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Salinity Transport in a Finite-Volume Sigma-Layer Three-Dimensional Model

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Salinity Transport in a Finite-Volume Sigma-Layer Three-Dimensional Model

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NOMENCLATURE

Symbol	Description	Units
ρ	Density	M/L^3
ω	Velocity Z-direction	L/T
ν	Kinematic viscosity	L^2/T
τ	Bottom shear stress	$M/L/T^2$
η	Water surface elevation	L
∇	Divergence operator	L^{-1}
ω	Angular frequency	T^{-1}
θ	Angular polar coordinate	T^{-1}
σ	Standard deviation	
ϕ	Conserved quantity	
σ_k	Turbulent Prandtl number	Dimensionless
Ω^{TCE}; Ω^{MCE}	Tracer and Momentum control elements, respectively	L^2
A	Area	L^2
A_h	Horizontal thermal diffusive term	L^2/T
A_m	Horizontal eddy coefficient	L^2/T
a_o	Tidal amplitude	L
c	Surface phase speed	L/T
c_1,c_2.c_3	Coefficients in the k-ε turbulent model	
c_{bc}	Baroclinic phase speed	L/T
Cf	Bottom shear stress coefficient	Dimensionless
D	Total water column	L
E1; W	Coefficients in the "q-ql" turbulent kinetic model	
F	Froude number	Dimensionless
f	Coriolis parameter	T^{-1}
F`	Densimetric Froude number	Dimensionless
F_l	Horizontal diffusion of the macroscale	L^3/T^3
F_q	Horizontal diffusion of the turbulent kinetic energy	L^2/T^3
F_S	Salt diffusion term	$M/L^3/T$
F_T	Thermal diffusion term	$M/L^3/T$
F_u	Horizontal momentum in the X-coordiante	L/T^2
F_v	Horizontal momentum in the Y-coordiante	L/T^2
F_x	Horizontal diffusion term in the X-coordinate	$M/L^3/T$
F_y	Horizontal diffusion term in the Y-coordinate	$M/L^3/T$
g	Gravity	L/T^2
G	Turbulent buoyancy production in the k-ε turbulent model	L^2/T^3
g`	Reduced gravity	L/T^2
H	Bottom depth relative to the Mean Sea Level	L

$H_n^{(1)}$	Hankel function of the first kind for the "n" order	
H; h	Water depth	L
h_c	Water depth of tidal pass	L
$H_n^{(2)}$	Hankel function of the second kind for the "n" order	
i	Imaginary unit	
J_1	Bessel function of the first kind for the first order	
J_2	Bessel function of the first kind for the second order	
K_h	Thermal vertical eddy diffusion coefficient	L^2/T
K_m	Vertical eddy viscosity coefficient	L^2/T
K_q	Vertical eddy diffusivity of the turbulent kinetic energy	L^2/T
L	Length of the plate	L
l	Turbulent macroscale	L
P	Pressure	$M/L/T^2$
P	Turbulent shear production in the k-ε turbulent model	L^2/T^3
P_b	Buoyancy production term of the turbulent kinetic energy	L^2/T^3
P_s	Shear production term of the turbulent kinetic energy	L^2/T^3
q^2	Turbulent kinetic energy	L^2/T^2
r	Radial polar coordinate	L
Re_x; Re_L; Re	Reynolds number	Dimensionless
S	Salinity	M/L^3; M/M [ppt]
t	Time	T
T_f	Friction time scale	T
U, u	Velocity X-direction	L/T
v	Velocity Y-direction	L/T
v_n	Normal velocity	L/T
Vr	Radial velocity	L/T
v_t	Turbulent viscosity	L^2/T
x	X Cartesian coordinate	L
y	Y Cartesian coordinate	L
Y_1	Bessel function of the second kind for the first order	
Y_2	Bessel function of the second kind for the second order	
z	Z Cartesian coordinate	L
z_{ab}	Half thickness of the bottom sigma layer	Dimensionless
z_o	Bottom roughness	L
ε	Turbulent kinetic energy dissipation rate	L^2/T^3
κ	Von Karman constant	Dimensionless

ABSTRACT

The objective of this study was to develop a 3-D model for The Pontchartrain Estuary that was capable of long-term mass conservative simulation of salinities. This was accomplished in a multi-stage approach involving: a physical model of salinity exchange through a pass; a 3-D FVCOM model of the physical experiment; the development and testing of an FVCOM model for an idealized Pontchartrain Basin; and for the entire estuary.

The data from the physical model tests were used to validate the performance of the FVCOM model with density-driven flows. These results showed that hydrostatic FVCOM captured the primary internal wave movement. The idealized basin simulations were used to evaluate several issues related to salinity transport, namely the relative importance of baroclinic forcing, tidal forcing and hydrology. The idealized domain also permitted the testing of sigma-gradients, spatial distribution of friction coefficients, wind stress and various boundary treatments. The results showed that the density-driven exchange of saltwater at the open boundary required a baroclinic boundary condition for salinity as well as a lateral filter at the boundary on each sigma layer. A new radiative baroclinic open boundary condition was developed for FVCOM.

When tides and hydrology were included, the FVCOM model was shown to reproduce the seasonal salinity that has been observed for long-term periods. It was also found that the simulation of tides and salinity in FVCOM is very sensitive to the spatial distribution of the friction coefficient; relatively low friction was required in the open

water regions and high friction was needed in the passes and waterways to reproduce the tides and salinity distribution. A variable friction coefficient option was coded on FVCOM.

The findings from the idealized model were utilized to setup two models for the actual estuary. Both models extend from Lake Maurepas, one to the Chandeleurs Islands and the other to Mobile Bay. The baroclinic open boundary and variable friction were implemented in these models. They were calibrated for tides and salinity. The 2008 Bonnet Carré Spillway Opening was applied to the first model. A tidal pumping effect in Lake Pontchartrain was observed and captured by the model.

Keywords: Pontchartrain Estuary, Salinity Model, Baroclinic Open Boundary, Sigma-coordinate, Variable Friction, Tidal Pumping.

1. INTRODUCTION

1.1 Background

The Pontchartrain Estuary is a brackish estuarine located in Southeastern Louisiana, USA. It is comprised by three major lakes: Lake Pontchartrain, located to the north of New Orleans; Lake Maurepas, connected to its west end through Pass Manchac; and Lake Borgne, connected to its east end through two major tidal passes, the Rigolets and Chef Menteur. Figures 1.1 and 1.2 show the location of the estuary.

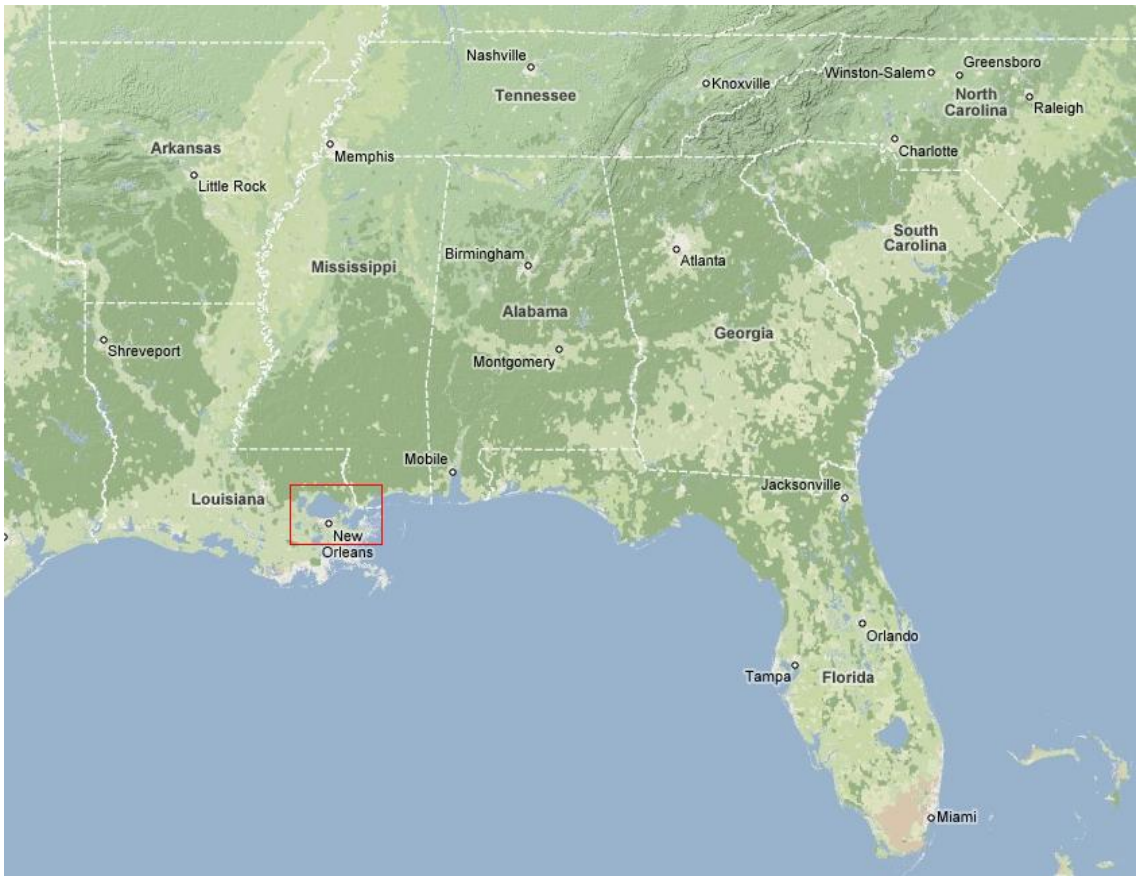

Figure 1.1 Southeastern USA.
Source: http://maps.google.com/

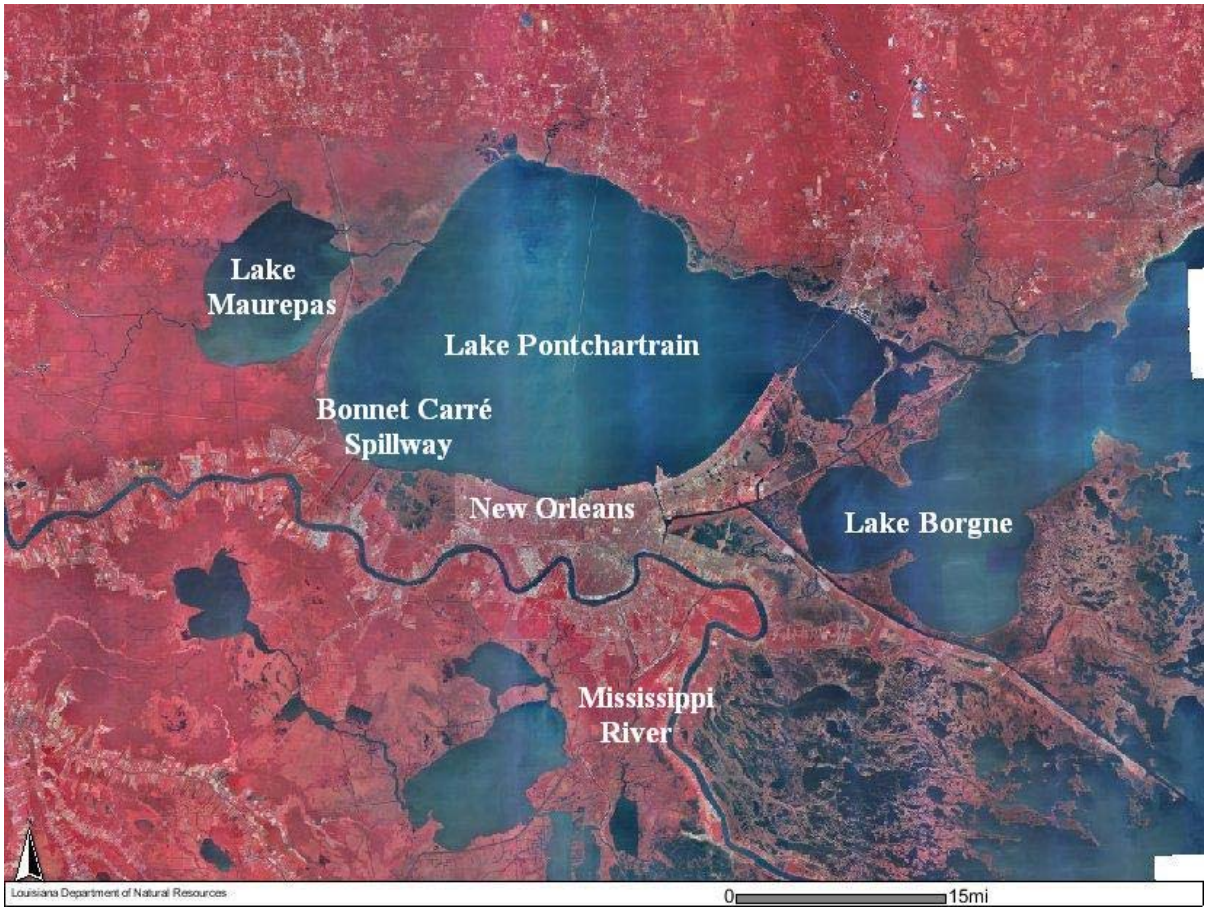

Figure 1.2 Location of the Lake Pontchartrain Estuary.
Source: Louisiana Department of Natural Resources.

Habitats for fish, shells, and clams in the estuary are sensitive to saline patterns. In fact, increased lake salinities due to saltwater intrusion have significant impacts on the lakes ecosystem. The salinity distribution in Lake Pontchartrain is governed by freshwater inputs from rivers, canals, rainfall, Mississippi diversions, and thermal evaporation (Georgiou, 2002).

Several different hydrodynamic and numerical transport models, such as RMA10-WES (McAnally *et al*., 1996), POM (Georgiou, 2002), RMA2/RMA4 (Haralampides, 2000) and FVCOM (Georgiou *et al*., 2007) have been used to simulate salinity in the

estuary. However, little attention has been given to the radiation of salinity at the Open Boundary (OB). In fact, modelers have assumed that not only the open boundary would properly radiate out the conserved quantity ϕ, such as salinity, but also the conserved quantity would be preserved locally and globally.

There is evidence that the "pressure gradient error" of sigma-coordinates in association with fully unstructured grids (Fringer *et al*., 2006) can lead to significant errors in the model results. Haney (1991) noted that the pressure gradient force is the sum of two terms. One term involving the gradient of pressure along a constant sigma-surface and one that involves the gradient of bathymetry. If the topography is steep these terms become large with opposite signs. Thus, the mathematical representation of the terms leads to a small error in computing any of these terms, and consequently, results in a large error in the total pressure gradient force (Haney, 1991; Mellor *et al*., 1994). In addition, the approximation of the horizontal diffusion terms in the governing equations can generate to additional vertical mixing in the sloped regions for the sigma coordinate (Chen *et al*., 2006). Moreover, model results are directly influenced by the imposition of the forcing at the open boundary. Chapman (1985) summarizes several different treatments of the radiative open boundaries for barotropic models. Radiative open boundaries should allow the motion of the fluid to be unrestricted, such that perturbations in the conservative quantity ϕ, generated within the domain, should be able to propagate outside of the domain when they reach the open boundary without generating artificial reflections into the model domain. However, these studies have mainly been focused in the propagation of the sea surface perturbations rather than the radiation of internal

gravity waves, e.g., due to salinity.

1.2 Problem Statement

The salinity distribution and hydrodynamics of the Pontchartrain Estuary have been simulated using several different 2-D and 3-D computational fluid dynamic models with different discretization methods (e.g., finite-difference, finite-element, finite-volume). These developments have used structured and unstructured grids; however, the use of unstructured grids in combination with finite-volume method schemes has gained popularity due to the possibility of not only discretizing more complex geometries, but also because the finite-volume method mathematically ensures conservation of transportable variables by solving the governing equations in their integral form using flux computations.

New developments in computing technologies have introduced the concept of applying multiple processors for the execution of Computational Fluid Dynamic (CFD) models. This technique is called parallelization and leads to the speeding up of the solution by decomposing the domain geometry in subdomains where each subdomain is assigned a processor.

The Finite-Volume Coastal Oceanographic Model (FVCOM), a 3-D sigma-coordinate based model, has been selected to simulate hydrodynamic and salinity patterns of the Pontchartrain Estuary. Unstructured domain of the code can be better suited to the tidal passes, inlets, and irregular coastline of Southeast Louisiana. In addition, the code can offer faster results when used in its parallel mode. However, as previously

mentioned, there is evidence that sigma-coordinate based models are associated with the "pressure gradient error" when the bathymetry of the system is steep. Besides, the approximation of the horizontal diffusion terms in the primitive equations can generate additional vertical mixing in steep bathymetry with sigma-coordinates.

In addition, although there is literature regarding propagation of the water elevation and velocity out of the computational domain (Chapman, 1985), less attention has been given to radiative open boundaries for internal gravity waves e.g., due to salinity. Consequently, salinity distributions within the computational domain may be improperly predicted because the interior salinity depends on the correct physical treatment of the open boundary.

Moreover, the lack of radiation of internal gravity waves in CFD models may result in reflection of these waves. In estuaries, inputs from freshwater diversions and river discharges are common. These freshwater density flows tend to travel in the top vertical layers of the water column. However, lighter density flows may not be able to travel out through the open boundary if the model does not offer an open boundary capable of radiating internal waves. In fact, the lighter density flow would be trapped within the system. As a result, accumulation of lighter trapped density flows would lead an overfreshened system.

1.3 Significance

The current study makes two main contributions to the scientific community. Firstly, from the point of view of numerical modeling, this research proposes a general baroclinic numerical treatment of the open boundary. This new baroclinic condition is capable of radiating freshwater and saltwater density currents across the open boundary for an unstructured grid model. Secondly, the development of a model for the Pontchartrain Estuary that simulates long term salinity helps to predict changes in the salinity regime induced by Mississippi River diversions, and drought periods.

In addition, a variable friction coefficient was coded to properly reproduce the relatively low friction required in the open water regions and the higher friction needed in tidal passes and waterways to reproduce tides and salinity through out the estuary.

The model also identifies and quantifies the significant increase of the mean water level in the enclosed basin, due to combined effects of tidal pumping and freshwater inputs.

1.4 Objectives

The overall project objective is to develop a model for a tidal estuary with constrictive tidal passes that is capable of simulating long term salinity. The Pontchartrain Estuary will be used as the physical domain for the evaluation of the model.

The specific objectives of the proposed study are:

- To investigate, with the aid of a physical model, the propagation and radiation of an internal gravity wave through a constriction.
- To develop a radiation boundary condition for the internal gravity waves (baroclinic OBC).
- To develop a model for an idealized estuary consisting of an enclosed basin, semi-enclosed basin and narrow passes for benchmark testing. Testing includes:
    1. the sensitivity to the bathymetric pressure gradient error.
    2. the system response in a presence of the constrictive tidal pass.
    3. the system response to the proposed radiative open boundary.
- To evaluate the mass conservation of salinity for changes in sigma gradients. The system will have the new OB treatment implemented.
- To develop a three-dimensional model with a radiative open boundary condition for internal gravity waves capable of simulating salinity in the Pontchartrain Estuary.
- To prove the applicability of the revise model by application to the entire Pontchartrain Estuary and its coastal zone of influence.

1.5 General Methodology and Research Plan

The following methodology was used to meet the proposed objectives:

1. A literature review was conducted.
2. Selection criteria were applied to choose the best numerical model.
3. An idealized estuary was designed for benchmarking purposes
4. A physical model was constructed to measure the speeds of propagation of the exchange flows in a system with a constriction.
5. The effect of the pressure gradient, boundary conditions, and a tidal pass were evaluated using an idealized estuary and an unstructured grid. The idealized basin will be hydraulically similar to the Pontchartrain Estuary.
6. The selected three-dimensional, sigma-layer, unstructured grid, numerical model capable of simulating hydrodynamics and the dynamics of salinity fate and transport was set up for the physical model, the benchmark mesh, and the Pontchartrain Estuary.
7. The development of a numerical treatment for the radiation of density-driven flows at the open boundary was implemented in the model and tested with the idealized estuary.
8. A spatially varying shear stress coefficient for friction was implemented in the model.
9. Calibration and verification of long-term simulations for the Pontchartrain Estuary were performed to evaluate the conservative characteristics of the code with regard to the distribution of salinity.
10. The model was applied to the Pontchartrain Estuary including Breton and

Mississippi Sounds. Its results were validated based on the available data from LUMCON, NOAA, USGS and US Army Corps of Engineers stations.

2. LITERATURE REVIEW

2.1 General

The use of the Finite Volume Method (FVM), in the Computational Fluid Dynamics Field (CFD), has gained popularity in recent years because the control volume integration guarantees conservative properties. In addition, FVM in combination with the use of unstructured grids offers the possibility of easily discretizing very complex geometric configurations compared to the structured grids (Kobayashi *et al*., 1998).

Essentially, CFD codes are structured around the numerical algorithms that can solve fluid flow problems. Typically, CFD codes contain three main elements: a pre-processor, a solver, and a post-processor (Versteeg and Malalasekera, 1995).

Pre-processing procedures are:

1. the definition of the geometry of the area of the study commonly known as computational domain,
2. the subdivision of the domain into smaller non-overlapping cells or grid (or mesh) generation,
3. the selection of the transportable quantities (state variables) related to the transport phenomena,
4. the initial state of the fluid properties, and
5. the specification of the proper boundary and initial conditions.

The solver, using a numerical algorithm, integrates the governing equations of fluid flow over the control volumes or cells. This algorithm leads to a system of algebraic equations which are formulated in discrete space by finite-difference, finite-volume or finite-element type approximations. The system of algebraic equations is often solved by iterative methods, providing information about the flow state.

Finally, post-processing involves the visualization tools that process the output of the solver.

2.2 Conservativeness

Conservation statements express the fact that certain physical quantities of a given system must be preserved during any given physical process. Conservation statements normally take into account the time rate of change of the conserved quantity ϕ. The time rate of change of a quantity is related to the physical process occurring within the system and/or at the system boundaries.

Versteeg and Malalasekera (1995) indicate that successful CFD simulations are obtained by ensuring schemes that posses the conservativeness, boundedness and transportiveness properties. Perhaps, the most notable characteristic of the finite volume method is its conservativeness. The finite volume approach ensures local conservation of the fluid property ϕ for each control volume; therefore, numerical schemes that posses this conservativeness property guarantee global conservation of the fluid property

throughout the entire domain.

Integration of the governing equations over the control volumes gives a set of discretized conservative equations involving fluxes of the conserved quantity ϕ through the faces of the control volume. To ensure conservation of ϕ for the whole solution domain the net transport of the conserved quantity out of the control volume is equal to the flux of the conserved quantity across the control surface (the flux of a quantity is the amount of a quantity that crosses a unit surface area per unit time). Moreover, the flux of ϕ leaving a control volume through the face must be equal to the flux of ϕ entering the adjacent control volume through the same face. In fact, the evaluation of the flux components on the sides of the cells depends on the selected interpolation scheme as well as on the location of the flow variable in the grid. The most common schemes used in Finite Volume Methods are the central and the upwind discretization schemes. The central scheme is based on local flux estimations, whereas the upwind scheme computes the fluxes according to the direction of the propagation (Hirsch, 1988).

The governing equations are statements of conservation laws, and since these equations can be solved in their integral form by flux calculations, they ensure conservation of the transported quantity in both the individual control volume and the overall computational domain. The conserved quantity is preserved or, at least, varies provided that the boundary conditions are properly imposed (Leveque, 2002).

2.3 Sigma-Coordinate and Pressure Gradient

Sigma-coordinates, also known as terrain-following coordinates, were developed approximately 20 years ago to satisfy the need of simulation of flows in estuaries and coastal regions with the incorporation of turbulent processes (Ezer *et al*., 2002). The coordinate system has attracted the attention of ocean modelers because of its smooth representation of topography and its ability to simulate interactions between flows and topography (Mellor *et al*., 2002). In contrast, Ezer, *et al*., (2002) indicate that z-level models have shown a step-like representation of the bathymetry and some difficulties simulating flow over an irregular surface.

For instance, in simulating the downslope spreading of a dense plume on a bottom boundary layer, Ezer and Mellor (2004) state that the dynamics are "dominated by the along-sigma advection driven by pressure gradients, with a thin and stably stratified bottom boundary layer" for sigma-coordinates. In z-level coordinates the process is dictated by "a combination of horizontal advection and diffusion that creates hydrostatically unstable columns over the stepped topography that results in intense vertical mixing and thicker boundary layers". This could be overcome by an appropriate VOF, e.g. as in Flow3D.

Nevertheless, Haney (1990) points that a pressure gradient error is observed with sigma coordinates when the bathymetry is steep. Haney suggests that the pressure gradient force is the sum of two terms. One term involves the gradient of pressure along a constant sigma-surface and the other one involves the gradient of the bathymetry. When

the slope of the bathymetry becomes large, these terms also become large, but with opposite signs. Therefore, a small error in computing either term in these conditions results in a large error in the total pressure gradient force.

Mellor *et al*., (1994) suggest that the horizontal pressure gradient variation is influenced by both the vertical and horizontal resolution. In fact, Mellor *et al*., (1994 and 1998) propose that the sigma-coordinate, pressure gradient error decreases with the square of the vertical and horizontal grid size. In addition, they have shown that the initial pressure gradient error is advectively eliminated after a long integration; however, density errors are created, which affect the salinity and temperature fields. On the contrary, Weisberg and Zhen (2006) state that by flux analysis of water and salt through various cross-sections of Tampa Bay, FVCOM ensures conservation of mass over long simulations intervals.

2.4 Boundary Conditions

Treatment of the boundary conditions addresses how many conditions of a physical nature origin are to be imposed. Actually, these conditions should be determined by the physical set up. Specification of too few or too many conditions, or inappropriate conditions would make the mathematical problem an ill-posed problem. As a result, an ill-posed problem would have either no solution, or many solutions for the same set up (Leveque, 2002). In addition, boundary conditions are to be formulated and discretized to be compatible with the order of accuracy and stability conditions of the interior interpolation scheme (Hirsch,1990).

According to the Hadamard principle, to have a well-posed problem to a system of equations, the necessary information must be imposed on the initial and boundary conditions such that the solution depends, in a continuous way, on the initial and boundary conditions i.e., a small perturbation of these conditions should prompt to a small variation of the solution at any point of the domain at a distance from the boundaries (Hirsch, 1988).

The physics of a CFD problem should dictate the nature of the boundary conditions that should be specified. The most common boundary conditions are as follows:

- wall
- inlet (inflow)
- outlet (outflow)
- prescribed pressure

2.4.1 Wall or Solid Boundary Conditions

According to Veersteeg and Malalasekera (1995), this is the most common boundary found in a confined system. Normal fluxes and flow variables are usually set to zero. Tangential velocities may be treated by full slip (no shear), partial slip or no slip (full shear). When shear stresses play a significant role, boundary layer theory must be considered.

2.4.2 Inlet Boundary Conditions

Typically, the inlet boundary is specified in one of the edges of a domain. The distributions of the flow variables should be externally specified. Thus the information required to perform the computation should travel into the system.

2.4.3 Outflow Boundary Conditions

At these boundaries, no external signal should be applied. The information at this boundary comes from what is being computed inside of the domain. Furthermore, outgoing waves that arrive at this boundary should leave the domain cleanly without creating spurious reflections back into the system (Leveque, 2002). It is noted that an outflow boundary may become an inflow boundary under some circumstances; this case is treated under 'Open Boundaries'.

2.4.4 Constant or Specified Pressure Boundary Conditions

Free surface flows and density-flows are applications where a constant pressure boundary condition is used. Typically, when the details of the flow distribution are unknown but the pressure of the boundary values is known (Versteeg and Malalasekera, 1995).

2.5 Open Boundaries

In coastal ocean problems, typically inlet or outlet boundary conditions are imposed. These types of boundary conditions are also called Open Boundaries Conditions (OBC). Chapman (1985) considered different types of barotropic OBC to radiate out of the computational domain water surface elevation and velocity.

2.5.1 Barotropic OBC

The analytical expression for a barotropic OBC is a Sommerfeld type radiation condition described as:

$$\phi_t = c\phi_x \quad or \quad \frac{\partial \phi}{\partial t} = c\frac{\partial \phi}{\partial x} \tag{2.1}$$

where ϕ is the conserved variable, and c is the phase speed . For this case, water surface elevation and velocity. Table 2.1 shows the analytical forms of the possible barotropic OBC that can be applied in a model.

Table 2.1: Analytical forms of the barotropic OBC
(After Chapman, 1985)

Open Boundary Condition	Analytical form	Phase speed (c)
Clamped (CLP)	$\phi = 0$	n/a
Gradient (GRD)	$\phi_x = 0$	n/a
Gravity-wave radiation(GW[(1)]):	$\phi_t \pm c\phi_x = 0$	$c = \sqrt{gh}$
Partially clamped(BK[(1),(2)]):	$\phi_t \pm c\phi_x = -\frac{\phi}{T_f}$	$c = \sqrt{gh}$
Orlanski radiation(OR[(1),(3)]):	$\phi_t \pm c\phi_x = 0$	$c = \begin{cases} \frac{\Delta x}{\Delta t} & if \quad \mp\frac{\phi_t}{\phi_x} \geq \frac{\Delta x}{\Delta t} \\ \mp\frac{\phi_t}{\phi_x} & if \quad 0 \langle \mp\frac{\phi_t}{\phi_x} \langle \frac{\Delta x}{\Delta t} \\ 0 & if \quad \mp\frac{\phi_t}{\phi_x} \leq 0 \end{cases}$

(1) Explicit or Implicit
(2)Blumberg and Kantha (1982)
(3) Orlanski (1976)
Δx=the grid spacing; Δt=the time step; g=gravity; h=water depth; T_f=a friction time scale to slow down the emptying of the basin.

According to Chapman (1985), the CLP and GRD conditions are perfect reflectors in which the amplitude of the reflected waves is equal to the amplitude of the incident wave. If a reflected wave is generated, it remains inside of the computational domain until either bottom friction damps it out or it encounters another open boundary where part of the wave may be radiated through the boundary and part may be reflected back into the system (Chapman, 1985). On the other hand, the ORI and ORE conditions are perfect absorbers (i.e., no reflected wave is produced).

2.5.2 Baroclinic OBC

Little literature regarding baroclinic OBC is available. However, Rochford and Shulman (2000) suggested a numerical treatment for the baroclinic velocities and salinity implemented in the Pacific West Coast, version of the Princeton Ocean Model as developed at the Naval Research Laboratory. Their analytical form of the radiative baroclinic velocities or salinities is as follows:

$$\phi_t + c_{bc}\phi_n = 0 \quad where \quad c_{bc} \approx \frac{5}{1000}\sqrt{gh} \tag{2.2}$$

where ϕ is the salinity or the normal velocity to the OB; n is the coordinate in the direction normal to the OB; c_{bc} is the baroclinic phase speed, as a fraction of the barotropic phase speed .

If ϕ is salinity S, the normal gradient of the salinity is given by:

$$\frac{\partial S}{\partial n} = \begin{cases} \dfrac{S - S_0}{\Delta n} & v_{n\geq 0} \quad (\inf\ low) \\ \dfrac{S_i - S}{\Delta n} & v_{n\leq} \quad (outflow) \end{cases} \tag{2.3}$$

Δn is the grid spacing normal to the OB, v_n is the normal velocity; S_i the salinity at one grid point inside the OB; S_0 is the user specified salinity at the OB, and S is the salinity applied along the open boundary.

Rochford and Martin (2001) also suggested a similar treatment for the Navy Coastal Ocean Model for salinity and velocities.

For normal baroclinic velocity, four boundary conditions are provided as follows:

- Internal Model Calculated Value: the model computes the normal baroclinic velocity at the OB using the same calculation as for the internal velocity points.
- Orlanski Radiation: an Orlanksi radiation condition is used to set the normal baroclinic velocities at the OB for outward propagation, whereas a relaxation to an already prescribed value is used for inward forcing.
- Internal Model Calculated plus Advection: the model calculation of the normal baroclinic velocity at OB is used when the propagation is outward. A relaxation to a prescribed normal velocity is used when the propagation is inward.
- Advective-Radiative: this is similar to the previous case but the radiative propagation of the normal velocity is applied as in equation (2.2) with the baroclinic phase speed c_{bc}.

For the salinity, four boundary conditions are also provided as:

- Prescribed values: the model places the externally prescribed values on the OB. This treatment behaves as a reflective boundary.
- Orlanski Radiation: for outflow propagation the Orlanski radiation condition is applied. An externally prescribed value is applied at the OB with a relaxation method for inward forcing.
- Advective: A similar treatment to equation (2.2) is applied, but instead of using c_{bc} the treatment uses normal velocity.

- Advective with Vertical Advection: it is applied for cases with strong upwelling or downwelling along the open boundary. Therefore, the horizonal gradient ϕ_x is being replaced by the vertical gradient ϕ_z. The phase speed is the vertical velocity.

2.6 Flow of Density Current

The propagation of any internal gravity wave is important when dealing with systems where the transport of salinity is affected by density gradients such as in a brackish system like the Lake Pontchartrain System. The movement of denser fluid (salt wedge) has been observed in navigation channels near the coast such as the Mississippi River Gulf Outlet (MRGO) (Georgiou and McCorquodale, 2000). In this case a saltwater plume advances into the system in the bottom of the water column (underflow) and a lighter fluid advances on the opposite way in the top layers (overflow).

The lock-exchange flow test is useful to assess the capability of the code to properly simulate the propagation of internal gravity waves. Initially, two volumes of water at rest with different densities (freshwater and saltwater) are separated by a gate. After opening the gate the freshwater is displaced by the saltwater at the bottom and, conversely, the saltwater is displaced by the freshwater at the surface. Figure 2.1 shows this concept.

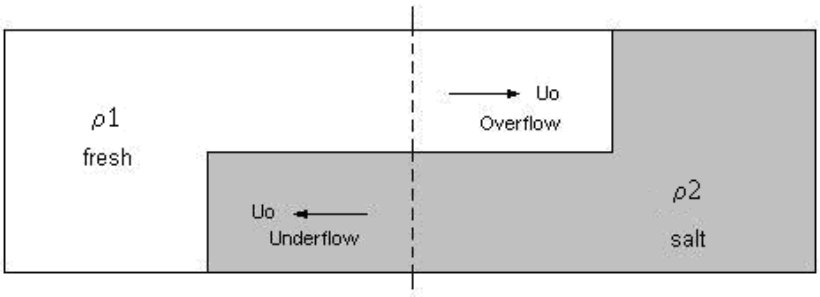

Figure 2.1 Lock exchange theoretical conception

Specifically, gravity converts the potential energy into the kinetic energy that drives the current, also known as density current. Thus, the saltwater sinks and the fresh water is raised (van Rijn, 1990). By equating the decrease in potential energy with the increase in kinetic energy and neglecting friction effect, the theoretical speed of propagation U_o can be calculated such that:

$$U_o = 0.5\sqrt{\frac{\Delta\rho}{\rho} gH} \tag{2.4}$$

and the densimetric Froude number defined by Shin *et al.*, (2004) can be determined as:

$$F' = \frac{U_o}{\sqrt{g'h_1}} \tag{2.5}$$

where

$$g' = g\frac{\rho_2 - \rho_1}{\rho_2} \tag{2.6}$$

H is the total water depth; h_1 is the thickness of layer 1; ρ_1 is the density of layer 1; ρ_2 is the density of layer 2 (largest density); g is the gravity; and g´ is the reduced gravity.

Furthermore, Simpson (1987) has shown that density currents produced by instantaneous release undergoes two different phases, a constant speed phase and self-similar flow phase. The constant speed phase is produced after the gate is removed. In this phase, the front advances at constant speed, and the fluid left behind forms an internal gravity wave. The mixed fluid left behind is confined to a region just behind the leading edge of the front. In addition, there is an acceleration phase that precedes the constant velocity phase.

According to van Rijn (1990), Armi (1986), and Schijf and Schönfeld (1953), the speed of propagation "c" of the internal gravity waves along the interface of the layers of different densities is described by:

$$c = \frac{\bar{u}_1 h_2 + \bar{u}_2 h_1}{h_1 + h_2} \pm \sqrt{g\left(\frac{\rho_2 - \rho_1}{\rho_1}\right)\left(\frac{h_1 h_2}{h_1 + h_2}\right) - \frac{(\bar{u}_2 - \bar{u}_1)^2 h_1 h_2}{(h_1 + h_2)^2}} \tag{2.7}$$

where $\bar{u}_1$ = depth-averaged velocity of layer 1; $\bar{u}_2$ = depth-averaged velocity of layer 2 (denser layer); h_1 = thickness of layer 1; and h_2 = thickness of layer 2 (denser layer).

Typical propagation velocities of internal gravity waves in full-scale systems are close to 1 m/s. In addition, van Rijn (1990) states that the amplitude of internal gravity

waves can become large. Therefore, the currents generated by internal gravity waves can also be large and sometimes exceeding the tidal current velocities. Milne-Thomson (1968) indicates that when the densities are nearly equal, the periods of oscillations of the common surface are also long, compared with the period of oscillations of surface waves in which the density difference between air and water is quite large.

2.6.1 Energy Dissipation in Density currents

The movement of a denser fluid under a light fluid generates energy dissipation at the interface of the two exchanging flows. Wilkinson and Wood (1972) state that the propagation of the leading edge is determined by the interfacial and boundary frictional forces acting on the layer behind the head. They found that density interfaces can modify the shape and rate of advancement of density currents. Moreover, during the initial motion the flow is largely unaffected by viscous forces that will play a major role once that the gravity current has travelled some distance.

Benjamin (1968), Wilkinson and Wood (1972) showed that the only energy conserving case is when $h_1=h_2$, and neither dissipation, nor wake zone are observed. Flows of density currents in which h_1 is less than h_2 are not physically realistic and energy of density currents in which h_1 is greater than h_2 is lost in the wake immediately behind the leading edge. Furthermore, they suggest that energy may be dissipated in the form of interfacial waves, and the dissipation and degree of turbulence are related to the difference in height, and the dense layer following the head.

2.6.2 Bottom Boundary layer resistance

The resistance created by the bottom solid surface affects the boundary layer. A boundary layer is described as the region next to the surface of an object in which the velocity of the fluid decreases due to the shearing resistance i.e., shearing stress τ (Roberson and Crowe, 1990). Blasius (1908) obtained a solution for flow in a laminar boundary layer, in which the viscous effects are concentrated in the layer next to the solid boundary. He proposed an invariant shape of a non-dimensional velocity distribution across the plate. Figure 2.2 shows the non-dimensional velocity distribution in a laminar boundary layer, where x is distance from the leading edge of the surface, U_o is the free stream velocity, u is the velocity near the boundary layer, ν is the kinematic viscosity, y is the vertical distance from the bottom, and Re_x is the Reynolds number defined as follows:

$$\mathrm{Re}_x = \frac{U_o x}{\nu} \tag{2.8}$$

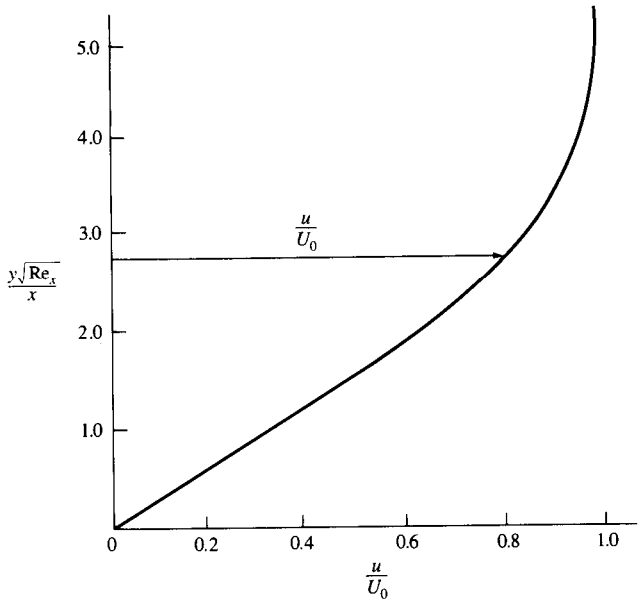

Figure 2.2 Velocity distribution in a laminar boundary layer
(Source: Blasius, 1908)

The shear stress at the boundary, τ_o, can be express in terms of a dimensionless coefficient C_f, and the dynamic pressure of the free stream. The shear stress and the dimensionless friction coefficient are expressed in equation 2.9, and 2.10, respectively.

$$\tau_0 = c_f \frac{\rho U_o^2}{2} \tag{2.9}$$

$$c_f = \frac{1.33}{\sqrt{\mathrm{Re}_x}} \tag{2.10}$$

Figure 2.3 shows a plot of the friction coefficients for the laminar, turbulent, and a combination of laminar and turbulent boundary layers developed by Schlichting (1979). *L* represents the length of the plate. Roberson and Crowe (1990) suggest that the transition or critical region on a smooth plate occurs at a Reynolds number of approximately 500,000.

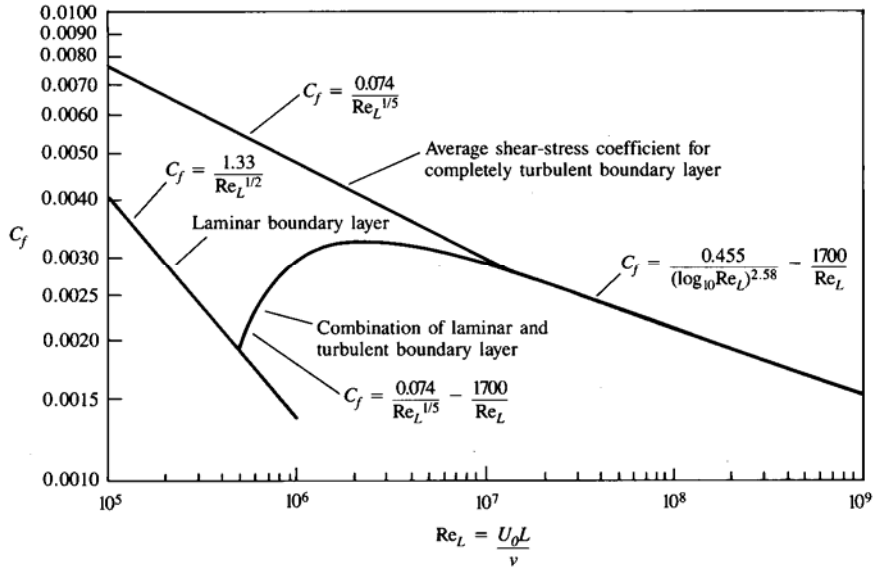

Figure 2.3: Average shear-stress coefficients
(Source: Schlichting, 1979)

2.6.3 Kelvin-Helmholtz and Holmboe instabilities

In a symmetric, stably stratified, free shear layer i.e., "one in which the shear and the stratification are distributed symmetrically about some central level" (Smyth and Peltier, 1989), energy dissipation may occur due to Kelvin-Helmholtz or Holmboe instabilities which depend on the conditions of the background stratification (Smyth and Peltier, 1989). For instance, in weakly stratified flows, Kelvin-Helmholtz instability is dominant while more strongly stratified flows exhibit Holmboe instability. Kelvin-Helmholtz instability is stationary with a horizontal phase speed equal to zero; conversely, the Holmboe instability is a travelling disturbance that can propagate, not only in the positive but also in the negative direction relative to the mean flow velocity. Holmboe (1962), Zhu and Lawrence (2001) predict Kelvin-Helmholtz instability at small Richardson numbers, and Holmboe instability at high Richardson numbers.

2.6.4 Non-hydrostatic effect in exchange flows

Studies conducted by Zhu and Lawrence (1998 and 2000) have shown that the hydrostatic assumption, widely used in coastal ocean models, sometimes limits the applicability of hydraulic theory by not accurately predicting hydrodynamically produced pressure gradient.

In a channel, frictional effects due to sidewalls, channel bottom, and the interface of the two fluids, generate shear stresses. While these shear stresses may reduce the exchange rate, non-hydrostatic effects may, actually, increase the exchange flow rate of the density currents (Zhu and Lawrence, 1998 and 2000). In addition, they suggest that

the appearance of the previously mentioned instabilities may be important in determining the magnitude of interfacial shear stresses that tend to reduce the internal energy in the system. Thus the inclusion of non-hydrostatic and frictional effects helps to accurately predict the variations of the interface elevation in the exchange flow.

The finite-volume formulation developed by Fringer *et al.* (2006) includes non-hydrostatic processes so that it can simulate internal waves in the littoral zone of the ocean. Their study shows that the hydrostatic simulation does not capture the generation of the Kelvin-Helmholtz billows, nor does it completely capture the speed of front. Figure 2.4 illustrates the density contours for both the hydrostatic and non-hydrostatic case. Contours are plotted every 10% of $\Delta\rho/\rho$. Length is 0.8 m, height is 0.05m, and g' is 0.01 m/s^2. The hydrostatic simulation underpredicts both speeds of propagation and does not capture the Kelvin-Helmholtz billows.

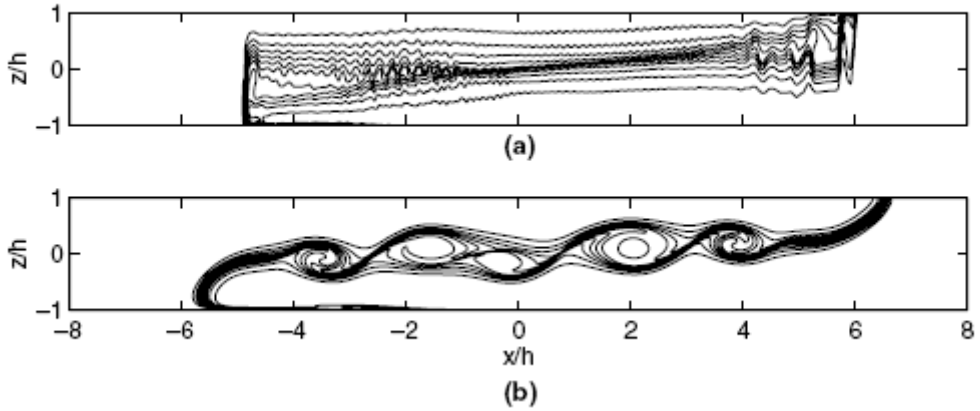

Figure 2.4: Density contours for the (a) hydrostatic simulation and (b) non-hydrostatic simulation of the lock exchange test with Kelvin-Helmholtz billows present. (Source: Fringer *et al.*, 2006)

Table 2.2 provides a comparison of the Froude numbers between the non-hydrostatic and hydrostatic simulations for both the overflow i.e., no friction effect at the surface and the underflow (Fringer *et al.*, 2006).

Table 2.2: Comparison between the Froude numbers of the non-hydrostatic and hydrostatic simulations. (After Fringer, *et al.*, 2006).

Source	Underflow	Overflow
Non-hydrostatic	0.562	0.654
Hydrostatic	0.470	0.605

2.7 Consistency of External and Internal Modes

2.7.1 The mode-splitting technique

The equations that govern the dynamics of coastal and estuarine systems are time-dependent (unsteady flows). These equations have rate of change terms, also known as the unsteady term, that help to predict transients in the system. The finite-volume integration over a control volume must be advanced with a further integration over a finite time step Δt. (Versteeg and Malalasekera, 1995).

These governing equations also contain the propagation of fast moving external gravity waves and slow moving internal gravity waves (HydroQual, Inc., 2002). A technique known as mode-splitting separates the vertically integrated equations (external mode) from the vertically structured equations (internal mode) (Simons, 1974; Madala and Piacsek, 1977). Simons indicates that the external (barotropic) mode, associated with the free surface, tend to put restrictions on the computational time step, whereas the

internal flow (baroclinic) is calculated such that the effect of the surface waves are filtered out. This technique allows the computation of the free surface elevation by solving separately the volume transport from the vertical velocity distribution (HydroQual, Inc., 2002).

According to Chen *et al*., (2006) in a mode-split model, a transport adjustment in each internal time step must be made to guarantee consistency in the vertically integrated water transport produced by the external and internal modes.

Since the numerical accuracy depends on the time step, to guarantee conservation of the volume transport throughout the water column of the i^{th} TCE (Tracer Control Element), "the internal velocity in each σ-layer must be calibrated using the difference of an inequality of vertically integrated external and internal water transport before the vertical velocity ω is calculated" (Chen *et al*., 2006). Therefore, since the vertically integrated transport is representative of the barotropic motion, the easiest calibration method is to adjust the internal velocity by distributing the "error" uniformly throughout the water column. Thus, ω is calculated with adjusted internal velocities. This transport adjustment ensures the conservativeness of not only the volume transport in the water column but also in an individual TCE volume in every σ-layer.

2.7.2 The operator-splitting dilemma

The operator-splitting is the use of a one-dimensional update in one coordinate direction, followed by using this partially updated information in a one-dimensional

update in the second coordinate direction and consequently in the third coordinate direction (Leonard, 1997). Leonard suggests that this process introduces the stabilizing transverse coupling terms. However, if each one-dimensional operator is used in its conservative form, a splitting error is introduced, even though the overall update is globally conservative; furthermore, "if each of the component one-dimensional operators is written in the advective form, constancy is preserved"; however, the advective-form operator splitting is not conservative. This effect could lead to positive and negative contributions of information being accumulated in different regions, resulting in "lumpiness" or "clustering".

2.8 Analytical Solutions for Hydrodynamic Model Testing

The precision that a numerical model computes the governing equations should be established. The user of a model should know the limitations of the model; otherwise, interpretation of results could lead to inadequate representation and understanding of the results. Furthermore, sources of errors and uncertainty in verification could be hidden in the numerical solution by adjustment of parameters e.g., bathymetry, eddy viscosity, among others (Lynch and Gray, 1978). Analytical solutions are efficient tools to compare the results of numerical models and their accuracy.

