6.997	0.345	0.004	-0.035	0.346	0.006
56.312	0.800	6.316	0.343	-0.004	-0.036	0.345	0.005
56.312	0.800	5.636	0.332	-0.007	-0.035	0.334	0.006

X (cm)	Y (cm)	Z (cm)	Vx (m/s)	Vy (m/s)	Vz (m/s)	Vmag (m/s)	TKE (m^2/s^2)
56.312	0.800	4.955	0.312	-0.012	-0.033	0.314	0.006
56.312	0.800	4.275	0.276	-0.020	-0.022	0.278	0.006
56.312	0.800	3.594	0.226	-0.022	-0.007	0.228	0.007

APPENDIX E

MATLAB FILES

E.1 Convergence Test for Stereo PIV Sampling.

```
function VelocitySpreadGap_Simple

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Instructions:
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% 1. Export a set of vector maps as .dat files to a known directory.
%    Let DaVis create the file names (i.e. B00001, B00002, .....).
%    Make sure you export only X, Y, Z, VX, VY, and VZ or you will have
%    to manipulate the code.
% 2. Change the value of "NumOfFiles" to reflect the number of .dat
%    files you plan to use
% 3. Change the values of the array "NSamples" to reflect which sample
%    sizes you will plot. The minimum and maximum values must not
%    exceed the number of files you have.
% 4. Change the directory in the code labeled "PathName" to the
%    directory containing all the .dat files
% 5. Change the values of "RowsY" and "ColumnX" to match the dimensions
%    of your vector map.
% 6. Change the values of "XLoc", "YLoc", "YMax", and "YMin" to reflect
%    your measurement point.
% 7. Run the code on a 64-bit version of Windows with 6-8 gigs of ram
%    if you plan to analyze over 1000 vector maps.
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

clc
clear all

% Define Number of Files:
NumOfFiles = 4000;

% Selected Sample Sizes
NSamples = [5 10 25 50 100 250 500 1000 1500 2000 2500 3000 3500 4000];

% Directory containing .dat files
PathName = 'E:\Stereo PIV\Exported Files\SC_Smooth15_1000\Velocity
Components\SemiCircleSmooth4000_12.70_Vector Field\';
RowsY    = 77;  % Number of vectors in image for y-dir
ColumnsX = 103; % Number of vectors in image for x-dir

% Determine the file names from DaVis
Images = 1:NumOfFiles;

% Allocate space
Qx = zeros(RowsY,ColumnsX,NumOfFiles);
Qy = zeros(RowsY,ColumnsX,NumOfFiles);
```

```
% Open files and pull x, y, z, vx, vy, vz
for m = 1:NumOfFiles
    clear X Y Z VX VY VZ xx i j k FileName PFileName fid

    % Format Image # to 5 units:
    Image = sprintf('%05d', Images(m));

    % Filename: B#####.dat:
    FileName = ['B', Image, '.dat'];

    % File path and name:
    PFileName = fullfile(PathName,FileName);

    % Open File
    fid = fopen(PFileName);

    % Write vectors to file
    C = textscan(fid,'%n %n %n %n %n %n', 'headerLines', 3);

    % Write sorted values to arrays
    X  = C{1};
    Y  = C{2};
    Z  = C{3};
    VX = C{4};
    VY = C{5};
    VZ = C{6};

    % Remove repeated x and y values and sort:
    [M] = sort(unique(X));
    [N] = sort(unique(Y),'descend');

    % Count size of each unique vector:
    Columns = size(unique(Y),1);
    Rows    = size(unique(X),1);

    % Write velocity into matrix form
    Qxx(:,:)  = reshape(VX,Rows, Columns)';
    Qx(:,:,m) = Qxx(:,:);

    Qyy(:,:)  = reshape(VY,Rows, Columns)';
    Qy(:,:,m) = Qyy(:,:);

    fclose(fid);

end

% Plot Velocity Vector Field:
figure, quiver(X,Y,VX,VY)

savefile = 'VFile.mat';
```

```
save(savefile, 'X', 'Y', 'Qx', 'Qy', 'NumOfFiles', 'NSamples')

clear all

PlotData

end
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

function PlotData
% Define the tube boundaries in Y

load VFile.mat

% Define limits
% (x,y) at center of PIV FOV:
XLoc = 0;
YLoc = 20.6;

% y range for PIV FOV::
YMax = 65;
YMin = -65;

% Determine the matrix boundaries
[M] = sort(unique(X));
[N] = sort(unique(Y),'descend');
dy  = N(1) - N(2);
p1  = interp1(N,1:size(N),YMax,'nearest');
p2  = interp1(N,1:size(N),YMin,'nearest');
py  = p1:p2;
px  = interp1(M,1:size(M),XLoc,'nearest');
YValue = interp1(N,1:size(N),YLoc,'nearest');

% Actual Boundary Values
p1a = N(p1);
p2a = N(p2);
pxa = M(px);
YValuea = N(YValue);

% Slice the geometry by the created boundaries
QxSlice = Qx(py, px, 1:NumOfFiles);
QQxSlice = reshape(QxSlice,size(py,2),NumOfFiles);
QySlice = Qy(py, px, 1:NumOfFiles);
QQySlice = reshape(QySlice,size(py,2),NumOfFiles);

% Determine the slice boundaries
% Find the offset between location 1 and Y Max
RealY = YValue - p1 + 1;

% Create and array for chopped Y
y = YMin:dy:YMax+1;
```

```
% Create additional figure
figure

% Calculate mean along RealyY
VAvgxAtReallY = mean(QQxSlice(RealY,:));
VAvgyAtReallY = mean(QQySlice(RealY,:));

% Determine size of sample array
j = size(NSamples);

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Iterate from 1 to size of sample array
for k = 1:j(2)

    % 100 random sets
    for q = 1:100
    % Generate new random set for each
    r = randi([1 NumOfFiles],NSamples(k),1);
        % Iterate from 1 to length of py
        for m = 1:size(py,2)
            % Calculate ensemble average
            EnsembleAvgx(m,q,k) = mean(QQxSlice(m,r),2);
            % Calculate turbulent stress
            TurbStressx(m,q,k) = 1 / (NSamples(k)-1)*sum((QQxSlice(m,r)
                  - VAvgxAtReallY).^2);

            % Calculate ensemble average
            EnsembleAvgy(m,q,k) = mean(QQySlice(m,r),2);
            % Calculate turbulent stress
            TurbStressy(m,q,k) = 1 / (NSamples(k)-1)*sum((QQySlice(m,r)
                  - VAvgyAtReallY).^2);
        end
    end

    subplot(2,2,1); semilogx(NSamples(k), EnsembleAvgx(RealY,:,k),...
        ks','MarkerEdgeColor','k','MarkerFaceColor','r','MarkerSize',3)
    hold on

    subplot(2,2,3); semilogx(NSamples(k), TurbStressx(RealY,:,k),...
       'ks','MarkerEdgeColor','k','MarkerFaceColor','r','MarkerSize',3)
    hold on

    subplot(2,2,2); semilogx(NSamples(k), EnsembleAvgy(RealY,:,k),...
       'ks','MarkerEdgeColor','k','MarkerFaceColor','r','MarkerSize',3)
    hold on

    subplot(2,2,4); semilogx(NSamples(k), TurbStressy(RealY,:,k),...
       'ks','MarkerEdgeColor','k','MarkerFaceColor','r','MarkerSize',3)
    hold on
```

```
    % Calculate the mean
    TSMeanx = mean2(TurbStressx(RealY,:,k));
    TSMeany = mean2(TurbStressy(RealY,:,k));

    % Find the range for each value of N
    ENSXRange(k) =
range(EnsembleAvgx(RealY,:,k))/abs(VAvgxAtReallY)*100;
    TSXRange(k) = range(TurbStressx(RealY,:,k))/abs(TSMeanx)*100;
    ENSYRange(k) =
range(EnsembleAvgy(RealY,:,k))/abs(VAvgyAtReallY)*100;
    TSYRange(k) = range(TurbStressy(RealY,:,k))/abs(TSMeany)*100;

end

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Plot Average Velocity in x
Avgx = logspace(0,3.5,NumOfFiles);
subplot(2,2,1), semilogx(Avgx,
VAvgxAtReallY,'or','MarkerEdgeColor','k','MarkerFaceColor','g',...
    'MarkerSize',2)
hold on

% Plot Average Velocity
subplot(2,2,3), semilogx(Avgx, TSMeanx,'or','MarkerEdgeColor','k',...
    'MarkerFaceColor','g','MarkerSize',2)
hold on

% Plot Average Velocity in x
Avgx = logspace(0,3.5,NumOfFiles);
subplot(2,2,2), semilogx(Avgx, VAvgyAtReallY,'or','MarkerEdgeColor',...
    'k','MarkerFaceColor','g','MarkerSize',2)
hold on

% Plot Average Velocity
subplot(2,2,4), semilogx(Avgx, TSMeany,'or','MarkerEdgeColor','k',...
    'MarkerFaceColor','g','MarkerSize',2)
hold on

% Label the plots
subplot(2,2,1)
title(['Gap Flow Ensemble Avg in x-dir vs Samples Size at [x,y] = [',
num2str(XLoc) ', ' num2str(YValuea),'] mm'])
ylabel('u_{N} (m/s)')
xlabel('N')
grid
```

```
subplot(2,2,3)
title(['Gap Flow Turbulence Stress in x-dir vs Samples Size at at [x,y]
= [',num2str(XLoc) ', ' num2str(YValuea),'] mm'])
    ylabel('u _{N} ^{'' ^{2}}  (m ^{2} /s ^{2})')
xlabel('N')
grid

subplot(2,2,2)
title(['Gap Flow Ensemble Avg in y-dir vs Samples Size at [x,y] = [',
num2str(XLoc) ', ' num2str(YValuea),'] mm'])
ylabel('v_{N} (m/s)')
xlabel('N')
grid

subplot(2,2,4)
title(['Gap Flow Turbulence Stress in y-dir vs Samples Size at at [x,y]
= [',num2str(XLoc) ', ' num2str(YValuea),'] mm'])
    ylabel('v _{N} ^{'' ^{2}}  (m ^{2} /s ^{2})')
xlabel('N')
grid

%%
figure
dat = [ENSXRange(:), TSXRange(:), ENSYRange(:), TSYRange(:)];
cnames = {'x-Ensemble','x-Turb Streses', 'y-Ensemble' ,'y-Turb
Streses'};
t =
uitable('data',dat,'ColumnName',cnames,'RowName',NSamples,'Position',
    [20 20 355 300]);
end
```