Lynch and Gray (1978) developed periodic, dynamic steady state analytical solutions for linearized shallow water equations 2.11 and 2.12, with a linearized friction shear stress. According to Guillot and Bai (2004), this is an idealization of a tidal coastal

domain, also called a quarter annular test case.

$$\frac{\partial \eta}{\partial t} + \nabla \cdot (hv) = 0 \tag{2.11}$$

$$\frac{\partial v}{\partial t} + g\nabla \eta + \tau v = 0 \tag{2.12}$$

where v is the velocity; h is the depth from mean sea level to the bottom; g is gravity; t is time; η is the free water surface elevation; and τ is the linearized friction shear stress. Although Lynch and Gray (1978) developed solutions for constant, linearly varying, and quadratically varying bathymetry, the linearly varying case will be used for comparing with the hydrodynamic results from the FVCOM model. Figure 2.5 shows the top view and cross-section area of the quarter annular case in study.

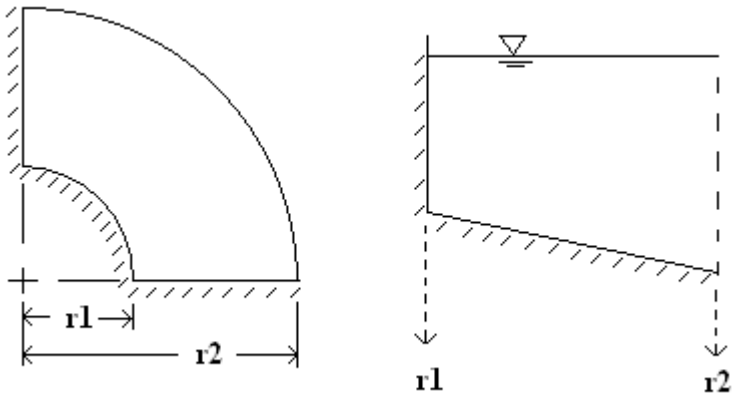

Figure 2.5 Top view and cross-section area of the linearly varying quarter annular case

Equation 2.13, and 2.14 are the solutions for the water elevation and radial velocity at any given time and position from the center of the harbor.

$$\eta(r,t) = \mathrm{Re}\,al\left\{\left(\frac{1}{\sqrt{r}}\right)\left[AJ_1\left(2\beta\sqrt{r}\right) + BY_1\left(2\beta\sqrt{r}\right)\right]e^{i\omega t}\right\} \tag{2.13}$$

$$V_r(r,t) = \mathrm{Re}\,al\left\{\left(\frac{1}{r}\right)\left[-AJ_2\left(2\beta\sqrt{r}\right) - BY_2\left(2\beta\sqrt{r}\right)\right]\frac{r_1 i\omega}{\beta H_o}e^{i\omega t}\right\} \tag{2.14}$$

where J_1, and J_2 are the Bessel functions of the first kind for the first and second order; Y_1, and Y_2 are the Bessel functions of the second kind for the first and second order, η_o is amplitude of the forced periodic tide at r_2, A and B are constants such that:

$$A = \frac{\eta_o \sqrt{r_2} Y_2\left(2\beta\sqrt{r_1}\right)}{J_1\left(2\beta\sqrt{r_2}\right)Y_2\left(2\beta\sqrt{r_1}\right) - J_2\left(2\beta\sqrt{r_1}\right)Y_1\left(2\beta\sqrt{r_2}\right)} \tag{2.15}$$

$$B = \frac{-\eta_o \sqrt{r_2} J_2\left(2\beta\sqrt{r_1}\right)}{J_1\left(2\beta\sqrt{r_2}\right)Y_2\left(2\beta\sqrt{r_1}\right) - J_2\left(2\beta\sqrt{r_1}\right)Y_1\left(2\beta\sqrt{r_2}\right)} \tag{2.16}$$

The bathymetry varies as:

$$h(r) = H_o\left(\frac{r}{r_1}\right) \tag{2.17}$$

and β is defined as:

$$\beta^2 = \frac{\omega^2 - i\omega\tau}{gH_o} \tag{2.18}$$

Notice that in the solution for elevation and the radial velocity, the arguments of the Bessel functions are complex numbers since τ is non-zero. Therefore, asymptotic expansions of the Bessel functions of the third kind are needed to solve the Bessel functions of the first and second kind by using the relationships suggested by McLachlan (1955) as follows:

$$J_n(z) = \frac{1}{2}\left\{H_n^{(1)}(z) + H_n^{(2)}(z)\right\} \tag{2.19}$$

$$Y_n(z) = -\frac{1}{2}i\left\{H_n^{(1)}(z) - H_n^{(2)}(z)\right\} \tag{2.20}$$

$$H_n^{(1)} = \frac{e^{-r\sin\theta}}{\sqrt{\frac{\pi r}{2}}} e^{i\left(r\cos\theta - \frac{1}{2}\theta - \frac{1}{4}(2n+1)\pi\right)} \left(\delta_n(z) + i\varepsilon_n(z)\right) \tag{2.21}$$

$$H_n^{(2)} = \frac{e^{r\sin\theta}}{\sqrt{\frac{\pi r}{2}}} e^{-i\left(r\cos\theta + \frac{1}{2}\theta - \frac{1}{4}(2n+1)\pi\right)} \left(\delta_n(z) - i\varepsilon_n(z)\right) \tag{2.22}$$

$$\delta_n(z) \cong 1 - \frac{\left(4n^2 - 1^2\right)\left(4n^2 - 3^2\right)}{2!(8z)^2} + \frac{\left(4n^2 - 1^2\right)\left(4n^2 - 3^2\right)\left(4n^2 - 5^2\right)\left(4n^2 - 7^2\right)}{4!(8z)^4} - \ldots \tag{2.23}$$

$$\varepsilon_n(z) \cong \frac{\left(4n^2 - 1^2\right)}{1!(8z)} - \frac{\left(4n^2 - 1^2\right)\left(4n^2 - 3^2\right)\left(4n^2 - 5^2\right)}{3!(8z)^3} - \ldots \tag{2.24}$$

2.9 Classification of Models

Models can be classified as mathematical or analogue depending on the means that are being used to represent the process. The contents of this section refer to McCorquodale and Georgiou (2006).

2.9.1 Mathematical Models

The mathematical models, which are also referred as “numerical”, represent the real phenomena by mathematical relationships. The mathematical models are usually solved by digital computers. Furthermore, these numerical models can classified as “black box”, “glass box”, and “opaque or grey box”.

2.9.1.1 Black Box

The simplest mathematical relationships are fitted to know the inputs and outputs. These models give little insight into the controlling processes. McCorquodale and Georgiou (2006) suggest that the application of such models is limited to the application to the calibration conditions used to set them up.

2.9.1.2 Glass Box

These types of models attempt to represent all the important processes occurring in the system by solving their differential equations of continuity, momentum, energy,

mass transport and biological correlationships subject to realistic boundary conditions. These types of models are defined as deterministic since they show the role of natural laws in determining the behavior of the system.

2.9.1.3 Opaque or Grey Box

These models are classified as intermediate models, and are based on simplifications of physical laws such as flux theory, plug flow, and diffusion reactor models, among others.

2.9.2 Analogue or Physical Model

The representation of the real phenomena is performed by another process such as flow in a smaller scale reproduction of the full scale system with defined scaling laws to interpret the model observations. Moreover, these models are classified as “undistorted” and “distorted”.

2.9.2.1 Undistorted Model

The geometric dimensions of the system are exactly scaled by a constant scaling factor.

2.9.2.2 Distorted Model

One dimension of the system is distorted with respect to the other two; usually the vertical dimension.

Another classification of numerical models suggested by McCorquodale and Georgiou (2006) is based on the spatial-temporal capabilities, for instance:

- 0-D Models represented by a single cell which is generally assumed to be fully mixed.
- 1-D Models with one spatial dimension e.g., along a water column or along a stream.
- 2-D Models with variation in two spatial directions e.g., lateral averaged, depth averaged such as RMA 2.
- 3-D Models with variation in three spatial directions e.g., advanced mechanistic models that solve the physical laws in space such as FVCOM.

2.10 Modeling Options

Several numerical models have been proposed in the last years. A brief review of the available models and their applicability to the present study is introduced as follows.

2.10.1 Princeton Ocean Model (POM)

The Princeton Ocean Model (Blumberg and Mellor, 1987) is a three-dimensional, sigma coordinate, structure grid, free surface model with an embedded turbulent closure

sub model. The model uses the splitting mode which subdivides the time step in the internal and external modes. The time step is given by the Courant Friedrich Levy (CFL) condition and the internal and external wave speed respectively. POM has already been used by Georgiou (2002) to compute hydrodynamics and local salinity in Lake Pontchartrain. The model does not offer the geometric flexibility that an unstructured grid model provides.

2.10.2 Estuarine, Coastal and Ocean Modeling System with Sediments (ECOMSED)

ECOMSED is a three-dimensional, sigma coordinate, structured grid model with a sediment transport submodel. This submodel simulates deposition, resuspension, and transport of cohesive and non-cohesive sediments. The model computes water circulation, temperature, salinity, and mixing, transport, deposition and resuspension of sediments. According to Chilmakuri (2005), the release version available for public does not allow simulating wetting and drying. ECOMSED can also simulate the transport of a dissolved tracer which could be either conservative or having a first-order decay rate.

2.10.3 Finite-Volume Coastal Oceanographic Model (FVCOM)

FVCOM is a prognostic, unstructured-grid, finite-volume, free-surface, three-dimensional, primitive equation, coastal ocean circulation model developed by the University of Massachusetts at Dartmouth and the Woods Hole Oceanographic Institute (UMASSD-WHOI) joint efforts (Chen *et al*., 2006; and Georgiou, 2007). The governing

equations of the model consist of momentum, continuity, temperature, salinity and density equations and mathematically they are closed by using the turbulence closure sub-models MY-2.5 (Mellor and Yamada, 1982), the General Ocean Turbulent Model (GOTM) (Burchard, 2002), or the Smagorinsky eddy parameterization method for the computation of the horizontal diffusion terms (Smagorinsky, 1963) . The horizontal computational domain is composed of unstructured triangular cells and the irregular bottom is presented using generalized terrain-following coordinates or otherwise known as sigma-coordinates. Since FVCOM integrates the governing equations over control volumes, it ensures mass conservation in the control volume, and consequently, in the entire grid domain provided that certain limits are adhered to sigma coordinates and bathymetric gradients. The model also offers the wetting and drying treatment technique. This technique allows flooding onto, or draining out of inter-tidal areas that are usually common in estuarine systems. Similarly to ECOMSED, FVCOM is solved numerically using the “mode splitting”, in which the integration schemes are divided into internal and external modes that can be computed using two different time steps.

3. Research Plan

The purpose of this chapter is to show the methodology used to develop a model for the Pontchartrain Estuary capable of simulating long-term salinity. This investigation used an unstructured finite-volume, sigma gradient, 3-D model. The following tasks were identified to describe the methodology:

- Model criteria:

  The criteria provided the necessary attributes to choose the model. A set of questions helped define the capabilities expected from the model e.g., type of grid, mass conservation characteristics.

- Model development:

  Based on the model criteria, an optimum model was selected for the specific study case e.g., POM, ECOMSED and FVCOM were considered for the selection of the model. A detailed description of the model with its main attributes and limitations is provided i.e., hydrodynamic and transport modules, initial and open boundary conditions, among others.

- Model Testing, Calibration and Sensitivity Analysis:

  Analyses of laboratory experiments were performed; for instance, a physical model was constructed to study the density currents and internal gravity waves in a two-layer system. Adjustment of numerical parameters assessed the model response to the observed values.

  Additional tests were made to compare the hydrodynamic performance of the selected code, and the analytical solution. e.g., analytical solution of the shallow

water equations, namely, the quarter annular case will be used (Guillot and Bai, 2004; Lynch and Gray, 1978; Lynch and Officer, 1985).

3.1 Selection Criteria

According to McCorquodale and Georgiou (2006), the criteria to select the model is based on the questions that the model should help to answer. This research focused the criteria in the following model attributes:

- Availability of the Model
- Processes included in the model
- Mass conservation characteristics
- Precedent for using this model at the location and the quality of the outcome.
- Model assumptions and limitations
- Formulation e.g., finite-volume, finite-element
- Type of horizontal grid i.e., structured (Cartesian, curvilinear) or unstructured (triangular, quadrilateral)
- Type of vertical coordinate i.e., sigma or z-level
- Order of accuracy and type of the numerical scheme
- Access to the source code i.e., proprietary versus public domain
- Requirements of hardware and software
- Execution efficiency
- Site specific requirements. For instance, does the model have capabilities to handle wetting and drying? or does the model solve the non-hydrostatic assumption version of the momentum equations in 3-D?

- Availability of technical assistance e.g., is there a users group?
- Expertise needed to learn and apply the model
- Date requirements for calibration, validation and application of the model
- Versatility with graphic user interfaces, databases and other models

4. Model Development

4.1 Model selection

A brief summary of the models that have been applied in the Lake Pontchartrain Estuary was provided in Chapter 2. Based on the research performed by Chilmakuri (2005), "ECOMSED is an improved version of the POM customized for its applicability to the estuarine environments similar to Lake Pontchartrain".

Although all the presented models show a finite-volume formulation, and access to public domain code, other several characteristics such as the possibility of easily discretizing complex geometries with the use of unstructured grids, the availability of the wetting and drying technique on inter-tidal areas, and the parallelization of the code, which may offer less turn-around times than those completed on a single processor, allowed FVCOM to be the model that best-fits applications on estuarine systems such as the Lake Pontchartrain System.

4.2 Model Description FVCOM

As stated before, FVCOM is an unstructured grid, finite-volume, free-surface, 3-D governing equations ocean model developed by Chen *et al*., (2003 and 2004).

The primitive equations for momentum, hydrostatic assumption, continuity, salinity, and temperature respectively are as follows:

$$\frac{\partial u}{\partial t}+u\frac{\partial u}{\partial x}+v\frac{\partial u}{\partial y}+w\frac{\partial u}{\partial z}-fv=-\frac{1}{\rho_o}\frac{\partial P}{\partial x}+\frac{\partial}{\partial z}\left(K_m\frac{\partial u}{\partial z}\right)+F_u \tag{4.1}$$

$$\frac{\partial v}{\partial t}+u\frac{\partial v}{\partial x}+v\frac{\partial v}{\partial y}+w\frac{\partial v}{\partial z}-fu=-\frac{1}{\rho_o}\frac{\partial P}{\partial y}+\frac{\partial}{\partial z}\left(K_m\frac{\partial v}{\partial z}\right)+F_v \tag{4.2}$$

$$\frac{\partial P}{\partial z}=-\rho g \tag{4.3}$$

$$\frac{\partial u}{\partial x}+\frac{\partial v}{\partial y}+\frac{\partial w}{\partial z}=0 \tag{4.4}$$

$$\frac{\partial S}{\partial t}+u\frac{\partial S}{\partial x}+v\frac{\partial S}{\partial y}+w\frac{\partial S}{\partial z}=\frac{\partial}{\partial z}\left(K_h\frac{\partial S}{\partial z}\right)+F_S \tag{4.5}$$

$$\frac{\partial T}{\partial t}+u\frac{\partial T}{\partial x}+v\frac{\partial T}{\partial y}+w\frac{\partial T}{\partial z}=\frac{\partial}{\partial z}\left(K_h\frac{\partial T}{\partial z}\right)+F_T \tag{4.6}$$

The equation of state for the computation of density is given as:

$$\rho=\rho(T,S) \tag{4.7}$$

where

$$\rho_1=6.76786136x10^{-6}\cdot S^3-4.8249614x10^{-4}\cdot S^2+8.14876577x10^{-1}\cdot S-2.2584586x10^{-1} \tag{4.7a}$$

$$\rho_2=\rho_1\left(1.667x10^{-8}\cdot T^3-8.164x10^{-7}\cdot T^2+1.803x10^{-5}\cdot T\right) \tag{4.7b}$$

$$\rho_3=\rho_2+1-1.0843x10^{-6}\cdot T^3+9.8185x10^{-5}\cdot T^2-4.786x10^{-3}\cdot T \tag{4.7c}$$

$$\rho_4=\rho_3\left(6.76786136x10^{-6}\cdot S^3-4.8249614x10^{-4}\cdot S^2+8.14876577x10^{-1}\cdot S+3.895414x10^{-2}\right) \tag{4.7d}$$

$$\rho=\rho_4-\frac{(T-3.98)^2(T+283)}{(503.57(T+67.26))} \tag{4.7e}$$

where x, y, and z are the east, north, and vertical axes in the Cartesian coordinate system; u, v and w are the x, y, and z velocity components; P is the pressure; f is the Coriolis parameter; g is the gravitational acceleration; S is the salinity; K_m is the vertical eddy viscosity coefficient; K_h is the thermal vertical eddy diffusion coefficient, and F_u, F_v, and F_S and F_T represent the horizontal momentum, salt, and thermal diffusion terms respectively (Chen *et al*., 2006).

The bottom shear stress, τ_b is calculated using equation 2.9. The drag coefficient C_f is determined by using the bottom layer of the logarithmic profile at a height z_{ab}, i.e., right above the bottom, κ is the von Karman constant and z_o is the bottom roughness.

$$\tau_b = C_d |v| v \tag{4.8}$$

$$C_d = \max\left(\frac{\kappa^2}{\ln(z_{ab}/z_o)^2}, C_f \right) \tag{4.9}$$

The sigma-coordinate transformation is defined as:

$$\sigma = \frac{z-\eta}{H+\eta} = \frac{z-\eta}{D} \tag{4.10}$$

where D is the total water column, H is bottom depth relative to z = 0, and η is the free water surface elevation relative to z = 0.

Therefore, the transformation of the Cartesian governing equations 4.1 to 4.5 in the sigma-coordinate are given as:

$$\frac{\partial uD}{\partial t} + \frac{\partial u^2 D}{\partial x} + \frac{\partial uvD}{\partial y} + \frac{\partial u\omega}{\partial \sigma} - fvD$$

$$= -gD\frac{\partial \eta}{\partial x} - \frac{gD}{\rho_o}\left[\frac{\partial}{\partial x}\left(D\int_{\sigma}^{0}\rho d\sigma'\right) + \sigma\rho\frac{\partial D}{\partial x}\right] + \frac{1}{D}\frac{\partial}{\partial \sigma}\left(K_m\frac{\partial u}{\partial \sigma}\right) + DF_x \tag{4.11}$$

$$\frac{\partial vD}{\partial t} + \frac{\partial uvD}{\partial x} + \frac{\partial v^2 D}{\partial y} + \frac{\partial v\omega}{\partial \sigma} - fuD$$

$$= -gD\frac{\partial \eta}{\partial y} - \frac{gD}{\rho_o}\left[\frac{\partial}{\partial y}\left(D\int_{\sigma}^{0}\rho d\sigma'\right) + \sigma\rho\frac{\partial D}{\partial y}\right] + \frac{1}{D}\frac{\partial}{\partial \sigma}\left(K_m\frac{\partial v}{\partial \sigma}\right) + DF_y \tag{4.12}$$

$$\frac{\partial \eta}{\partial t} + \frac{\partial Du}{\partial x} + \frac{\partial Dv}{\partial y} + \frac{\partial \omega}{\partial \sigma} = 0 \tag{4.13}$$

$$\frac{\partial SD}{\partial t} + \frac{\partial SuD}{\partial x} + \frac{\partial SvD}{\partial y} + \frac{\partial S\omega}{\partial \sigma} = \frac{1}{D}\frac{\partial}{\partial \sigma}\left(K_h\frac{\partial S}{\partial \sigma}\right) + DF_S \tag{4.14}$$

$$DF_x \approx \frac{\partial}{\partial x}\left[2A_m H\frac{\partial u}{\partial x}\right] + \frac{\partial}{\partial y}\left[A_m H\left(\frac{\partial u}{\partial y} + \frac{\partial v}{\partial x}\right)\right] \tag{4.15}$$

$$DF_y \approx \frac{\partial}{\partial y}\left[2A_m H\frac{\partial v}{\partial y}\right] + \frac{\partial}{\partial x}\left[A_m H\left(\frac{\partial u}{\partial y} + \frac{\partial v}{\partial x}\right)\right] \tag{4.16}$$

$$D(F_S, F_{q^2}, F_{q^2 l}) \approx DF_x \approx \left[\frac{\partial}{\partial x}\left(A_h H\frac{\partial}{\partial x}\right) + \frac{\partial}{\partial y}\left(A_h H\frac{\partial}{\partial y}\right)\right](S, q^2, q^2 l) \tag{4.17}$$

where A_h and A_m are the thermal diffusion and horizontal eddy coefficients, respectively. According to Mellor and Blumberg (1985), and Chen *et al.*, (2006) the simplification made in equations 4.13, 4.14, and 4.15 is equivalent to the assumption that horizontal diffusion occurs only parallel to the sigma-layers since fluctuating velocities and length scales normal to the bottom boundary must approach to zero. However, this simplification may prompt extra mixing on sloping bottoms because of the sigma-transformation (Mellor and Blumberg, 1985).

4.2.1 Composition of the unstructured grid

The horizontal numerical computational domain is subdivided into a set of non-overlapping unstructured triangular cells. Figure 4.1 shows the unstructured triangular cells that are comprised of three nodes, a centroid, and three sides. The Momentum Control Element (MCE) is the area bordered by the green lines. The Tracer Control Element (TCE) is the area bordered by the red lines.

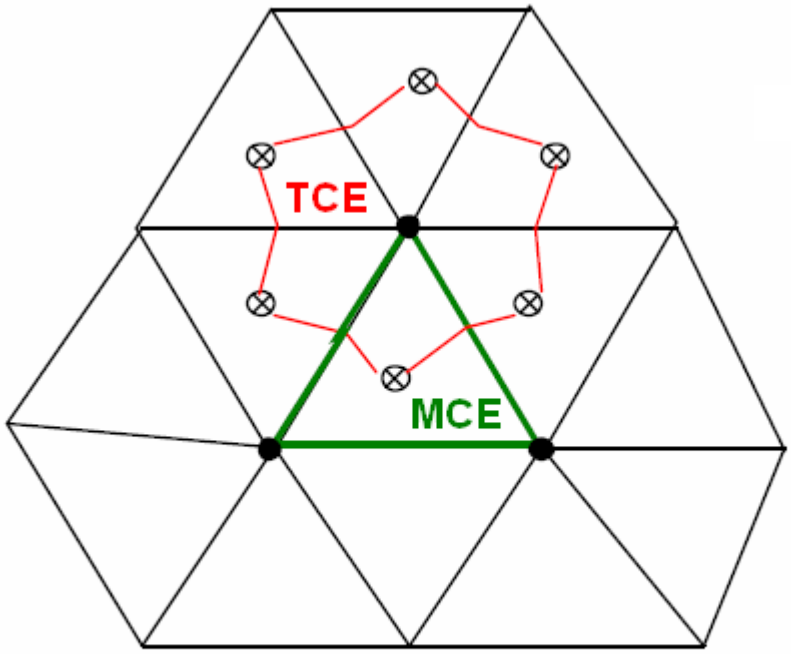

Figure 4.1: Illustration of the FVCOM unstructured triangular grid (Chen et al, 2006), where the variable node locations are "black dots": H, D, η, and the variable centroid locations are "crossed circles" : u,v.

4.2.2 The turbulent closure models

4.2.2.1 The horizontal closure treatment

The approach proposed by Smagorinsky (1963) is one of options that the user can select to model horizontal diffusion in FVCOM. As opposed to using a constant horizontal diffusivity, which is the other option the user may select, the Smagorinsky approach is based on the horizontal velocity gradient such that:

$$A_m = 0.5C\Omega^{MCE}\sqrt{\left(\frac{\partial u}{\partial x}\right)^2 + 0.5\left(\frac{\partial v}{\partial x}+\frac{\partial u}{\partial y}\right)^2 + \left(\frac{\partial v}{\partial y}\right)^2} \tag{4.18}$$

$$A_h = \frac{0.5C\Omega^{TCE}}{\mathrm{Pr}}\sqrt{\left(\frac{\partial u}{\partial x}\right)^2 + 0.5\left(\frac{\partial v}{\partial x}+\frac{\partial u}{\partial y}\right)^2 + \left(\frac{\partial v}{\partial y}\right)^2} \tag{4.19}$$

where C is a constant of proportionality and $\Omega^{MCE}, \Omega^{TCE}$ are, respectively, the area of the individual momentum control element (MCE), and the area of the individual tracer control element (TCE). Figure 4.1 exhibits the areas of the MCE and TCE.

4.2.2.2 The vertical closure treatment

Parameterization of the vertical eddy viscosity K_m, and vertical thermal diffusivity K_h in FVCOM can be done by using, constant diffusivities, the approach proposed by Mellor and Yamada in 1982, the k-ε approach, or the interfaced General Ocean Turbulent Model (GOTM) library.

4.2.2.2.1 The Mellor-Yamada level 2.5 model

Based on a turbulent kinetic energy model *"q-ql"*, the turbulent kinetic energy is produced by the vertical shear of the horizontal flow near the boundary (Pope, 2000). In the equations 4.18, and 4.19, q^2 is the turbulent kinetic energy, l the turbulent macroscale, K_q the vertical eddy diffusivity of the turbulent kinetic energy, F_q and F_l the horizontal diffusion of the turbulent kinetic energy and macroscale. P_s and P_b are the shear and buoyancy production terms of the turbulent kinetic energy, ε is the turbulent kinetic energy dissipation rate, and $\tilde{W}$ is a wall proximity function (Chen *et al.*, 2006).

$$\frac{\partial q^2}{\partial t} + u\frac{\partial q^2}{\partial x} + v\frac{\partial q^2}{\partial y} + w\frac{\partial q^2}{\partial z} = 2\left(P_s + P_b - \varepsilon\right) + \frac{\partial}{\partial z}\left(K_q \frac{\partial q^2}{\partial z}\right) + F_q \tag{4.20}$$

$$\frac{\partial q^2 l}{\partial t} + u\frac{\partial q^2 l}{\partial x} + v\frac{\partial q^2 l}{\partial y} + w\frac{\partial q^2 l}{\partial z} = lE_1\left(P_s + P_b - \frac{\tilde{W}}{E_1}\varepsilon\right) + \frac{\partial}{\partial z}\left(K_q \frac{\partial q^2 l}{\partial z}\right) + F_l \tag{4.21}$$

4.2.2.2.2 The k-ε model

This turbulent model solves for two turbulence quantities i.e., k and ε. According to Pope (2000) this two-equation model is widely used in most commercial CFD codes. Equation 4.20 describes the k-ε turbulence model in the boundary layer approximation.

$$\frac{\partial k}{\partial t} - \frac{\partial}{\partial z}\left(\frac{\nu_t}{\sigma_k}\frac{\partial k}{\partial z}\right) = P + G - \varepsilon \tag{4.22}$$

$$\frac{\partial \varepsilon}{\partial t} - \frac{\partial}{\partial z}\left(\frac{\nu_t}{\sigma_\varepsilon}\frac{\partial \varepsilon}{\partial z}\right) = c_1\frac{\varepsilon}{k}(P + c_3 G) - c_2\frac{\varepsilon^2}{k} \tag{4.23}$$

where ν_t is the turbulent viscosity, σ_k is the turbulent Prandtl number, that is defined as the ratio of the turbulent viscosity to conductivity. P is the turbulent shear production, and G is the turbulent buoyancy production. Coefficients c_1, c_2, and c_3 are empirical

constants.

4.2.3 The Code structure

FVCOM is written in Fortran 90 and composed by a main fortran subroutine called “us_fvcom.f”. Figure 4.2 shows the schematic of the flow chart of the code structure. This main subroutine is linked to a set of subroutines that execute several different modules where the continuity and the momentum equations are computed. Figure 4.3 illustrates the model structure of FVCOM and available modules/sub-models.

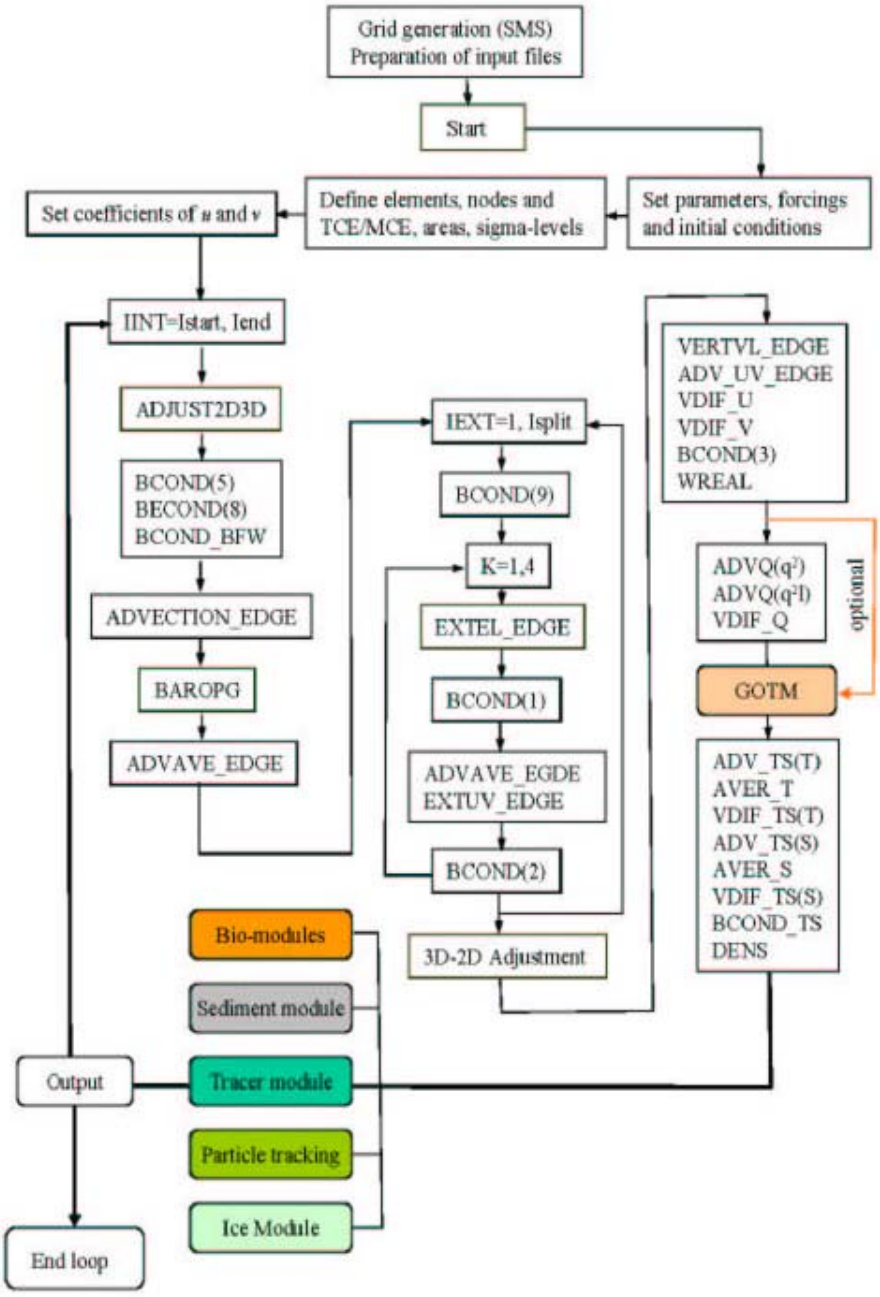

Figure 4.2 FVCOM flow chart. (Source: Chen *et al*, 2006.)

In the present, FVCOM is written with Fortran 90 with MPI parallelization, and runs on an UNIX or LINUX platform. The code runs on single and multi-processor machines.

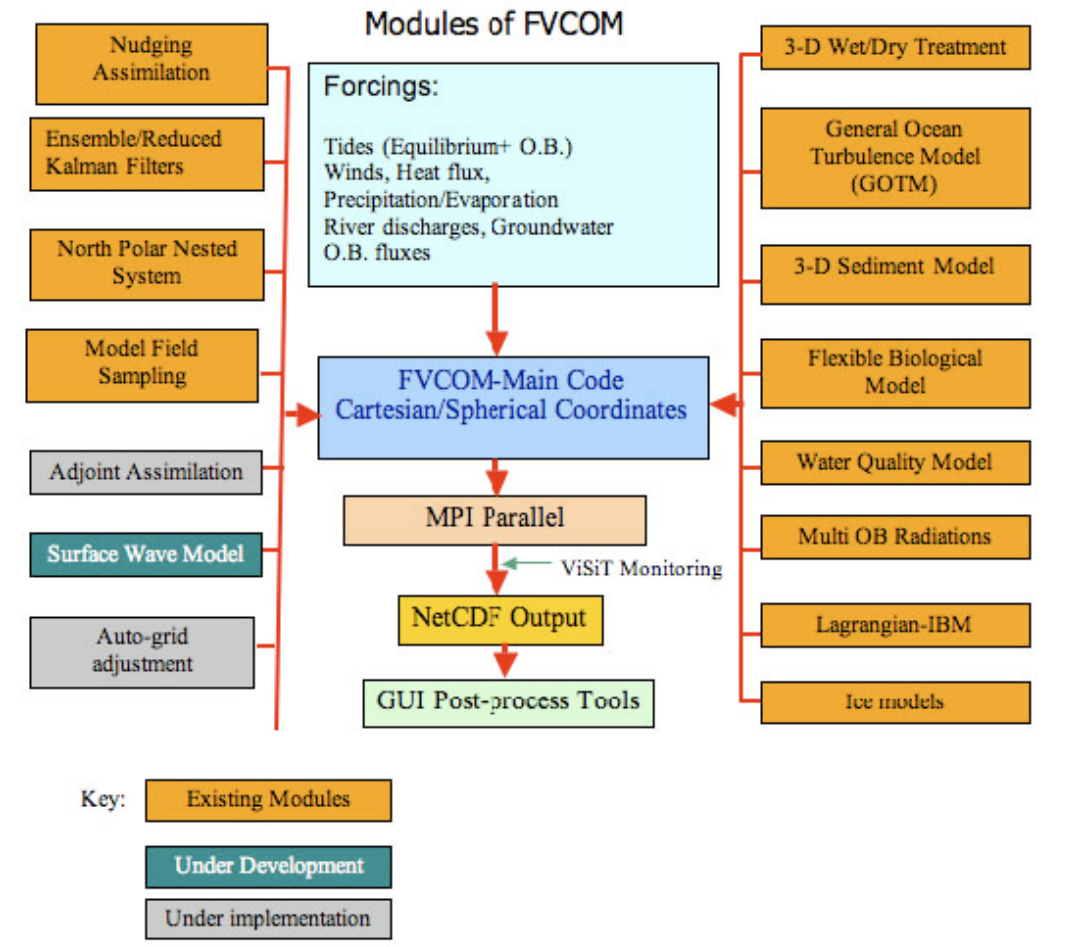

Figure 4.3 Model structure of FVCOM and available modules/sub-models. Source: Chen *et al*, 2006.

FVCOM has incorporated the Foreman (1978) tidal forecasting program to compute a realistic tidal elevation data for the initial conditions and on the open boundary. Six harmonic constituents can be set in the model.

4.2.4 The wetting-drying technique

The wetting and drying technique consists on the water flooding onto and draining out of the intertidal zone. When the local water depths, bounded by the bathymetry and the water elevation, are greater than zero, then the cells become wet; on the contrary, when the water depths are less than or equal to zero, the cells become dry (Chen *et al.*, 2006). Velocities for the dry cells are specified as zero, but salinity maintains the saved value from the previous time step.

4.2.5 The 2-D External Mode

The numerical integration in the external mode is based on a modified fourth-order Runge-Kutta time-stepping scheme. The external mode solves the equations for the surface elevation, explicitly.

4.2.6 The 3-D Internal Mode

The momentum equations, for the internal mode, are solved numerically using a combined explicit and implicit scheme. Thus, a fourth-order Runge-Kutta time-stepping scheme solves explicitly the advection terms, and the implementation of the vertical diffusion is solved implicitly.

5. Model Testing

This Section reports the following testing that was completed to evaluate the capabilities of FVCOM to simulate salinity transport:

- FVCOM model validation based on an analytical solution,
- the physical model of salinity exchange,
- a 3-D FVCOM model of the physical experiment,
- the development and testing of an FVCOM model of an idealized Pontchartrain Basin and
- the development and testing of an FVCOM model for the Pontchartrain Estuary.

5.1 Quarter Annular Case Test

The quarter-annular case or quarter annular harbor problem was developed by the ADCIRC Development Group (2005) to assess the hydrodynamic performance of finite element numerical schemes applied to the shallow-water equations. Although it was designed for finite element numerical schemes, it can also be applied to finite volume schemes. Its spatially varying geometry tests the code on the horizontal coordinates. It allows analytical solutions for the linearized 2D and 3D problems.

Developed by Lynch and Gray (1978); and Lynch and Officer (1985), the analytical solutions for periodic, steady state solutions of the linearized shallow water equations offer the possibility of evaluating CFD models with tidal boundary conditions and variable bathymetry (Guillot and Bai, 2004).

5.1.1 Quarter Annular Case Set Up on FVCOM

The quarter annular case test has been set up for FVCOM with a linearly varying bathymetry that changes accordingly to Eq. 2.17.

$$h(r) = H_o\left(\frac{r}{r_1}\right) \tag{2.17}$$

where r_1=60957m, r_2=152397m, and H_o=3.048m. Figure 5.1 illustrates a 3D perspective of the linear bathymetry.

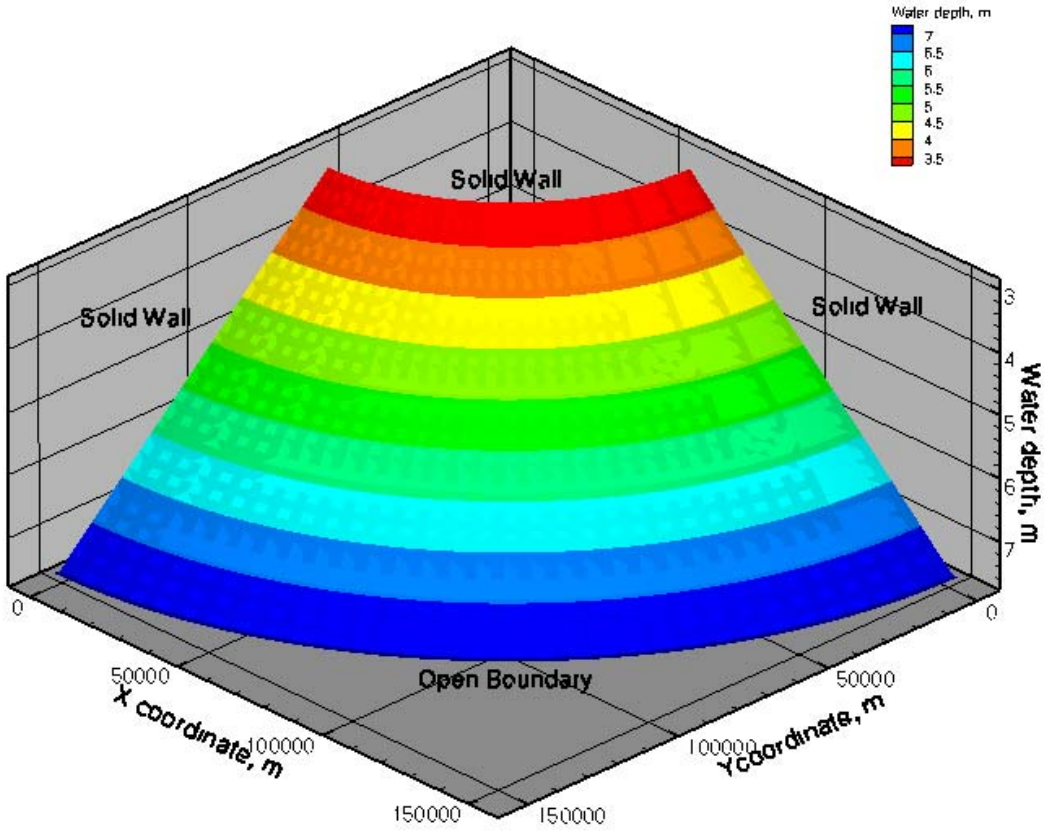

Figure 5.1 Linear bathymetry for the quarter annular case test.

Figures 5.2 to 5.5 (Guillot, 2006) show several different grids that were used to analyze grid dependency a 2D code. In Figures from 5.2 to 5.5 the internal quarter of the circumference generated by r_1, and lateral boundaries are solid walls; the external quarter of the circumference generated by r_2 is the open boundary.

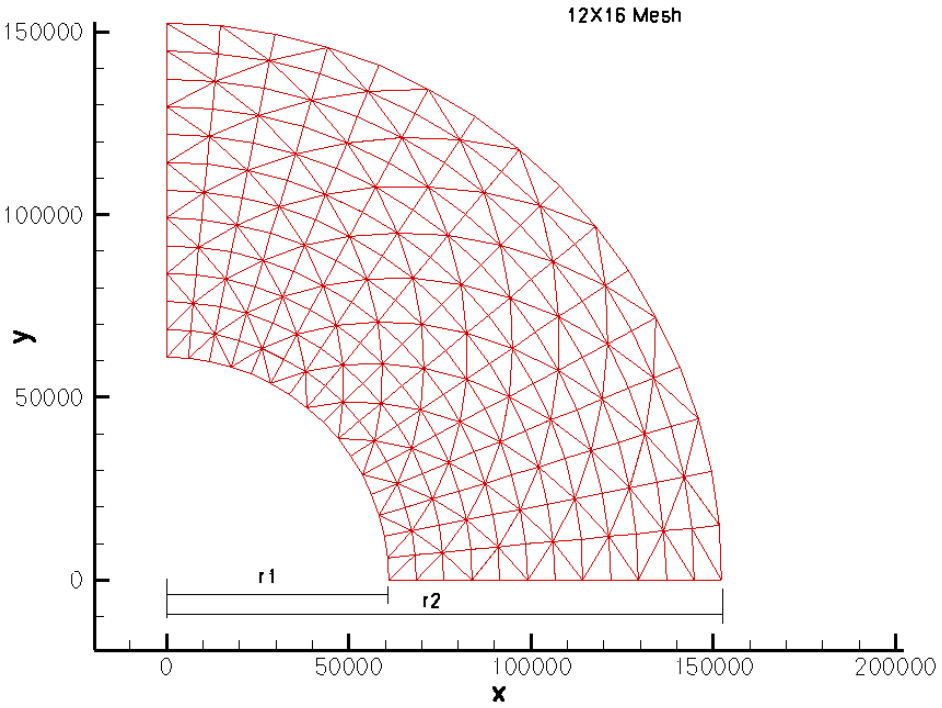

Figure 5.2 Mesh of 12x16, units in meters

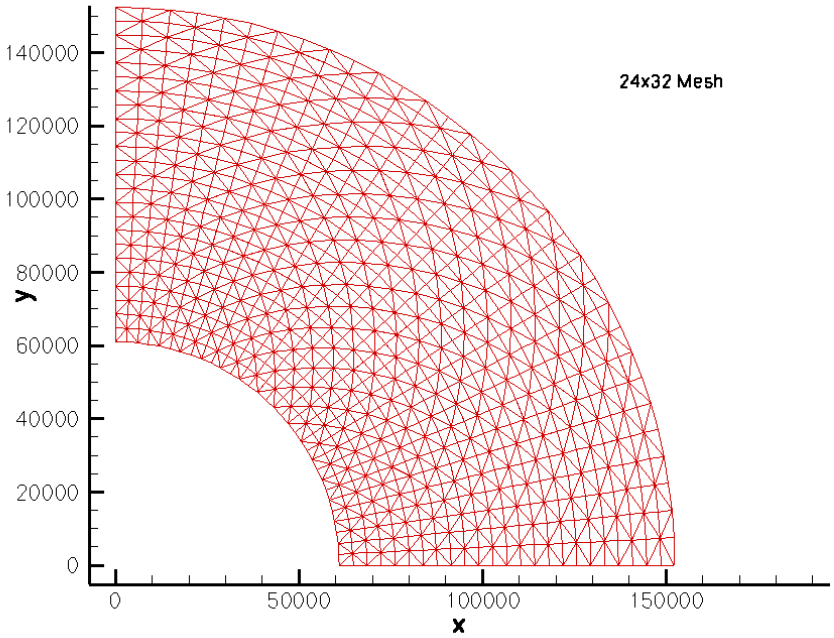

Figure 5.3 Mesh of 24x32, units in meters

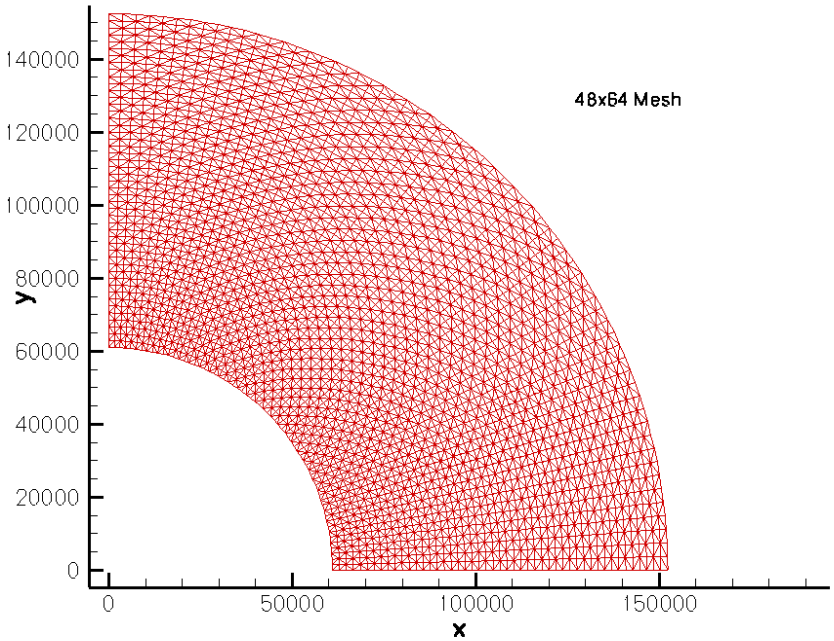

Figure 5.4 Mesh of 48x64, units in meters

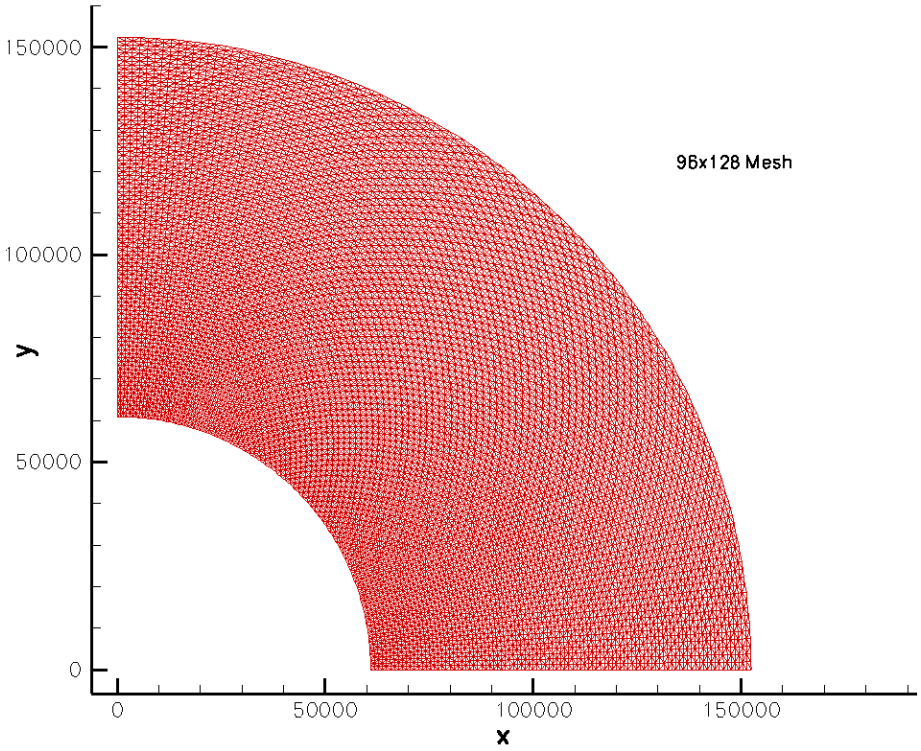

Figure 5.5 Mesh of 96x128, units in meters

In FVCOM, the corners at the open boundary require special attention since none of the cells of the domain can share a solid and open boundary faces simultaneously. For instance, Figure 5.6 illustrates how the mesh should be set up at the corners.

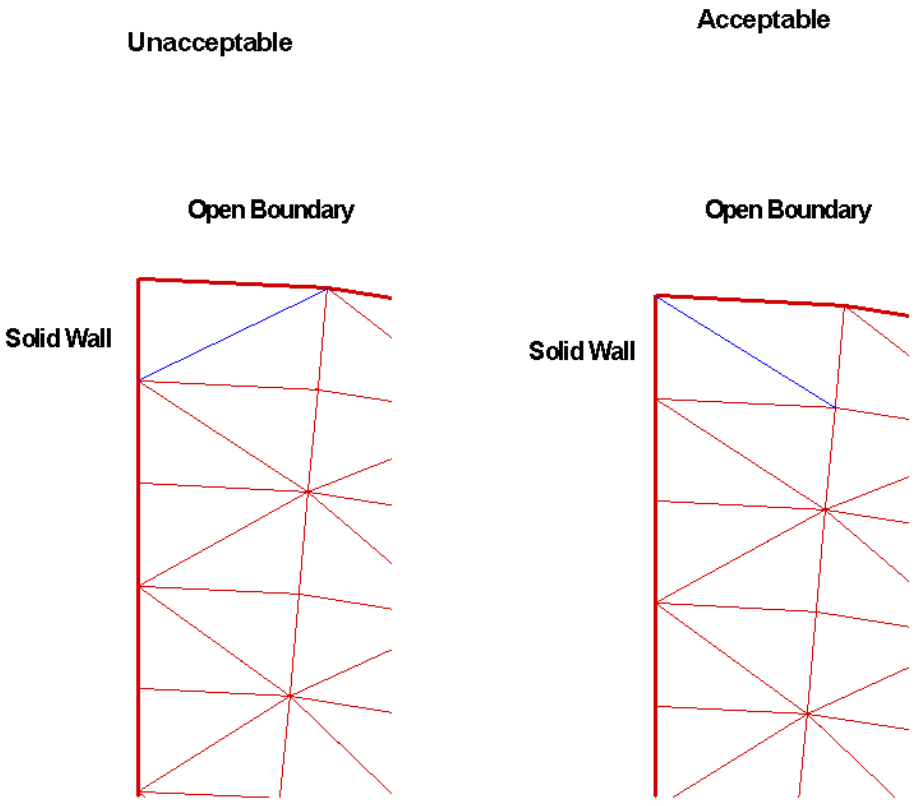

Figure 5.6 Treatment at corners of the domain.

The water level was initialized at zero. The velocity vector field started from rest. An M_2 tide was forced with a period of 12.42 hours and 0.1 m amplitude along the open boundary i.e., spatially invariant boundary condition.

For this particular case, the model was run in a three-dimensional mode with three sigma levels equally distributed throughout the depth. Since a 2D case can be defined with two sigma levels, one more sigma level would make a 3D case.

The bottom roughness height at the bottom boundary was assumed constant with an equivalent bottom shear stress coefficient of 0.0025.

The criterion for numerical stability that applies for FVCOM is based on the Courant-Fredrich-Levy (CFL) number in the form of:

$$Courant \quad number = \frac{\left(u + \sqrt{gD}\right)\Delta t}{\Delta L} \leq 1 \tag{5.1}$$

where $\sqrt{(gD)}$ is the wave celerity, u is the magnitude of the horizontal velocity, ΔL is the shortest edge of an individual triangular grid element, and D is the local depth. In the present work, the cell that provides, simultaneously, the maximum depth and the shortest edge is located at the inner boundary of the harbor with a local depth D=7.62 m, which gives a celerity of 8.6 m/s. Table 5.1 gives the maximum time step that could have been chosen for each grid based on the Courant number stability criteria. The time step used for each mesh was 4 seconds.

The simulations were run for a total time of 9 days for spatially invariant boundary condition. Table 5.1 also summarizes the real time that was taken by the 512 MB-Mac OS X (10.3.9) system, with a single processor, to complete the runs for the different meshes.

Table 5.1 Real time for a total simulation time of 9 days for the different meshes with a time step of 4s (3 sigma levels).

Mesh	Real time	ΔL,m	Δt_{max}, s	Total number of nodes	Total number of cells
12x16	3 min	7620	881.3	221	384
24x64	14 min	3810	440.7	825	1536
48x64	1hr 43 min	1905	220.3	3185	6144
96x128	6hr 20min	952	110.1	12513	24576

The equivalent linear shear stress found for the analytical solution that most closely approximates the non-linear shear stress with a C_f of 0.0025 for the modeled data was 0.0000675 s^{-1}. The computed results for the water surface elevation are shown in Figure 5.7. Radial velocities with respect to radial distance are plotted in Figure 5.8.

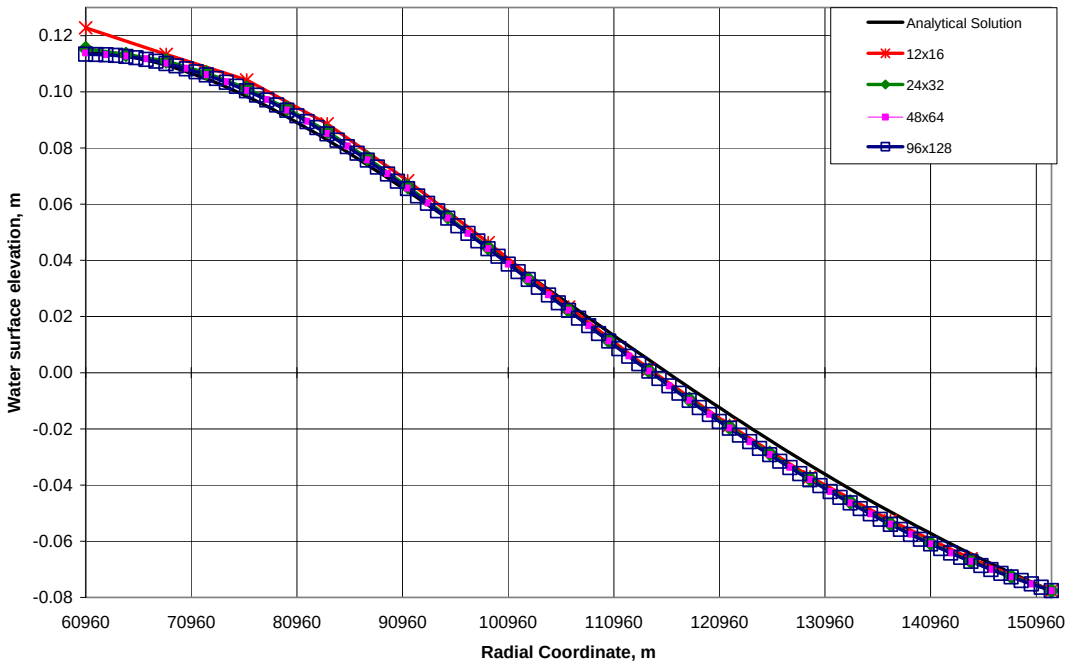

Figure 5.7 Radial elevation profiles at θ=π/4, t=9 days, linear bathymetry, invariant BC where θ is the angle measured in polar coordinates with respect to the positive r-axis. The symbols represent the location of the nodes along the profile.

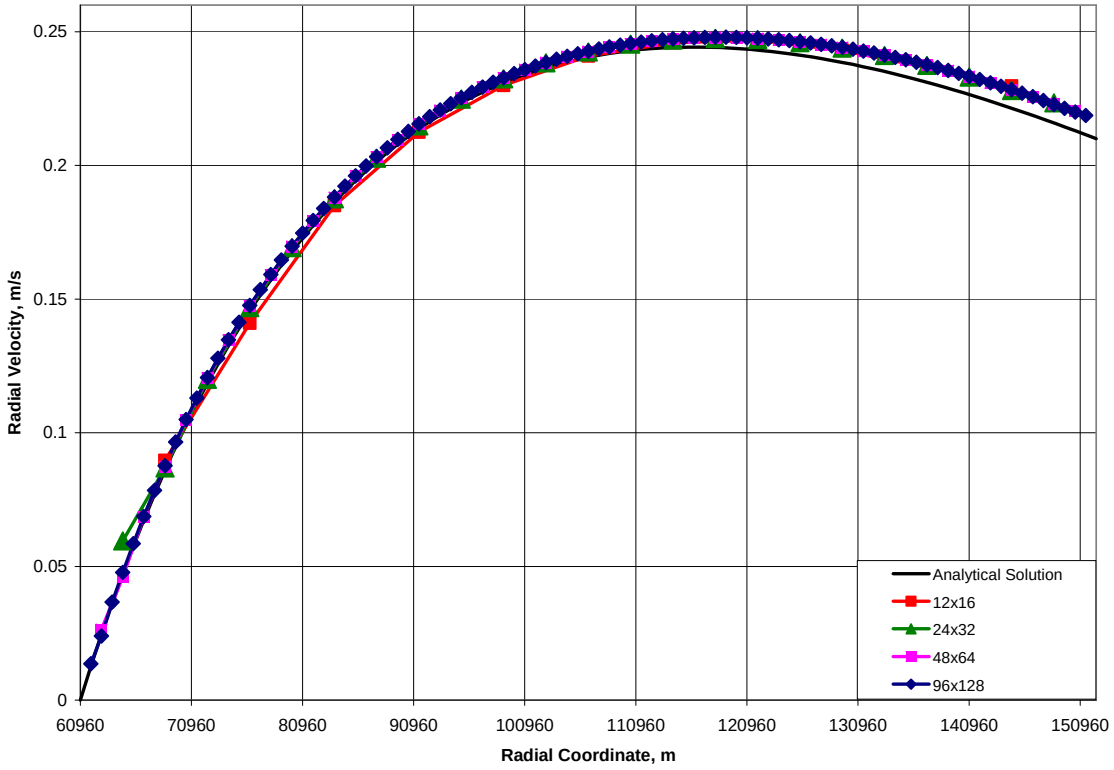

Figure 5.8 Radial velocity profiles at θ=π/4, t=9 days, linear bathymetry, invariant BC where θ is the angle measured in polar coordinates with respect to the positive r-axis. The symbols represent the location of the nodes along the profile.

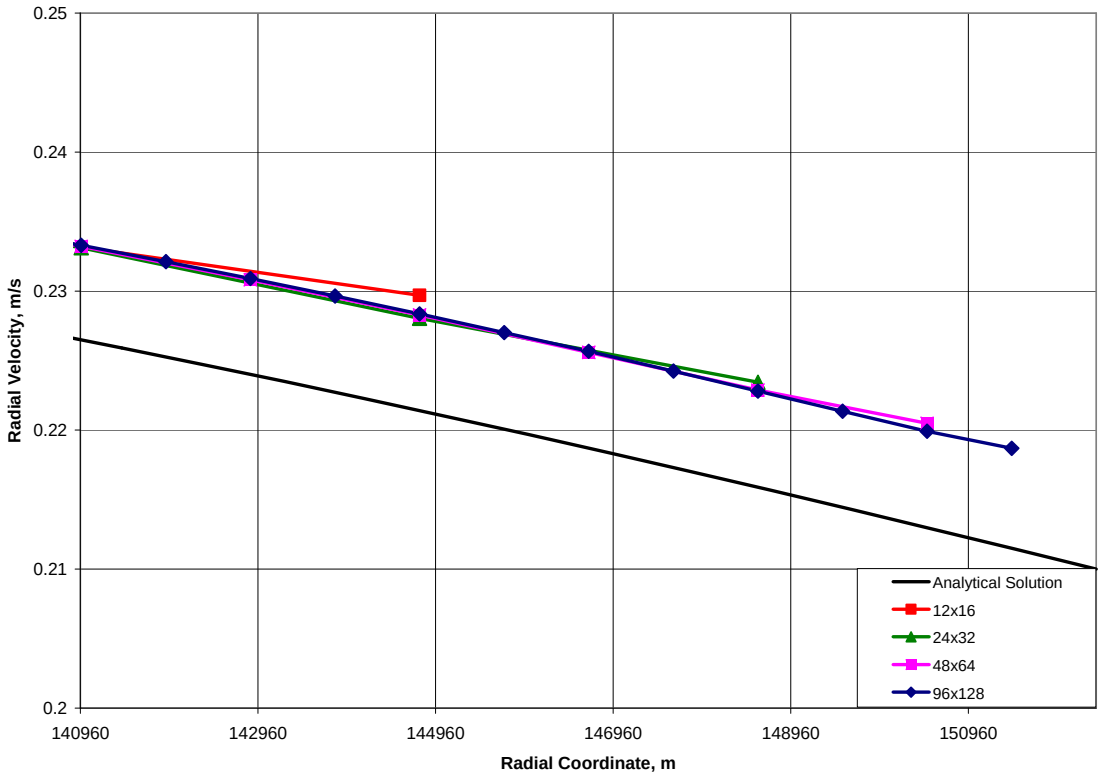

Figure 5.9 Detail of the velocity profiles at the far-left end, near the Open Boundary, for $\theta=\pi/4$, t=9 days, linear bathymetry, invariant BC, where θ is the angle measured in polar coordinates with respect to the positive r-axis. The symbols represent the location of the nodes along the profile

The results indicate convergence under mesh refinement. Although in practical applications the analytical solutions are generally not available, the process of mesh refining usually shows the extent to which the solution does not vary with respect to the resolution of the mesh. It does not necessarily imply that the solution is accurate, but it implies that it is precise. From Figure 5.7, it can be observed that the computed surface water elevations for the 48x64 and 98x128 meshes show convergence. Similarly, the 48x64 and 98x128 meshes show almost identical results for the radial velocity profiles in Figure 5.8.

In addition, it can be noticed that the solution near the region of shallower water depth for the 12x16 mesh deviate from the solutions with higher resolution i.e., 96x128, 48x64. At the right end of Figure 5.7, all the solutions for water elevation at the open boundary have the same result, since they have the same M_2 tide at the open boundary.

The velocity profiles for the 12x16 and 24x32 grids significantly diverge from the solution of higher resolution grids. The graphic user interface Tecplot ® interpolates the velocities from the centroids to the nodes of the selected profile. Therefore, Figure 5.9 shows that, for any profile, velocities are not plotted for r_1 and r_2, because they would introduce an interpolation error.

It can be noticed from Figure 5.9 that there is nearly a constant shift between the computed solutions and the analytical solutions. This may be related to the linearization of the shear stress used in the analytical solution as opposed to the non-linear shear stress used in the code.

5.2 Physical Model

A physical model was constructed to provide insight into the exchange flows and internal density currents through constrictions and to provide a means of validating the FVCOM model for density (salinity) driven flows. To study the behavior of this type of flow through a tidal pass, density currents were forced to pass through different sizes of constricted openings in a physical model. Axisymmetry and rules of similitude were applied to the design of the physical model. In particular, similar densimetric Froude

Numbers to those expected at tidal passes were used and the Reynolds Number in the constant velocity phase of the density current was greater than the nominal values for the appearance of turbulent flow.

The model was constructed of Plexiglas with a length of 4.24 m, a width of 0.664 m and a depth of 0.20 m. A Gaussian bell shape was used to design the constriction to avoid features that may introduce additional rough patterns in the motion of the flow beyond the flow patterns that would be inheritably dictated by the constriction and exchange flow effects. Figures 5.10 and 5.11 show the model under construction. Figures 5.12 and 5.13 show the location of the gate and indicate the locations of the Sontec Velocity meters. These meters each recorded 3 velocity components on a Pentium PC with Windows 98.

Figure 5.10: Placement of the physical model in the Hydraulics Lab.

Figure 5.11: Construction of the physical model in progress

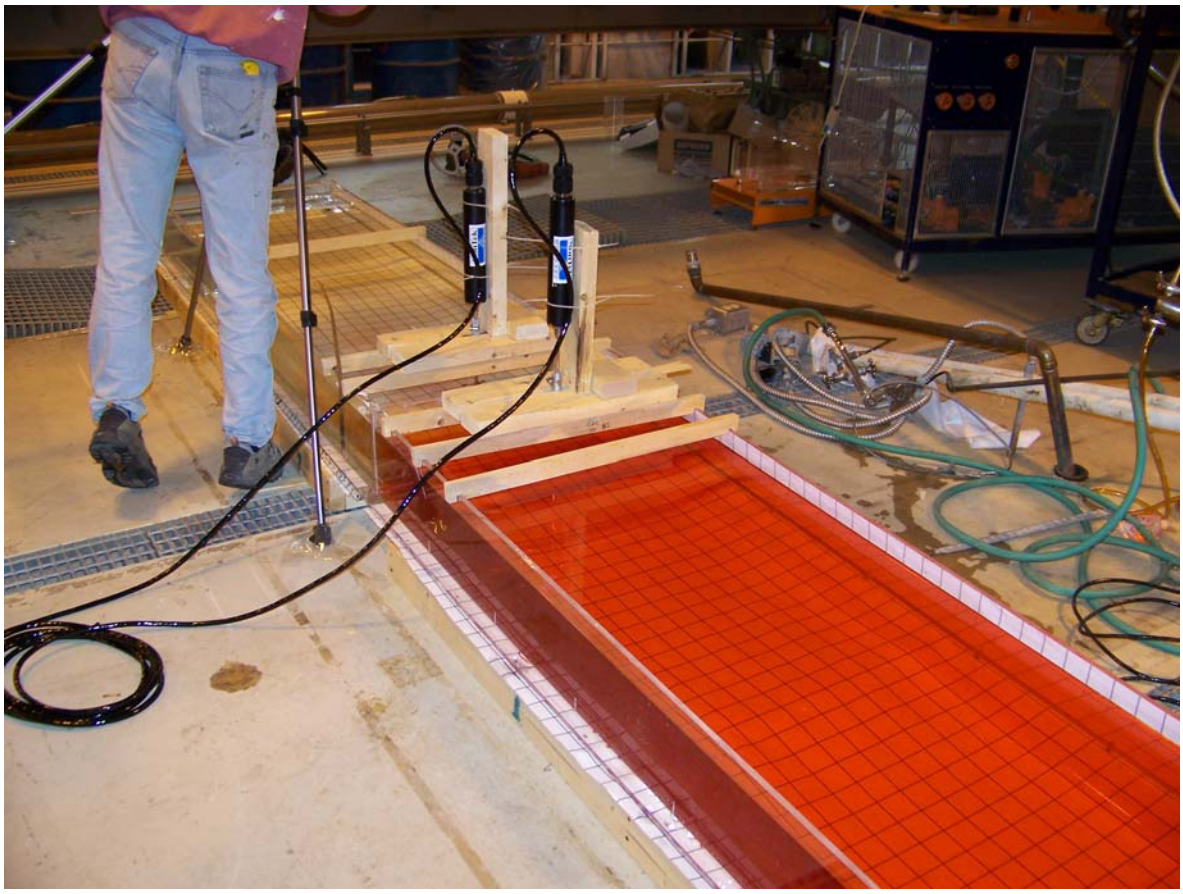

Figure 5.12: Model Setup for Lock Exchange Test Showing the Locations of the Two Sontec Doppler Current Meters

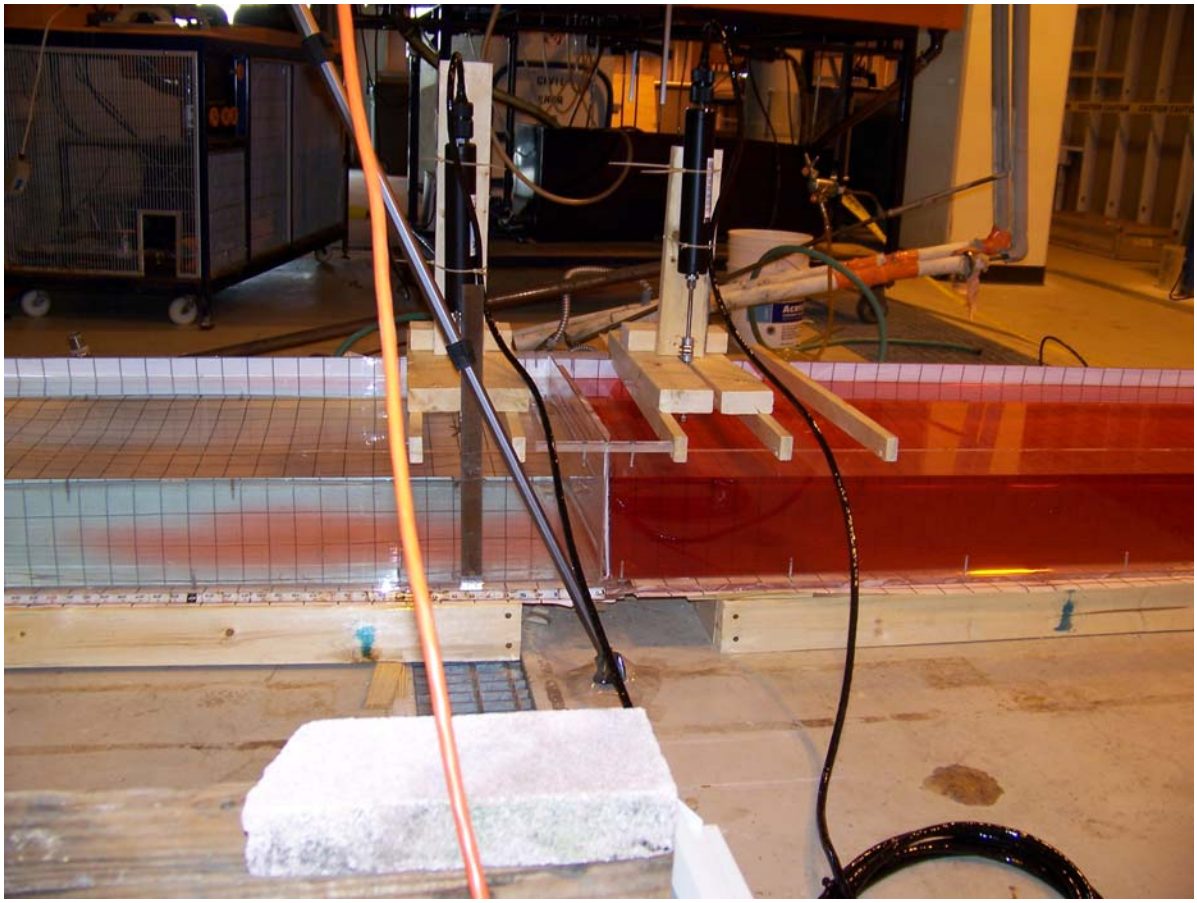

Figure 5.13: Model Setup for Lock Exchange Test Showing the Locations of the Two Sontec Doppler Current Meters

The physical model is illustrated in Figure 5.14 for the lock exchange case.

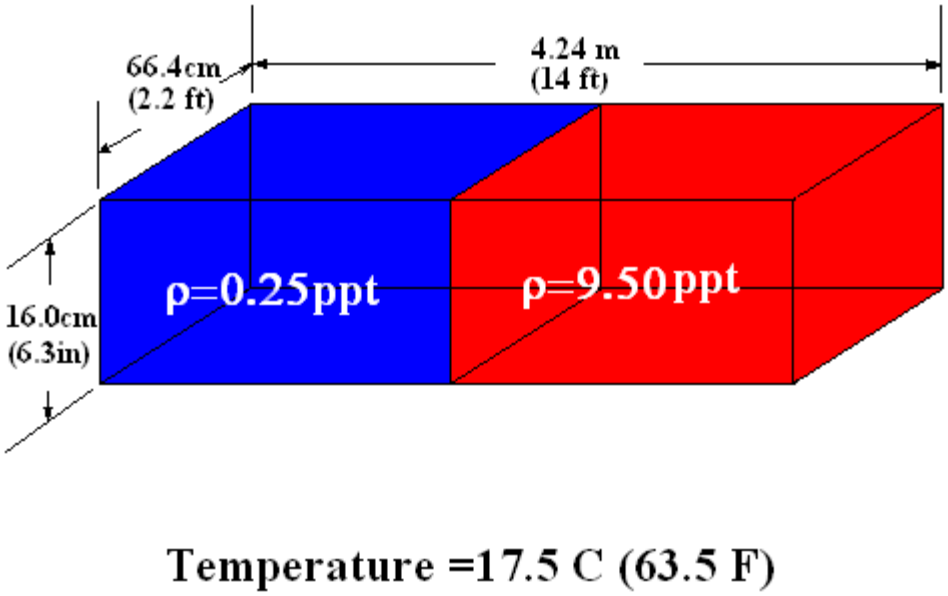

Figure 5.14: Sketch of the proposed physical model (Saline water in red).

5.2.1 Description of Tests

The model was run for the four scenarios given in Table 5.2.

Scenario 1: This test is also known as a lock exchange test. A solution of 10 ppt salinity was prepared in situ in one half of the model, while the other half had salinity typical of tap water (0.25 ppt). A gate was be placed at the middle of the model to separate the two fluids. The fluids were allowed to come to rest after the mixing process and then the gate was rapidly removed. Video cameras, a conductivity meter and two doppler velocity meters were located in the fluid as indicated in Figure 5.13.

Scenarios 2-4: The constriction was be placed at 1/3 of the total length from the end wall of the freshwater side to allow the underflow to develop before it reaches the constriction.

Figure 5.15 shows the locations of the constriction for the Scenarios 2-4. These tests were conducted in the same manner as the lock exchange test.

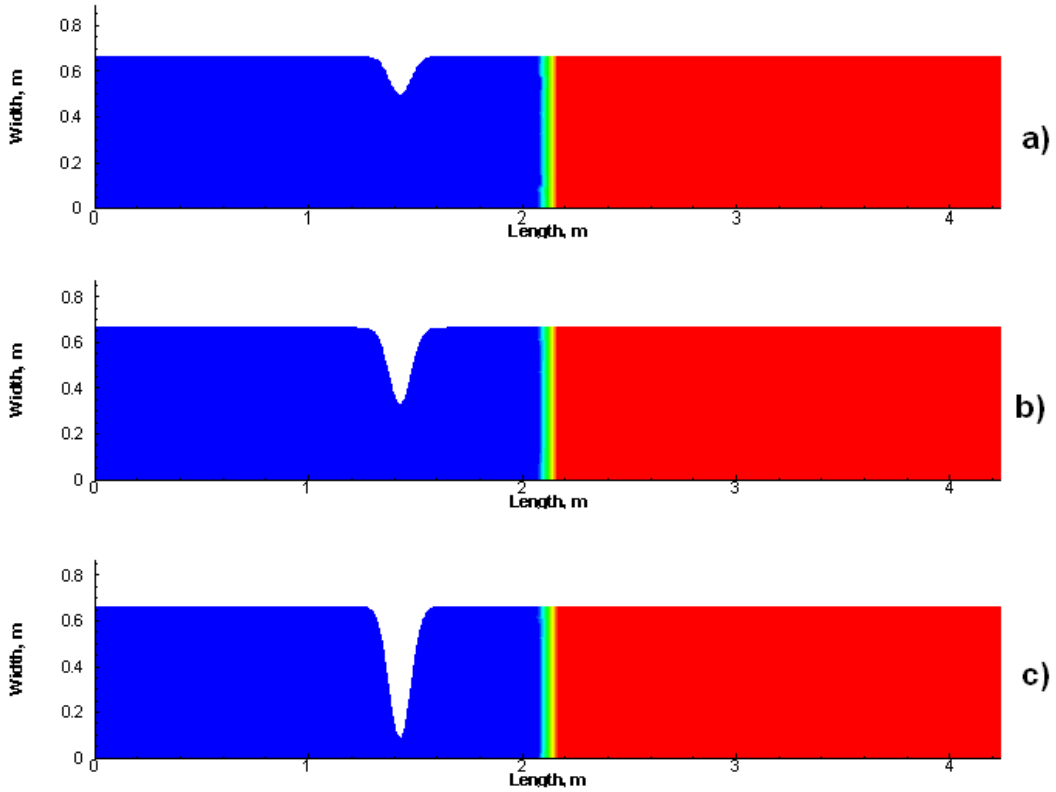

Figure 5.15: Diagram of the location of the gate and constriction for the three constricted cases: a) 25%, b) 50%, and c) 86%. [Plan view]

Table 5.2 Constriction profiles for the projected runs

Test	Percentage of constriction,%	Width of opening, cm
1 (Lock-exchange test)	0	66.2
2	25	49.6
3	50	33.1
4	86	9.31

5.2.2 Physical Model Test Results

Scenario 1: This test was chosen to calibrate the speed of propagation of the gravity currents in the numerical model and to provide a better understanding of the behavior of the internal gravity waves. Figures 5.16-5.19 show the progression of the density current and the subsequent rebound at the downstream and then the upstream walls. It was noted that the rebound at the downstream wall had the appearance of an internal hydraulic jump (Figure 5.18).

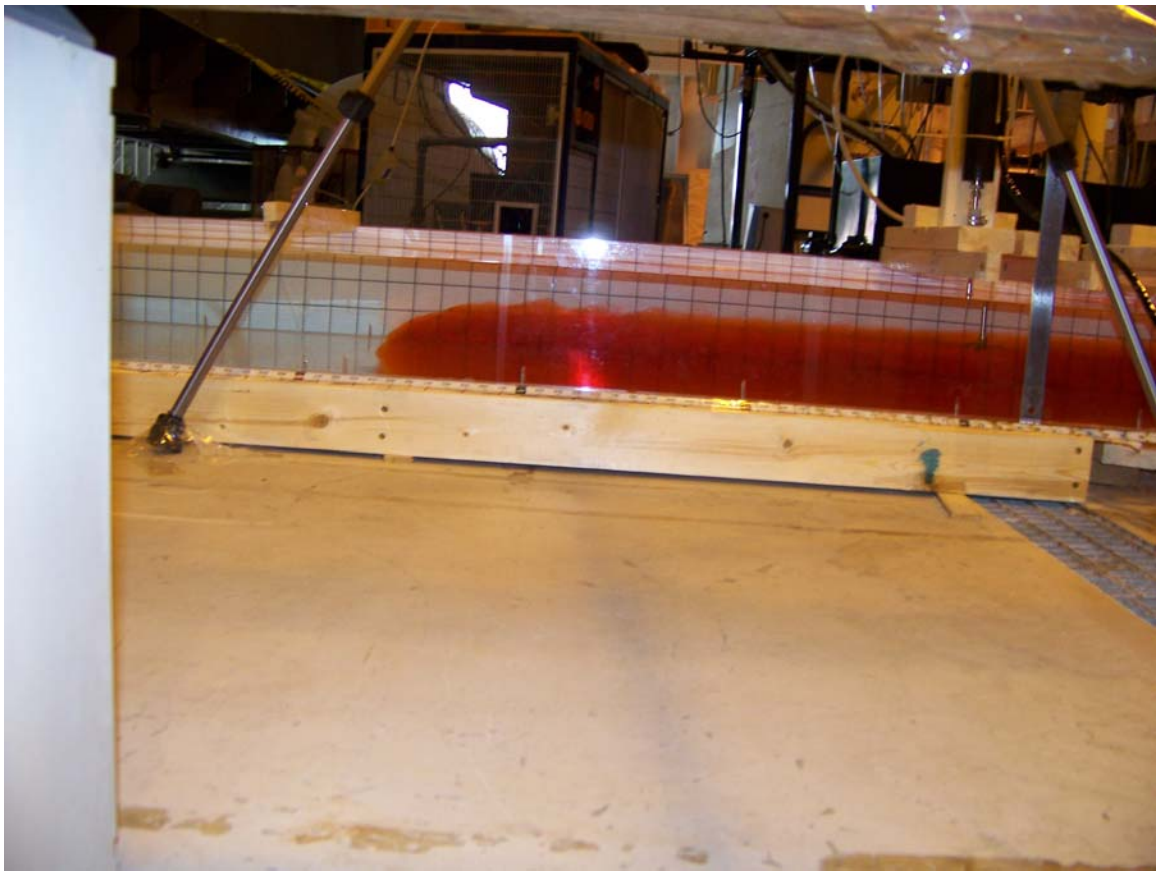

Figure 5.16 Constant Velocity Phase of Density Current

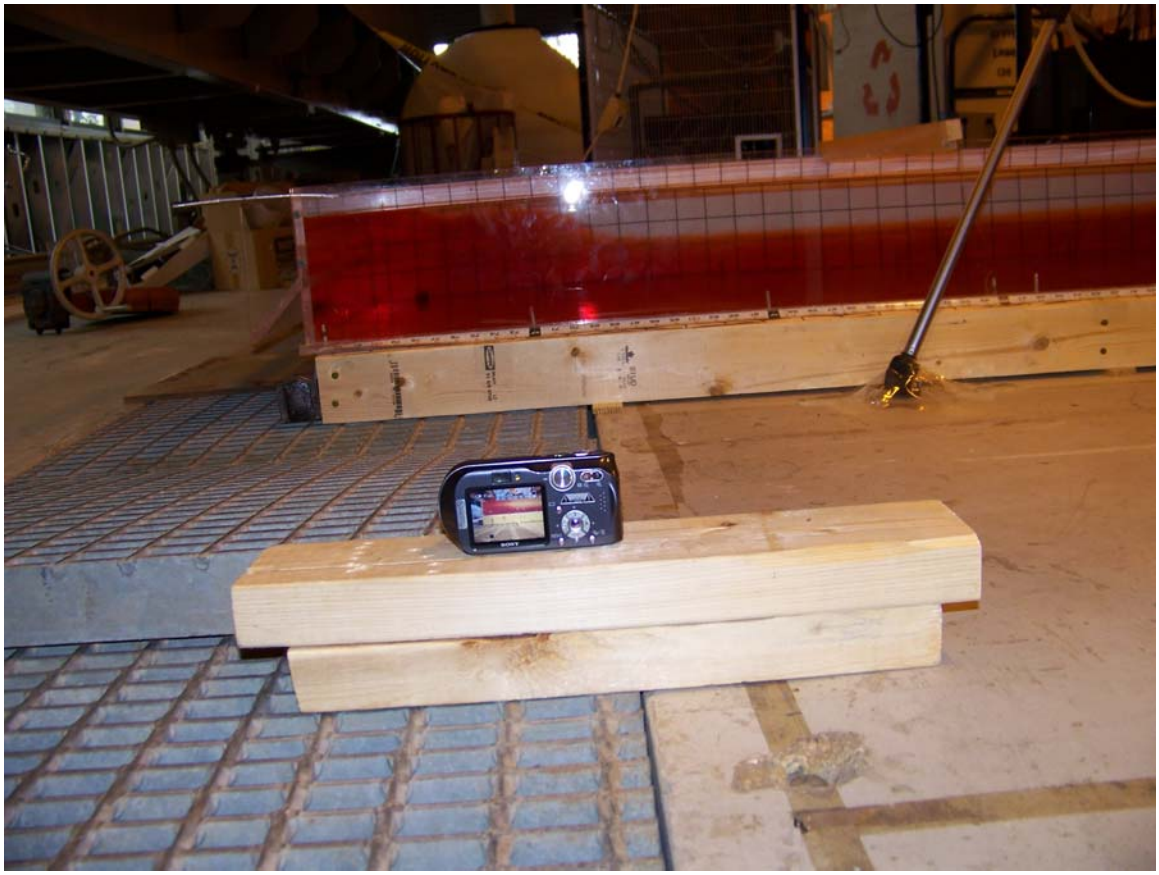

Figure 5.17 Downstream Rebound of Density Current

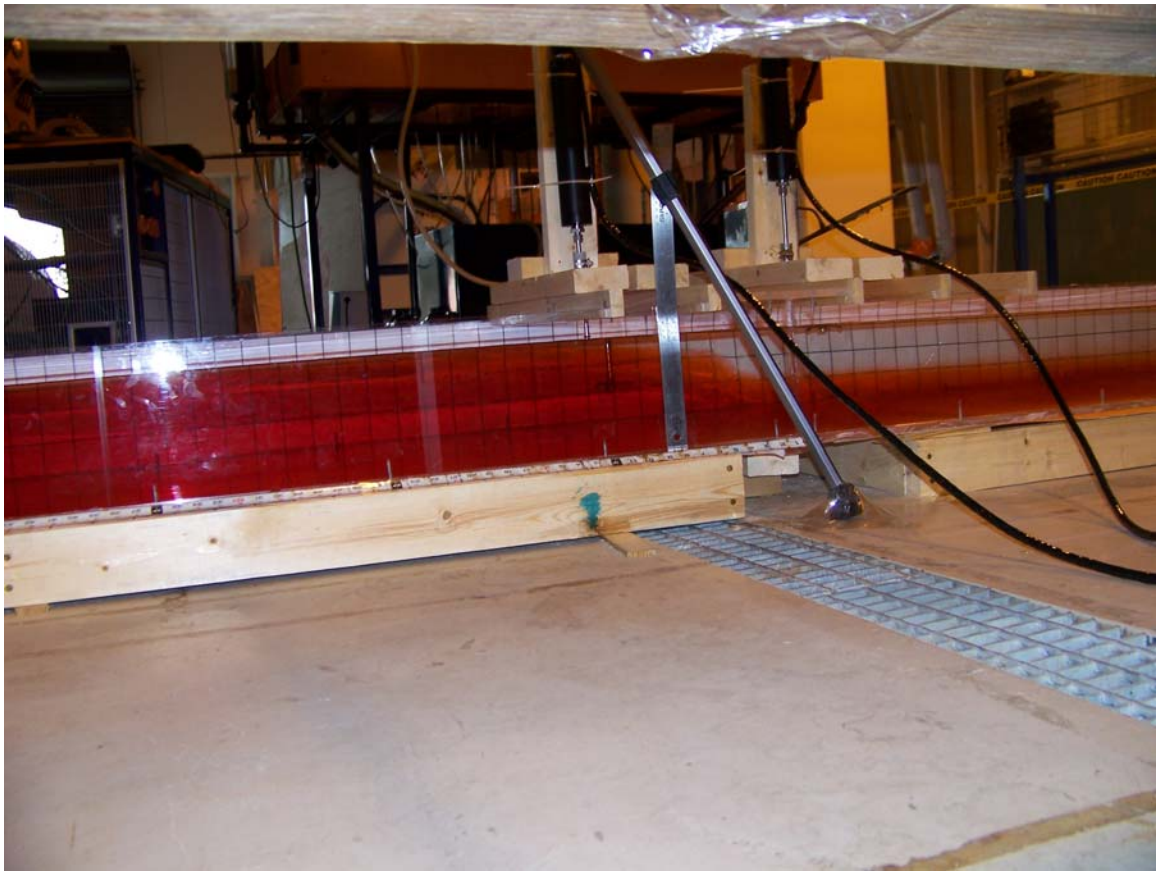

Figure 5.18 Traveling Internal Hydraulic Jump of Density Current

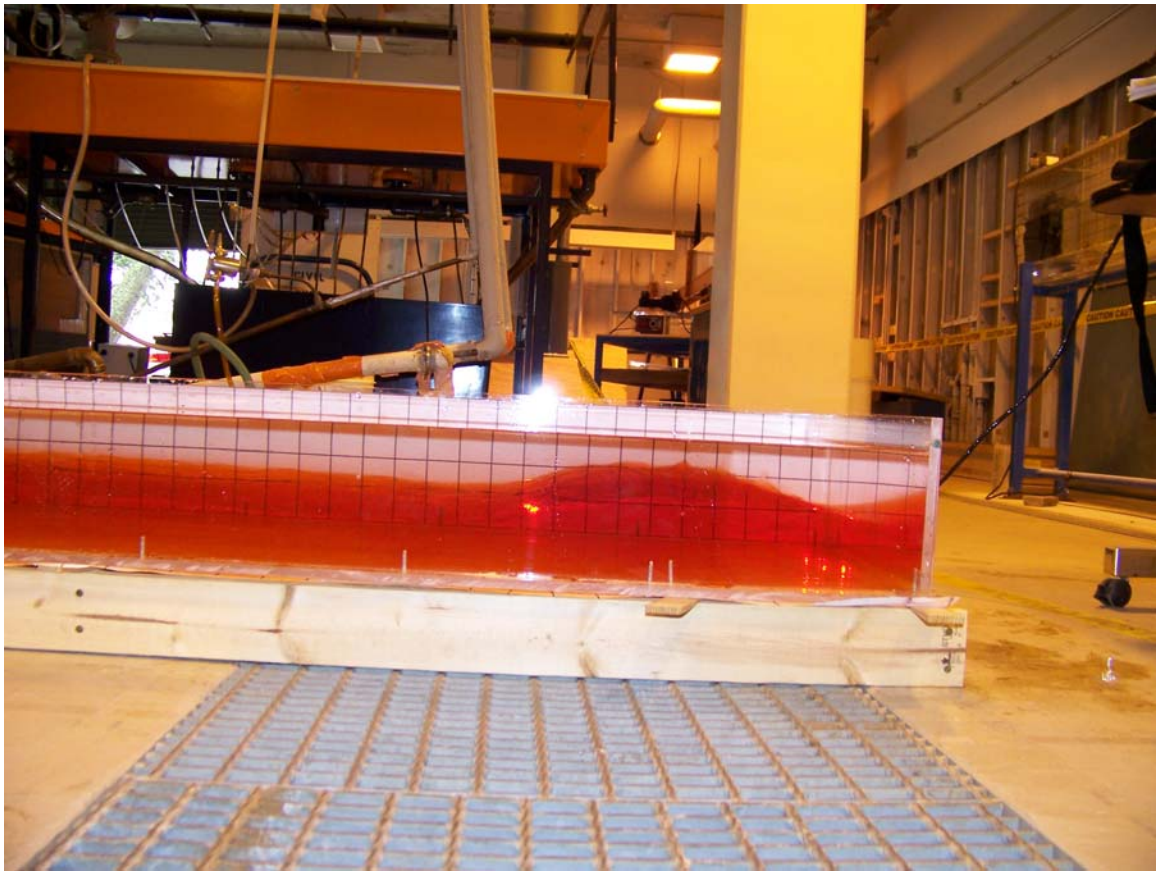

Figure 5.19 Internal Wave in Nearly Stratified Flow

The nature of exchange flow can be observed in Figure 5.20. Once the gate that separates the two volumes of fluid is released, then gravity converts the potential energy into kinetic energy. Both, the underflow and overflow eventually encounter the end wall that would raise the head of the density current, converting kinetic energy into potential energy. Consequently, gravity, the restoring force in this closed system, initiates the motion back in the opposite direction. Finally, due to non-conservative forces e.g., friction, the system returns to rest. The oscillating behavior of the speeds of propagation can be observed as damped harmonic waves.

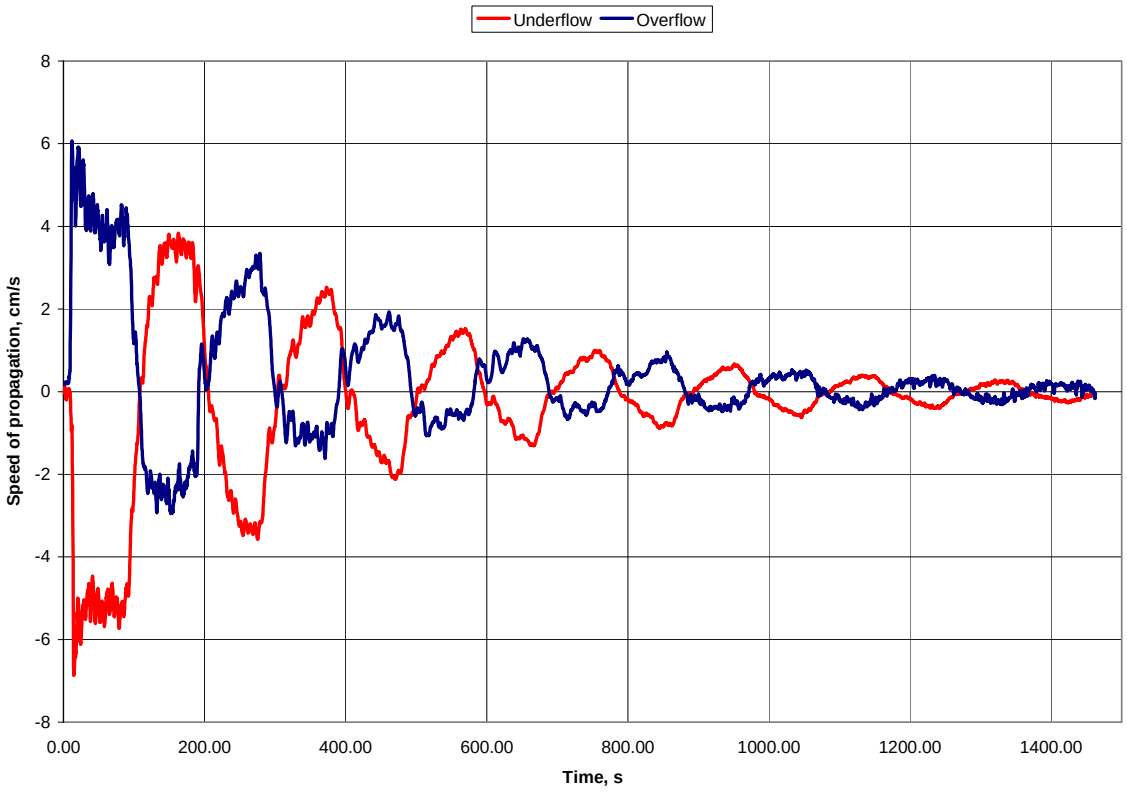

Figure 5.20: Observed speeds of propagation for fresh and saltwater plumes in the lock exchange test.

Based on the Eq. 2.4, the theoretical underflow speed of propagation was expected to be close to 6 cm/s. Table 5.3 summarizes the observed primary density current data from the physical model.

Table 5.3 Speed of propagation for the saltwater density current

Case	Maximum Speed of propagation for the saltwater current, cm/s	RMS Speed of propagation for the saltwater current, cm/s	Standard deviation σ cm/s	Brunt-Vaisala frequency Hz
Observed	6.7	5.23	0.36	1/6

Scenarios 2-4: Video and current meter data for each of constriction scenarios were collected. The speed of the internal gravity currents in the saline zones are summarized in Table 5.4.

Table 5.4: Speeds of the saltwater density current for the observed data

Scenario	RMS Speed of propagation for the saltwater current cm/s	Maximum Speed Primary Current cm/s	Maximum Speed Second Wave cm/s
Lock Exchange Test	5.23	6.7	3.7
25% Constriction	4.43	5.1	3.1
50% Constriction	4.15	5.4	2.6
86% Constriction	4.21	6	3.1

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5.2.3 FVCOM Validation Based on Physical Model Tests

5.2.3.1 General

For each of the 4 physical test scenarios, the FVCOM model was setup with 20 sigma layers as shown in Figure 5.21. The horizontal cell size was uniform as indicated in Figure 5.22a. For all the cases, an unstructured grid was designed to represent a 4.24 m long rectangular channel closed in all sides, 0.16 m deep and 66.4 cm wide. Sigma levels were distributed using a parabolic function. A high resolution on the vertical was provided near the top and bottom of the lock exchange test. As in the physical tests, the systems were started from rest. A vertical interface divided the two different density fluids.

Table 5.5 summarizes the initial conditions for the tests performed in the hydraulic laboratory. S_F and S_S are the freshwater and salinities at the right and left sides of the middle of the cross-section.

Table 5.5 Grid Resolution and Initial Conditions for the FVCOM and Physical Tests

Case	Number of nodes	Number of elements	Sigma Layers	Temperature, ˚C	S_F, ppt	S_S, ppt
Lock exchange	1365	2520	20	17.11	0.23	9.30
25% Constriction	2213	4162	20	17.61	0.23	9.99
50% Constriction	2173	4047	20	17.47	0.23	9.74
86% Constriction	2179	4009	20	17.76	0.22	9.28

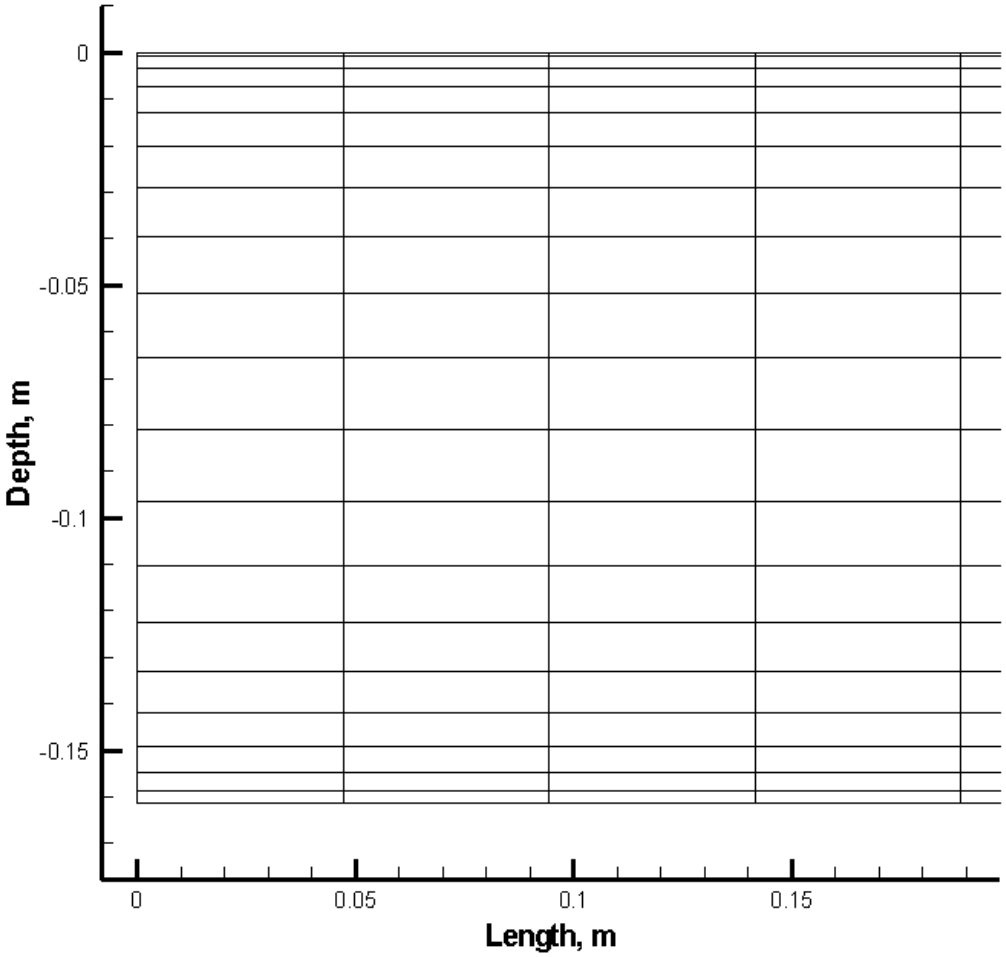

Figure 5.21: Distribution of the sigma levels using a parabolic function.

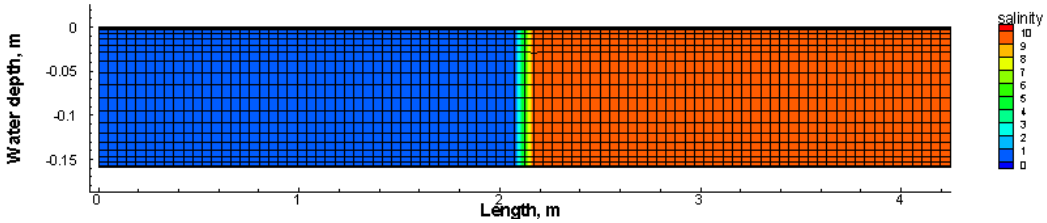

Figure 5.22a: Initial condition for all the cases. The salinity gradient is 9 ppt.[side view]

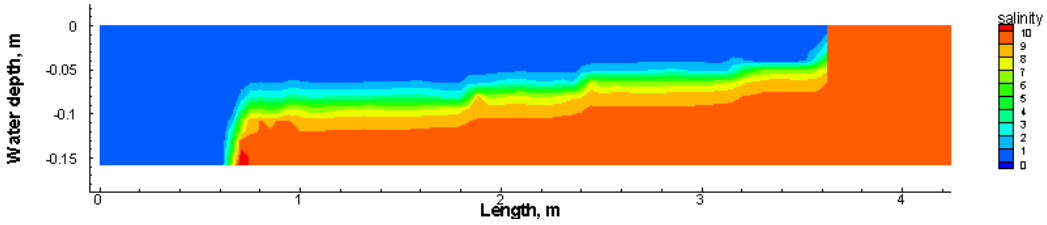

Figure 5.22b: Contour representation of salinity for the lock-exchange test at t=30 seconds.