E.2 Convergence Test for ADV Sampling.

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Tracie Jackson
% Lab Experiments
%
% Program: ADV_Sample_Convergence.m
% Purpose: To upload filtered ADV data (vx) and create convergence
% plots based on number of samples.
%
% Part A. Upload velocity data from text file and Assign to Arrays.
% Part B. Compute Sample Convergence for Shear Layer
% Part C. Plot Sample Convergence
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

%NOTE: To stop execution, pres ctrl+c in command window
%****** Make sure to delete title row 1 from text file and save!!!!!
%******        This is REQUIRED for this program to work!!!!!

clear
format ('compact')
format ('short')
clc

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Part A. Upload velocity data from text file.
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Load ADV .txt file of "N" number of Streamwise Velocity Samples
% Ensure title row is deleted in first line.

load SC_15S_SL.txt;
U = SC_15S_SL;

N = length(U);      % Total samples collected in file
a = [1:N]';         % Generate sample numbers for plots
aveU = mean(U);     % Average U value (Should be negative)
t = 500;            % # of repeated tests to be done
A = {char(['Remaining samples after filtering = ',num2str(N)])};

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Part B. Compute Sample Convergence
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Sample Size Groups:
s = 500 : 250 : 6750;
% Size and Zero out results matrix
Ubar = zeros(t,length(s));      % formatted as j,i
Urms = zeros(t,length(s));      % formatted as j,i
```