The estimated friction coefficient was based on Blasius theory, from Eq. 2.8, the distance Reynolds number was 11,800 which falls in the laminar boundary layer region. Provided the Reynolds number, the friction coefficient was calculated as 0.0122 from Eq. 2.10.

Nevertheless, in the numerical simulations, only two extreme friction conditions were forced: a) a full-slip condition, and b) a condition with a high friction coefficient of 0.05. In all of the runs UMOL=10^{-6} m^2/s; ZOB=0; HORCON = 10^{-4}; horizontal Prandtl number = 1.2 and vertical Prandtl number = 1.0.

5.2.3.1 Lock-exchange test

Figure 5.24 a side-by-side comparison is presented of the FVCOM salinity current and the laboratory salinity density current. Figure 5.23 compares the measured speeds in the primary and secondary salinity density currents with the FVCOM prediction for two coefficients of friction (Full-slip and 0.05). The speed of the primary density current is accurately represented by FVCOM; however, the speed of the secondary current is overestimated. This may be due to internal losses (internal hydraulic jump) that are not represented in the hydrostatic version of FVCOM that was used here (Zhu and Lawrence, 2000).

Table 5.6 shows a reasonable match for the constant-speed phase of the process, not only for the full-slip condition but also for condition with a high friction coefficient.

Table 5.6: Root Mean Square speed of propagation for the primary saltwater density current

Case	RMS Speed of propagation for the saltwater current, cm/s	Standard deviation σ, cm/s
Observed	5.23	0.36
Modeled full-slip	5.44	0.37
Modeled C_f=0.05	5.41	0.30

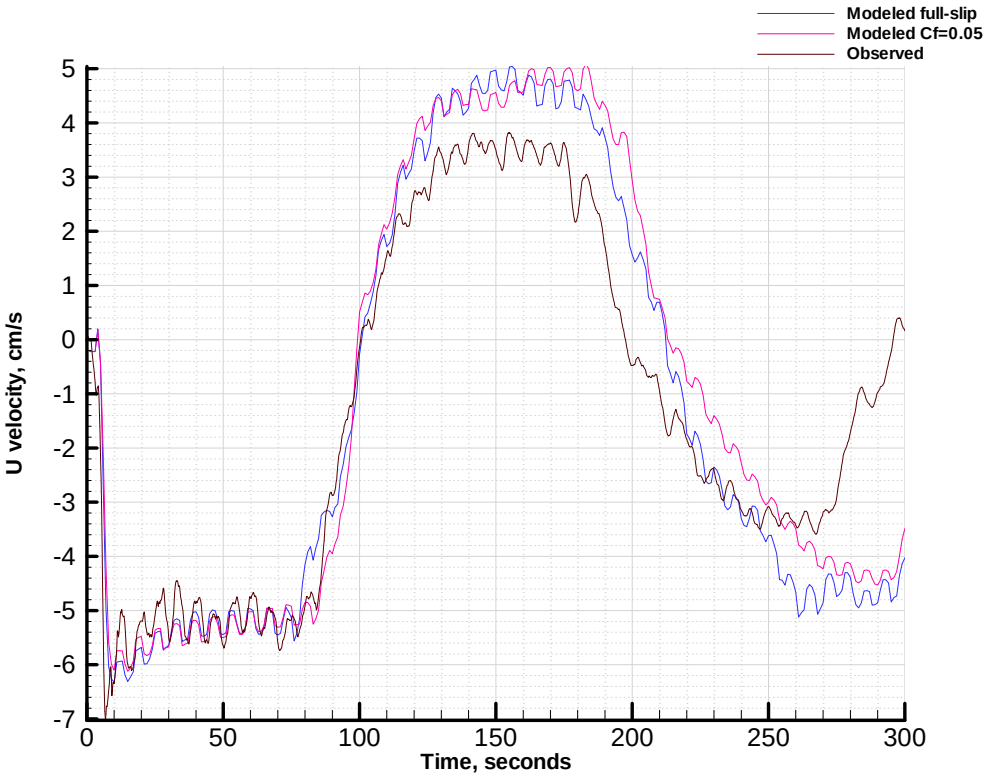

Figure 5.23: Speed of propagation versus time of the lock-exchange test with 21 sigma levels.

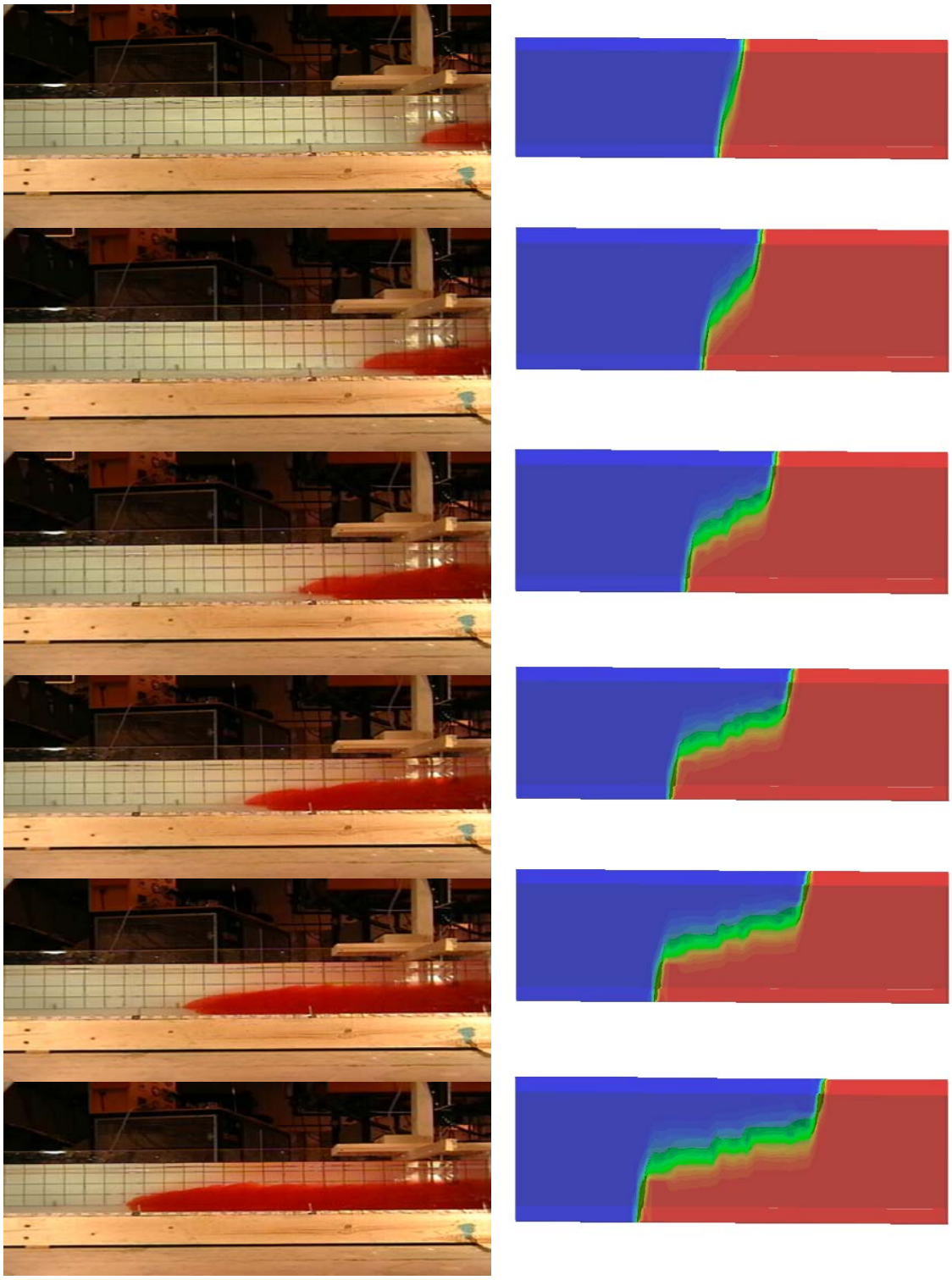

Figure 5.24: Advancement of the saltwater plume in the lock exchange test for both the experiment and numerical cases [side view]. Note: the FVCOM Images have greater vertical distortion.

5.2.3.2 25% Constriction

In a similar way to the lock exchange test, the 25% constricted case shows an accelerating phase for the first seconds of the run, and a constant-speed phase before the gravity current reaches the end wall. Simpson (1987) described similar results in his experiments. For this case, during the constant-speed phase, the speed of the density current is smaller than that of the lock exchange test because the constriction restricts the advancement of the plume. Figure 5.25 compares the salinity density current speed predicted by FVCOM with the observed speed. The acceleration phase and the primary density currents are very well modeled. The secondary current speed is overestimated as it was in the lock exchange scenario. Table 5.6 compares the primary salinity density current speed predicted by FVCOM with the observed value. The agreement for the primary density current is acceptable; however, the model overestimated the propagation speeds for the secondary and subsequent density currents. As in Scenario 1, it is suspected that the internal losses and mixing due to the internal jump may have not been fully captured by the hydrostatic version of FVCOM.

Table 5.6: Root Mean Square velocities for the saltwater density current for the observed data

Case	RMS Speed of propagation for the saltwater current cm/s	FVCOM Primary Speed cm/s
Lock Exchange Test	5.23	5.4-5.44*
25% Constriction	4.43	3.9-4.4
50% Constriction	4.15	4.2-4.25
86% Constriction	4.21	4.3-4.4

**Range is for full-slip and $C_f = 0.05$*

The Brunt-Vaisala frequency of approximately 1/6 Hz (~1 rad/s) is captured by the FVCOM model in the primary density current; however the frequency for the secondary current is slightly underestimated relative to the physical model observations.

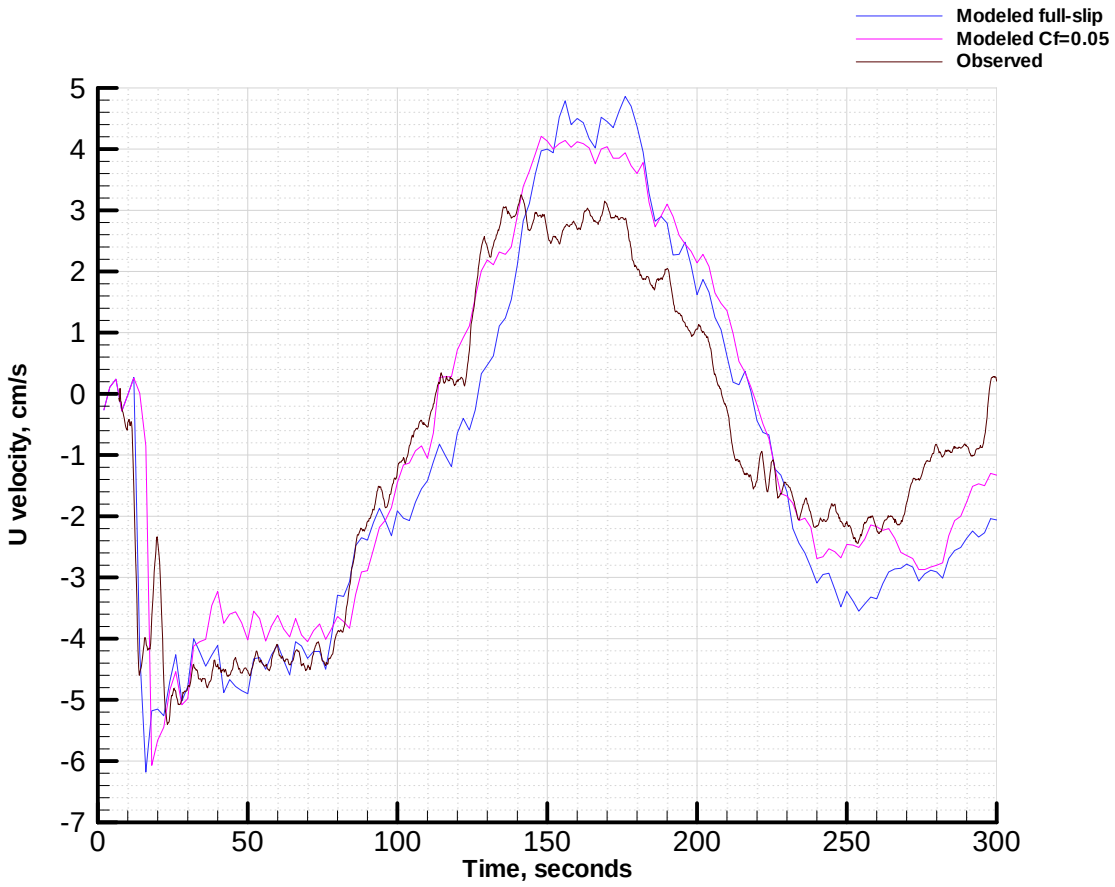

Figure 5.25: Speed of propagation versus time of 25% constriction case with 21 sigma levels

5.2.3.3 50% Constriction

In this experiment, Figure 5.26 shows that the speed of propagation of the saltwater plume is even smaller than that of the 25% constriction. Table 5.6 shows the RMS speed of propagation for the constant-speed for all the cases. The RMS velocity for

the 50% case was 4.15 cm/s, which is the smallest of all the experiments. Table 5.6 shows that the full-slip and the 0.05 friction coefficient FVCOM predicted the speed of propagation of this primary density current very well. As in Scenarios 1 and 2 the secondary density current speed is overestimated. The primary Brunt-Vaisala frequency is captured but the secondary frequency is underestimated.

Figure 5.26: Speed of propagation versus time of the 50% constriction case with 21 sigma levels.

5.2.3.4 86% Constriction

Figure 5.27 presents the observed and modeled salinity density currents for Scenario 4.

As shown in Table 5.6, the RMS speed of propagation of the saltwater plume is smaller than that of the 25% constriction, but slightly larger than the speed of the 50% constriction. The mean speed of the primary density current is modeled adequately for the first 100 s. The FVCOM model predicts larger secondary current (return flow) from the end wall than the physical model; it is likely that the hydrostatic model has underestimated the mixing processes in the enclosed basin. The primary Brunt-Vaisala frequency is captured but the amplitude is underestimated by FVCOM.

Overshooting is predicted by the numerical model, the case with a high shear stress coefficient approaches more to the observed results; however, the model does not account for all the internal losses probably due to non-hydrostatic effects (Zhu and Lawrence, 2000).

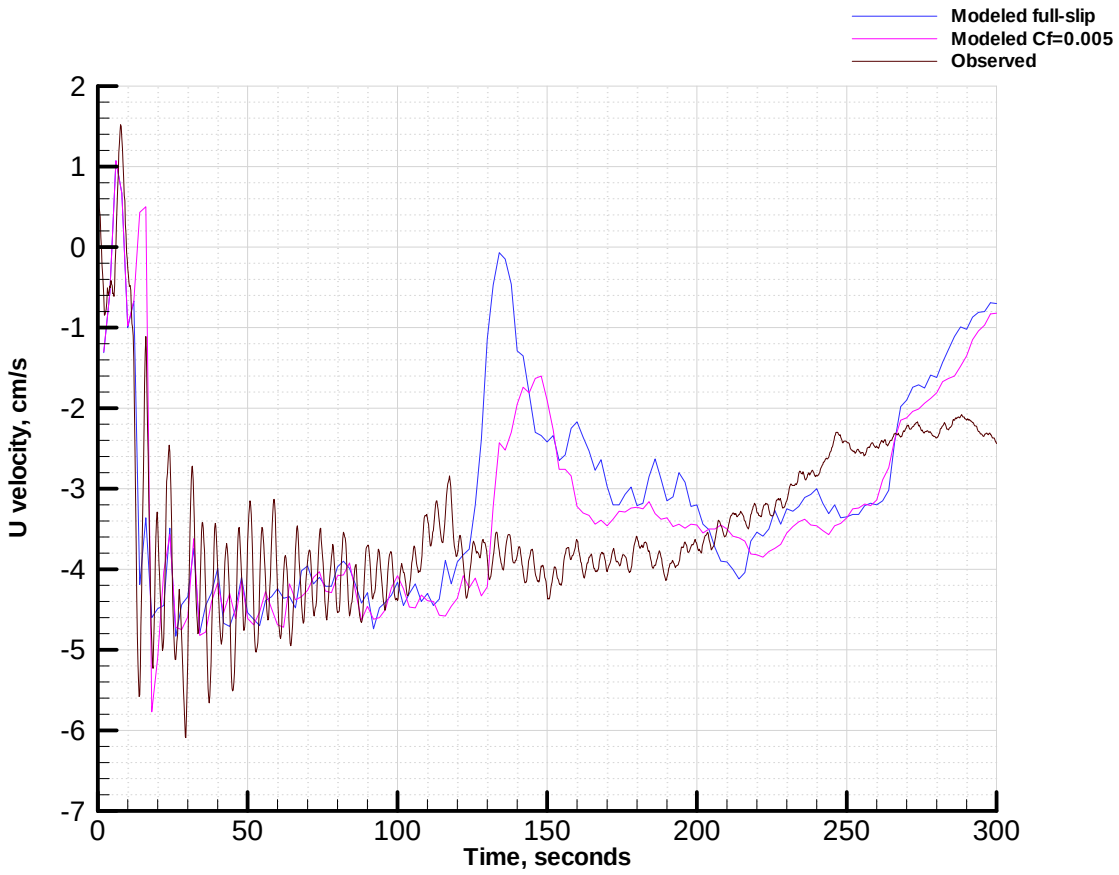

Figure 5.27: Speed of propagation versus time of the 86% constriction case with 21 sigma levels for Scenario 4.

Table 5.6 shows the speed of propagation decreased with increasing constriction until at the 86% constriction, the speed of propagation increased. Since the density current is passing through a very narrow opening, it undergoes an internal transcritical condition forcing the flow to accelerate on leaving the dense-fluid reservoir upstream from the opening as illustrated in Figure 5.29. The reservoir behaves as a potential energy source, which is converted into kinetic energy by motion of the fluid that not only experiences an internal critical condition but also a hydraulic jump downstream from the contraction. Army (1986) confirms that these conditions can occur in flows through a contraction.

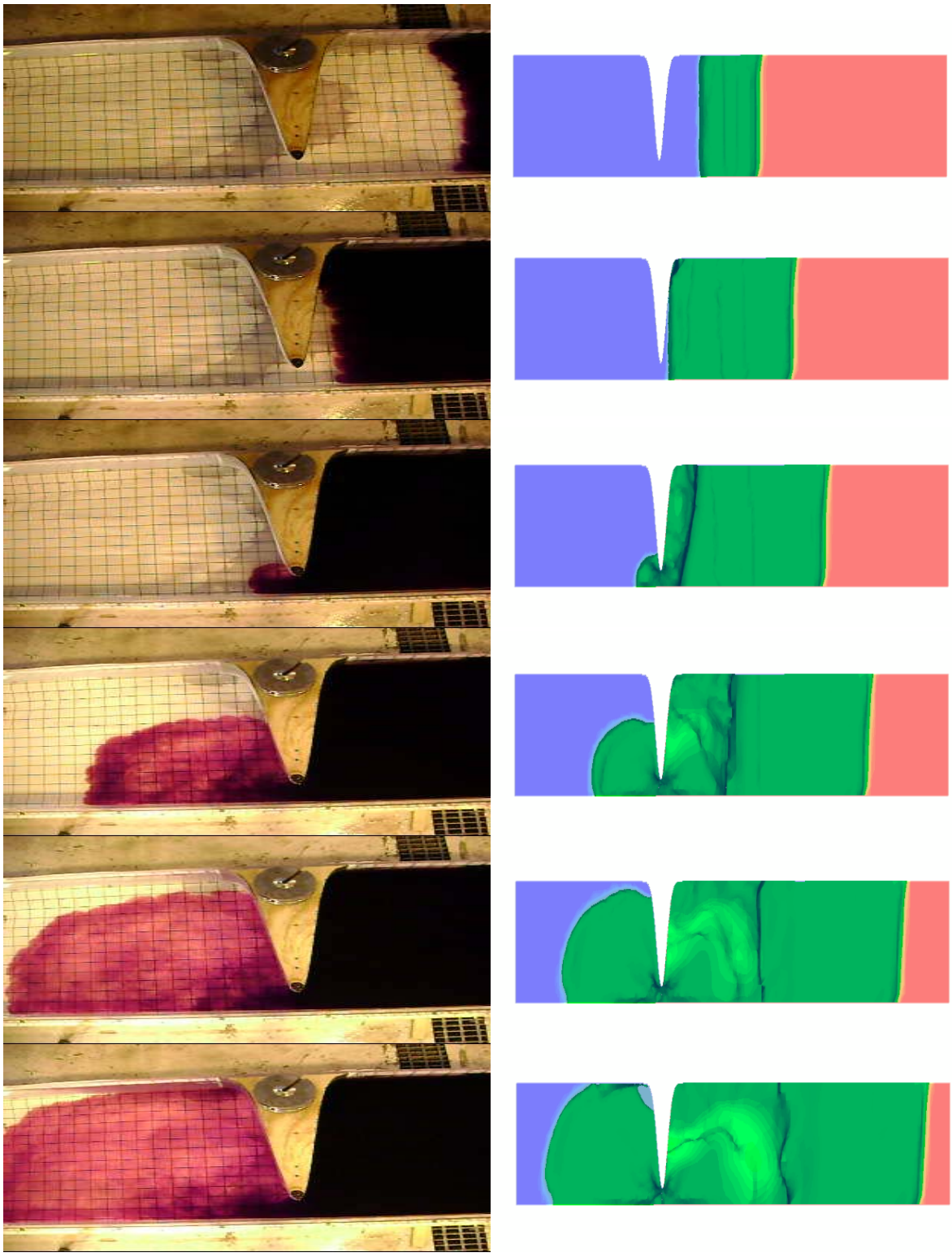

Figure 5.28: Advancement of the saltwater plume through the 86% constriction for both the experiment and FVCOM (Plan view). Note: longitudinal scale is compressed relative to the Physical Model

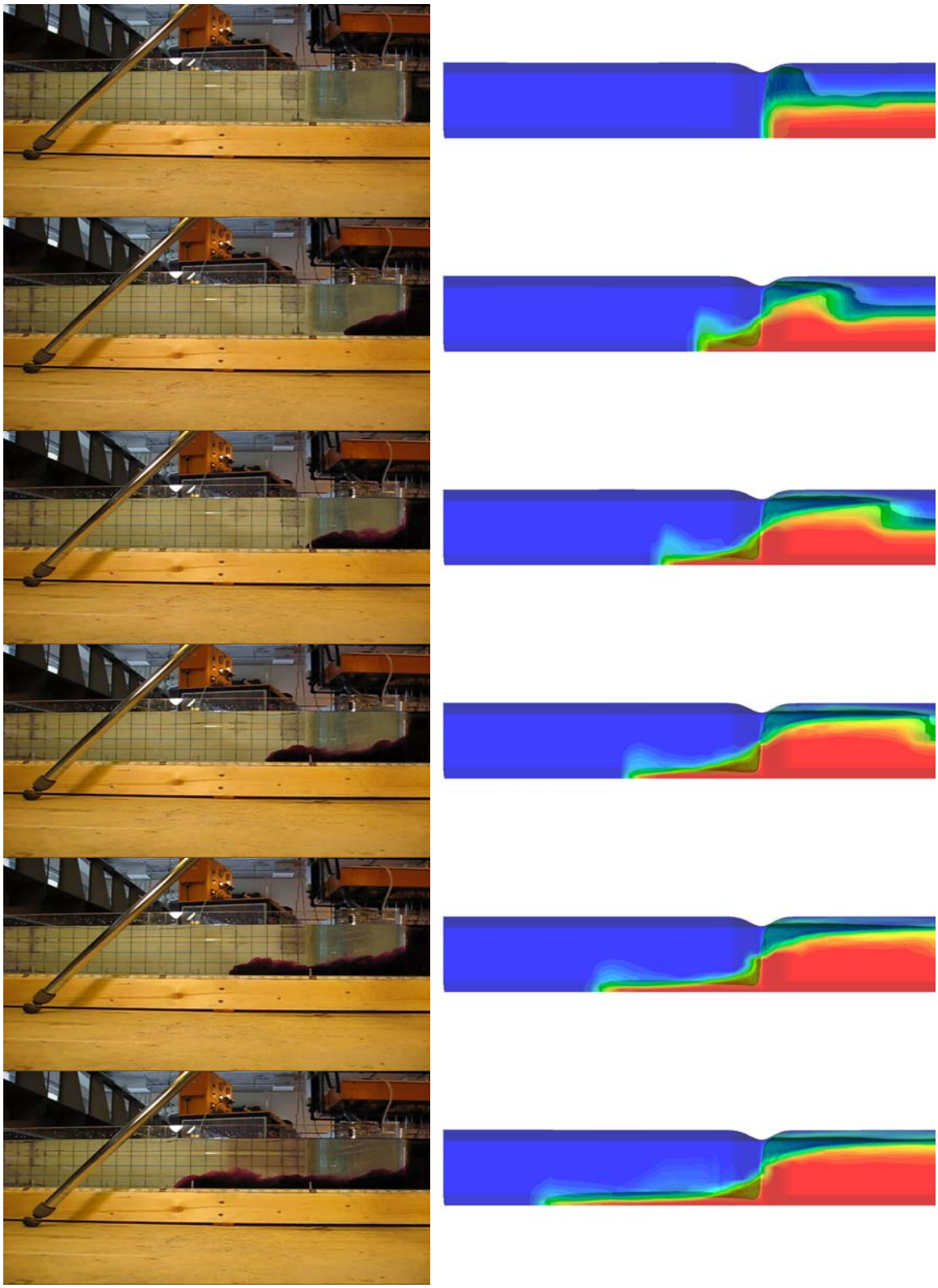

Figure 5.29: Profile showing salinity interface for Scenario 4.

For the time interval between the 110 and 180 seconds; despite the high friction coefficient, the model did not match the observed results. Overprediction of the speed could be influenced by non-hydrostatic and friction effects because the model does not completely account for: all internal energy losses, shear stresses at the sidewalls, interface shear between the two layers, and non-hydrostatic effects (Zhu and Lawrence, 2000 and 1998). Fringer *et al.*, (2006) indicates in their results that non-hydrostatic simulation captures the correct front speed for both the overflow and underflow cases, whereas the hydrostatic simulation underpredicts both speeds. The hydrostatic simulation does not properly capture neither the generation of the Kelvin-Helmholtz billows nor the Holmboe instabilities. Zhu and Lawrence (1998 and 2000) found that CFD models based only on the hydrostatic assumption limit the prediction of the hydrodynamic variables. Figures 5.30 and 5.31 show the Kelvin-Helmholtz and Holmboe instabilities observed in the cases of 86% constriction and Lock Exchange test, respectively. FVCOM is a hydrostatic model, and it captures the Brunt-Vaisala frequency of 1 rad/s or 6 seconds shown in Figure 5.23. According to Linden and Kleissl (2007), the strength of the stratification is proportional to this frequency. If a parcel of fluid in a stable equilibrium experiences a vertical displacement, it will move towards the equilibrium position but it will over-shoot and then oscillate about the equilibrium position until the system is damped. The frequency of this oscillation is called the Brunt-Vaisala frequency.

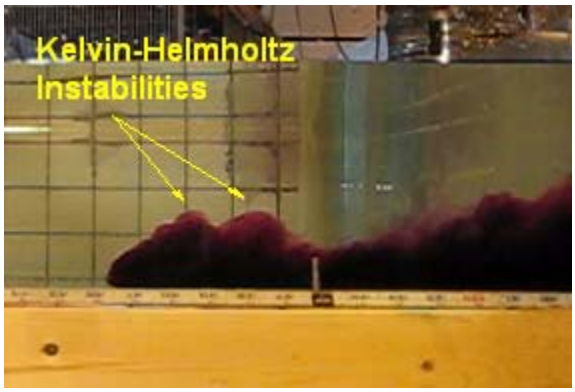

Figure 5.30: Kelvin-Helmholtz instabilities developed in the case with a constricted width of 86% [Side view]

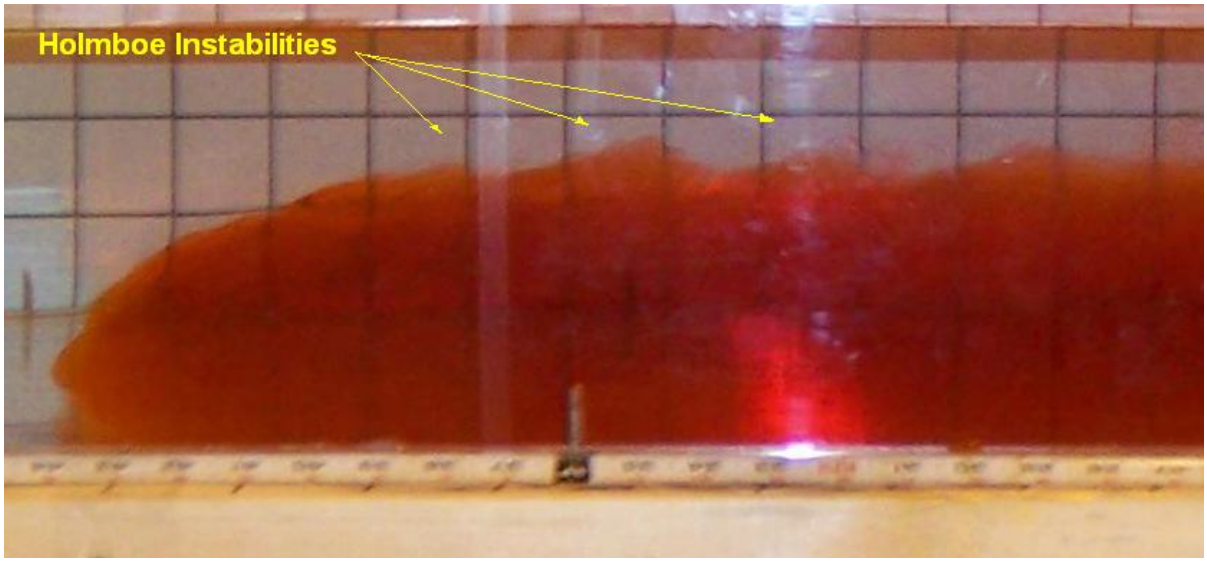

Figure 5.31: Holmboe instabilities developed in the lock exchange test case [Side view]

According to Smyth and Peltier (1989), Holmboe instabilities are predominant when the degree of stratification is strong, as in the case of the lock exchange test case, where half-depth of the water column is filled with saltwater an the other half with freshwater. On the contrary, weak stratification tends to develop Kelvin-Helmholtz billows, as in the case with 86% constriction. For this case, the constricted passage restricts the advancement of the denser fluid; hence, the thin layer of saltwater that has passed through the constriction, in combination with a majority of freshwater in the rest of the water column brings the condition to a weak stratification.

5.2.3.5 Implications to FVCOM Model

Measurements of salinity throughout the water column were taken after the system reached equilibrium to assess the extent of the stratification. Results of the degree of stratification are presented in Figure 5.32. It is noted that the more constricted the opening, the weaker the final stratification of the system. This trend is expected since constrictions introduce increased mixing which reduces stratification. In fact, mixing can be introduced by the contraction-expansion process that the density currents experience when they pass through the constriction. Additional mixing can be generated by acceleration-deceleration of the plume due to internal critical conditions and hydraulic jumps. Fukumoto and Kobayashi (2005) reported a similar behavior in which mixing occurs by currents flowing through narrow passes. Figure 5.32 shows that the 86% constriction case gives the most unstratified condition of all the cases whereas the lock exchange test provides the strongest stratification. The stratification in FVCOM was slightly stronger than in the physical model; however, this was subsequently shown to be a function of the number of sigma layers and their distribution. Unfortunately, this means that the grid design could become a calibration property of the model.

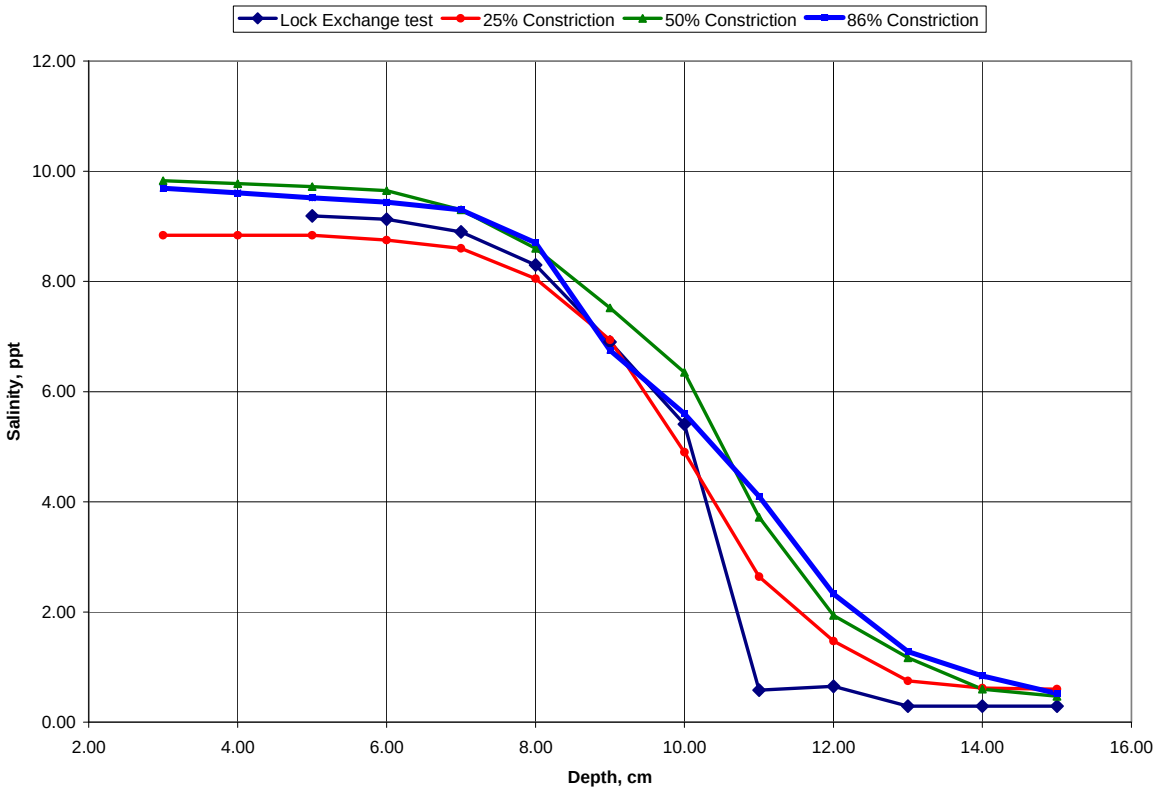

Figure 5.32: Degrees of stratification after reaching equilibrium.

In general, the propagation of density currents is directly influenced by the friction in the bottom boundary, and the wind shear stress on the free-surface boundary. Vertical mixing, due to turbulent motions in the fluid, play a significant role in the movement of the exchange currents as well.

5.3 Benchmark Model Grid Generation (Idealized Basin)

The purpose of this 'benchmark' model is to provide a simplified estuary model that would capture the essential hydraulics of the Pontchartrain Estuary but could be used for testing various grid design and model parameterization issues.

The Lake Pontchartrain System (Figure 5.33) is comprised by three major lakes: Lake Pontchartrain, located to the north of New Orleans; Lake Maurepas, connected to its west end through Pass Manchac; and Lake Borgne, connected to its east end through two major tidal passes, the Rigolets and Chef Menteur. Dimensions of the Tidal passes were taken from the bathymetry used for the ADCIRC storm grid model SL15_V3. Figures 5.34; 5.35; and 5.36 show the bathymetry of the main tidal passes of the system.

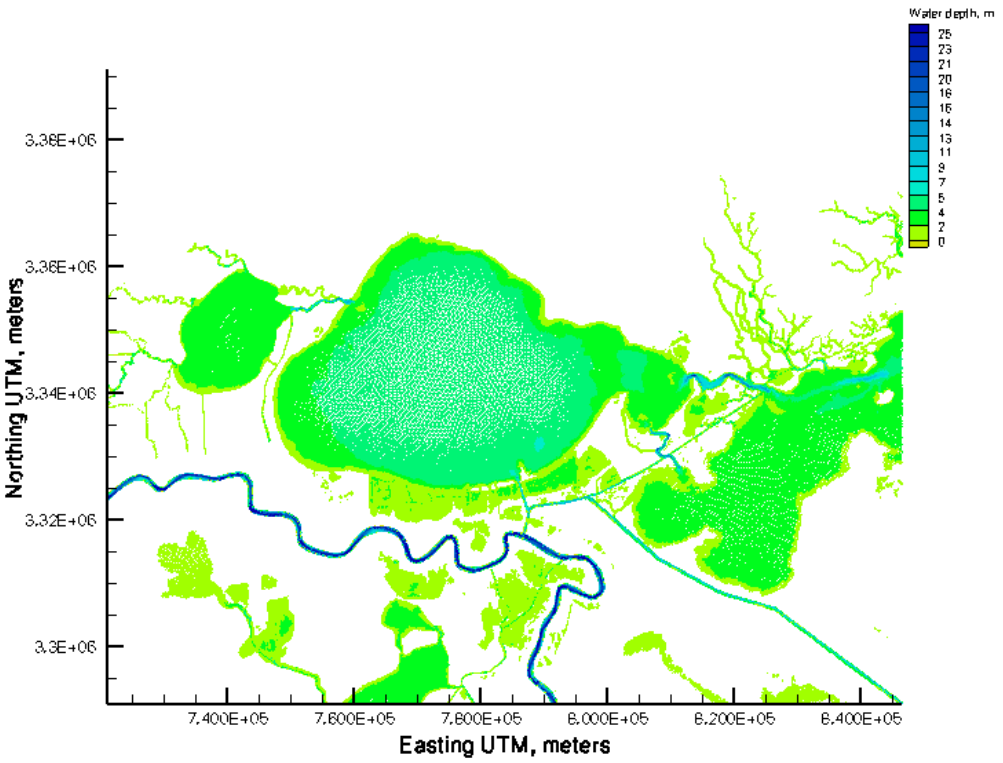

Figure 5.33: The Lake Pontchartrain System

A benchmark mesh has been developed to study:

1. the behavior of the exchange of density-driven flow at the open boundary
2. the radiation of the internal gravity waves out of the system
3. the pressure gradient error on the sigma-coordinate based model FVCOM
4. The relative effects of density currents, tides, hydrology and wind on the saltwater

flux over a long period of time, (2 years).

The benchmark estuary consists of a semi-enclosed basin connected with an enclosed basin through a tidal pass, which represents the hydraulic characteristics of the Pontchartrain Estuary. Therefore, the results expected from the salinity transport model for the Lake Pontchartrain System should be similar to the Benchmark test.

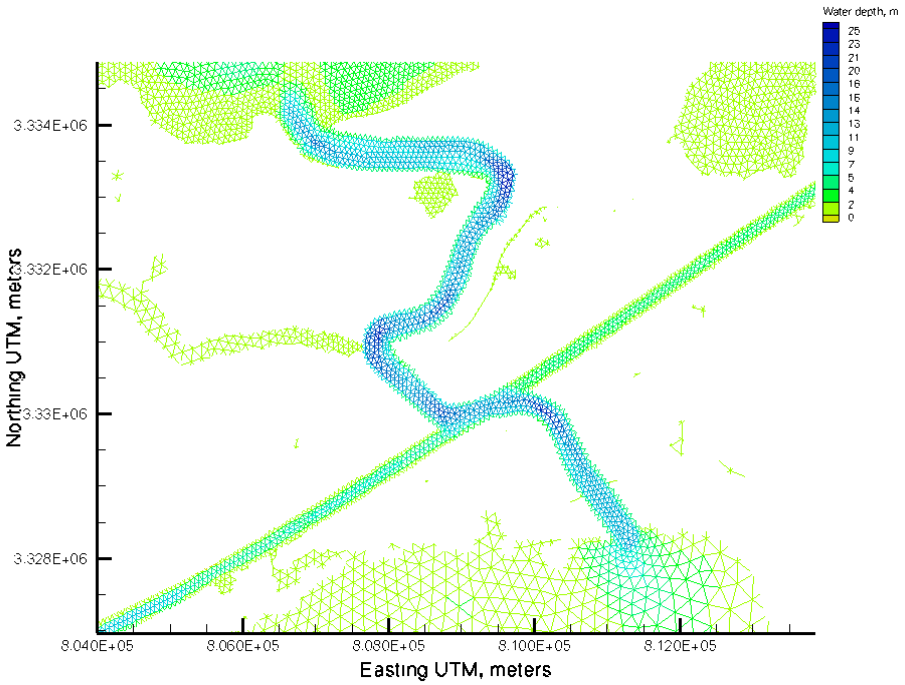

Figure 5.34: Bathymetry of Chef Menteur Pass.

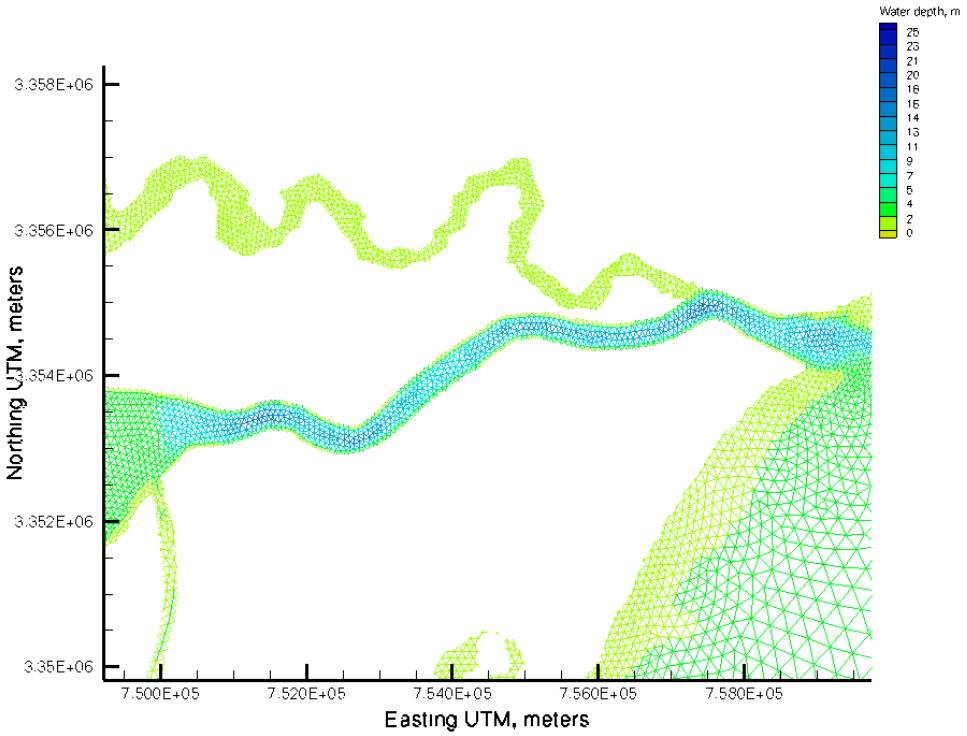

Figure 5.35: Bathymetry of Pass Manchac.

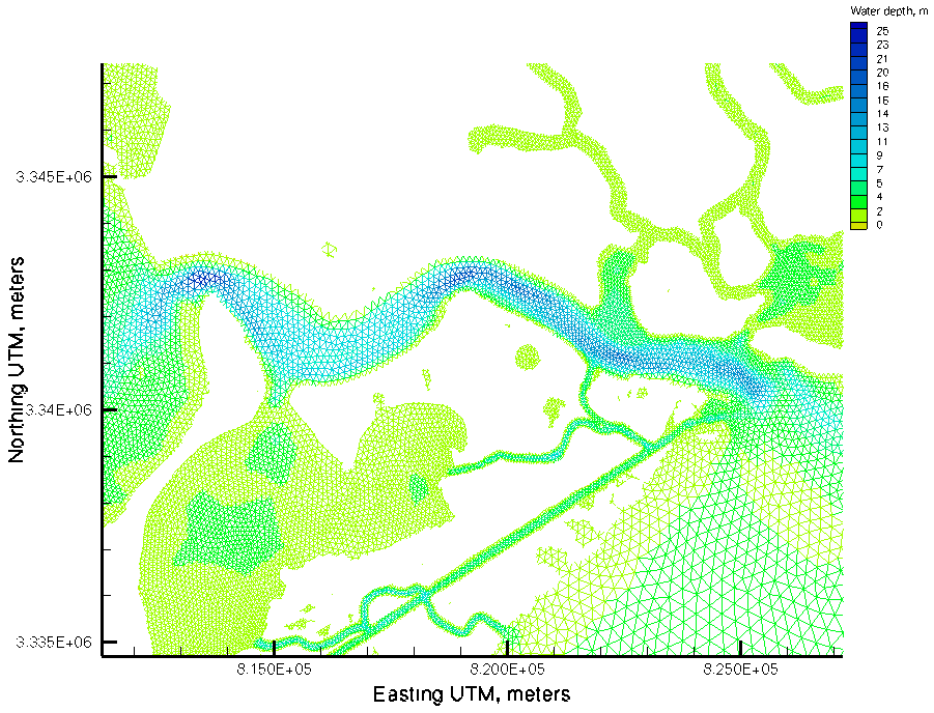

Figure 5.36: Bathymetry of The Rigolets Pass.

Cross-section areas along each channel were extracted from the ADCIRC bathymetry to obtain the hydraulic characteristics of these passes. Table 5.7 and 5.8 summarize the main characteristics of the lakes and channels respectively.

Table 5.7: Hydraulic characteristics of the main lakes in the Pontchartrain Estuary (After Haralampides, 2000)

Parameter	**Lake Maurepas**	**Lake Pontchartrain**	**Lake Borgne**
Average depth, m	3.0	3.7	2.7
Surface area, km^2	233	1630	550

Table 5.8: Hydraulic characteristics of the main channels in the Pontchartrain Estuary

Parameter	**Chef Menteur Pass**	**Rigolets**	**Pass Manchac**
Total length, m	11,400	15,100	10,050
Mean hydraulic radius, m	10.00	6.29	7.68
Width of the channel, m	470	1391	435
Total volume, m^3	53.6×10^6	132.3×10^6	33.6×10^6
Wetted area, m^2	5.4×10^6	21.0×10^6	4.4×10^6

The new benchmark grid has been designed to assess not only the effect of the bathymetric gradient errors in the system, but also the behavior of the density flows internally and at the open boundary.

To evaluate the effect of the gradient, three types of bottom bathymetry was used:

- Flat bottom bathymetry (constant depth of 4m)
- Flat bottom bathymetry (constant depth of 4m), and interconnecting channel 10 m deep
- Laterally/longitudinally changing bathymetry in the enclosed basin, and semi-enclosed basin with constant depth of 4m.

A plan view of the simplified benchmark grid shows how the idealized enclosed basin is connected with the semi-enclosed basin by a tidal pass. This system resembles the real application with the enclosed basin being the equivalent combination of the Lake Maurepas and Lake Pontchartrain. In fact, the enclosed basin has the volume of the Lake Pontchartrain and the Lake Maurepas as one. Lake Borgne and its volume are represented by the semi-enclosed basin. The interconnection between these two main water bodies is defined as the hydraulic equivalent of the Chef Menteur Pass and the Rigolets.

5.3.1 Benchmark mesh with a finite reservoir

To estimate the flux of the freshwater plume arriving to the open boundary, the benchmark grid was modified such that, instead of having a preset open boundary, a saltwater reservoir was located to force the saltwater plume into the system. The interface between the two fluids was placed where the open boundary should be located. Figure 5.37 shows the modified grid with the reservoir.

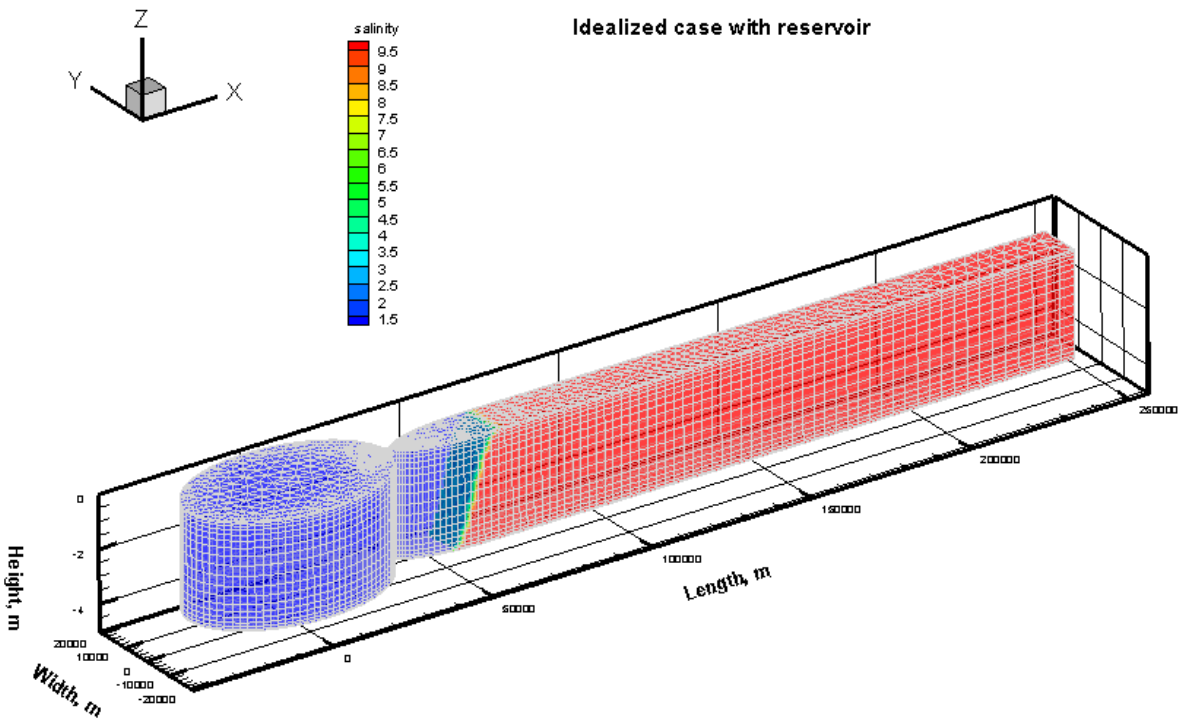

Figure 5.37: Salinity contours at the initial condition and 3-D mesh for the idealized case showing the unstructured grid with a parabolic distribution of the sigma levels. The green contour is an S-shape isosurface of 4 ppt at the semi-enclosed basin. Initially, the blue color indicates a background salinity of 1 ppt and the red color a salinity of 10 ppt.

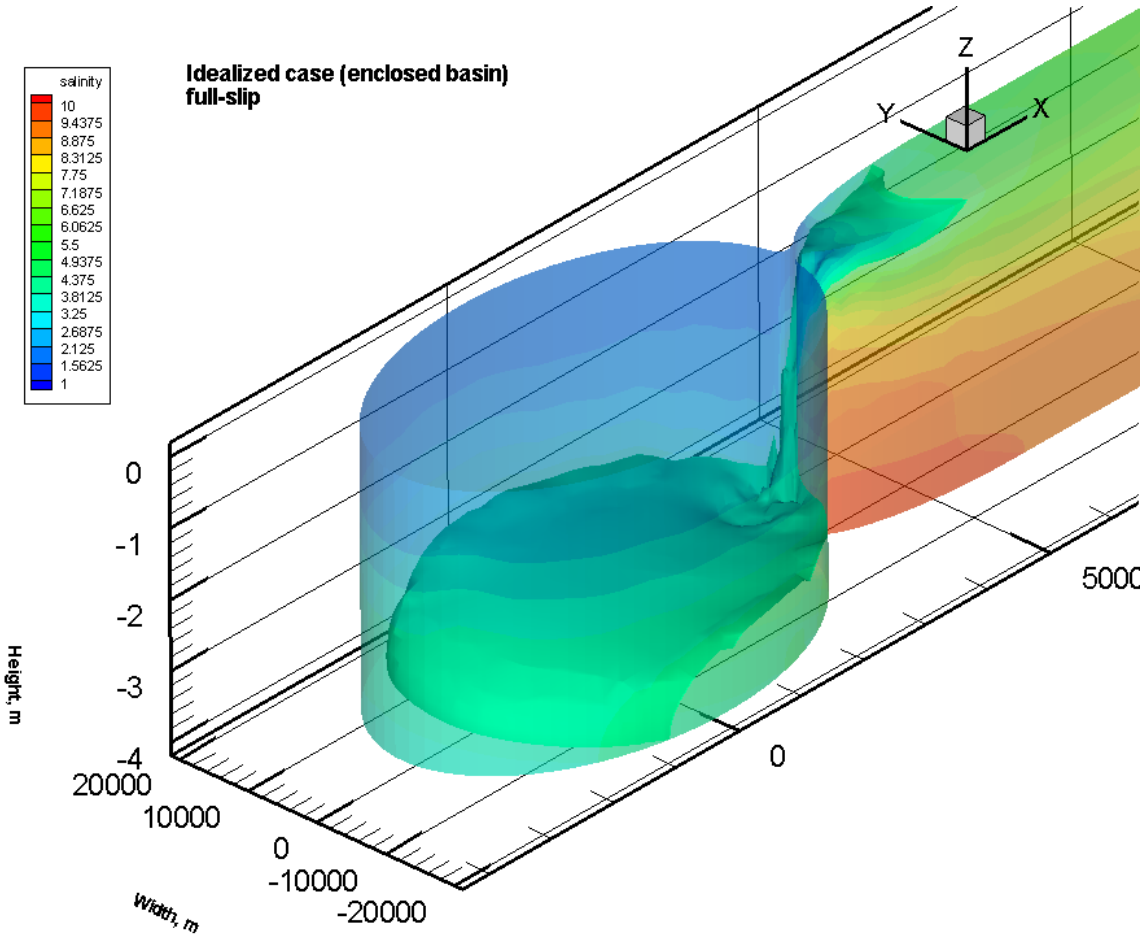

Figure 5.38: Salinity contours and a 4 ppt isohaline surface after 35 days.

Figure 5.38 shows transcritical internal flow at the constriction followed a hydraulic jump that was generated when the saltwater plume flows through the tidal pass. It is noted that the enclosed basin has increased in salinity but also there is an internal gravity critical flow condition at the constriction.

5.4 Numerical Treatment at the Open Boundary

Estuaries are dynamic systems where the daily interaction of freshwater discharges with saltwater intrusion is normal. Dealing with CFD applications in estuaries sometimes requires setting up an Open Boundary near by a region of exchange flows.

However, many available models do not offer a dynamic boundary that could adjust to the exiting properties of freshwater density currents. This issue results in a freshening up of the system since freshwater is not allow to be radiated out of the domain. This overfreshening effect has been observed with the idealized estuary for long term simulations.

FVCOM offers the radiative open boundary suggested by Chapman (1985) for water surface elevation, namely, clamped, surface gravity-wave radiation, explicit partially clamped, and explicit Orlanski radiation. As stated before, radiative open boundaries should allow the flux arriving to the boundary to propagate outside of the domain without generating any artificial reflection into the model domain. The FVCOM manual does not make reference to the radiation of density-currents e.g., salinity. Figure 5.39 shows the model output when the code fails due to the advancing buoyant freshwater flow arriving at the open boundary during a density driven flow.

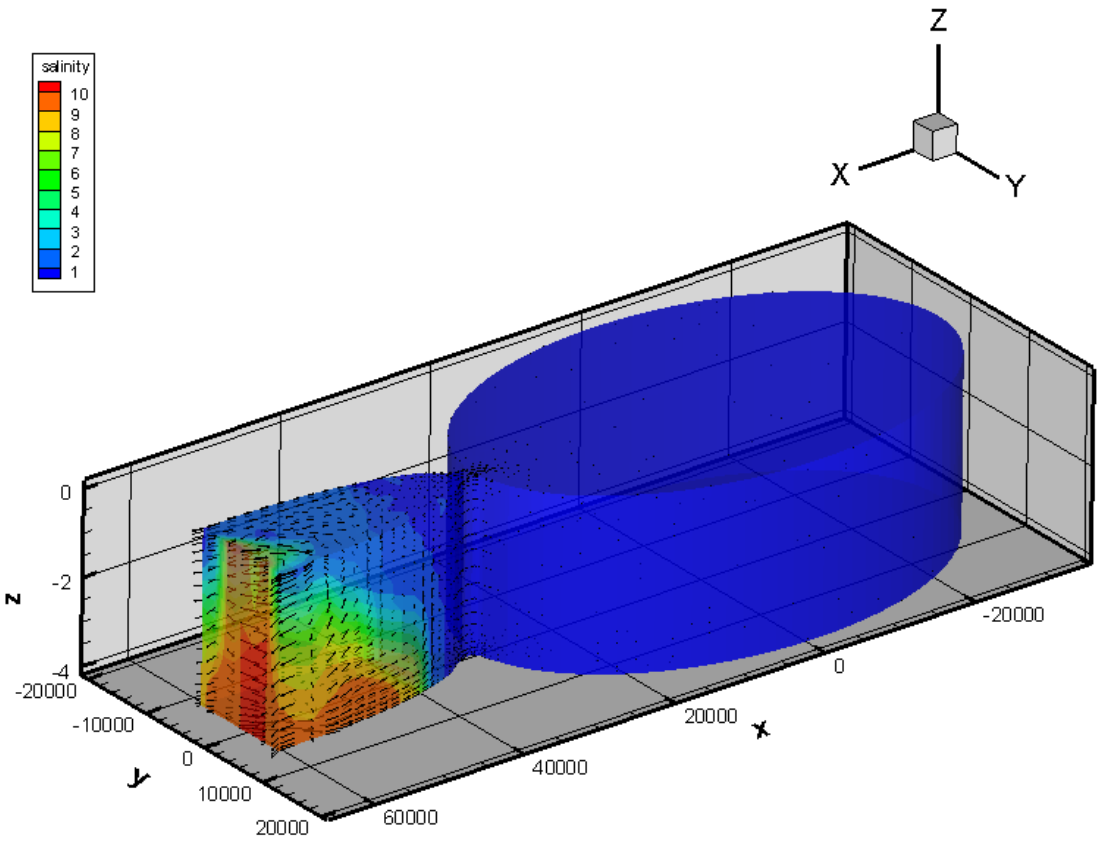

Figure 5.39: Failure of the code when the freshwater plume reaches the open boundary.

5.4.1 A proposed baroclinic radiative open boundary

As opposed to the implementation performed in a structured grid by Rochford and Shulman (2000) and Rochford and Martin (2001), the suggested implementation was performed in an unstructured grid; specifically, in FVCOM. The Radiative OBC applied to the salinity is similar to the Advective BC suggested by Rochford and Martin (2001). It is important to indicate that the unstructured radiative-advective BC implemented in FVCOM was developed before knowing the existence of the study presented by

Rochford and Martin (2001). For this reason, although the rationale is the same, the proposed treatment differs in some details from the aforementioned study.

The analytical form is described as follows:

$$\frac{\partial S}{\partial t} + v\frac{\partial S}{\partial l} = 0 \tag{5.1}$$

where S is the salinity at any sigma level; l is the distance from the node at the open boundary to its closest neighboring node; and v is the velocity at any sigma level. The method uses upwinding and it is a two-space level. Therefore, the velocity gradient at the first and second interior points normal to the OB node defines the direction from where the information is coming, as follows:

$$\left.\frac{\partial v}{\partial l}\right|_{i-1} \begin{cases} \geq 0 & (in-flow) \\ \leq 0 & (outflow) \end{cases} \tag{5.2}$$

If inflow conditions are prevalent, the salinity is applied as shown in Figure 5.40 (right). On the other hand, if outflow is the prevalent condition, the salinity is applied according to Figure 5.40 (left).

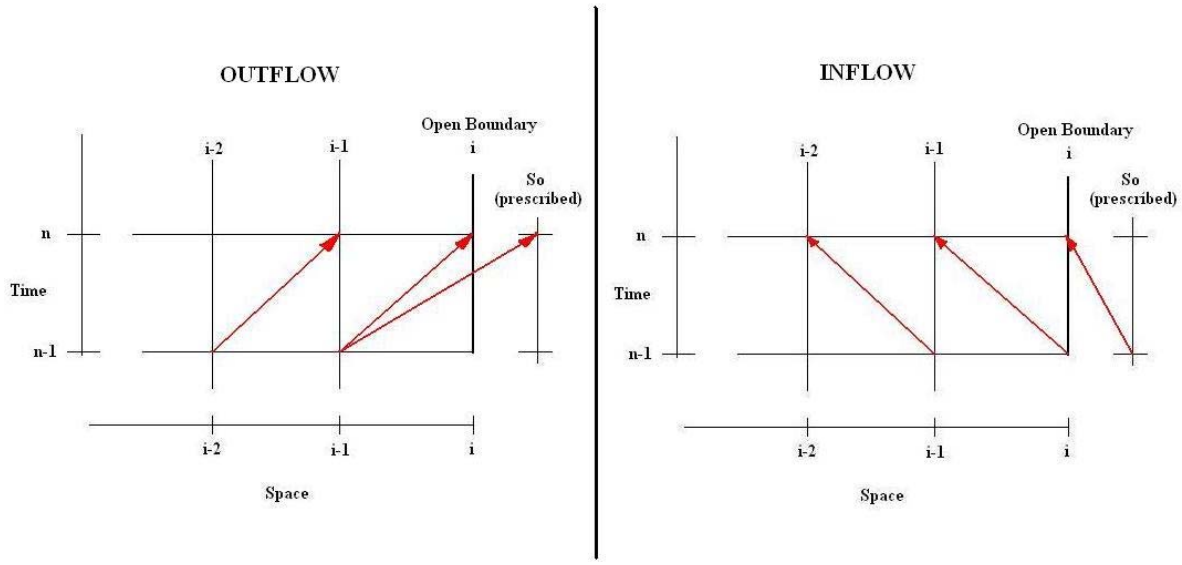

Figure 5.40: Computational time-space grid for outflow/inflow conditions

To reduce noise, a 3-node filter at each node of the OB was applied afterwards. Hence, the value at each node is the result of the average of the value itself and the values of its neighboring nodes. At the end nodes of the OB, the average was based on the value at the end node and twice the value of its neighboring node.

An error is generated by the inequality between the vertically integrated external and the internal water transport. The former describes the barotropic motion while the latter describes the baroclinic motion. Since FVCOM distributes uniformly the "splitting error" throughout the water column, it was difficult to generate an inflow or radiative outflow condition with the effect of the vertically averaged error. This produced instability at the OB that eventually made the model to fail. For this reason, the distribution of the error was disabled in the BCOND_TS subroutine and a new treatment of the OB velocities at every sigma level was implemented as follows:

$$U_{n-1}^{i,k} = U_{n-1}^{i-1,k} + \left(\overline{U}_{n-1}^{i} - \sum_{k} U_{n-1}^{i-1,k} \cdot \Delta\sigma_k \right) \tag{5.3}$$

where U is the velocity; i is the location at the OB; k is number of the sigma level; n is the current time level; and the overbar "¯" denotes a vertical integration. This condition is similar to applying a zero gradient.

In addition, from the momentum equation, the OB flux, for the internal mode, was modified in the ADV_UV_EDGE_GCN subroutine. Initially, this flux was set to zero, but now the flux is given by

$$Net \quad Momentum = NM = U_{n-1}^{i,k}\Delta y - V_{n-1}^{i,k}\Delta x \tag{5.4}$$

$$Flux^{X} = \overline{D} \cdot NM \cdot U_{n-1}^{i,k} \tag{5.5}$$

$$Flux^{Y} = \overline{D} \cdot NM \cdot V_{n-1}^{i,k} \tag{5.6}$$

$$XFLUX = XFLUX - Flux^{X} \tag{5.7}$$

$$YFLUX = YFLUX - Flux^{Y} \tag{5.8}$$

Appendix B shows the FORTRAN implementation of the implemented BC in FVCOM.

5.5 Analysis of the pressure gradient error

5.5.1 Development of bathymetric options

5.5.1.1 Flat Bottom Bathymetry

For the case with a flat bottom bathymetry, an average depth of 4.0 m has been chosen throughout the whole computational domain. Figure 5.41 shows the designed grid with an average depth of 4.0 m. Table 5.9 shows the equivalent hydraulic parameters of the two basins and channels for this case.

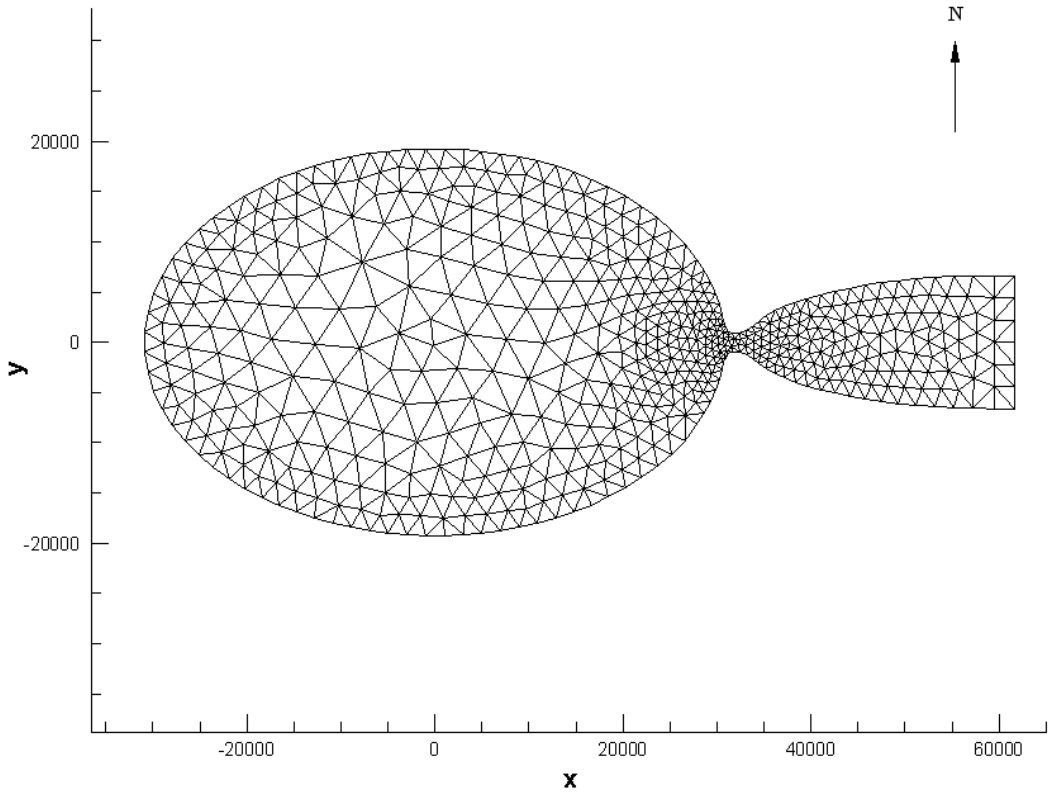

Figure 5.41: Coarse resolution benchmark grid with a flat bottom and an average depth of 4.0m

Table 5.9: Hydraulic parameters for the equivalent lakes and channel to be used in the benchmark grid for a flat bottom bathymetry 4-m deep.

Equivalent Channel	
Depth, m	4.00
Width, m	1862.30
Wetted perimeter,m	1870.30
Hydraulic radius, m	3.98
Area, m^2	7449.19
Total length, m	2133.73
Closed basin	
Total surface area, km^2	1867.40
Vertical/Horizontal axis ratio	0.62
Horizontal axis, km	61.70
Vertical axis, km	38.50
Semi-enclosed basin	
Total surface area, km^2	550.00
Vertical/Horizontal axis ratio	0.50
Horizontal axis, km	26.45
Vertical axis, km	13.23

The model computational domain in Figure 5.41 is comprised by 1023 elements and 523 nodes. Resolution varies from 5200 m at the center of the enclosed-basin to 400 m near the tidal pass.

A grid dependency has been performed using:

1. a coarse resolution grid with 1023 elements and 523 nodes i.e., Figure 5.41,
2. a medium resolution grid with 2140 elements and 1177 nodes with a resolution of 3700 m at the center of the closed basin and 280 m near the tidal pass, and
3. a fine resolution grid with 4212 elements and 2243 nodes with its domain resolution ranging between 2300 m and 270 m.

It is observed from Figure 5.42 that the results are grid independent because they do

not show a change in the model response as the resolution of the mesh increases.

Therefore, the coarse resolution grid was chosen since it is computationally more efficient than a finer resolution grid for similar solutions.

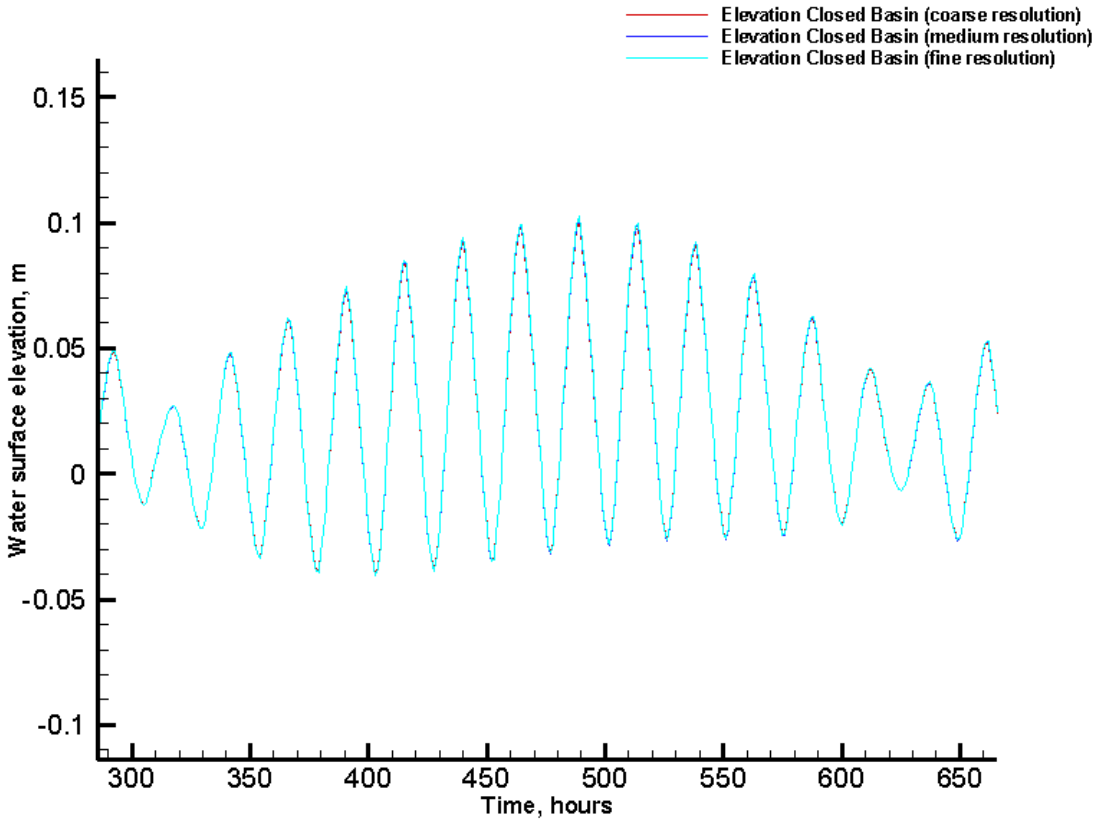

Figure 5.42: Water surface elevation for location (0, 0) at the center of the enclosed basin. Hourly output.

5.5.1.1.1 Water surface elevation throughout the system

The coarse benchmark grid was prepared and run for 30 days with forecast tides at the open boundary. The tidal boundary condition was generated using a tide predictor, in which tides in the area are predominantly diurnal. The model was spun up from rest; therefore, the initial water surface elevation and the velocity vector field were set to zero. Figure 5.43 shows the water elevation at several different locations within the system at

the 30th day. It is noted that the maximum range of 15 cm at the middle of the enclosed basin complies with the range that has been observed in the Lake Pontchartrain.

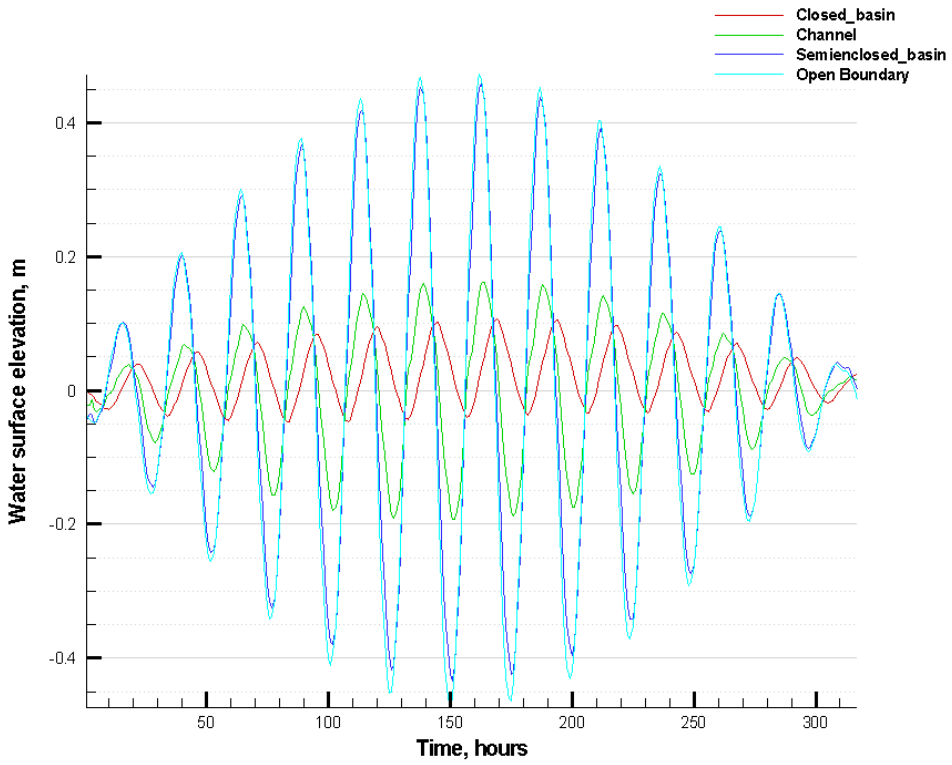

Figure 5.43: Water elevation for the Pontchartrain System for a diurnal tide. Hourly output.

5.5.1.2 Flat bottom bathymetry with a 10 m deep channel and 4 m deep open water

The response of sharp bathymetric gradients was assessed using the flat bottom bathymetry with a 10 m deep channel as illustrated in Figure 5.44. Equation 5.9 was used to maintain a similar volumetric transfer through the channel with respect to the 4m flat bottom case. It was assumed that the Manning's coefficient and the slope of the channel

remain constant. Therefore, for an increase of 6m in the channel depth, the width was reduced to 500m and the total length to 3,113m.

$$Q = \frac{1}{n} A R^{2/3} S^{1/2} \tag{5.9}$$

where A= area of the channel; R= hydraulic radius; S=slope of the channel; n=Manning's coefficient; and Q = flow across the channel.

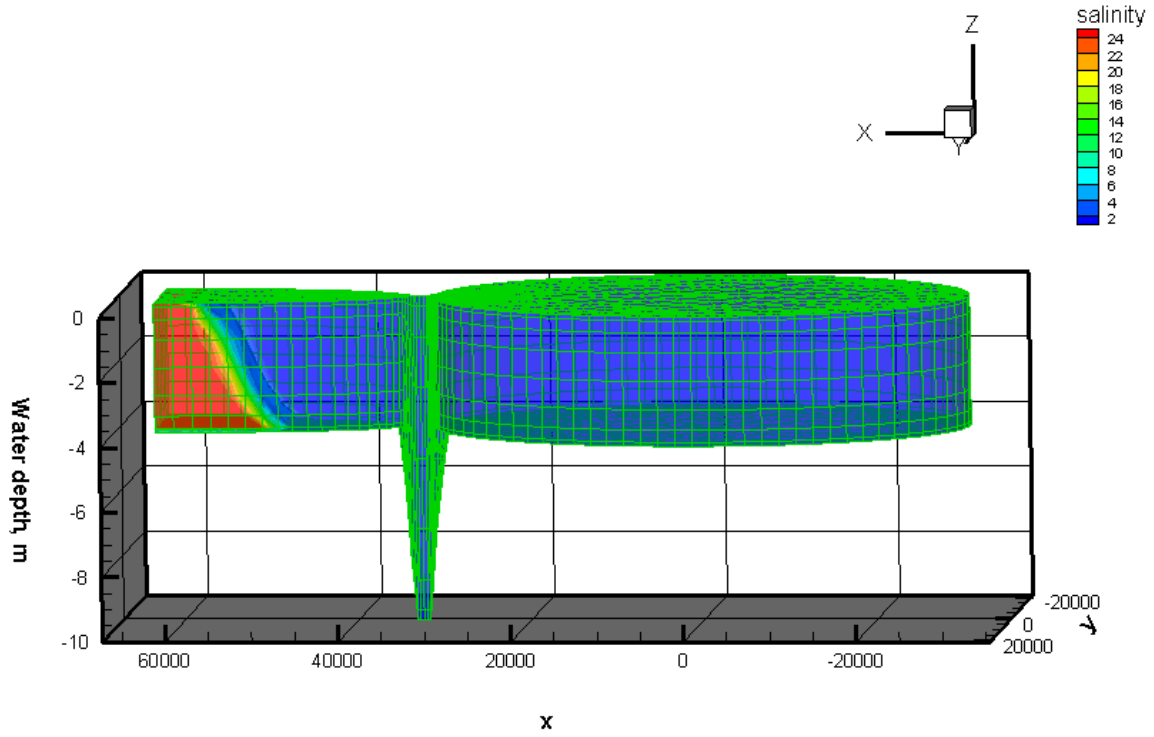

Figure 5.44: Idealized basin with flat bottom of 4m and an interconnecting channel 10m deep

5.5.1.3 Laterally/longitudinally changing bathymetry in the enclosed basin

A smooth bathymetric gradient in the system was designed using the volume of a

cone of 4.5m height and an elliptic base equal to the dimensions of the semi-enclosed basin. The shallowest depth in the semi-enclosed basin is 2.5m. Thus, the new geometry is composed by a cylinder 2.5m height and a cone 4.5m height. The volume of the conical enclosed basin equals that of the 4m flat bottom enclosed basin. Figure 5.45 shows the geometry of the system. The longitudinal slope is 1.46×10^{-4} and the lateral slope is 2.34×10^{-4}.

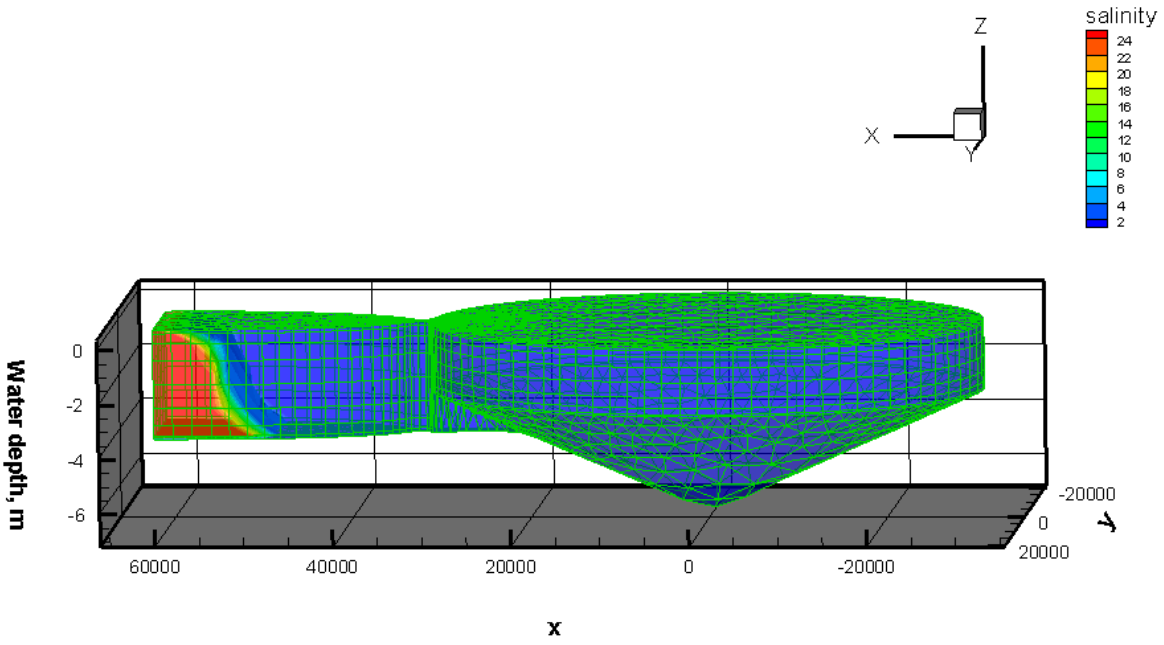

Figure 5.45: Radially changing bathymetry in the enclosed basin

5.5.2 Water surface elevation sensitivity for several different geometries.

Sensitivity analyses for the surface elevations were performed for the especially designed geometries. Riverine, precipitation, evapotranspiration, inputs were forced to achieve a representative surface elevation in the system. Based on the validation performed for the physical experiment, vertical and horizontal diffusivities were selected for the turbulence submodel; friction coefficients were kept low in order to properly propagate the salinity density currents. It was observed from the friction 'calibration' (discussed later) that a high friction coefficient inhibits the propagation of the plume. Figure 5.46 indicates that the tide response for the geometries with flat bottom and sloping bottom in the enclosed basin at the middle of the enclosed basin have almost an identical range. The resulting tidal range for the case with a channel 10 m deep overpredicted the spring tides by only 5.5%.

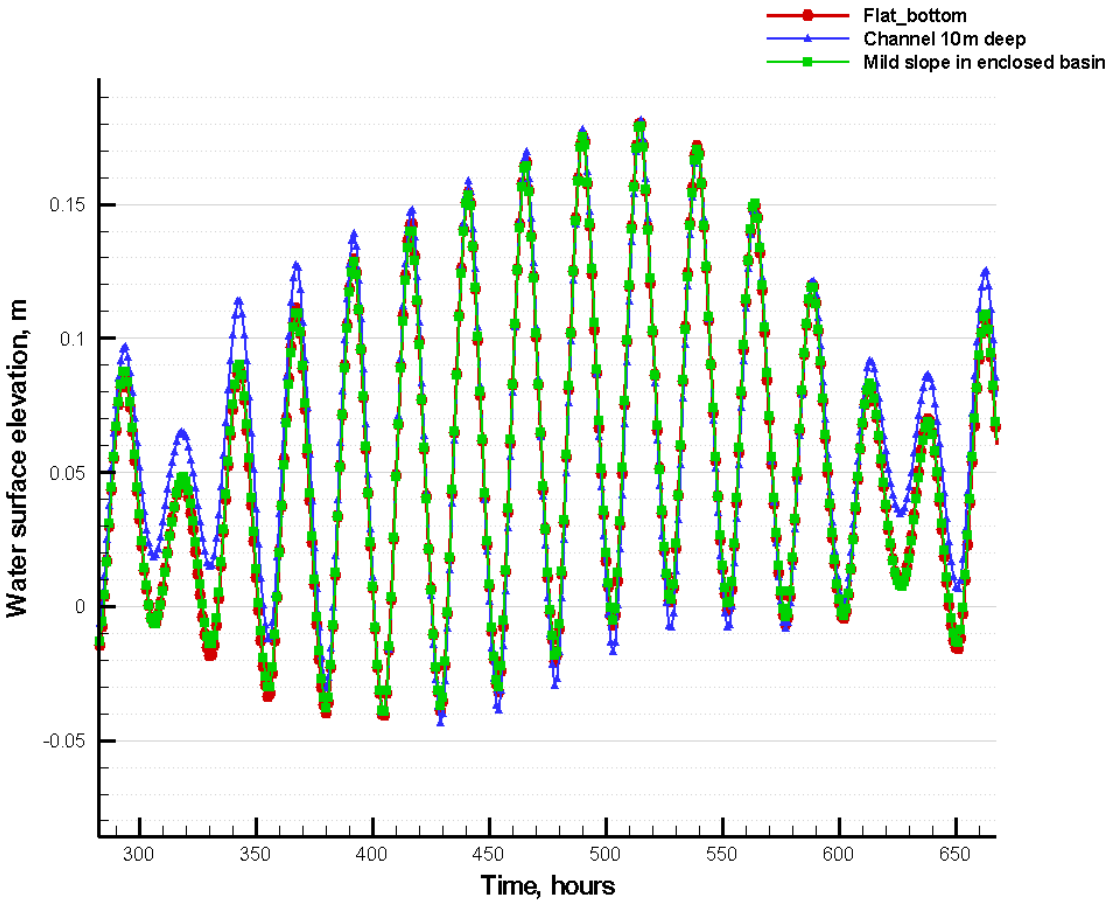

Figure 5.46: Water surface calibration performed for the three bathymetries. Hourly output.

5.5.3 Mass Balance of Salt in the system

5.5.3.1 Salinity gradient forcing

The model was set up such that salinity at the open boundary was forced at 25 ppt. The background salinity of the system was 0.2 ppt. No tidal forcing or freshwater inputs from runoff and rivers were forced. In order to have a long-term simulation the idealized basin was run for two years. Daily outputs were plotted and the mass of salt at every cell in the system was computed and accumulated of the domain at each day to

account for the change of salt in the system with respect to the simulation time.

The model response for the test with only the salinity gradient is shown in Figure 5.47. If the system were run for an indefinitely period of time, it would reach completely saline conditions with a maximum salinity of 25 ppt. This is equivalent of having 217 millions of tons of salt in the system. The asymptote representing a complete saline condition was plotted in Figure 5.47.

It is noted that the effect of having a steep bathymetric gradient i.e., the 10 m deep channel, takes longer to reach 99% of a total saline condition in the system than for the cases of flat bottom or smooth slope in the enclosed basin. Table 5.10 shows the expected time to reach 99% of a total saline condition for each case. On the contrary, in the long run, the mass of salt in the case of a mild slope in the enclosed basin converged with the mass of salt in the case of a flat bottom. Both cases take approximately 3 years and a month to reach 99 % of complete saline condition at 25 ppt.

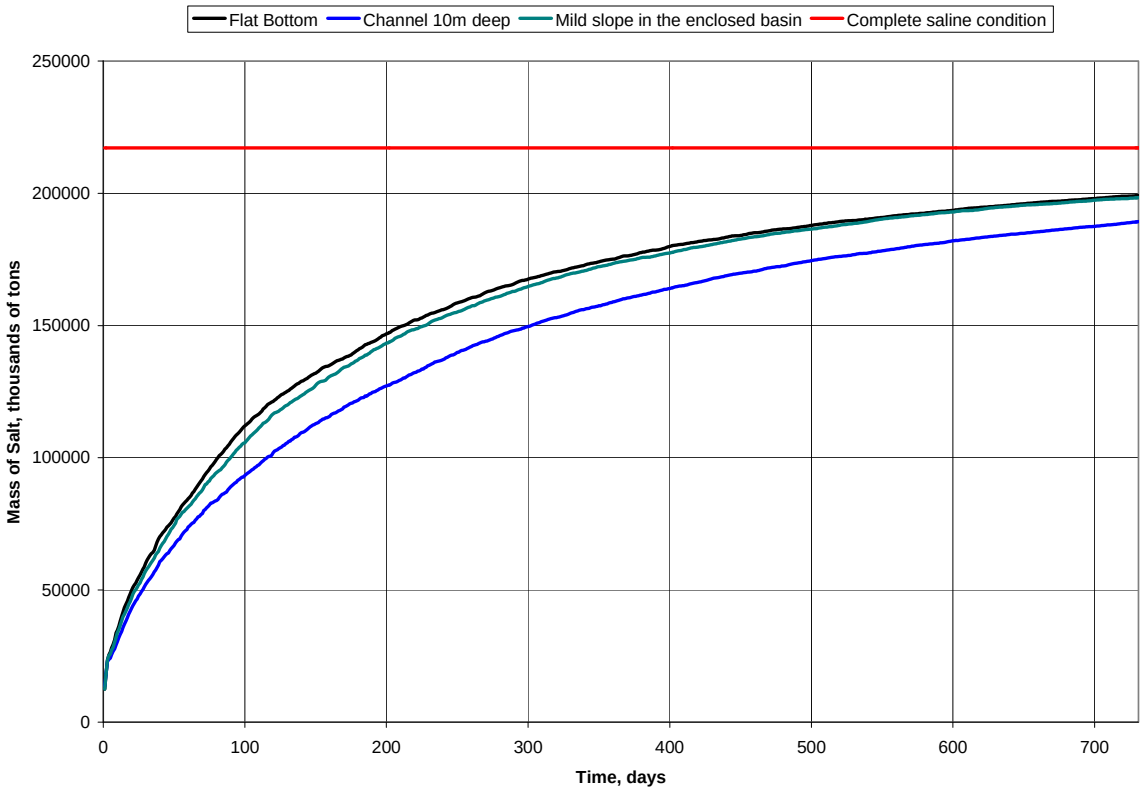

Figure 5.47: Mass Balance of salt with only density gradient forcing. Daily output.

5.5.3.2 Salinity gradient and tidal forcing

Similar boundary conditions were applied to the case of density plus tidal forcing. The inclusion of a diurnal tide at the open boundary is the only variation with respect to the previous case. Figure 5.48 shows that in all the cases, the transport of salinity into the system is accelerated by the effect of the tide for the first 300 days after which the rate of increase of salinity with tides is less than without tides, i.e., after the system has approximately 50% of the total saline condition, the transport rate decelerates. The difference between the three cases starts to be barely appreciable. After this point the net transport of saltwater intrusion increases slowly. The trend seems to reach a quasi-steady state condition; for instance, the case with a mild slope in the enclosed basin will take 5 to 200 years to have 99% of the total salt saline condition. Similar or even longer periods

for the other cases are shown in Table 5.10.

Table 5.10: Times at which the simulation will reach a background salinity of 25ppt in the system

Case	Expected time to reach 99% of total saline condition [years]
Flat Bottom with only density gradient forcing	3.1
10m Channel with only density gradient forcing	3.6
Sloping enclosed basin with only density gradient forcing	3.0
Flat Bottom with density gradient and tidal forcing	10* to 500**.
10m Channel with density gradient and tidal forcing	5* to 140**
Sloping enclosed basin with density gradient and tidal forcing	5* to 200**

*Linear extrapolation
**Asymptotic extrapolation

Even though the three geometries follow the same pattern, it is observed that the pressure gradient error is affecting the transport, since the case with a steep bathymetry i.e., channel 10m deep, contains the lowest amount of salt in the system. The error is present for various combinations of conditions that may be forced. Furthermore, the results confirm that the steeper the bathymetry, the larger the error becomes. It is important to indicate that the error also behaves as an artificial sink for the mass transport, because the mass of salt depletes as the bathymetry gradient increases. For instance, in all the cases, and for the same boundary condition, the case with a mild slope in the enclosed basin contains less salt than the case with a flat bottom. In the same manner, the case with a channel 10 m deep contains less salt than the case with a mild slope in the enclosed basin.

From the 3D simulation it is noted that the saline density current is being pushed into the system through the pass in a pulsing-manner. Likewise, the freshwater plume has

a similar behavior in the top layers and is radiated out when it reaches the open boundary. The tide signature gives an oscillatory shape to the mass balance trend since saltwater is forced into the system and freshwater is transferred out of the system during the maxima and minima of the tide. According to Lamb (1945), the motion of tidal waves is mainly horizontal and therefore, uniform for all particles in a vertical line.

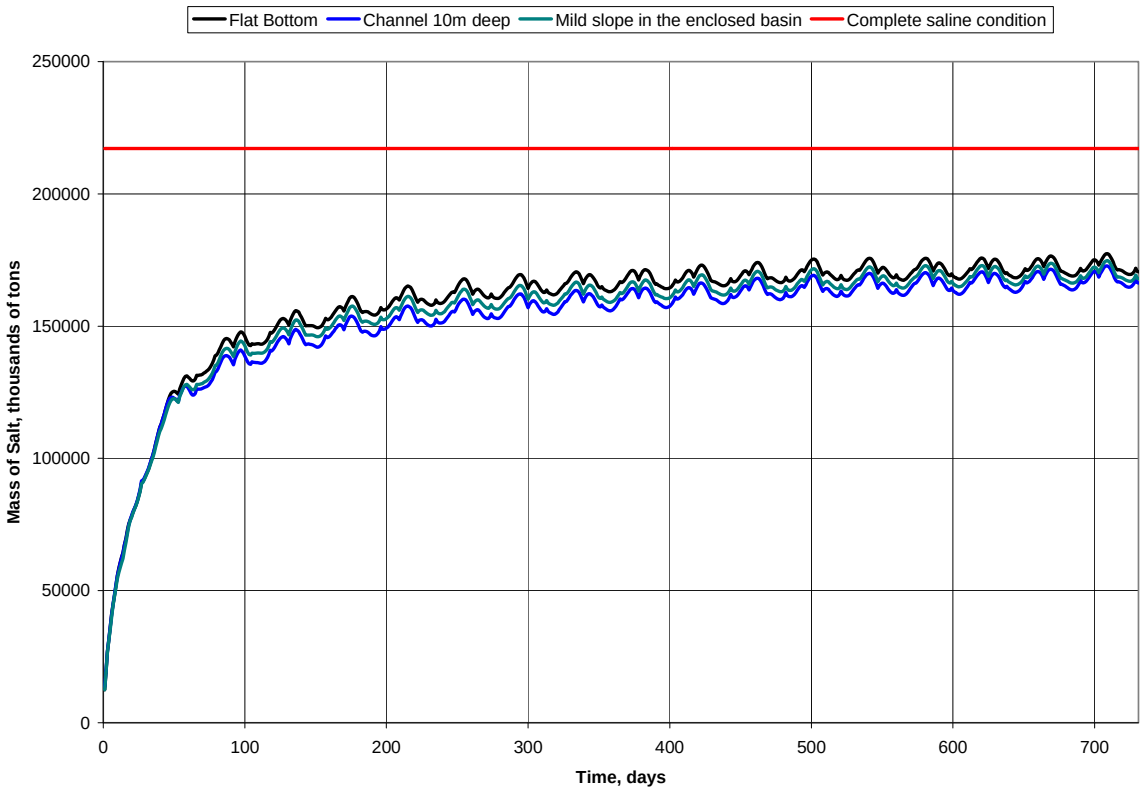

Figure 5.48: Mass Balance of salt with only density gradient and tidal forcing. Daily output.

5.5.3.3 Salinity gradient, tidal and hydrologic forcing

In addition to density gradients and tidal forcing, freshwater inputs from rivers and runoff, precipitation and evapotranspiration were forced into the system from a 17-year database (Roblin, 2008). Daily freshwater inputs were added up in a lump sum and

discharged at the west end of the enclosed basin. Precipitation and evapotranspiration (4.24 and 3.28 mm/day, respectively) are forced at the surface boundary i.e., σ=0. It is understood that the variation of evapotranspiration and precipitation is seasonal; however, a 17-year daily mean was applied (McCorquodale, 2008).

A seasonal pattern is observed in Figure 5.49, where there are periods of high and low freshwater inputs into the system. These periods correspond to the Spring and Summer seasons, respectively. Salinity is being forced at the open boundary at 25 ppt. There is a yearly cyclical balance between fresh and saltwater in which a dynamic equilibrium is attained after the approximately the 100th Julian day. Initially, the model was spun up from rest, with a background salinity of 0.2 ppt. The flat bottom case was run for three years to account for an extra yearly salinity cycle. The second and third cycle demonstrate the dynamic equilibrium between the hydrodynamic forces and the saltwater influx.

As noted before, the case with a channel 10m deep presents one of the lowest trends in Figure 5.49. The other lowest trend corresponds to the case with no baroclinic treatment. Since using a barotropic open boundary does not allow freshwater to be efficiently radiated out, when the buoyant density-current arrives to the open boundary part of it is reflected back into the system generating a fictitious freshening of the system.

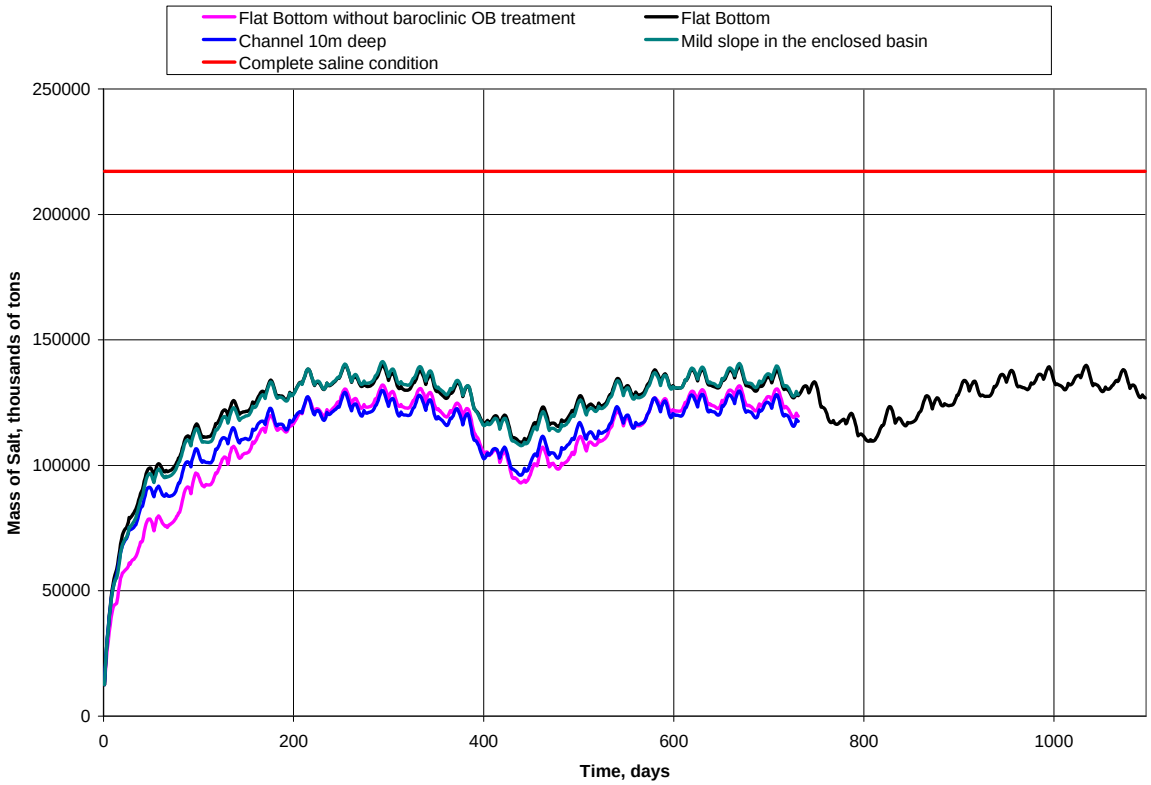

Figure 5.49: Mass Balance of salt with density gradient, tidal and hydrologic forcing. Daily output.