```
% Loop for each Sample Size Group:
for i = 1:length(s)
    % Repeated Tests
    for j = 1:t;
        % Random number generator reorders a matrix of #1 - 8000
        Randnum = randperm(N);

        % Individual Group Calc(select first #samples from Randnum)
        for k = 1:s(i);
            % Select Random number based on k
            R = Randnum(k);
            Ubar(j,i) = U(R) + Ubar(j,i);
            Urms(j,i) = ((U(R) - aveU)^2) + Urms(j,i);
        end

    Ubar(j,i) = Ubar(j,i)/s(i);
    Urms(j,i) = sqrt(Urms(j,i)/s(i));

    end

end

% Non-dimensionalize Ubar and Urms:
UbarU = Ubar/aveU;
UrmsU = Urms/abs(aveU);

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Part C. Plot Sample Convergence
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Plot Vx/Mean(Vx) vs. # Samples
figure(1)
plot(a,U/aveU,'.','markersize',10)
xlabel('N','fontsize',14);
ylabel('U / U all','fontsize',14);
set(gca,'fontsize',16)  % Set axis scale font size
title(A,'FontSize',16)  % Samples in pool remaining and Font Size

%%%%%%%%%%%%                     Convergence Tests
%%%%%%%%%%%%

% Plot Vx/Mean(Vx) vs. # Samples
figure(2)
plot(s,UbarU,'*','MarkerEdgeColor','b','markersize',10)
xlabel('N','fontsize',14);
ylabel('U bar / U all','fontsize',14);
set(gca,'fontsize',16)  % Set axis scale font size
title('Sample Convergence for Vx','FontSize',16)
```