5.6 Sensitivity Analysis on the Idealized Basin

Sensitivity analysis was performed on the geometry with a flat bottom bathymetry to evaluate the effect of certain parameters on the model solutions. The parameters studied included: the number of sigma levels, the external time step, the ratio of external time step to internal time step, and the shear stress friction factor, among others

Water surface elevations are compared for the same period at the enclosed basin to assess the change in the hydrodynamics of the system. Salt balance in the system has been used to observe the effect of several different parameters that have more influence in the transport of the system.

The response of the idealized basin due to changing the external time step from 1 to 2 s is presented in Figure 5.50. For this range of time step there was essentially no difference in the water surface elevation. The solution became unstable at an external step of 4 s.

The ratio of the internal time step and the external time step is known used in the model as ISPLIT; from the physical point of view, it is the ratio of the phase speed of propagation of the internal gravity waves to the surface waves. From the lock exchange test case, a surface wave celerity of 1.25 m/s and an internal gravity wave celerity of 2.83 cm/s were measured. Although a difference of two orders of magnitude was found in this case, an ISPLIT of 10 was used to ensure numerical stability. Figure 5.51 showed no variation of the water surface elevation for a varying ISPLIT from 5 to 20.

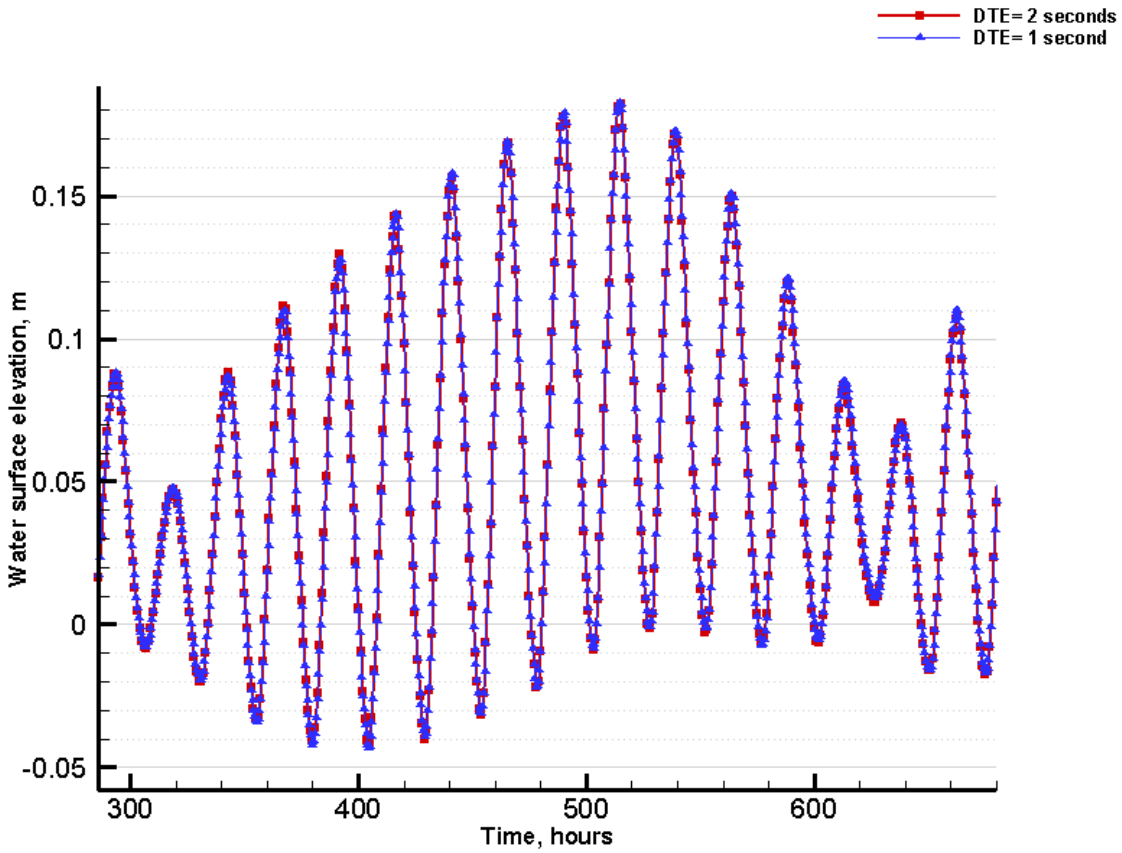

Figure 5.50: Comparison of water surface elevations at the enclosed basin for variable external time steps. Hourly output.

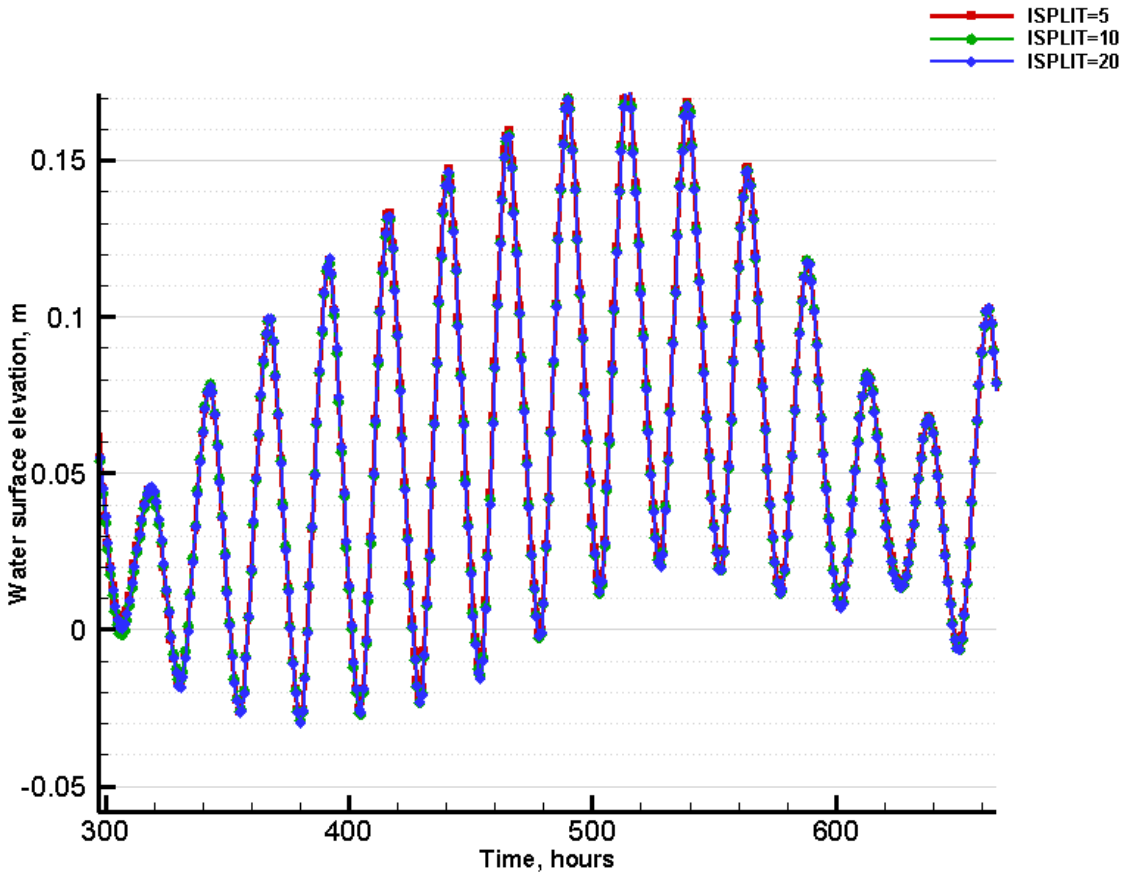

Figure 5.51: Comparison of water surface elevations at the enclosed basin for variable ISPLIT (ratio of internal to external time step). Hourly output.

A barotropic (2-D) case was prepared, run and compared with the baroclinic (3-D) case. In the barotropic (2-D), the salinity has been set constant (i.e., the transport is being decoupled), and there is only one sigma layer in the vertical axis. The barotropic case was the fastest run. The barotropic case did not show the incremental elevation experienced by the baroclinic case due to a gravity density current entering in the enclosed basin. The difference is more visible at the neap tides where the dynamic is basically driven by the difference in the densities of the fluids. Figure 5.52 shows the effect the 2D Grid relative to the baroclinic 3D grid. The tidal range is about 10% higher

for the baroclinic case.

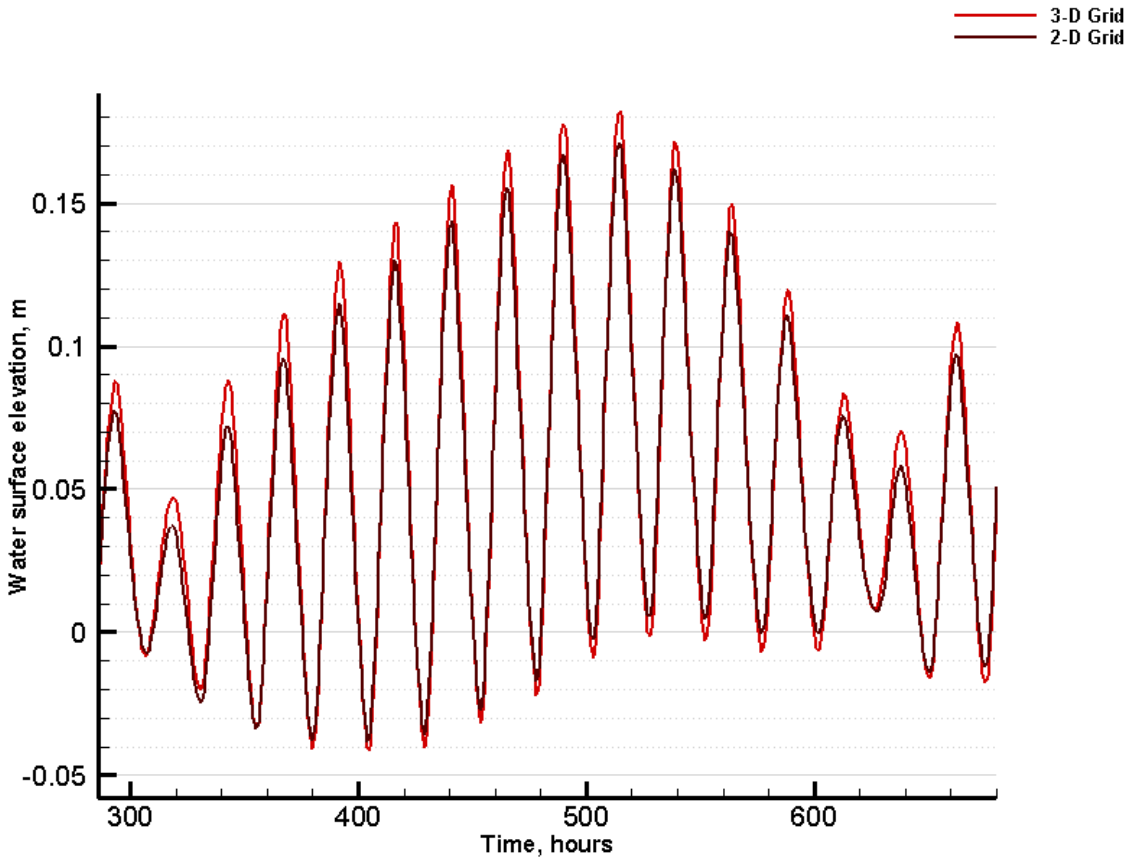

Figure 5.52: Comparison of water surface elevations at the enclosed basin for a 3-D grid structure and a 2-D grid structure. Hourly output.

The effect of a varying the friction coefficient was observed not only in the water surface elevation (Figure 5.53) but also in the transport of salinity (Figure 5.54). Higher friction shear stress coefficients gave an attenuated tidal range in the system and less net salt mass in the system. Hence, friction reduces the salt entering in the system and retards the advancement of the saline density current into the enclosed basin. Figure 5.53 shows that as the friction increases the tidal range decreases and the tidal pumping effect displaces the mean stage of the landward basin upward.

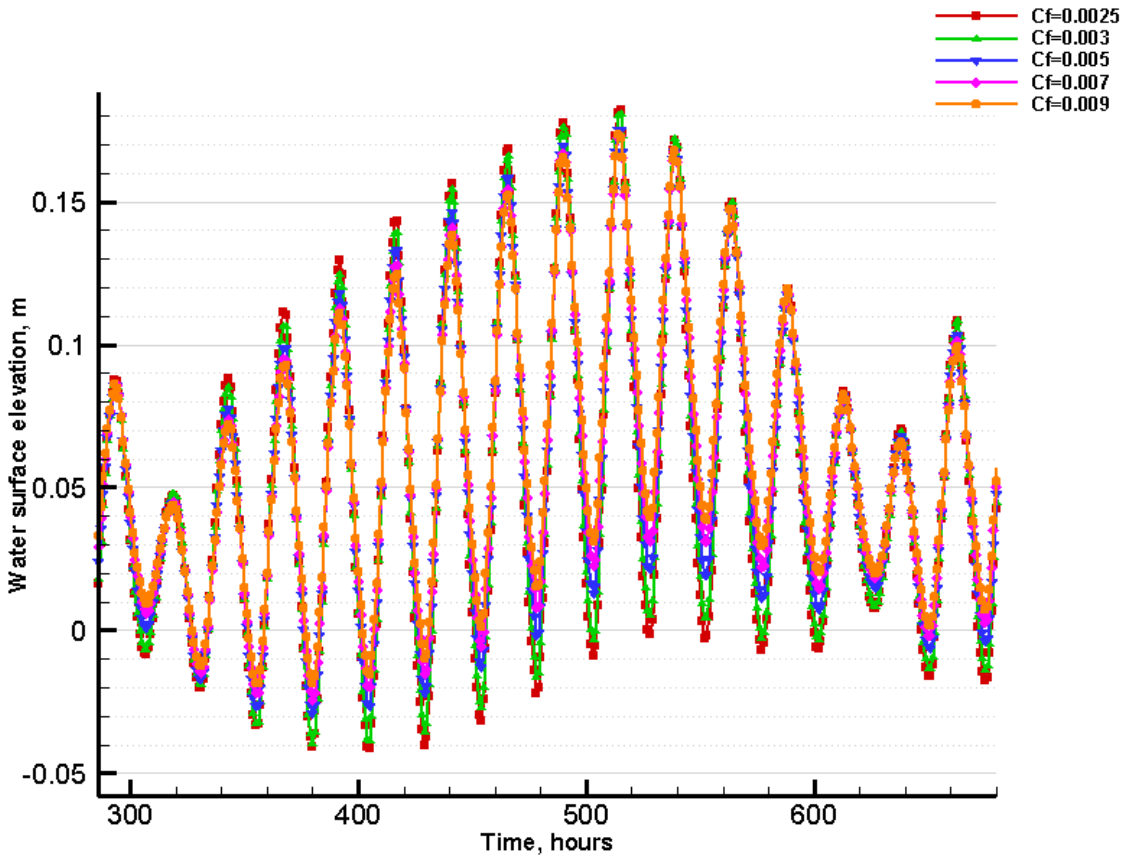

Figure 5.53: Comparison of water surface elevations at the enclosed basin for variable bottom shear stress coefficient. Hourly output.

Scheffer and Galiani (1998) suggest bottom shear stress coefficient from 0.002 to 0.005 for open water regions. At tidal passes, flow velocities can be of the order of 1 m/s. Reynolds numbers in the range of [4 x10^6-6x10^6] are computed, based on a channel 4 m deep with a kinematic viscosity of 10-6 m^2/s. Typical "Manning's n coefficients" fall in the range of [0.015-0.030]. These coefficients represent absolute roughness between [2 mm and 7 cm]. Shear stress coefficients of [0.017 to 0.046] can be obtained from the Moody diagram for these roughness values at these Reynolds numbers. Therefore, in general bottom shear stress coefficients within the range of [0.002 to 0.005] can be used

for open water areas, while coefficients within the range of [0.006 to 0.046] can be used for navigation channels and tidal passes.

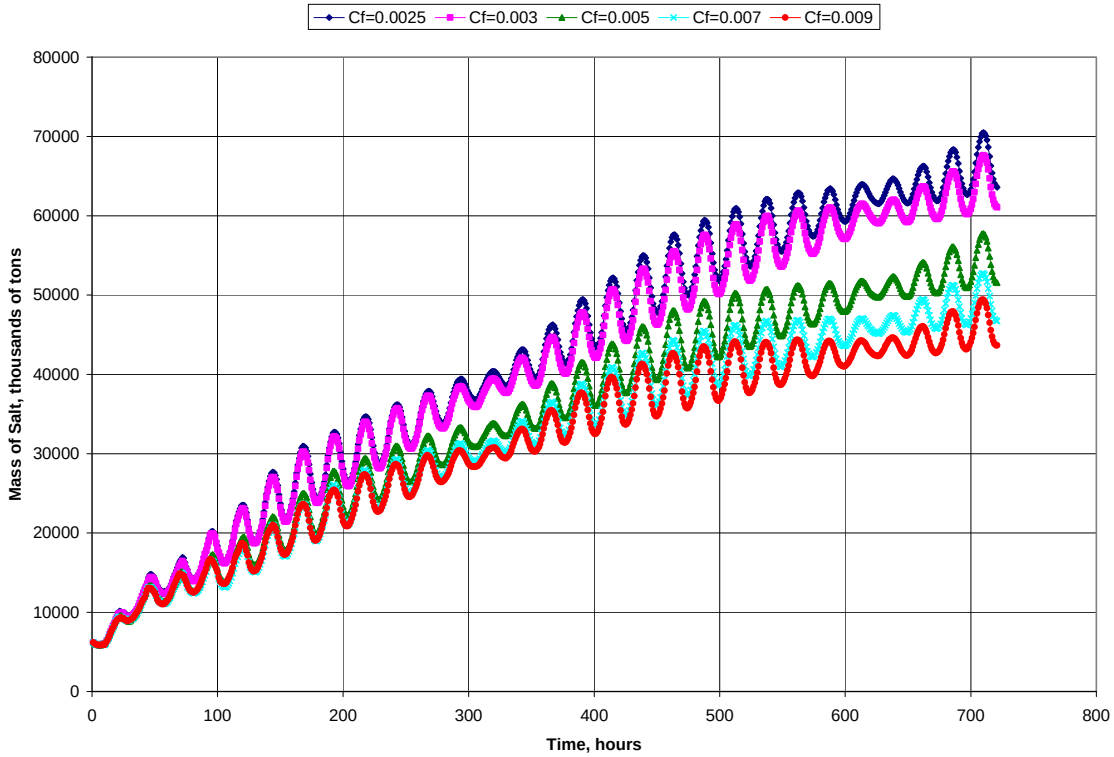

Figure 5.54: Comparison of total mass of salt in the system for variable bottom shear stress coefficient. Hourly output.

The effect of varying the Smagorinsky eddy diffusivity shows virtually little effect on the momentum transport of salt since a variation of four orders of magnitude on HORCON did not show a large change. According to Figure 5.55 a high HORCON value of 1.00 showed a similar response to a case with a HORCON value of 10^{-4}.

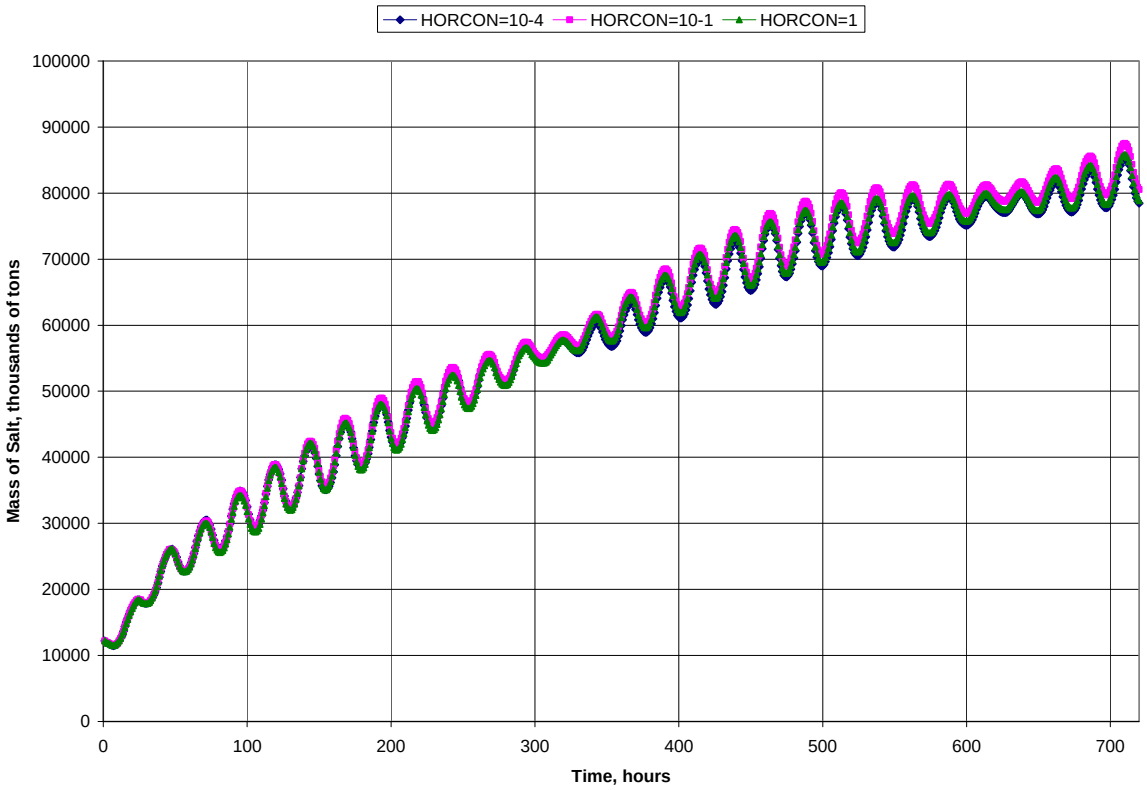

Figure 5.55: Comparison of total mass of salt in the system for variable horizontal diffusion i.e., Smagorinsky eddy parameter HORCON. Hourly output.

A comparison between using a turbulent closure model Mellor-Yamada level 2.5 i.e., MY-2.5, and a constant vertical eddy viscosity (UMOL=10^{-6} m^2/s) was performed. Figure 5.56 shows that the diffusivity of the turbulent kinetic energy in the MY-2.5 yielded the same response as in the case where the diffusivity was set constant for the idealized case. For the MY-2.5, UMOL represents the background mixing, while it represents the actual diffusivity if the calculation for vertical diffusivity is set to constant. Wind conditions were not forced in this case. Density currents due to differences in salinities and tidal forcing were introduced. These would be strong in the areas where high turbulence energy should be compensated by high diffusion like in the tidal passes. However, these two types of methods to compute vertical diffusivities did not show a

significant difference in the total mass balance of salt in the system.

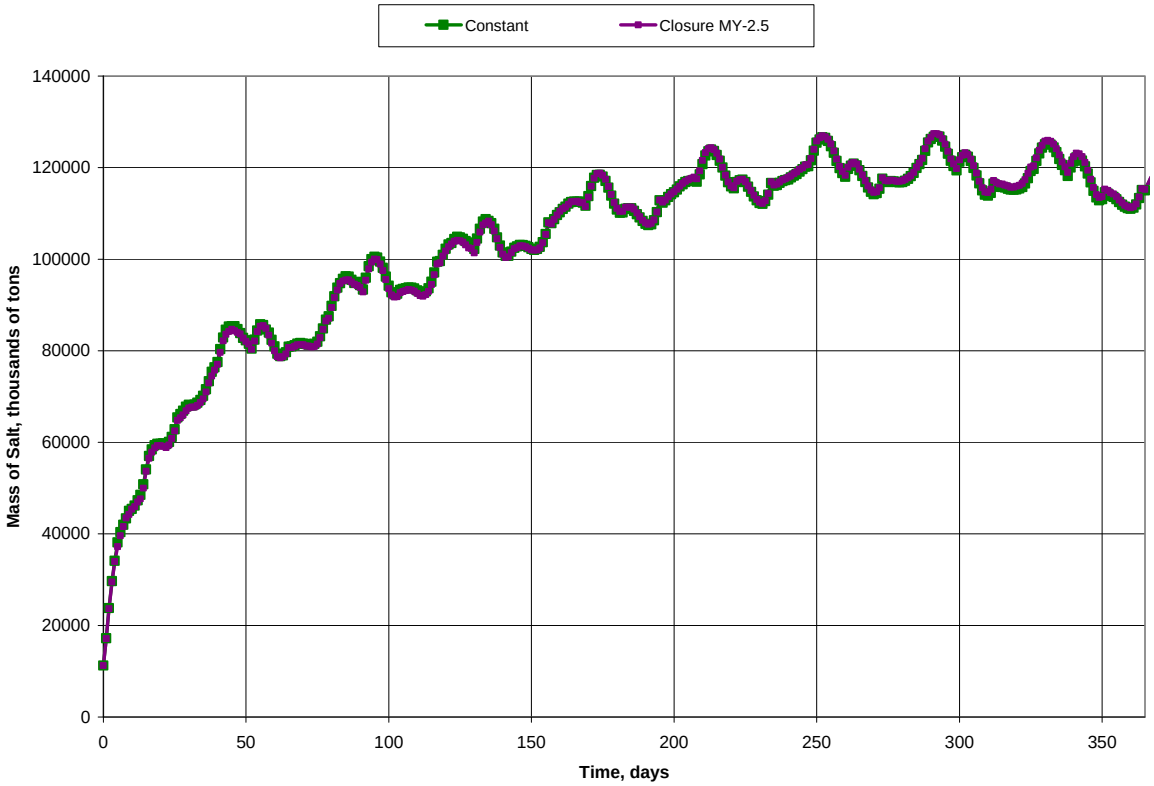

Figure 5.56: Comparison of total mass of salt in the system for constant, and Mellor-Yamada level 2.5 diffusivities in the vertical turbulence model. Daily output.

Nevertheless, when the diffusivities were varied for the same type of vertical turbulence method e.g., constant diffusivities, the effect on the model response was significant. Thus higher prescribed vertical eddy viscosity i.e., UMOL, produced distinctively less amount of salt in the system. Figure 5.57 shows how the increase in the vertical diffusivity increased the diffusion and mixing of salt leaving fresher conditions in the system as time progresses. The case with an UMOL equal to 10^{-5} m^2/s predicted 62% less salt in the system, while the case with an UMOL = 10^{-4} m^2/s predicted up to 92% less

salt in the system when compared with the case with an UMOL=10^{-6} m^2/s. The validation results from the physical experiment indicated that the model captured the primary density currents with an UMOL=10^{-6} m^2/s. Nemani (2005) also found that density currents with a constant vertical diffusivity UMOL=10^{-6} m^2/s propagate with a speed comparable to the theoretical estimates. An UMOL=10^{-6} m^2/s represents the typical kinematic viscosity of water.

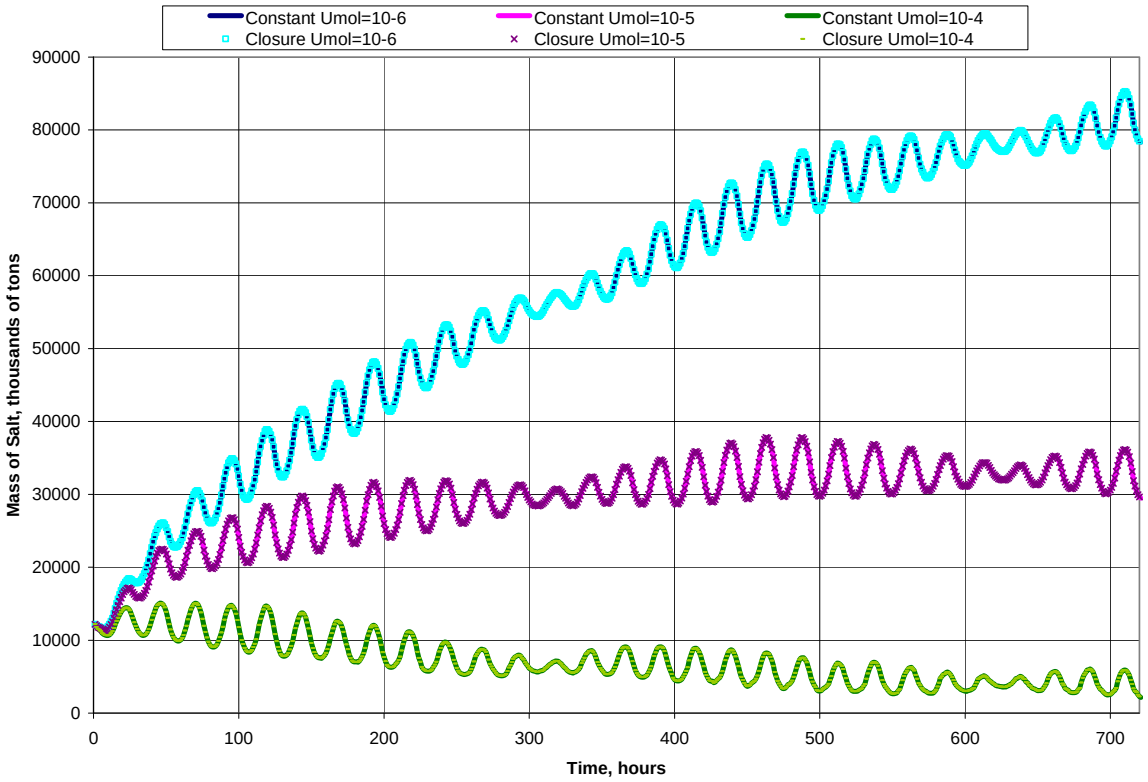

Figure 5.57: Comparison of total mass of salt in the system for variable vertical eddy viscosity "UMOL". Hourly output.

The performance of the idealized case with variation in the advection scheme, in FVCOM, was tested. In addition to the central-difference scheme, FVCOM offers the possibility of using a Multidimensional Positive Definite Advection Transport Algorithm (MPDATA) with a Flux Corrected Transport (FCT) for the calculation of the vertical

advection term (Smolarkiewicz, 1984; Smolarkiewicz and Grabowski, 1990). The MPDATA is a second-order upwind scheme. It can be observed, from Figure 5.58, that the upwind scheme seems to restrict salt flux into the system when compared with the response of the central-difference scheme.

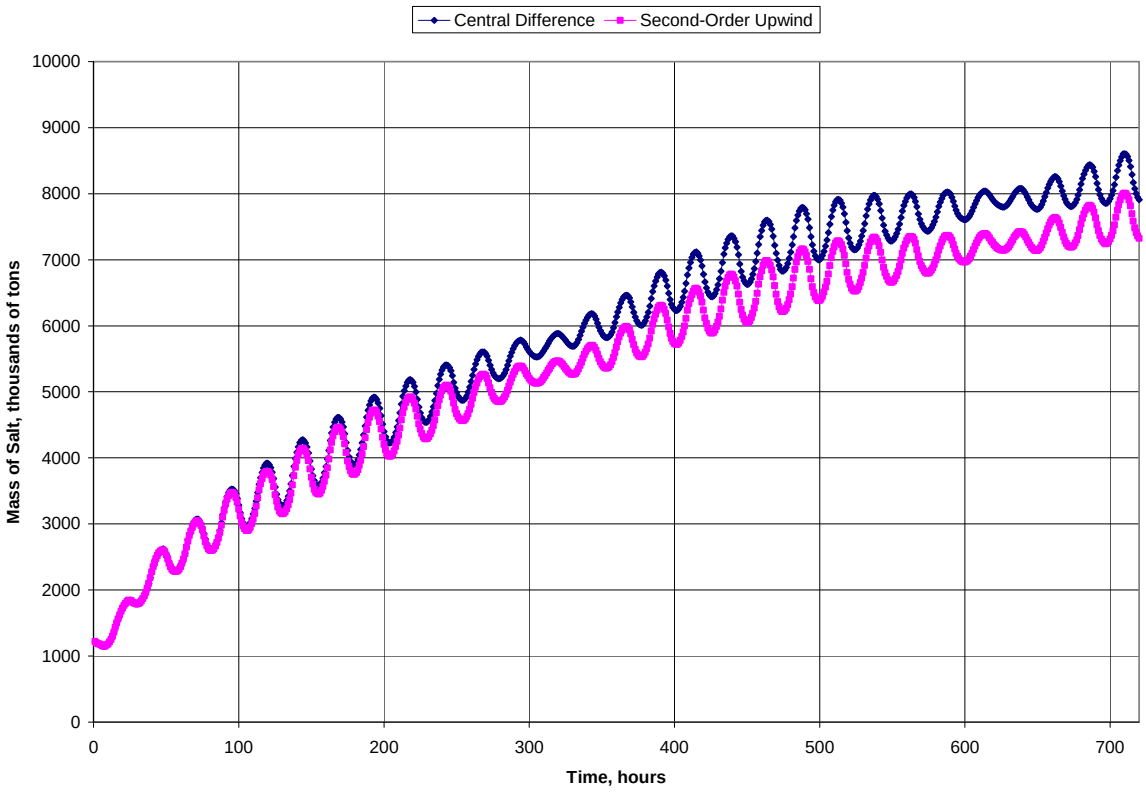

Figure 5.58: Comparison of total mass of salt in the system for the variation in the advection scheme. Central difference versus second-order upwind MPDATA (Smolarkiewicz, 1984; Smolarkiewicz and Grabowski, 1990). Hourly output.

5.6.1 Effect of Wind

Actual wind data were used to force wind in the idealized case for two cases a) flat bottom bathymetry, and b) laterally and longitudinally changing bathymetry with

wind. Although the FVCOM user can force spatially varying wind, for the purpose of this research uniform wind was forced across the grid domain. The wind data were forced without smoothing the data; hence, drastic changes in wind speed and direction were also forced in the model. Some of the velocities in the record exceeded 10m/s with abrupt changes in direction. The robustness of the model with the radiative baroclinic open boundary in response to these changes proved to be good. For both cases, the net salt mass in the system followed the same trend as shown Figure 5.59. The salt influx was reduced by wind which had a similar effect to imposing a high bottom shear stress coefficient or a high vertical diffusivity (UMOL) similar to 10^{-5} m^2/s. After a period of one month, the model with wind gave nearly 75% less net salt remaining in the system than when no wind was forced.

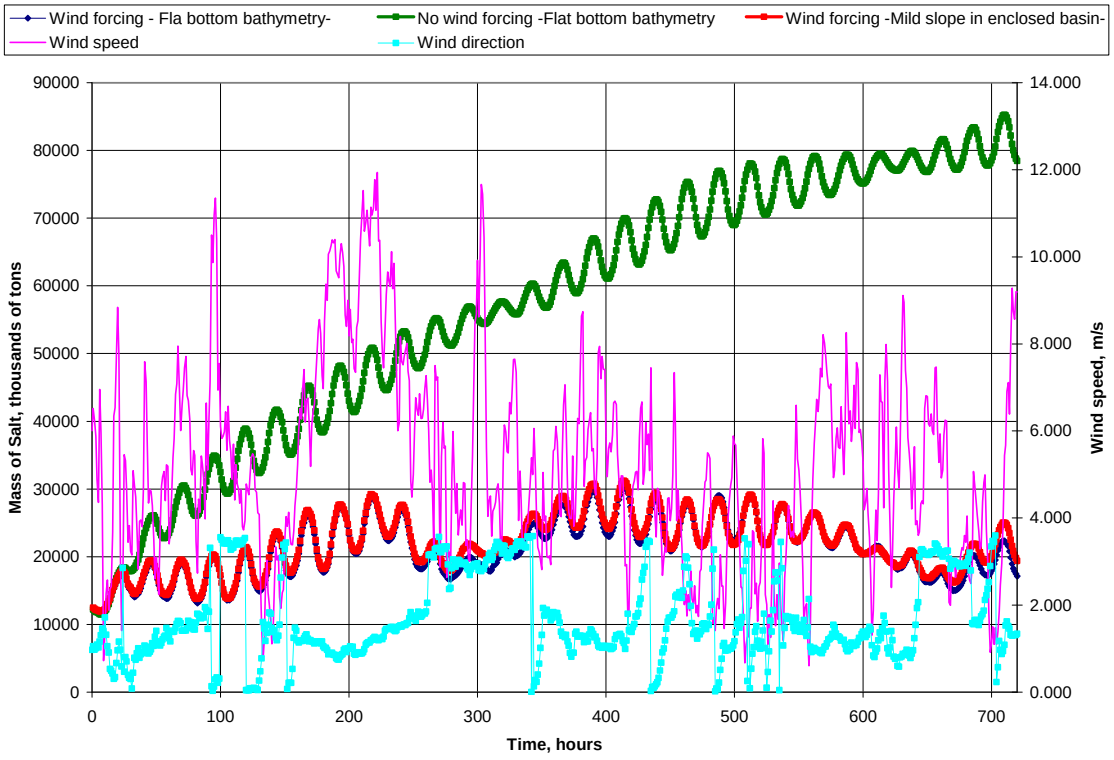

Figure 5.59: Comparison of total mass of salt in the system for a) Flat bottom bathymetry with wind b) Laterally/longitudinally changing bathymetry in enclosed basin with wind. Wind direction scale in degrees divided by 100. Hourly output.

Moreover, the trend of the wind effect on salt flux is similar to the effect of a higher friction shear stress. Besides, the increased mixing in the semi-enclosed basin, the wind effectively 'blocked' the salt flux from passing through the channel between the semi-enclosed basin and the enclosed basin.

Figure 5.60 and 5.61 show the flow field at 2.2m deep for both bathymetric cases (mild conical slope in the enclosed basin and the flat bottom bathymetry, respectively). Even though the wind was predominantly southeasterly, the bottom fluid flow in the water column was heading towards the southeast. This effect is the result of advective loop current in the vertical; this bottom current virtually "blocks" the advance of the density current in the system. The propagation of the saltwater density gradient is similar in both cases. The case with a mild slope in the enclosed basin shows a 2-gyre velocity field due to the effect of the conic bathymetry (Figure 5.60). In the flat bottom case the velocity field is more uniform heading in one direction at the surface and the opposite direction at the bed.

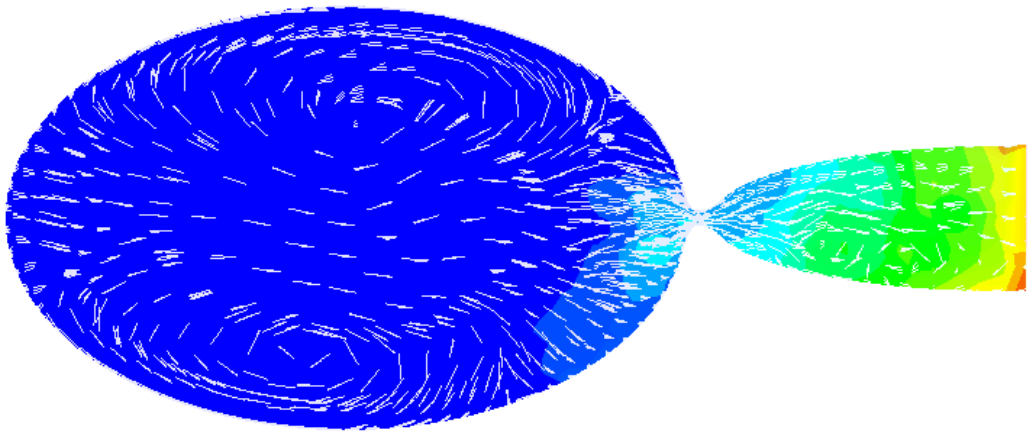

Figure 5.60: Flow field at 2.2m deep for the geometry with laterally/longitudinally changing bathymetry in the enclosed basin. Wind is 7 m/s 121° north-based azimuth at the 543rd hour of simulation time.

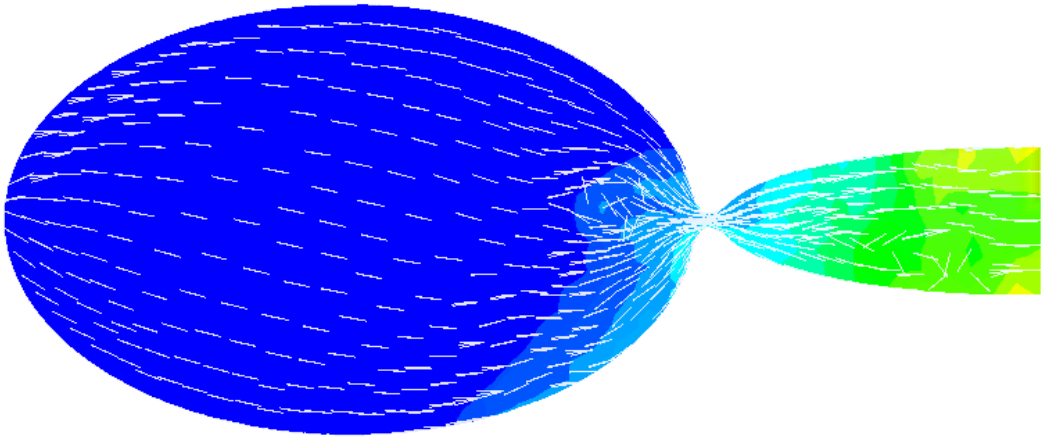

Figure 5.61: Flow field at 2.2m deep for the geometry with laterally/longitudinally changing bathymetry in the enclosed basin. Wind is 7 m/s 121º north-based azimuth at the 543rd hour of simulation time.

5.6.2 Effect of the number of sigma levels

To capture the amplitude of the interfacial gravity waves, two scenarios were developed based on the distribution of the sigma layers in the vertical axis. *Scenario 1* is based on a constant distribution of the sigma layers. *Scenario 2* is based on a distribution of the sigma layers using a parabolic function.

5.6.2.1 Scenario 1: Constant distribution of sigma levels

The flat bottom bathymetry was used to avoid any additional effect of the sigma pressure gradient error that could mask the detection of a response of varying the number of sigma levels. If the resolution used in the vertical axis is too coarse, the model may not properly resolve the internal gravity wave train, and the amplitude of these waves may also be represented inaccurately. Figure 5.62 shows the uniform distribution for several sigma levels. From the plot, the model is seen to resolve the interfacial gravity waves almost identically for 21 and 41 sigma levels. The case with 9 sigma levels presents a more progressive propagating plume but it preserves the structure of the wave train. In the same way, in Figure 5.63, the salt mass for the 9 sigma levels starts to depart from the trend of the 21 and 41 sigma levels. More net salt mass remains in the system when less sigma levels are used.

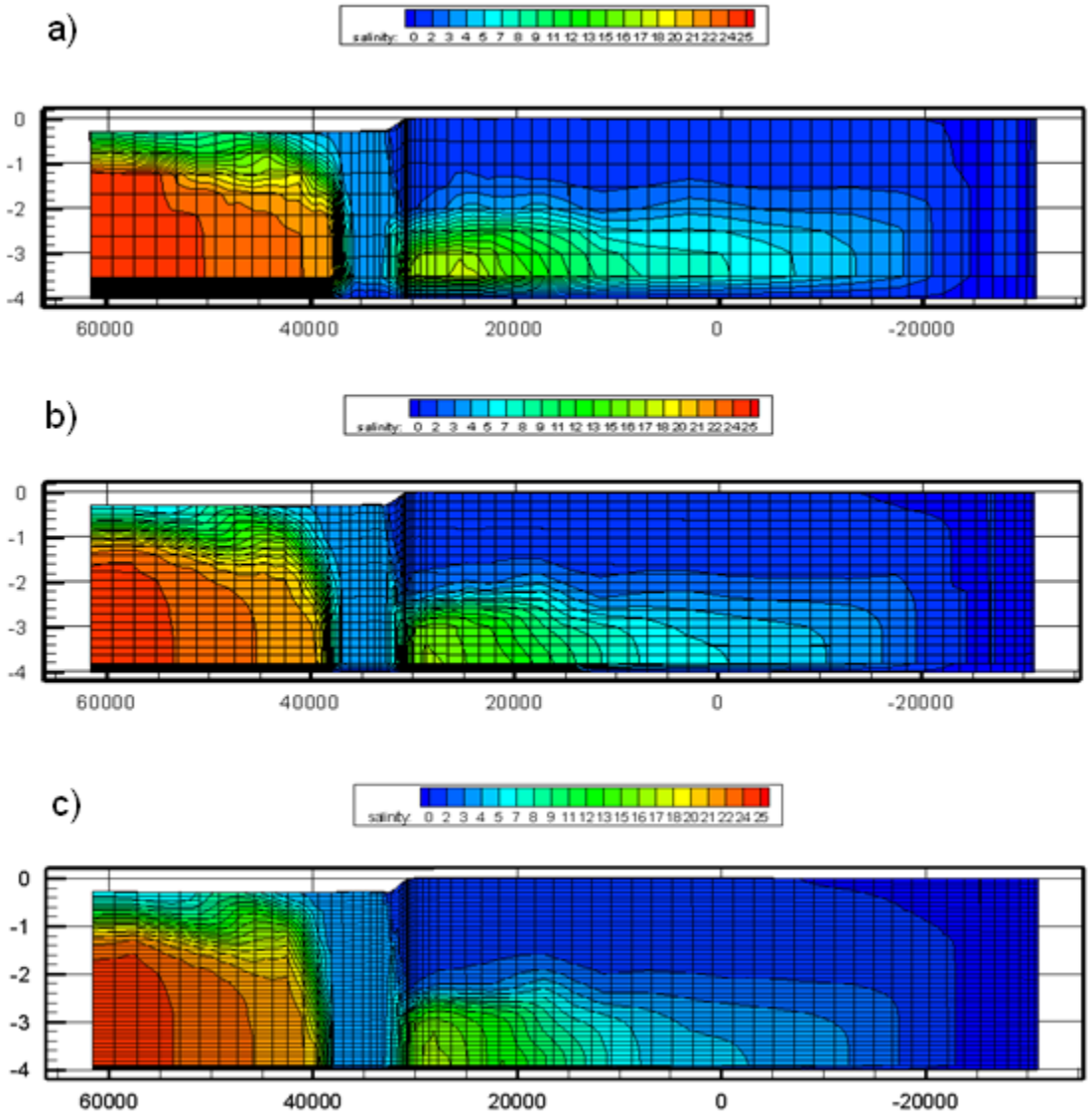

Figure 5.62: Constant distribution of the sigma levels at the 400th hour for a) 9 sigma levels; b) 21 sigma levels; and c) 41 sigma levels. [side view]

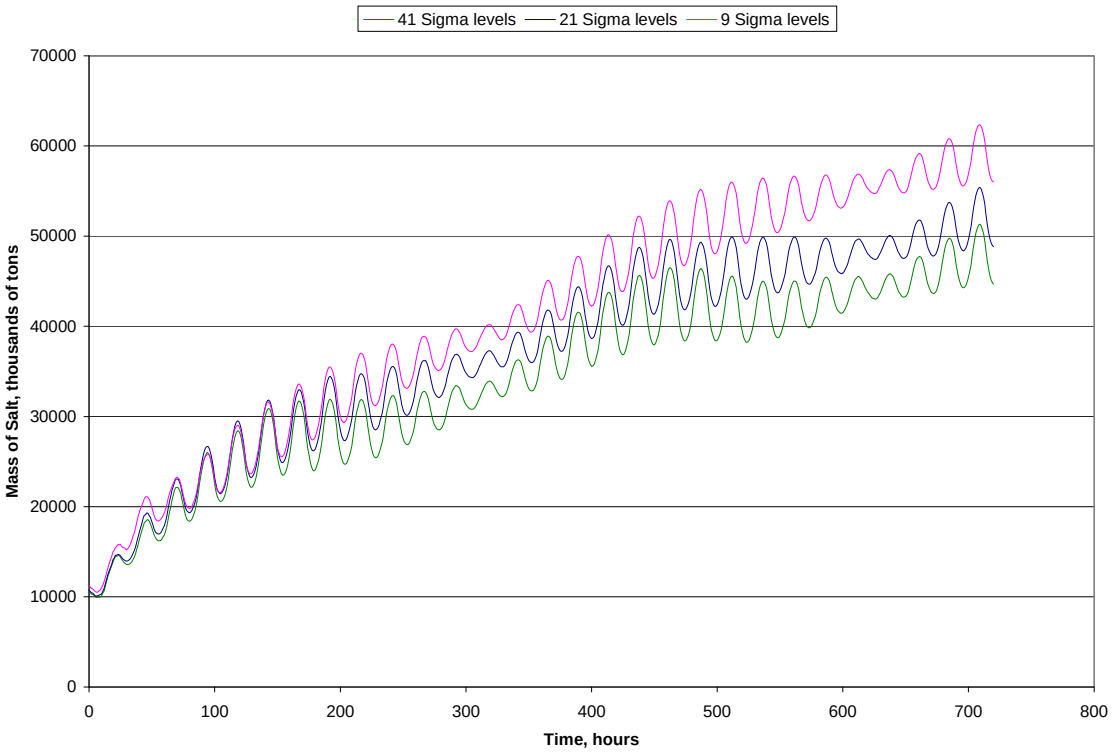

Figure 5.63: Comparison of total mass of salt in the system for various sigma levels (constant distribution). Hourly output.

5.6.2.2 Scenario 2: Parabolic distribution of the sigma levels

The parabolic distribution of the sigma levels yield as similar result to the uniform spacing as indicated by Figures 5.64 and 5.65. Figure 5.64 indicates that the propagation of the saltwater plume increases as the resolution in the vertical decreases. For instance, in case b) and c) the reflective wave at the right hand end of the basin has just started to develop but in case a) the reflective wave is well established. Nevertheless, the shape of the internal gravity wave train is similar in all the cases. The use of fewer sigma levels gives increased net salt mass in the system as shown also in Figure 5.65.