```
% Plot RMS[Vx]/Mean(Vx) vs. # Samples
figure(3)
plot(s,UrmsU,'*','MarkerEdgeColor','b','markersize',10)
xlabel('N','fontsize',14);
ylabel('U rms / U all','fontsize',14);
set(gca,'fontsize',16)  % Set axis scale font size
title('Sample Convergence for RMS[Vx]','FontSize',16)
```

E.3 Computing Energy Spectra.

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Tracie Jackson
% Lab Experiments
%
% Program: EnergySpectra.m
% Purpose: To upload microADV time series data at specified x, y, and z
% locations and plot energy spectra.
%
% Part A. Upload position and velocity data from excel file.
% Part B. Compute Energy Spectra
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

clear
clc
close all

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Define Global Parameters
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
U1 = 0.55;              % Mean Channel Velocity, m/s, Smooth Case
U2 = 0.33;              % Mean Channel Velocity, m/s, Rough Low Flow
U3 = 0.47;              % Mean Channel Velocity, m/s, Rough High Flow
W  = 0.24;              % Cavity width, m
L  = 0.60;              % Cavity length, m

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Part A. Upload microADV data and Assign to Arrays
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Read in microADV Data from Excel File:
WP    = xlsread('SemiCircle.xlsx');       % load data into array
MLs15 = xlsread('ADVdataMLSmooth.xlsx');  % load data into array
MLr15 = xlsread('ADVdataMLRough15.xlsx'); % load data into array
MLr23 = xlsread('ADVdataMLRough23.xlsx'); % load data into array

% Obtain size of Arrays:
[a,b] = size(WP);            % a is # of data points; b is # of columns
[c,d] = size(MLs15);         % c is # of data points; d is # of columns
[e,f] = size(MLr15);         % e is # of data points; f is # of columns
[g,h] = size(MLr23);         % g is # of data points; h is # of columns

% Assign uploaded Wetted Perimeter data to arrays:
for i = [1:1:a]
    xp(i)      = WP(i,1);            % Assign  1st column of WP to x
    yp(i)      = -WP(i,2)/100;       % Assign  2nd column of WP to y
    zp(i)      = WP(i,3);            % Assign  3rd column of WP to z
end
```

```
 % Assign uploaded mixing layer data to arrays (Smooth case):
for i = [1:1:c]
    xS15(i)     = MLs15(i,1);      % Assign  1st column to x
    yS15(i)     = MLs15(i,2);      % Assign  2nd column to y
    zS15(i)     = MLs15(i,3);      % Assign  3rd column to z
    vxS15(i)    = -MLs15(i,4)/100; % Assign  4th column to vx
    vyS15(i)    = MLs15(i,5)/100;  % Assign  5th column to vy
    vzS15(i)    = MLs15(i,6)/100;  % Assign  6th column to vz
    vxrmsS15(i) = MLs15(i,8)/100;  % Assign  8th column to vxrms
    vyrmsS15(i) = MLs15(i,9)/100;  % Assign  9th column to vyrms
    vzrmsS15(i) = MLs15(i,10)/100; % Assign 10th column to vzrms
end

xS15 = (xS15 - min(xS15) + 0.05);

% Assign uploaded mixing layer data to arrays (Rough Low Flow case):
for i = [1:1:e]
    xR15(i)     = MLr15(i,1);       % Assign  1st column to x
    yR15(i)     = MLr15(i,2);       % Assign  2nd column to y
    zR15(i)     = MLr15(i,3);       % Assign  3rd column to z
    vxR15(i)    = -MLr15(i,4)/100;  % Assign  4th column to vx
    vyR15(i)    = MLr15(i,5)/100;   % Assign  5th column to vy
    vzR15(i)    = MLr15(i,6)/100;   % Assign  6th column to vz
    vxrmsR15(i) = MLr15(i,8)/100;   % Assign  8th column to vxrms
    vyrmsR15(i) = MLr15(i,9)/100;   % Assign  9th column to vyrms
    vzrmsR15(i) = MLr15(i,10)/100;  % Assign 10th column to vzrms
end

xR15 = (xR15 - min(xR15) + 0.05);

% Assign uploaded mixing layer data to arrays (Rough High Flow case):
for i = [1:1:g]
    xR23(i)     = MLr23(i,1);       % Assign  1st column to x
    yR23(i)     = MLr23(i,2);       % Assign  2nd column to y
    zR23(i)     = MLr23(i,3);       % Assign  3rd column to z
    vxR23(i)    = -MLr23(i,4)/100;  % Assign  4th column to vx
    vyR23(i)    = MLr23(i,5)/100;   % Assign  5th column to vy
    vzR23(i)    = MLr23(i,6)/100;   % Assign  6th column to vz
    vxrmsR23(i) = MLr23(i,8)/100;   % Assign  8th column to vxrms