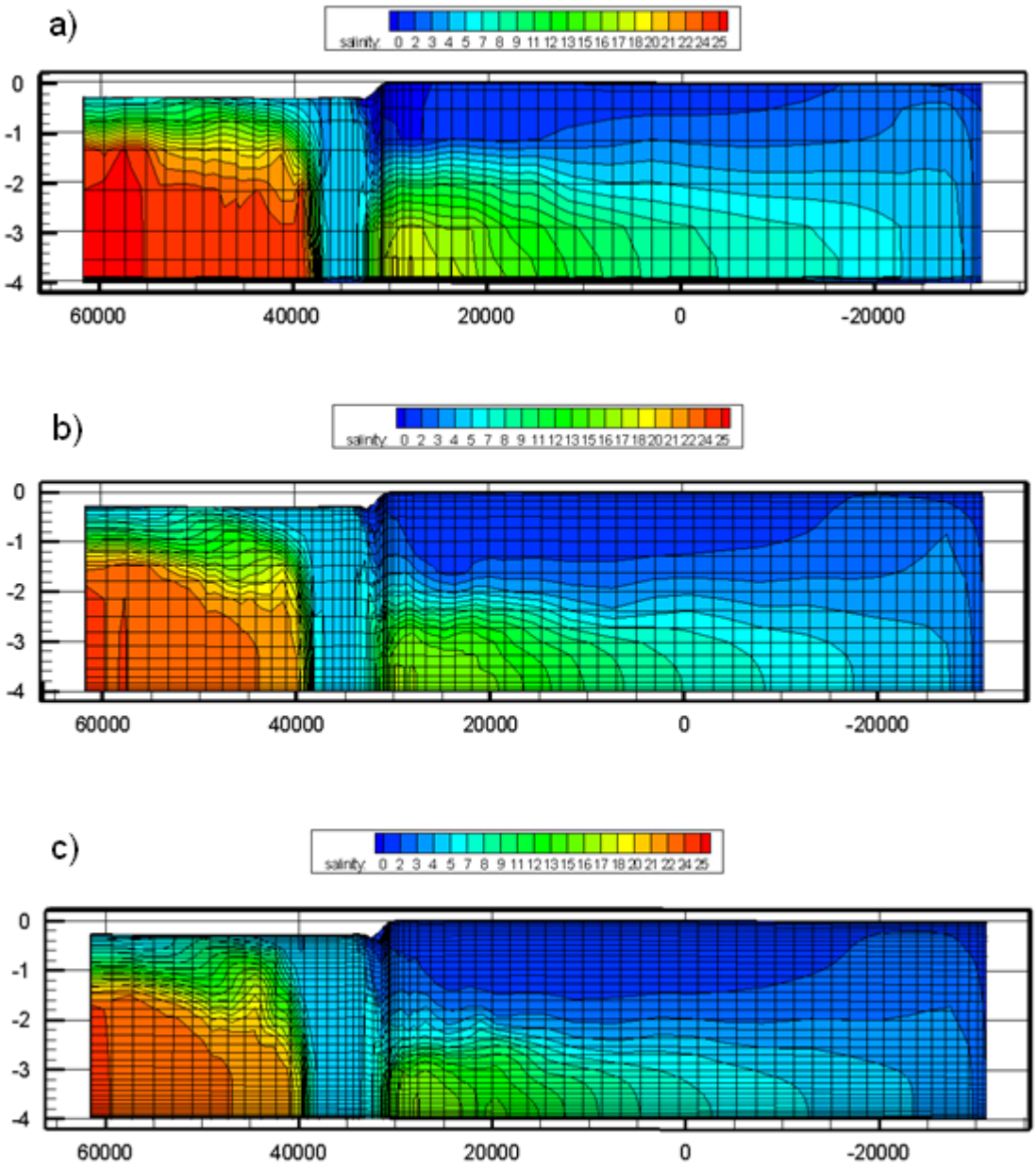

Figure 5.64: Parabolic distribution of the sigma levels at the 400th hour for a) 9 sigma levels; b) 21 sigma levels; and c) 41 sigma levels. [side view]

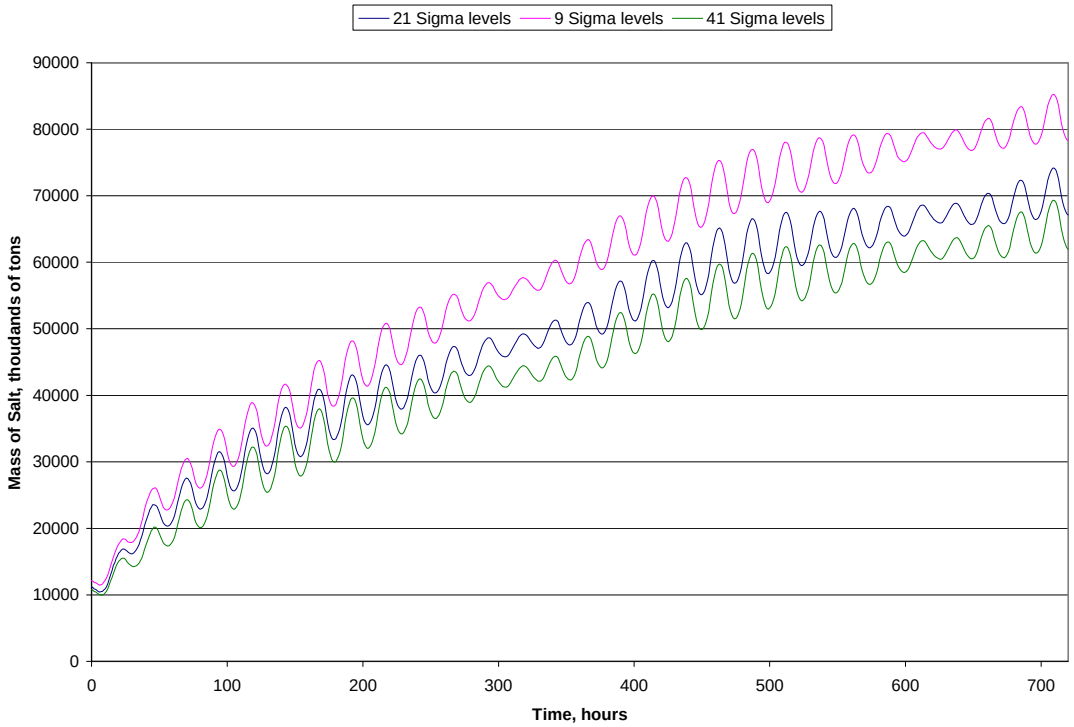

Figure 5.65: Comparison of total mass of salt in the system for various sigma levels (parabolic distribution). Hourly output.

In general, it was found that the use of a parabolic distribution gives more net salt mass in the basin when compared with the uniform distribution of sigma levels. Also, when fewer sigma levels are used, the saltwater plume advances more rapidly, and more salt mass enters in the system.

5.7 Tidal Pumping Effect

The tidal pumping effect in this report refers to the increase in stage between the seaside and inland side of a tidal inlet. Tidal pumping can be quantified by subjecting the ideal basin to several lunar tidal cycles and by observing the step of the mean hydraulic gradient line between the outer semi-enclosed basin and the inner enclosed basin. The

existence of a net outflow may increase the tidal pumping effect.

It is noted in Figure 5.66 that the mean hydraulic gradient at the semi-enclosed basin remained most of the time under the still water level for the first half of the diurnal cycle. For the second half of the cycle, the mean water surface elevation increased and remained above the still water level; at the neap tide the level returned to its original position to restart the same cycle again. The effect of hydrology does not seem to affect the result of the symmetrical tide. On the contrary, the mean hydraulic gradient at the enclosed basin remained above the still water line of the outer basin. This effect, according to Woodroffe (2002), is the result of amplitude, symmetry, and duration of flood and ebb tides. In estuaries, where tidal flows are bi-directional, the tidal discharge is dependent on the channel dimensions. For instance, flood tide is a forced flow that does not go anywhere, and therefore, has to compensate its momentum by increasing its water level. Woodroffe (2002) indicates that flows become modified as a result of dampening due to friction; landward constriction of the channel, also known as convergence; and reflection from channel banks, shoals and the channel head. In long estuaries, the water surface in the open boundaries and the head of the estuary will not adjust simultaneously because it takes time for the propagating tidal wave to travel along the estuary. At flood tide, water depth is deeper than the ebb tides; therefore, the high tide travels faster than the trough. As a result, the duration of the flood gets progressively shorter upstream, whereas the ebb gets longer (Woodroffe, 2002). The flood/ebb flows are asymmetrical. Moreover, since hydrology is forced in the system, the mean elevation varied with the discharge in the system. For instance, Figure 5.67 shows that a high peak

discharge at the 700th hour displayed a maximum mean level close to the 800th hour.

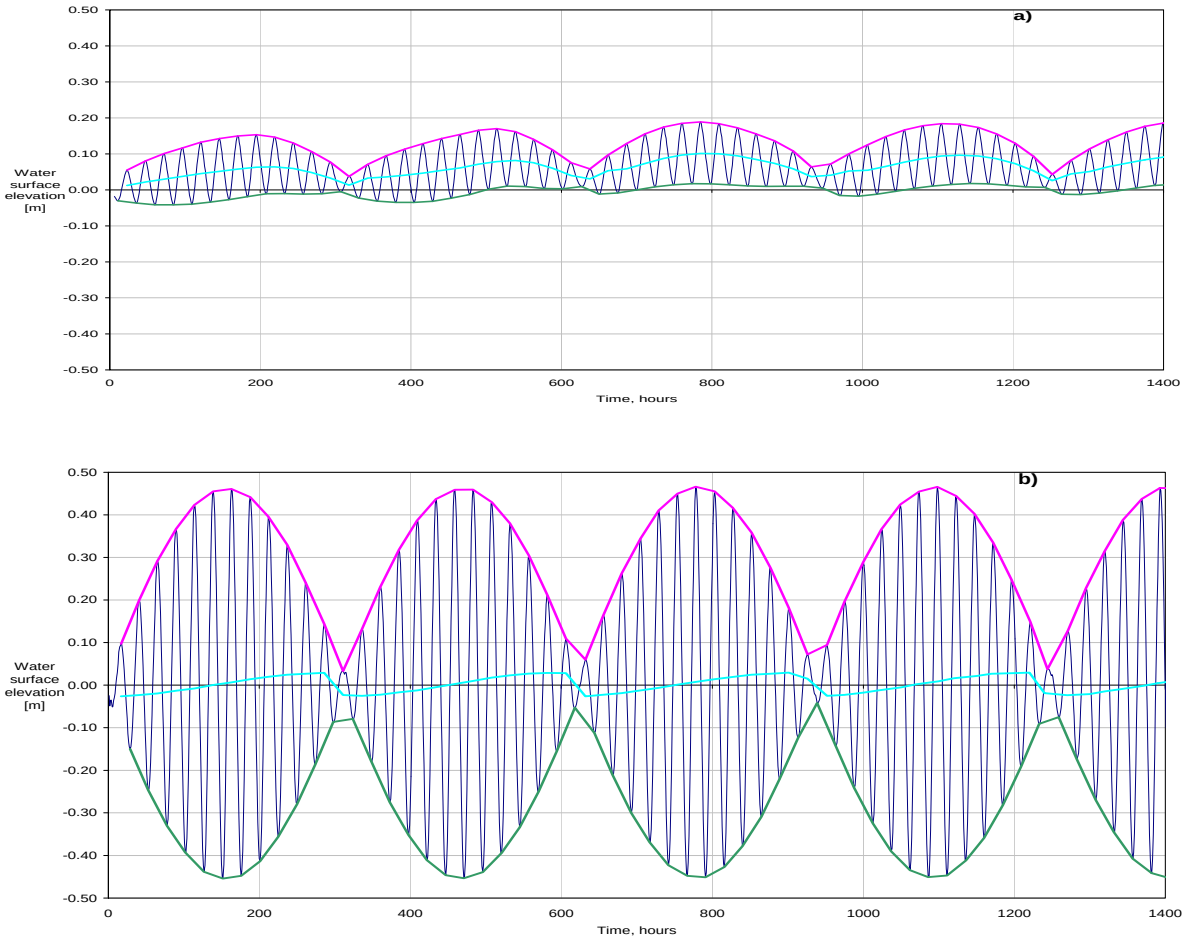

Figure 5.66: Mean water level at a) the enclosed basin and b) semi-enclosed basin for tidal and hydrological forcing [light blue line]. Pink line is the envelope at high tide, green line is the envelope at low tide. Hourly output.

To analyze the effect of pumping effect at different conditions, the idealized basin was model with three conditions: a) only hydrology, b) only tides, and c) hydrology and tides. Figure 5.67 presents the three effects of the arithmetic mean water level. One would expect the mean water level of the case with hydrology and tide to be equal to sum of the mean water levels of the case with only hydrology plus the case with only tides. However, the arithmetic mean water level exceeded by more than twice the sum of the mean water levels for the cases with conditions forced independently.

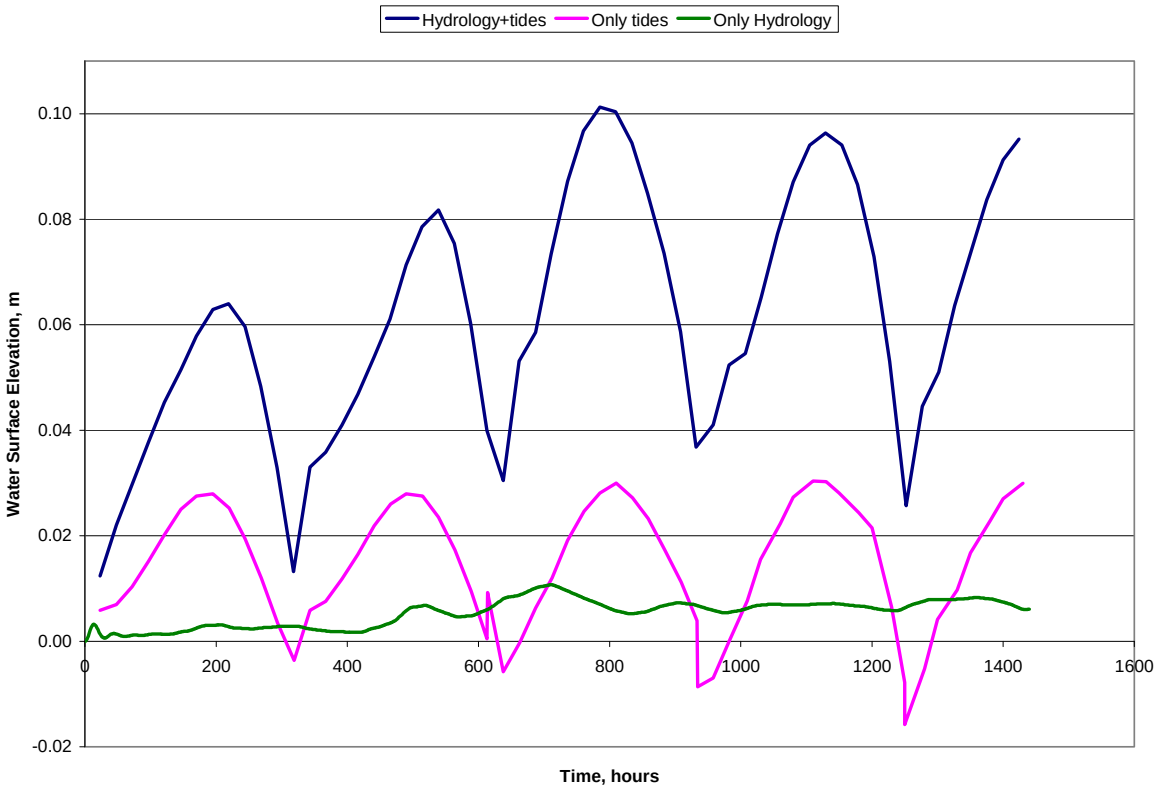

Figure 5.67: Arithmetic mean water level at the enclosed basin for several different conditions. Hourly output.

According to Hinwood *et al.*, (2005), the spring tidal pumping is the increase in the mean water elevation of a tidal basin in response to the forcing of the spring tide. The occurrence of tidal pumping is affected by the following factors:

- The inlet resistance. As a guide, if the ratio of tidal amplitude to entrance depth (a_o/h_c) is greater than 0.2 there is a strong probability that spring tidal will occur.
- High freshwater discharge.
- The large spring to neap variation caused by the tidal forcing with two of its largest harmonics close in amplitude and period.

In their study, the water level of the enclosed basin was more exactly dependant on the resistance coefficient and the river flow coefficient. The former depends on the geometry of the channel, the friction and the inlet/outlet losses. The latter depends on the freshwater inflow and surface area of the basin. Both parameters depend on the harmonics of the tidal wave.

For the current study, although the ratio $a_o/h_c = 0.475m/4m=0.12$ which is less than 0.2, the effect of tidal pumping is observed since the tidal range of the spring to neap variation is large (e.g., spring tidal range ~ 0.95 m; neap tidal range ~ 0.06m). The shear stress coefficient that should be included in the resistance coefficient is approximately 0.005. In addition, the system has freshwater inputs which enhance the tidal pumping. For the present case, the effect of having tides with out hydrology increased the mean water level at spring tide by 0.03 m; when the hydrology is added to the forcing, the mean water level increased to 0.10m (233%). Hence, the effect of hydrology enhances the tidal pumping effect in the system. The pumping effect will be confirmed using the 2008 Bonnet Carré Spillway opening.

5.8 Description of the Salinity Model for the Pontchartrain Estuary.

The simulation of salinity in the Pontchartrain Estuary has been performed by implementing the baroclinic treatment at the OB, and the spatially varying shear stress coefficient across the domain. Long-term salinity patterns were analyzed based on the

results obtained from a model with conditions prepared for a time frame of one year.

5.8.1 Computational Grid Domain

The computational grid domain was designed based on a modification of the grid from Georgiou *et al.,* (2008). The grid includes for the Pontchartrain Basin, i.e., Lake Maurepas, Lake Pontchartrain and Lake Borgne; Chandeleur Sound; Breton Sound; part of Mississippi Sound and the Biloxi Marshes. The computational domain is composed by 9703 elements and 5645 nodes (Figure 5.68). There are 9 sigma levels placed in a parabolic distribution. The OB is composed by 43 nodes at the easterly edge of the domain. The grid has areas with coarse resolution of approximately 5000 m (e.g., open boundary), and fine resolution of less than 100 m (e.g., Inner Harbor Navigation Canal).

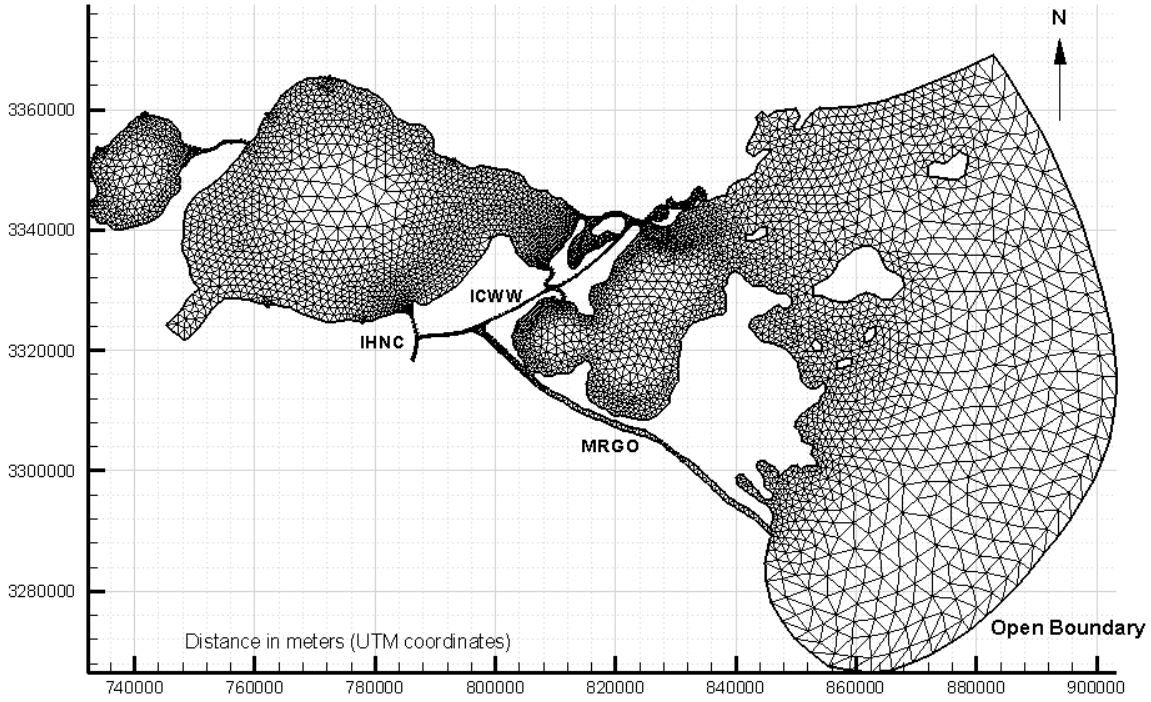

Figure 5.68: Model computational domain composed by 9703 cells and 5645 nodes. (Modified after Georgiou *et al.*, 2007)

5.8.2 Model Inputs

5.8.2.1 Initial Conditions

The bathymetry for the model was modified from Georgiou *et al.,* (2007), which was developed from the National Oceanic and Atmospheric Administration (NOAA) hydrographic and topographic surveys and from the ADCIRC grid version SL15_V3. Figure 5.69 shows the model bathymetry.

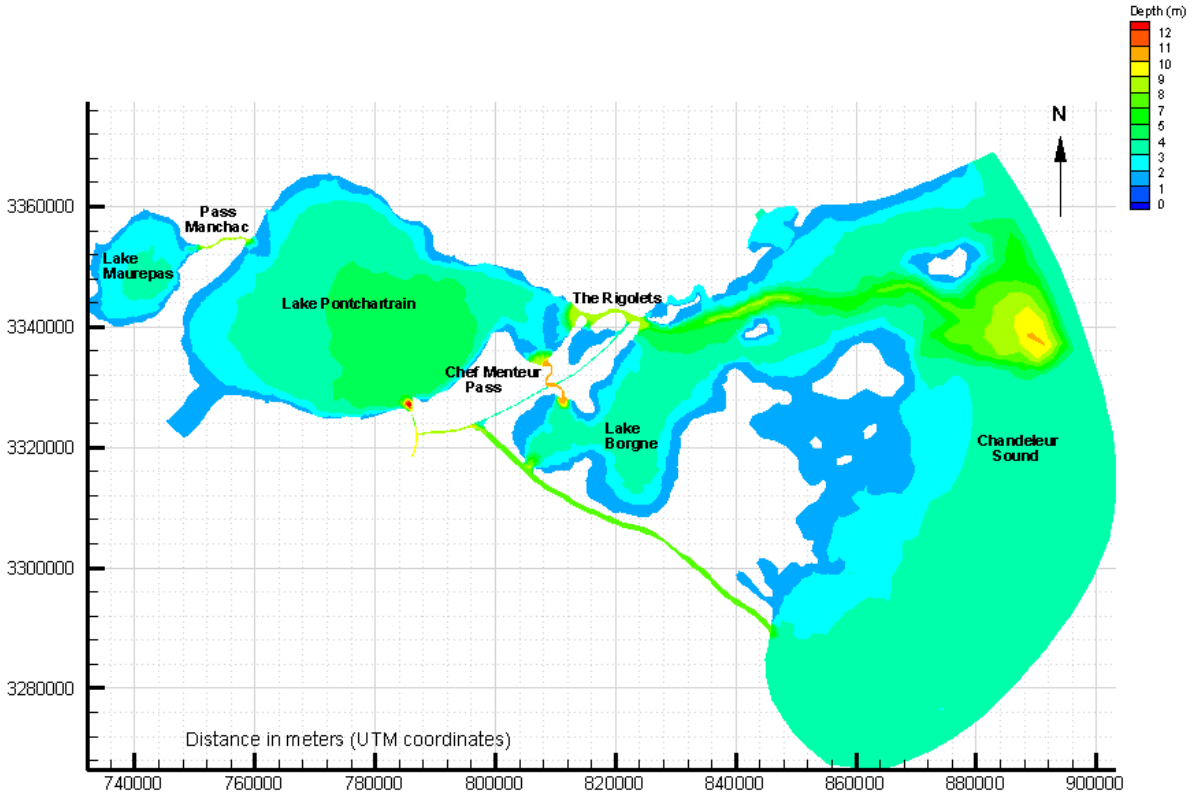

Figure 5.69: Model Bathymetry relative to Mean Sea Level
(Modified after Georgiou *et al.*, 2007)

The initial condition for salinity was generated using datasets collected by Haralampides (2000), Georgiou (2002), and Georgiou *et al.*, (2007). These datasets were collected from 1997 to 2002. Yearly average conditions were generated keeping a uniform gradient from the head of the estuary to the OB. Subsequently, the model was run for 30 days with freshwater inflow to generate a stable salinity gradient in the areas near tributaries, tidal passes and submerged channels. The initial salinity condition for all the sigma levels is shown in Figure 5.70.

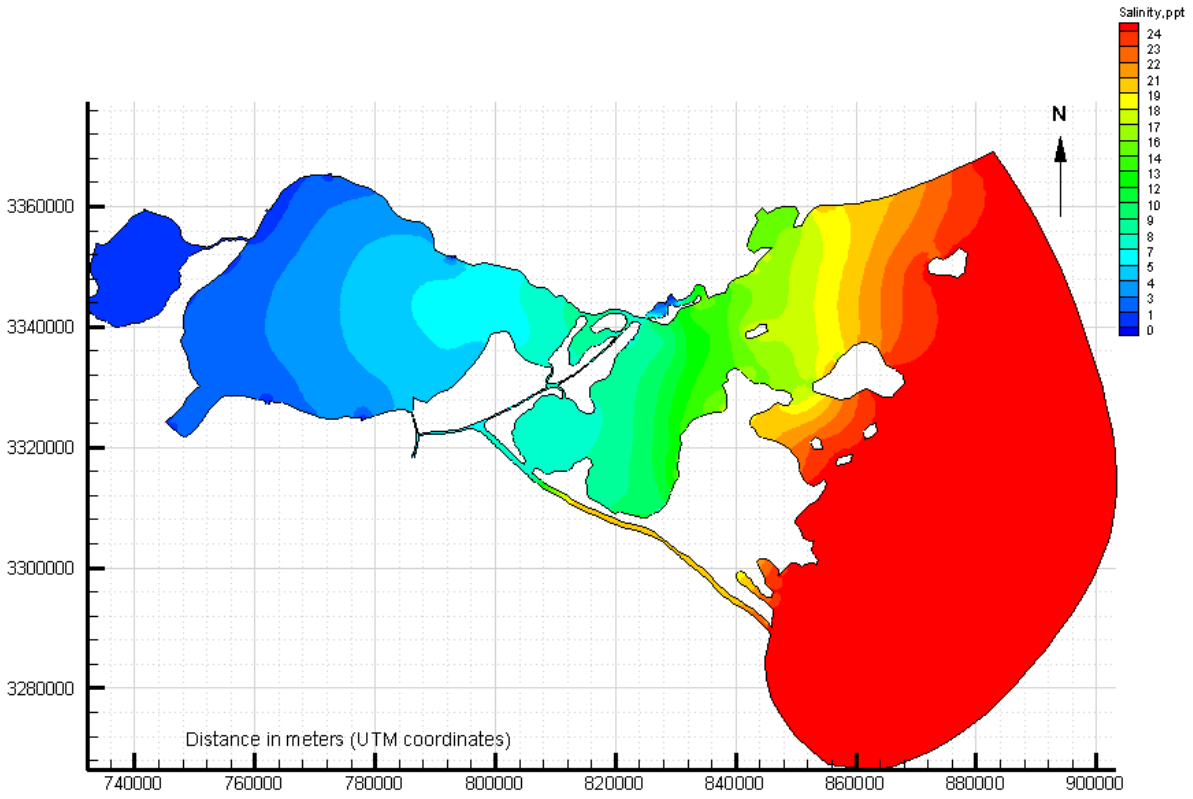

Figure 5.70: Initial condition for salinity for the Pontchartrain Estuary.
(Modified after Georgiou *et al.,* 2007)

The initial elevation was initialized at zero. The datum is relative to mean sea level (MSL). The velocity vector field started from rest. The ramp-up period for the boundary conditions was 12 hours.

5.8.2.2 Boundary Conditions

The developed baroclinic boundary condition was implemented at the OB. A diurnal tide was generated using a tide predictor, the lunar period was set to 13 days, the tidal range was 46 cm at spring tide and 6 cm at neap tide. A constant temperature of 25°C was defined for the initial and boundary conditions. The inflow prescribed salinity

at the OB was 25 ppt. The meteorological forcing consisted on a constant precipitation and evaporation of 4.24 mm/day and 3.28 mm/day respectively. The freshwater discharge from tributaries and runoff is shown in Figure 5.71.

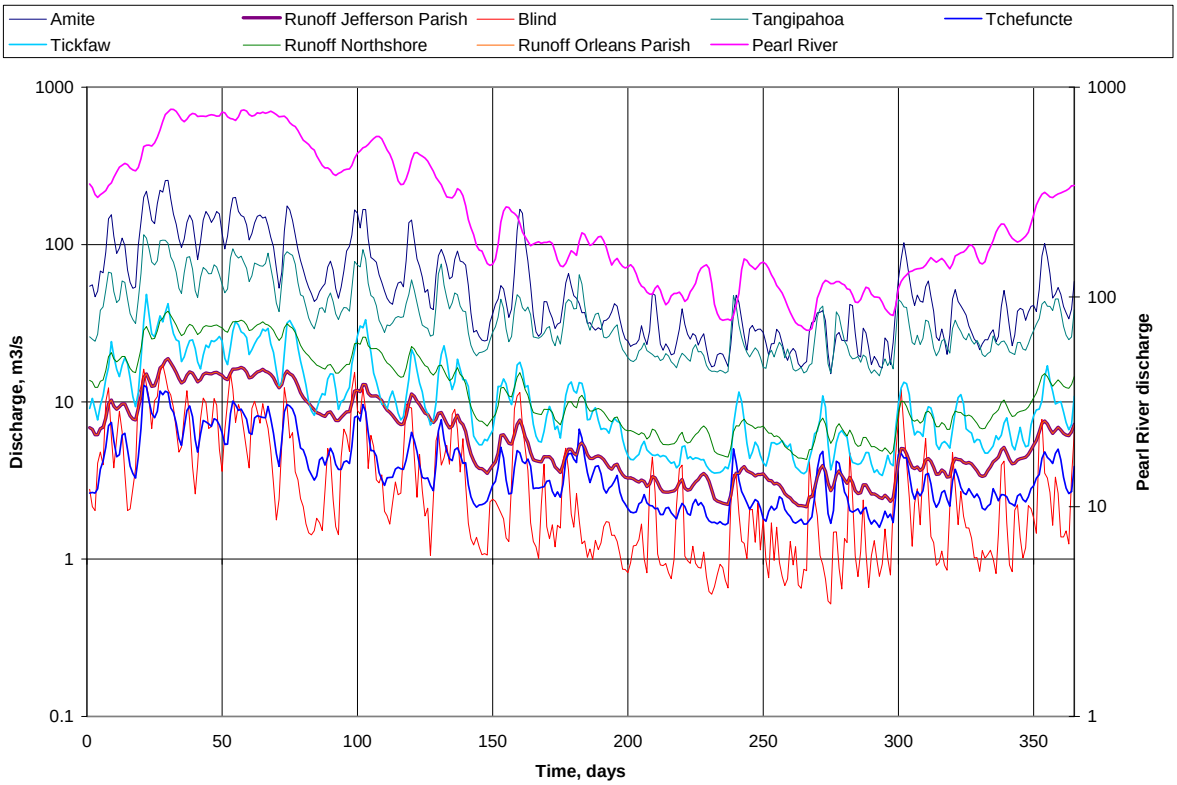

Figure 5.71: Tributary flows used in the model. Flows represent a 17 year average of the mean daily flow for each day.

5.8.3 Model Calibration

The free surface water elevation was calibrated using observed data from several different monitoring stations from USGS and LUMCON. Locations of the monitoring stations are shown in Figure 5.72.

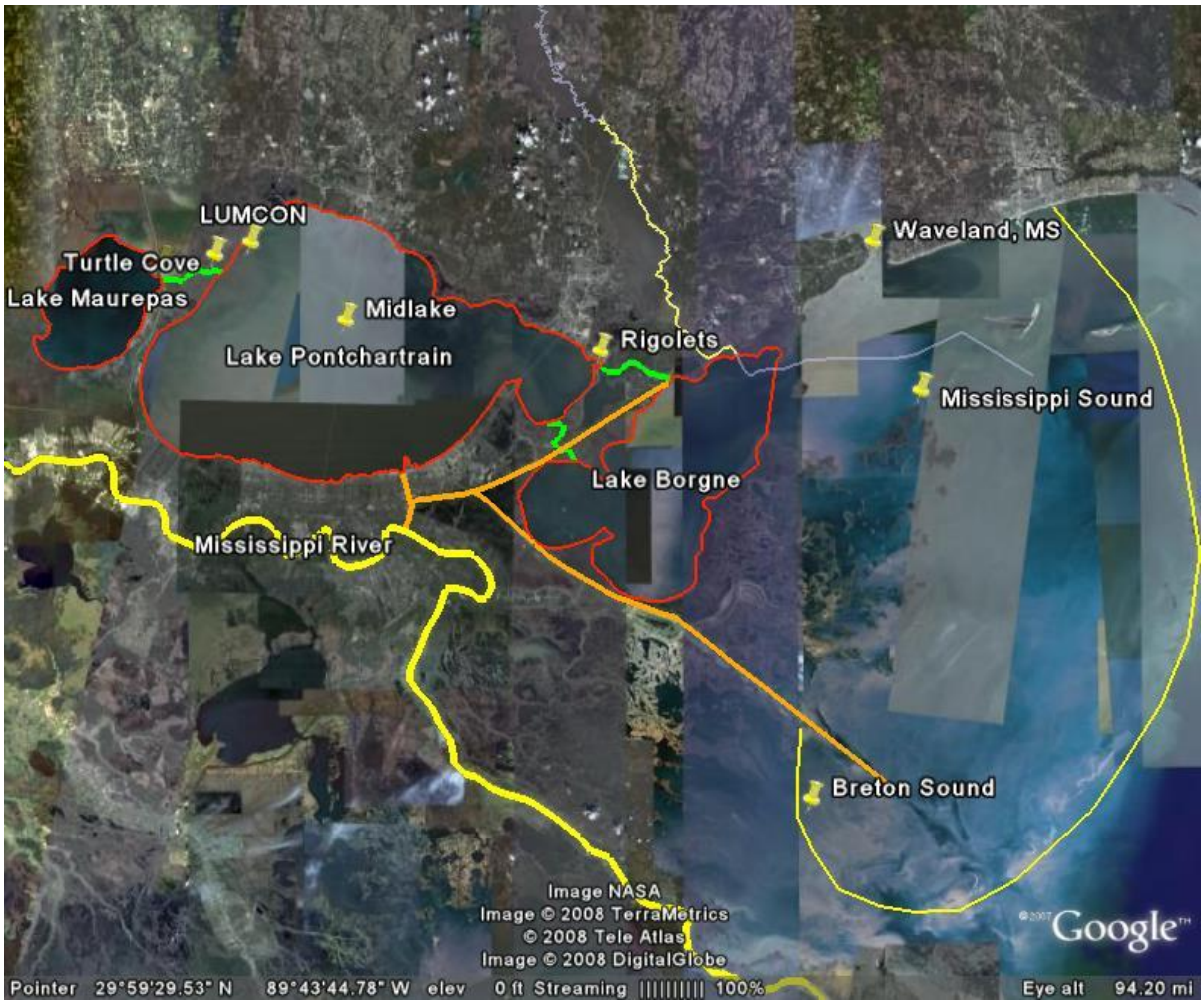

Figure 5.72: Monitoring stations in the system utilized to collect water surface elevation and salinity values.
(Source: Google Earth™)

Discharge measurements in the tidal passes were taken in August 1997 by USGS and the University of New Orleans; these were used to validate the model data. An Acoustic Doppler Current Profiler (ADCP) was used to perform the data collection across the channels. Three-dimensional velocity profiles were integrated to calculate flow across the channel. The survey was used to estimate the tidal prism through one tidal cycle. Figure 5.73 shows the flow distribution in thousands of cfs for each tidal pass.

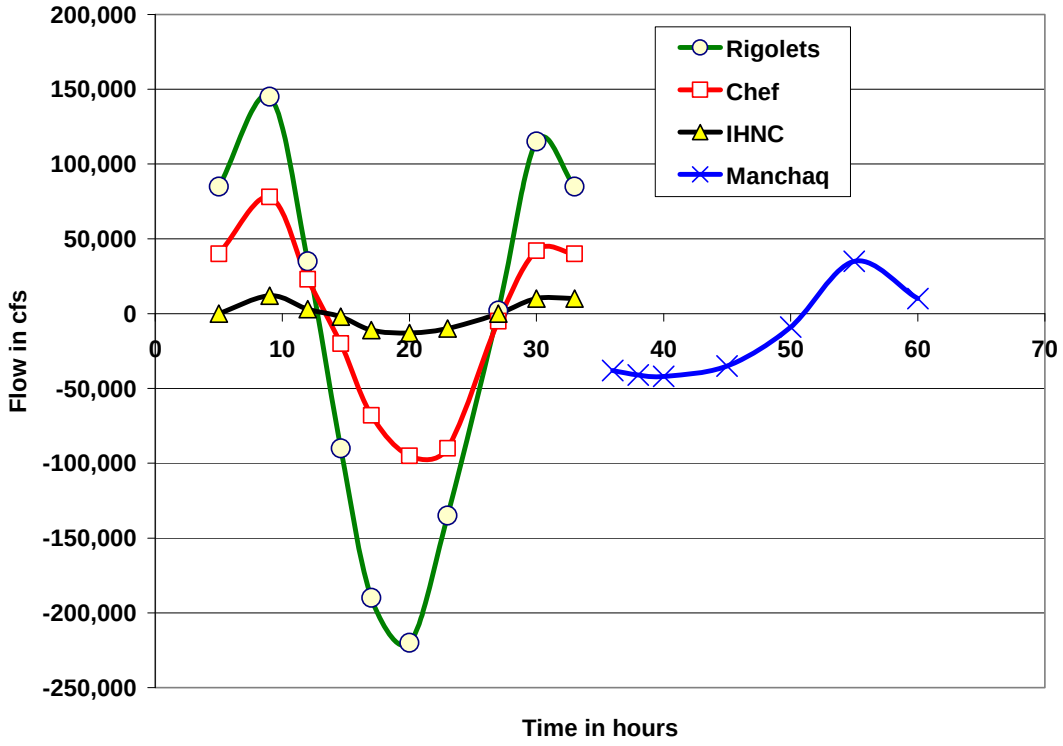

Figure 5.73: Tidal discharge surveys through the passes, August 1997. Flows are in cfs x 1000 (after Haralampides, 2000)

5.8.4. Spatially Varying Friction

In the calibration process, it was found that the simulation of tides and salinity in FVCOM is very sensitive to the spatial distribution of the friction. FVCOM chooses between the maximum shear stress coefficient between the one prescribed by the user (BFRIC) and the one computed by using the logarithmic law of the wall treatment for roughness (ZOB). The computation using the logarithmic law of the wall varies according to the depth and the thickness of the sigma layer, which sometimes become unrealistic when low water depths are computed. To enforce realistic values of friction throughout the estuary, the shear stress coefficient (BFRIC) was used to vary friction in the system. It was found that different values of friction across the domain were needed

to obtain the proper distribution of the water surface elevation, flow, and salinity distribution in the model domain. As a matter of fact, low friction should be forced in the open water areas and high friction in the tidal passes and waterways to account for features that demand higher resistance to the flow, e.g., dunes, ripples.

The code was modified to accept variable friction coefficients. A new input file in the code was designed to assign a specified shear stress coefficient for each cell. The implementation of the spatially varying friction is presented in the Appendix C. Table 5.11 shows the calibration table for spatially varying friction. It can be noted that the best values were obtained when a different coefficient was forced at the tidal passes and navigation complex. The final shear stress coefficients that reproduced the best tides, flows and salinity distribution are as follows: 0.02 at the Inner Harbor Navigation Canal; 0.01 at the tidal passes and MRGO; and 0.006 at the open water regions. Table 5.11 shows that assigning a uniform friction coefficient in the system did not yield the expected actual tide and flow values in the system.

Table 5.11: Water surface elevation and Flow calibration for various shear stress coefficients in several different areas.

Shear stress coefficients			Water surface elevations, cm				Flows, cfs x 1000		
IHNC	NC	OW	LM	LP	RIG	WL	IHNC	RIG	CHEF
0.0050[+]	0.0050	0.0050	28.1	30.1	56.5	94.4	25	106	195
0.0075	0.0075	0.0050	16.8	18.9	26.4	55.5	37	129	179
0.0085	0.0085	0.0060	16.0	16.7	23.8	52.8	36	99	183
0.0090*	0.0090	0.0060	15.9	17.4	23.8	53.9	23	107	187
0.0100*	0.0100	0.0060	15.5	17.4	23.3	52.8	22	100	177
0.0200*	0.0100	0.0060	15.4	17.2	23.3	54.0	20	101	178
Observed values			15.5	15.5	25.4	52.7	15	85	180

IHNC: Inner Harbor Navigation Canal; NC: Navigation Complex (MRGO, The Rigolets, Pass Manchac, and Chef Menteur); OW: Open water areas; LM: Lake Maurepas; LP: Lake Pontchartrain; RIG: The Rigolets; WL: Waveland, MS; CHEF: Chef Menteur Pass. * Depth at IHNC mouth was set to 4.0m.
[+]Channel widths were wider than actual values.

Table 5.12 shows the simulated and observed flows for calibration. There is approximately 7% of difference between the total and the observed simulated flows. Flow calibration is essential in the interpretation of the model results since the tidal passes are the physical means by which the exchange flow occurs between the upper estuary and the Gulf of Mexico.

Table 5.12: Observed and simulated flows for the main passes between Lake Borgne and Lake Pontchartrain.

	Flows in cfs	IHNC	Chef Menteur Pass	The Rigolets	Total
Observed	Flood/ebb	15,000	85,000	180,000	280,000
Simulated	Flood/ebb	20,000	101,000	178,250	299,250

Measured and simulated flows are based on the maxima during the tidal cycle, and is averaged for Flood and Ebb.

The tidal range percentage of error between the observed and the simulated are 8% and 7% for the Lake Pontchartrain and Rigolets stations and 2% and less than 1% for the Waveland and Lake Maurepas stations. The difference is partly due to the fact that the

width of the IHNC was set to 100 m, instead of 73m, which is the actual width. Although the cross section was preserved, decreasing the width to 73 m lead to instabilities in the model that, in the long run, caused it to fail. The simulated and observed tidal ranges throughout the estuary are shown in Table 5.13.

Table 5.13 Observed and simulated tidal ranges and phases for the spring tide.

		Waveland, MS[1]	The Rigolets[2]	Lake Pontchartrain[3]	Lake Maurepas[4]
Observed	Range, m	0.53	0.25	0.16	0.16
	Variability, m	0.07	0.03	0.01	0.01
	Phase, hours	24±1*	24±1	24±1	24±1
Simulated	Range, m	0.54	0.23	0.17	0.15
	Phase, hours	24±1	24±1	24±1	24±1

*Based on diurnal tide. During a lunar cycle some periods are longer some others are shorter.(1) NOAA station at the Yacht Club;(2) USGS station at the east end of The Rigolets; (3) DEQ Midlake station in Lake Pontchartrain; and (4) USGS station at Turtle Cove.

Table 5.13 shows the observed and simulated average salinity in the Basin: the difference between the predicted and observed salinity values in the head of the estuary was less than that near the open boundary. This could be attributed to several reasons, for instance a) wind was not forced into the system, and b) the freshwater inputs were based on a 17 year record of daily flows. For the former, in shallow water systems like the Pontchartrain Basin wind is an important force for overturning and mixing; moreover, it has been observed that wind is the driving force that dictates the seasonal circulation in Lake Pontchartrain. Strong wind gusts can literally “push” the top layers of water, thus the wind stress on the upper boundary not only promotes vertical mixing, but also increases diffusion. For the latter, according to Sikora and Kjerfve (1985), the hydrologic forcing is “the most important factor controlling salinity variations in Lake Pontchartrain”. Moreover, they indicate that there is extensive interannual discharge

variability into the Pontchartrain Basin. For this reason, the system and its salinity regime is at the expense of cyclical periods of years with either dominant droughts or intense rainfall and increased runoff conditions. Therefore, salinity can vary according to location and time. A year in which drought conditions are predominant in a specific station can differ considerably in the next year if the freshwater input is high in the system. Table 5.14 shows that although an annual daily flow was generated from a 17 year record to force hydrology in the model, it can be difficult to validate the salinity results from the model with observed average salinity values of years that may not have a representative hydrology relative to the forcing.

Table 5.14: Observed and simulated average salinities over a one year period

		Breton Sound[(1)]	Mississippi Sound[(2)]	Lake Pontchartrain[(3)]	Lake Pontchartrain[(4)]	Lake Maurepas[(5)]
Observed	Average, ppt	15.5	17.4	3.3	1.2	0.9
	Variability, ppt	7.0	12.0	2.0	0.6	0.9
Simulated	Average, ppt	21.5	13.2	4.6	1.6	0.7

(1) 1987 monthly data from DEQ station at Mozambique Point; (2) 2003 daily data from USGS station at Grand Pass; (3) 1990 monthly data from DEQ Midlake station in Lake Pontchartraion; (4) 2003 daily data from LUMCON station in Lake Pontchartraion; (5)1987 monthly data from DEQ station at Pass Manchac at Manchac.

Figure 5.74 and 5.75 show that although the modeled results follow the general trend of the observed data, the model results from the outer stations underpredict the tendency of the salinity profile while the inner station overpredicts the trend of the salinity values. This could be due to several reasons: a) the difference in the hydrologic conditions between the forcing and the year 2003; and b) the initial salinity conditions are different. The highly variability in the observed trends is attributed to wind.

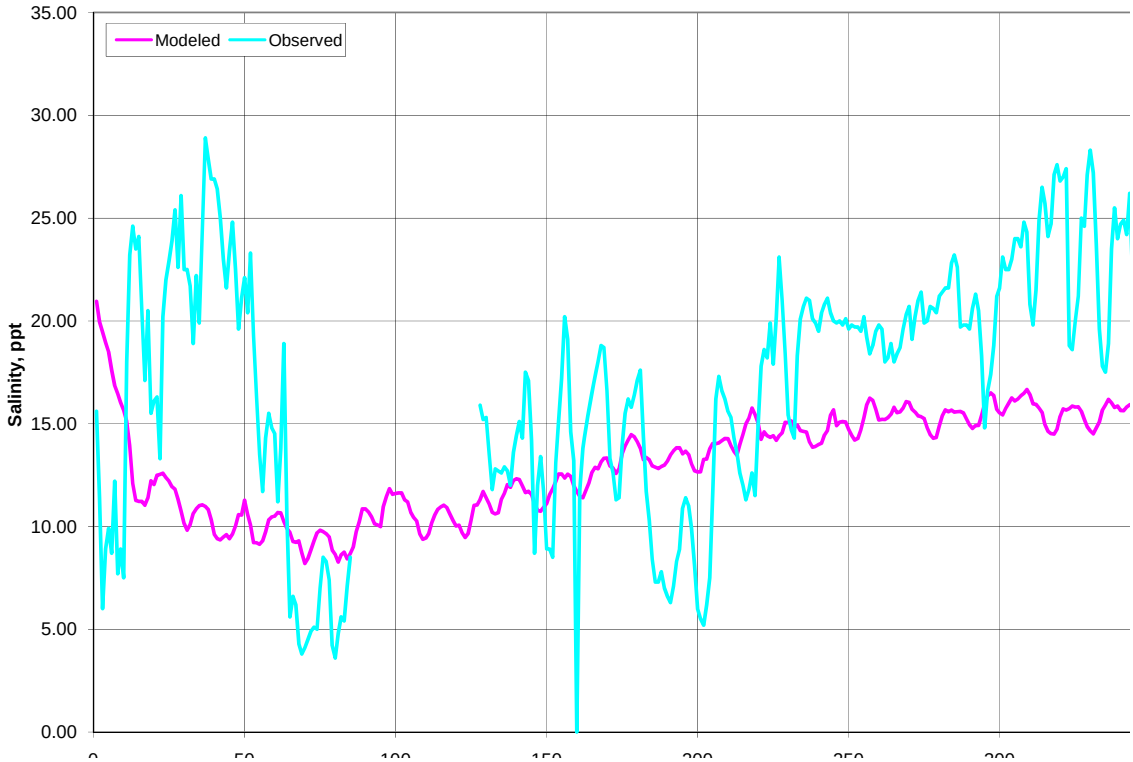

Figure 5.74: Salinity calibration in Mississippi Sound at Grand Pass (2003). Daily output.