    vyrmsR23(i) = MLr23(i,9)/100;   % Assign  9th column to vyrms
    vzrmsR23(i) = MLr23(i,10)/100;  % Assign 10th column to vzrms
end

xR23 = (xR23 - min(xR23) + 0.05);
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Part B. 3-D Kinetic Energy Spectra
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

%----------------------------------------------------------------------
% Depth-Average vxrms, vyrms, and vzrms at each point in mixing layer:
% Define arrays of x, vx', vy', and vz'
% Smooth 15-cm depth
for i = 1:1:length(xS15)
    XY1(i,:) = [xS15(i), vxrmsS15(i), vyrmsS15(i), vzrmsS15(i)];
end

% Rough 15-cm depth
for i = 1:1:length(xR15)
    XY2(i,:) = [xR15(i), vxrmsR15(i), vyrmsR15(i), vzrmsR15(i)];
end

% Rough 23-cm depth
for i = 1:1:length(xR23)
    XY3(i,:) = [xR23(i), vxrmsR23(i), vyrmsR23(i), vzrmsR23(i)];
end
%----------------------------------------------------------------------

% Sort arrays by position, x (First column):
% Smooth 15-cm depth
[~,index1] = sort(XY1(:,1));
Sort_XY1   = XY1(index1,:);

% Rough 15-cm depth
[~,index2] = sort(XY2(:,1));
Sort_XY2   = XY2(index2,:);

% Rough 23-cm depth
[~,index3] = sort(XY3(:,1));
Sort_XY3   = XY3(index3,:);

%----------------------------------------------------------------------
% Average vrms for duplicate values of depth::
% Smooth 15-cm depth
[x_nd1,last1,occur1] = unique(Sort_XY1(:,1),'rows');
vxrms_avg1 = [accumarray(occur1,Sort_XY1(:,2))./accumarray(occur1,1)];
vyrms_avg1 = [accumarray(occur1,Sort_XY1(:,3))./accumarray(occur1,1)];
vzrms_avg1 = [accumarray(occur1,Sort_XY1(:,4))./accumarray(occur1,1)];

% Rough 15-cm depth
[x_nd2,last2,occur2] = unique(Sort_XY2(:,1),'rows');
vxrms_avg2 = [accumarray(occur2,Sort_XY2(:,2))./accumarray(occur2,1)];
vyrms_avg2 = [accumarray(occur2,Sort_XY2(:,3))./accumarray(occur2,1)];
vzrms_avg2 = [accumarray(occur2,Sort_XY2(:,4))./accumarray(occur2,1)];
```

```
% Rough 23-cm depth
[x_nd3,last3,occur3] = unique(Sort_XY3(:,1),'rows');
vxrms_avg3 = [accumarray(occur3,Sort_XY3(:,2))./accumarray(occur3,1)];
vyrms_avg3 = [accumarray(occur3,Sort_XY3(:,3))./accumarray(occur3,1)];
vzrms_avg3 = [accumarray(occur3,Sort_XY3(:,4))./accumarray(occur3,1)];
%-----------------------------------------------------------------------

% Length of domain (x length from first to last point in mixing layer):
L1 = max(XY1(:,1)) - min(XY1(:,1));
L2 = max(XY2(:,1)) - min(XY2(:,1));
L3 = max(XY3(:,1)) - min(XY3(:,1));



%-----------------------------------------------------------------------
% Fourier Transform: Energy Spectra

N = 2000;                      % Number of data points output by FFT

% Smooth 15-cm depth
TKES15 = 0.5.*(abs(fft(vxrms_avg1.^2,N)).^2 +
abs(fft(vyrms_avg1.^2,N)).^2 ...
    + abs(fft(vzrms_avg1.^2,N)).^2);
% Rough 15-cm depth
TKER15 = 0.5.*(abs(fft(vxrms_avg2.^2,N)).^2 +
abs(fft(vyrms_avg2.^2,N)).^2 ...
    + abs(fft(vzrms_avg2.^2,N)).^2);
% Rough 23-cm depth
TKER23 = 0.5.*(abs(fft(vxrms_avg3.^2,N)).^2 +
abs(fft(vyrms_avg3.^2,N)).^2 ...
    + abs(fft(vzrms_avg2.^3,N)).^2);

% Discard Half of Fourier Coefficient Points (1/2 Real; 1/2 Imaginary)
TKES15 = TKES15(1:N/2);
TKER15 = TKER15(1:N/2);
TKER23 = TKER23(1:N/2);

n  = (0:N/2-1)/N;               % Fourier modes, meters
k1 = (2.*pi.*n)./L1;            % Wavenumber, k = 2*pi*n/L
k2 = (2.*pi.*n)./L2;            % Wavenumber, k = 2*pi*n/L
k3 = (2.*pi.*n)./L3;            % Wavenumber, k = 2*pi*n/L
%-----------------------------------------------------------------------
```

```
%----------------------------------------------------------------------
% Energy Spectrum Plots:
%----------------------------------------------------------------------
figure(1)
loglog(k2,TKER15,'b','LineWidth',1.5)
hold on
loglog(k3,TKER23,'g','LineWidth',1.5)
hold on
loglog(k1,TKES15,'k','LineWidth',1.5)
hold on

xlabel('Wave Number','FontWeight','bold','FontSize',14)
ylabel('Energy Spectra','FontWeight','bold','FontSize',14)
axis([0.01 10 0.000001 1])
legend('Rough Low Flow','Rough High Flow','Smooth',3)
set(gca,'FontSize',12)
text(1., 0.5,'Semi-Circular','FontSize',14)
```