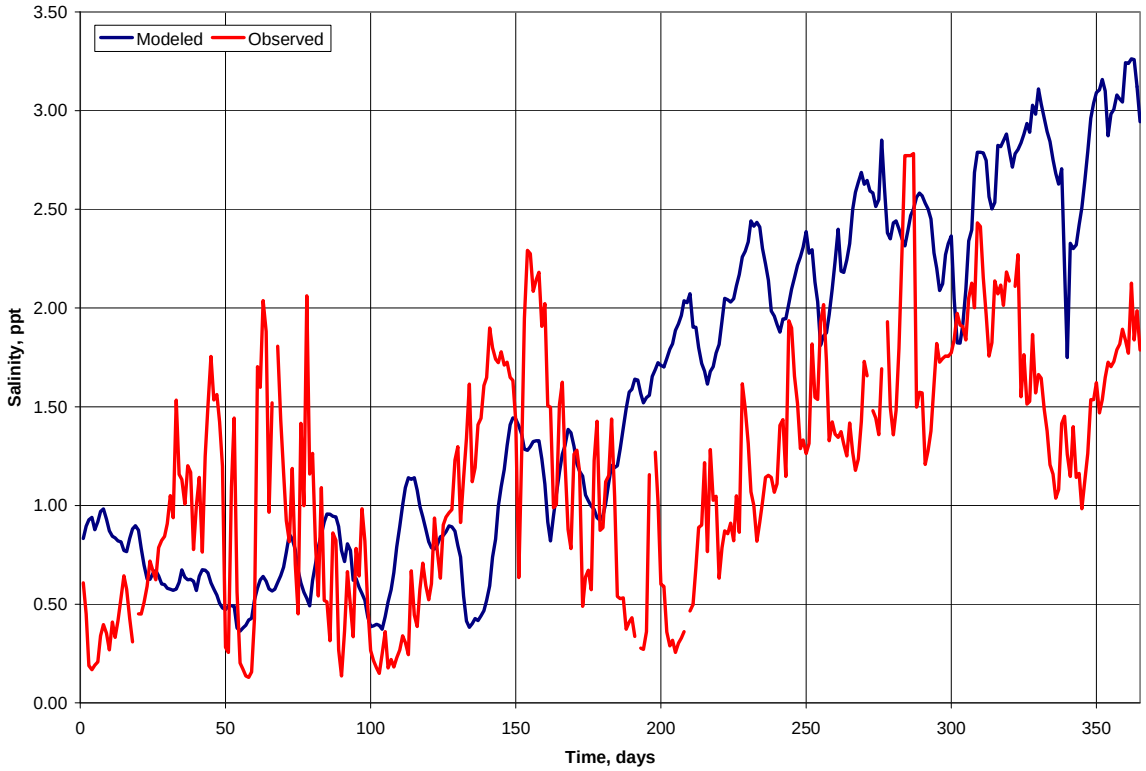

Figure 5.75: Salinity calibration in Lake Pontchartrain at LUMCON (2003). Daily output.

Figure 5.76 was developed by summing the mass of salt in the system at each model output period. The mass of salt in the system salt responds to tidal and hydrologic forcing with a minimum in the February-April period which agrees with the long term observation in Lake Pontchartrain. The model showed that after 365 days the mass of salt in the system returned to the starting value which indicates the model is relatively free of 'drift' in the salinity values.

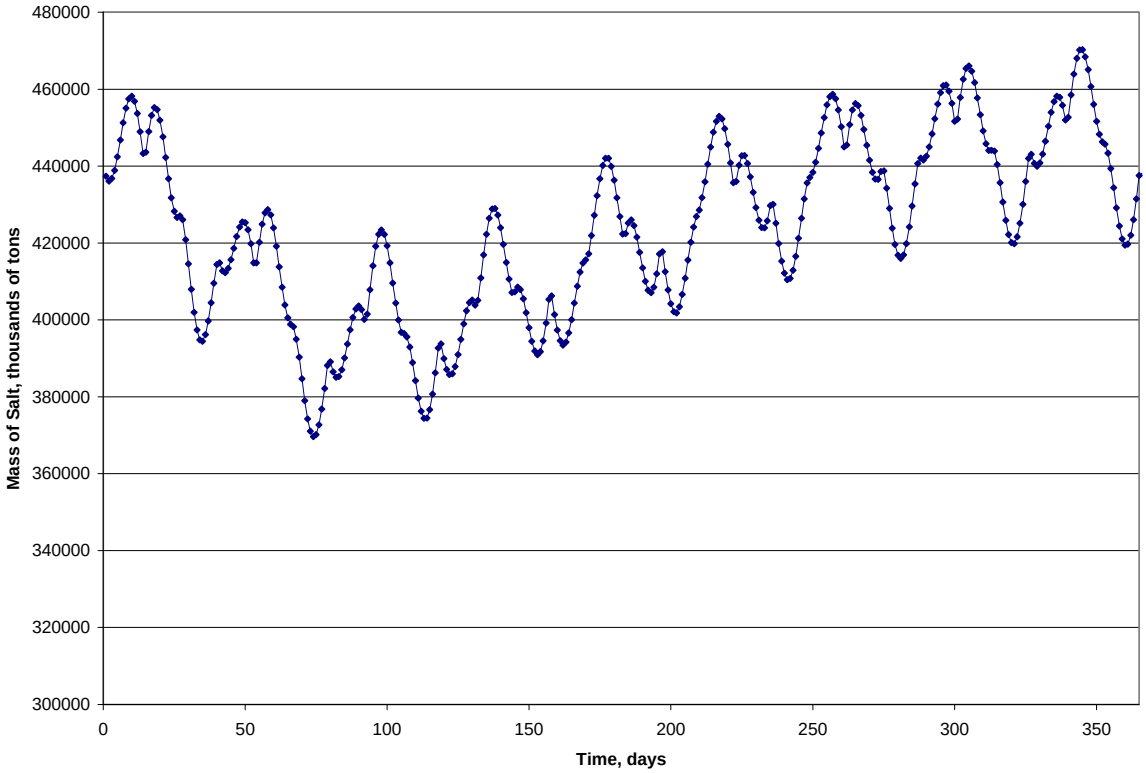

Figure 5.76: Mass of Salt in the Pontchartrain System for a year. Daily output.

The model quantifies the hydrologic influences on the salinity regime. Figure 5.77 shows salinity distribution for the freshest condition of the system; this pattern results from the high freshwater input representative of the late Winter and Spring season. The isohalines observed from the initial condition were shifted toward the open boundary. The area at Breton Sound experienced a freshening effect. In addition, the OB proved to properly radiate the buoyant density currents from the MRGO, the Biloxi Marshes and the Mississippi Sound.

The Mid-December salinity shown in Figure 5.78 illustrates how the saltwater density current advanced to the inner estuary as the freshwater inputs declined. A more saline condition was developed in Lake Pontchartrain and the isohalines that used to be

near the Chandeleur Islands are now close to the Biloxi Marshes and Lake Borgne. Nevertheless, toward the end of the year, the salinity decreases and the system returns to the initial distribution as shown in Figure 5.79.

In spite of an initial condition with no stratification in the system, Figures 5.79 and 5.80 show that a stratified water column develops. This indicates that freshwater left the system and saltwater was forced into the system and a balance existed between these flows in exchange.

It was observed that during the spring tides the advection component is dominant. The advancement of the saltwater plume behaves as a “plug flow” through the passes due to the momentum of the tidal prism. This behavior was observed in the idealized benchmark test. On the other hand, during the neap tides, the advancement of the plume is driven by the density current and is the dominant component of the dynamics.

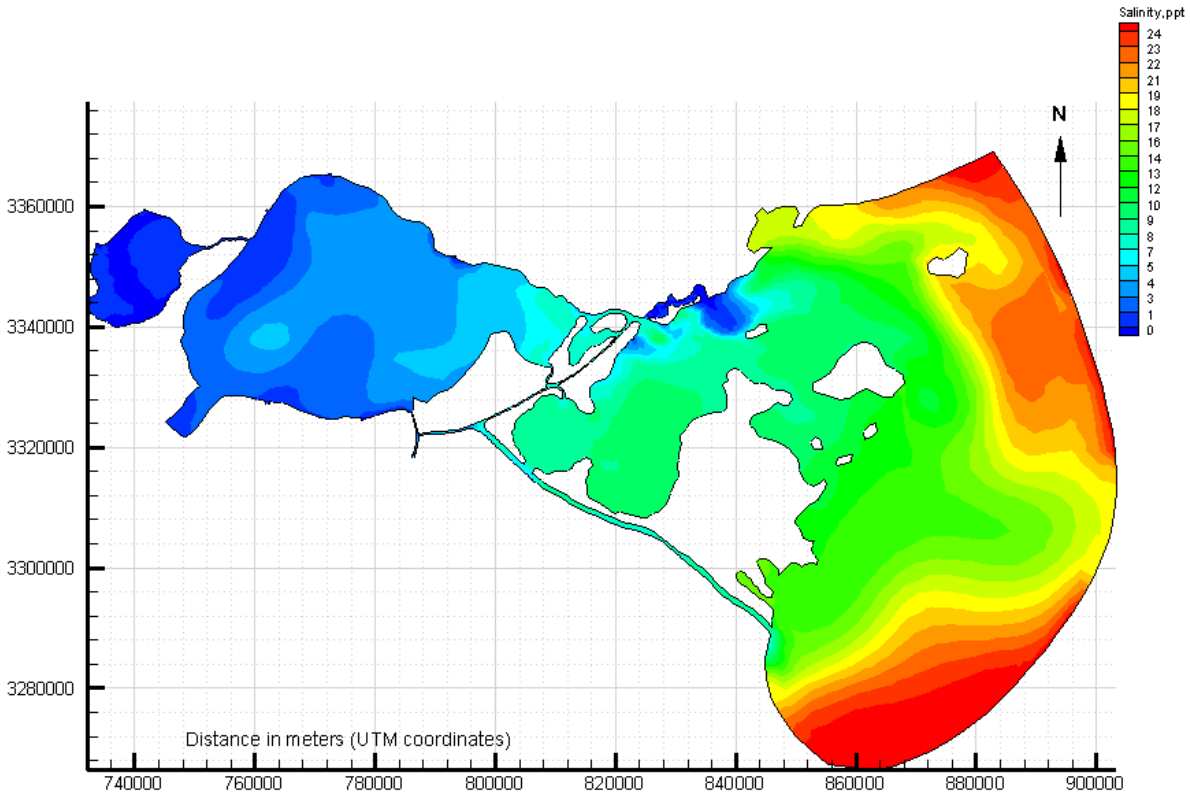

Figure 5.77: Simulated surface salinity for the freshest condition in the system during the year (March 15th)

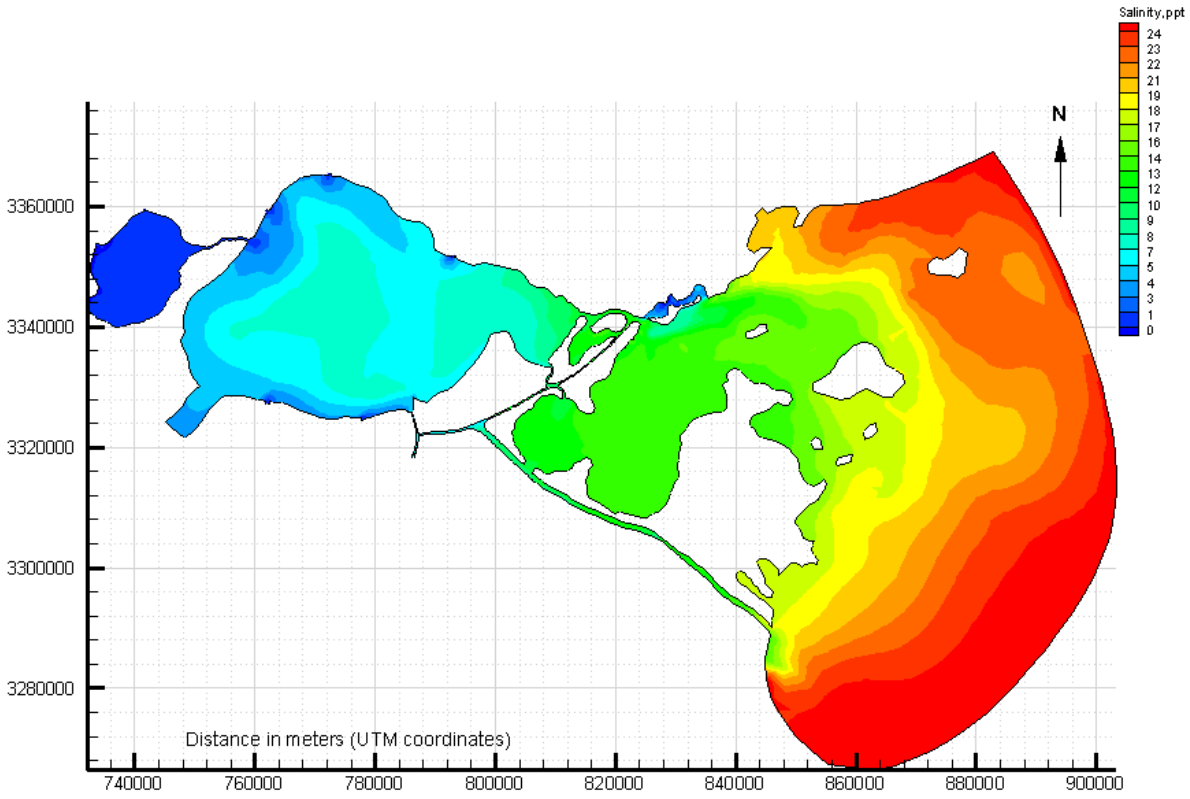

Figure 5.78: Simulated surface salinity for the most saline condition in the system during the year (December 11th)

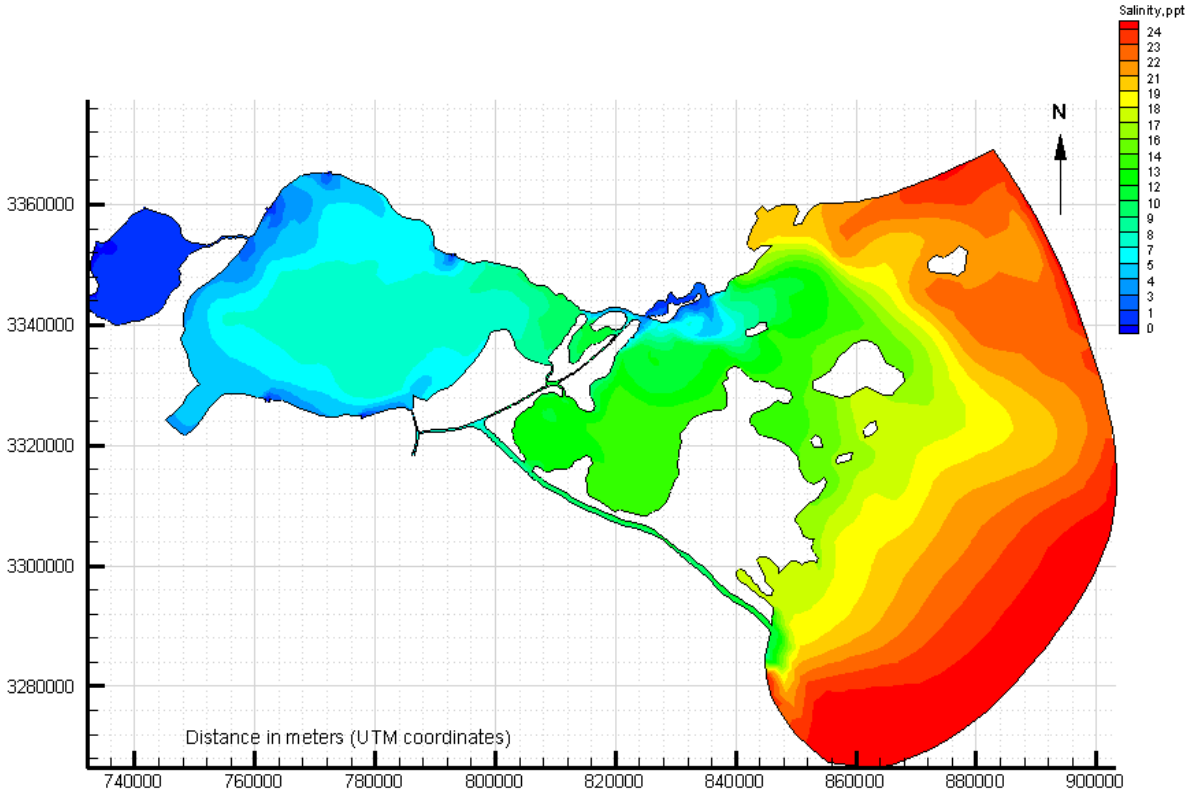

Figure 5.79: Surface salinity at the 365th Julian day of the simulation time.

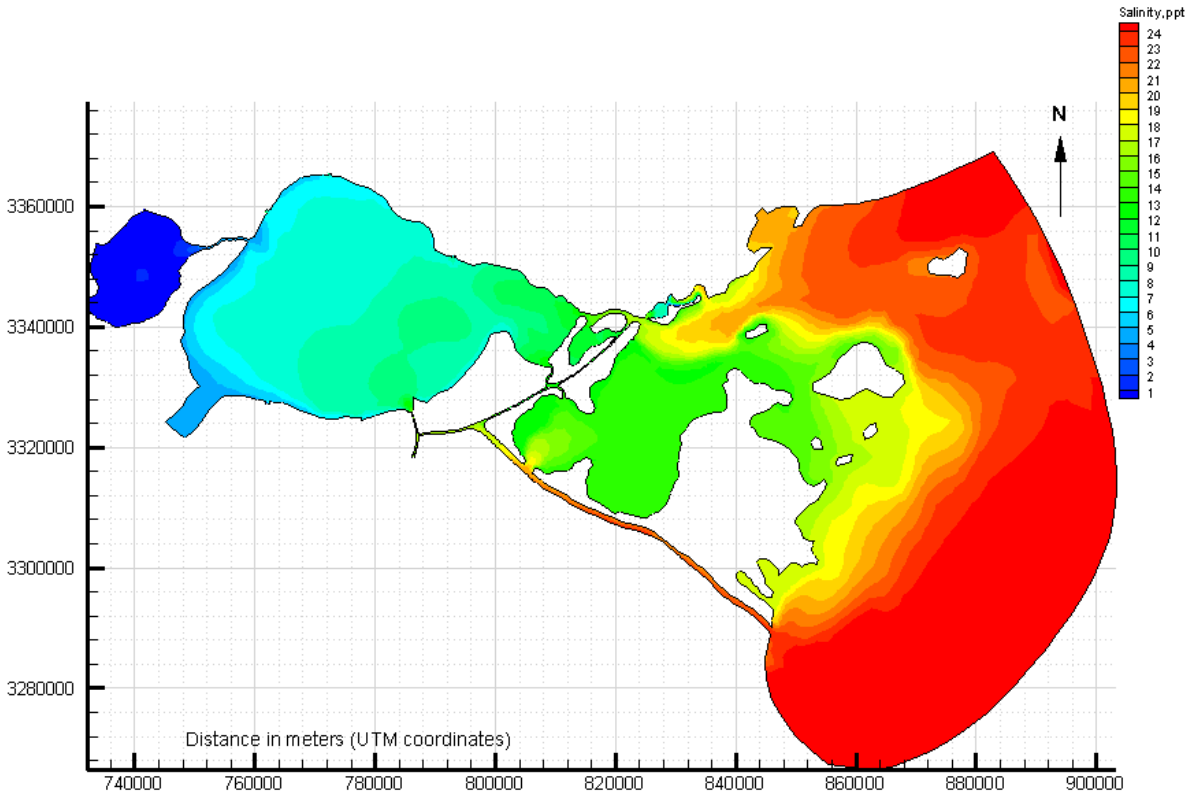

Figure 5.80: Bottom salinity at the 365th Julian day of the simulation time.

5.8.4 Case Scenario: Bonnet Carré Spillway

The 2008 Bonnet Carré Spillway opening was used as a preliminary validation of the mass transport component. Satellite images were used to compare the results of the model due to the freshwater discharge from the Mississippi River into the Lake Pontchartrain. The discharge of the opening event is shown in Figure 5.81.

5.8.4.1 Boundary Conditions

The model was started running at the 92nd Julian day and finish at the 152nd Julian day. The model was started at the 92nd Julian day and finish at the 152nd Julian day. This period corresponds to April 1st, 2008 to May 31st, 2008. A spatial distribution

of salinity for the initial condition was prepared without full information of the actual values throughout the system for April 1st. Therefore, the initial condition for the salinity distribution and the velocity vector field were generated from the first hour of April 1st from the annual long-term run. The water surface elevation was initialized to zero (relative to mean sea level –MSL). Although the opening was officially on April 11th, 2008; in order to avoid instabilities in the model, a 9 day period before the opening was used to slowly bring conditions of full discharge in the model. Figure 5.81 shows the leakage, the opening, and closing periods of the event. For all the boundary conditions a ramp-up period of 5 days was forced in the system.

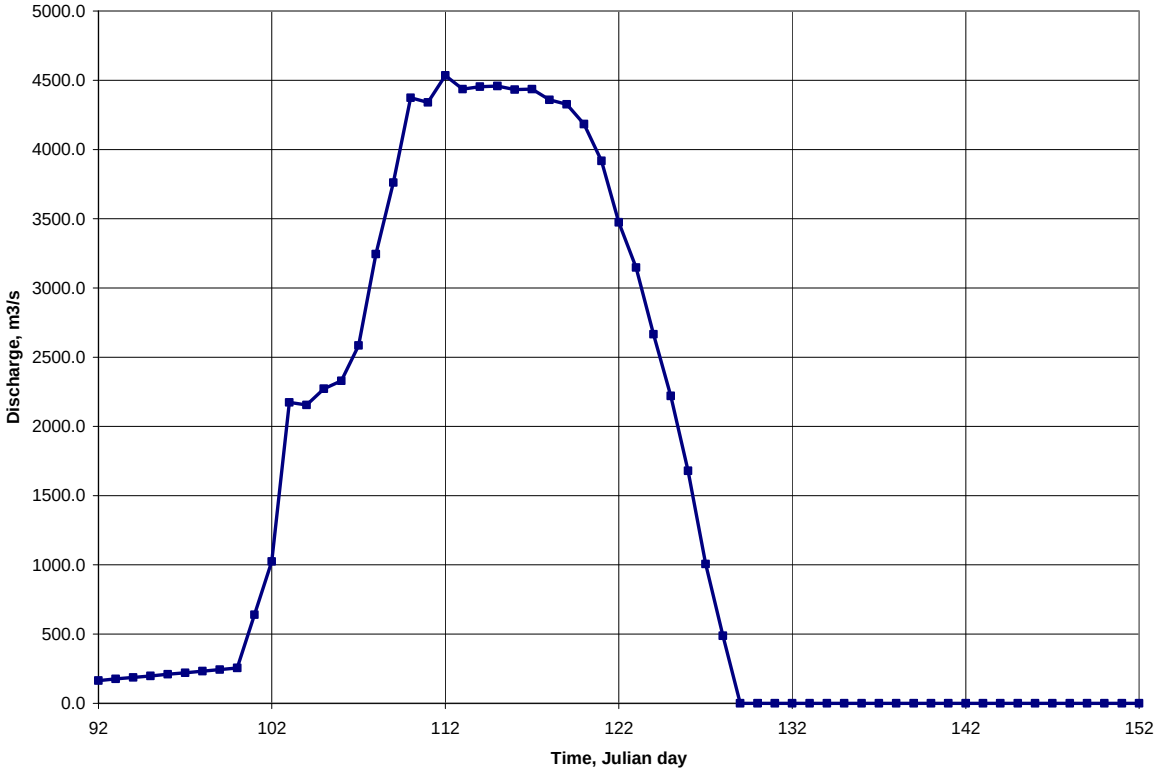

Figure 5.81: Bonnet Carré Spillway discharge for the 2008 opening. (J. Lopez, 2008)

To partially account for the barometric pressure systems that are common during the months of April and May, a prescribed tide was generated. Data were extracted for the monitoring station of NOAA Bay Waveland Yacht Club in Mississippi. From the Pontchartrain Basin calibration it was measured that the tide range at Waveland increased by approximately 15% of the tidal range forced at the OB. Hence, a 15% reduction factor was applied to the tide observed at Waveland to be forced as the prescribed tide at the OB. High and low pressure systems are observed in Figure 5.82.

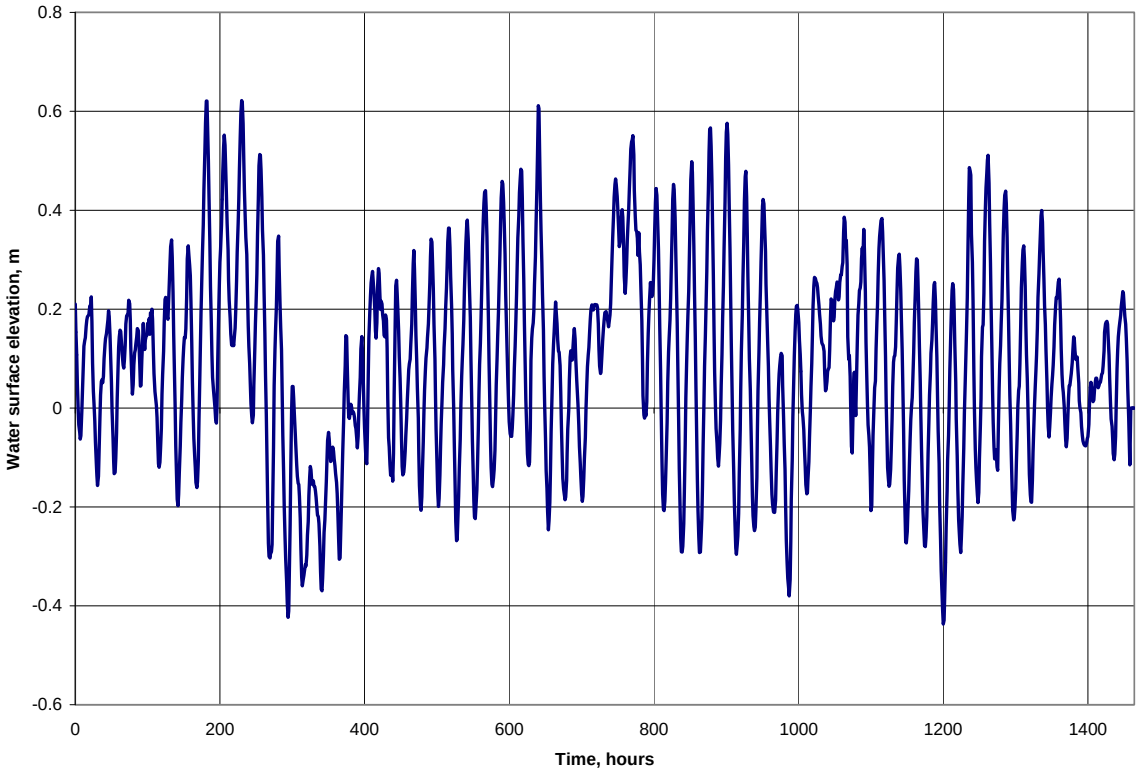

Figure 5.82: Forced tide at the Open Boundary.

From the discussion of salinity calibration, it was established that wind and hydrologic forces play a very important role in the distribution of salinity. Therefore, an actual wind was forced in the system based on the station at LUMCON for Lake Pontchartrain. The dataset was revised to avoid entries where incorrect or no

measurements were recorded by the wind gauge. Data from the LUMCON station at Cocodrie, LA were used to replace the empty spaces in the 2-month hourly wind record. Consequently, the meteorological FVCOM input file was prepared using this record that is shown in Figures 5.83 and 5.84.

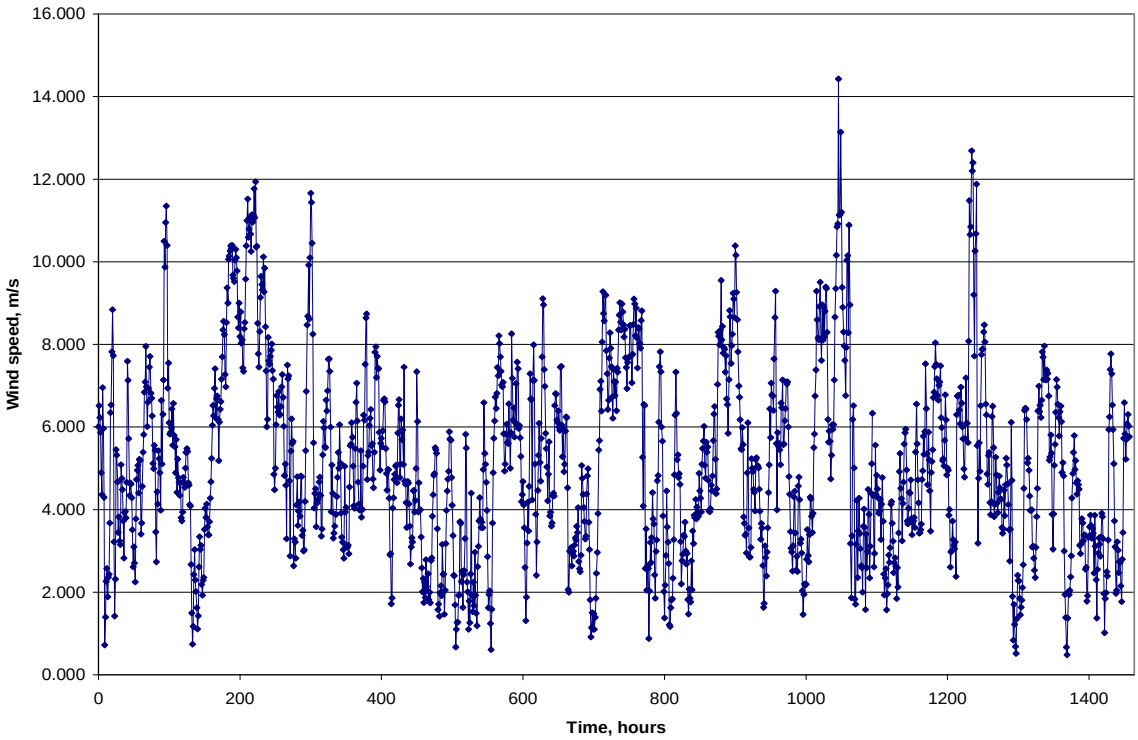

Figure 5.83: Wind speed at the LUMCON station located northwest of the Lake Pontchartrain

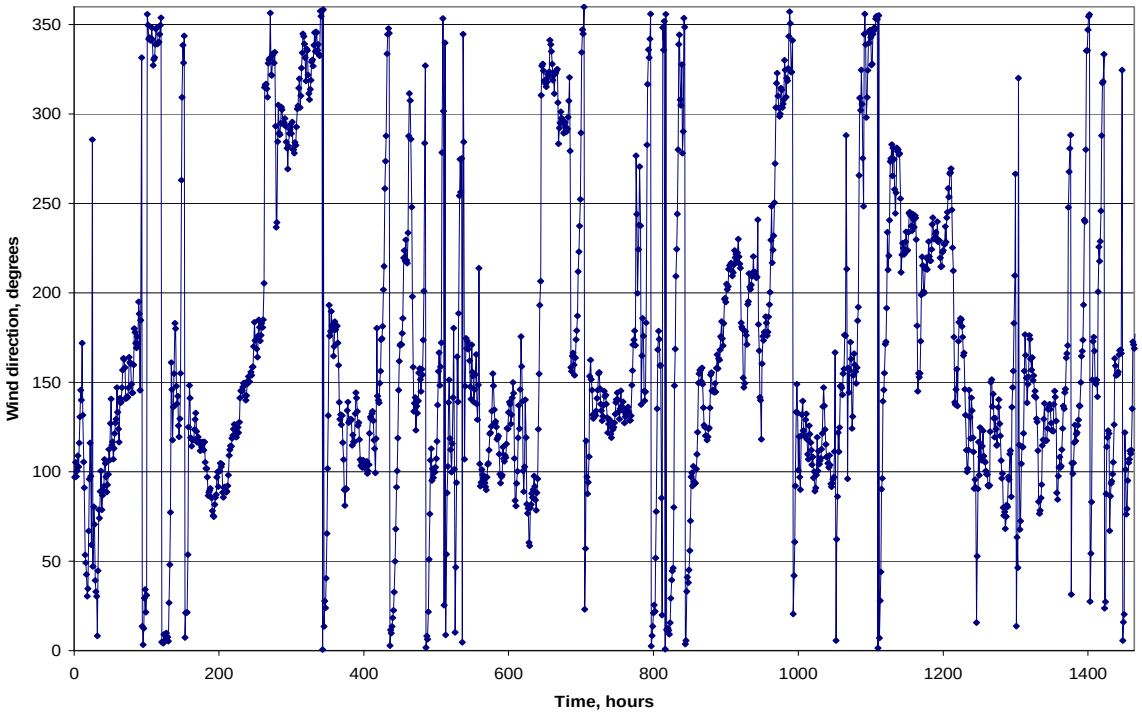

Figure 5.84: Direction from where the wind is blowing with respect to the north-based azimuth.

The comparison of the predicted and measured water surface elevation at the LUMCON station for the simulation period is shown in Figure 5.85. The performance of the model verifies that the results match very well the measured water surface elevation even though the model overpredicts the spring tidal range by 10%. Table 5.15 gives the root mean square (RMS) values of the modeled and measured water surface level and their corresponding root mean square error (RMSE).

Both, the predicted and the measured data sets showed that the mean water level datum is shifted above the mean sea level. This is an indication of a tidal pumping effect occurring in Lake Pontchartrain that the model captured. The increase in the mean water level (pumping effect) agrees with the observations by Hinwood *et al.*,(2005).

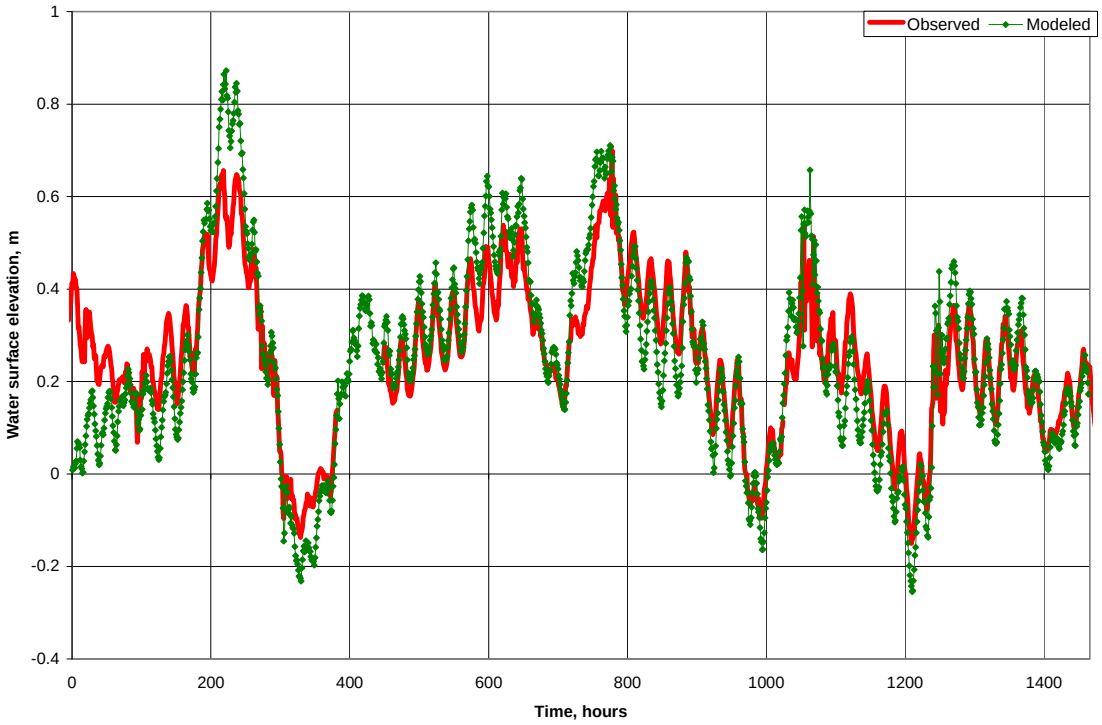

Figure 5.85: Comparison of the water surface elevation for April and May 2008 at the LUMCON monitoring station in Lake Pontchartrain. Hourly output.

Table 5.15: RMS and RMSE values of simulated and measured water surface elevation at the LUMCON station in Lake Pontchartrain.

Site	RMS water surface elevation, m		RMS Error, m
	Measured	Modeled	
LUMCON	0.302	0.337	0.097

Figure 5.86 indicated the measure and simulated change in salinity at 19 days after the spillway opening.

The model provides a good indication of the change in salinity at several different locations in Lake Pontchartrain except for the Tchefuncte area (Figure 5.86). This is due to the fact that inaccurate salinity values were forced in the initial condition. For instance,

the initial observed value was 3.2 ppt, while the model started with a salinity of 2.0 ppt.

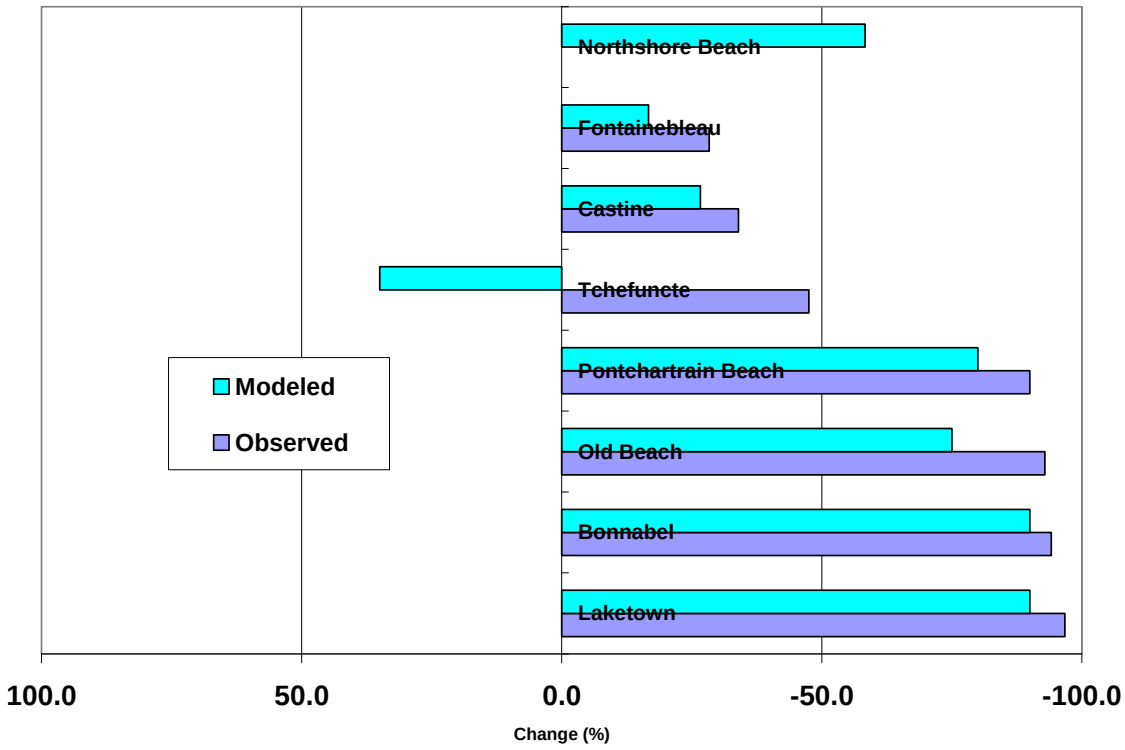

Figure 5.86: Percentage of change due to the opening of the Bonnet Carré Spillway between the observed and modeled salinity values. (Observations courtesy of John Lopez, LPBF)

Figure 5.87 gives the simulated distribution of salinity at April 29th . The model indicated greater freshening of the south shore than the north shore; there is also freshwater from the diversion that is flowing through Chef Menteur Pass and relatively high values of salinity are found on the north shore. The MODIS satellite image in Figure 5.88 appears to confirm that the Mississippi River water clings to the south shore and flows through the Chef. The visual comparison of these figures and the result of change in salinity indicate that the model agrees with the actual propagation of the freshwater plume due to the opening of the Bonnet Carré Spillway.

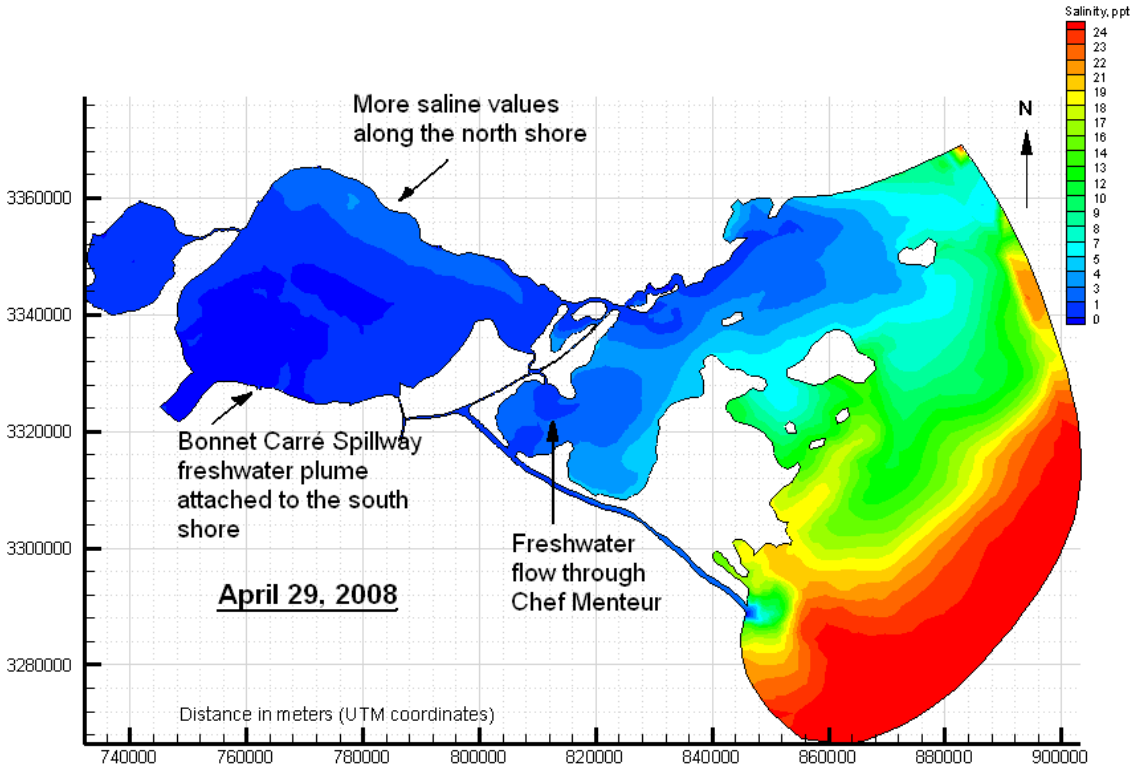

Figure 5.87: Surface salinity pattern in the Pontchartrain Basin on April 29th, 2008.

Figure 5.88: Satellite image on April 29th, 2008 showing the sediment propagation due to the 2008 opening of the Bonnet Carré Spillway.

6. Model Application

6.1 Pontchartrain Estuary, Mississippi and Alabama

6.1.2 Computational Grid Domain

The model was also applied to the a more extended area, including the Pontchartrain Basin, the Mississippi and Alabama Coasts, including Bay Saint Louis, Biloxi and Mobile Bays. The computational domain consists of 22882 elements and 12281 nodes (Figure 6.1). There are 11 sigma levels placed in a constant distribution. The OB is composed by 57 nodes at the east edge of the domain.

An unstructured grid was used for the Pontchartrain Estuary. The grid has areas with coarse resolution of approximately 15000 m (e.g., open boundary), and fine resolution of approximately 200 m (e.g., Inner Harbor Navigation Canal). Barataria Bay was represented by a single inlet with an equivalent storage volume.

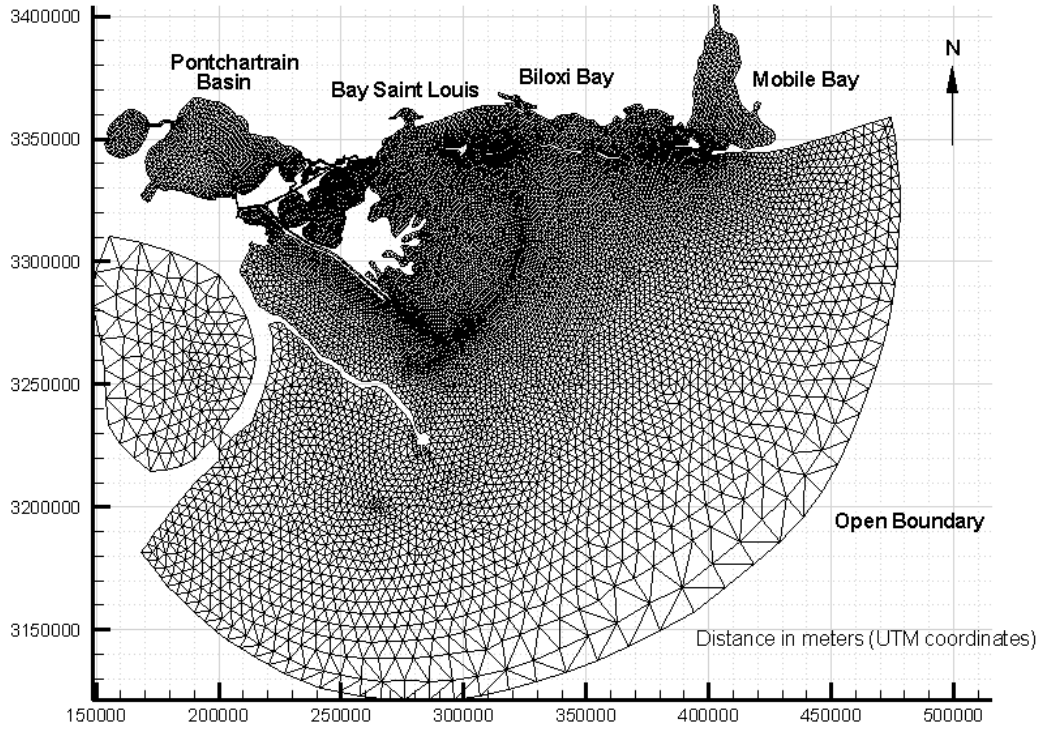

Figure 6.1: Model computational domain composed by 22882 cells and 12281 nodes.

5.8.2 Model Inputs

5.8.2.1 Initial Conditions

The bathymetry for the model was obtained from the National Oceanic and Atmospheric Administration (NOAA) hydrographic and topographic surveys and from the ADCIRC grid version SL15_V3. Figure 6.2 shows the model bathymetry.

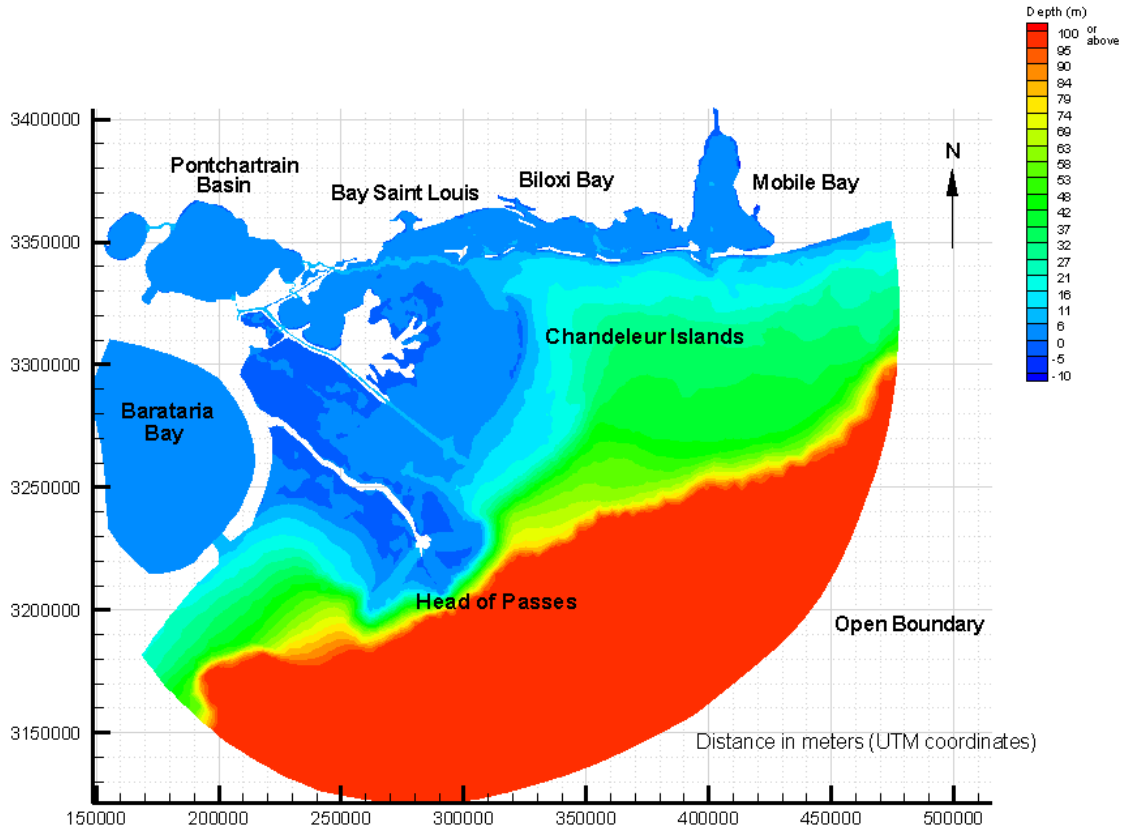

Figure 6.2: Model Bathymetry relative to MSL

The initial condition for salinity was also generated using datasets collected by Haralampides (2000), Georgiou (2002), and Georgiou *et al.*, (2007). These datasets were collected from 1997 to 2002. Interpolation methods were utilized to fill the gaps of the areas with little or no information. Some of the isohalines were interpolated to the Open Boundary values (Gulf of Mexico). Thus, the model was run for 120 days with tidal forcing to achieve dynamic equilibrium near the freshwater discharges, e.g., Mississippi River, Mobile Bay, among others; tidal passes and open boundary. Daily discharges were forced to simulate the tributary flows of a year. The salinity distribution for the final hour of the 120-day run was used as the initial condition. Salinity in some areas were modified in a discrete form to maintain a realistic gradient of the system The initial condition for

surface salinity is shown in Figures 6.3.

Despite the model provided at the end of the 120th day a stratified distribution of salinity, no stratification was forced as the initial condition to allow the model to bring the respective stratification. The bottom salinity, at the 120th day, showed that system reached high values at the shorefront of the barrier islands of the three states, while the surface salinity showed that it did not reach high salinity values yet. This result justifies the effect of the baroclinic radiative boundary; thus the OB is capable radiating freshwater in the top layers and force into the system prescribed saltwater values.

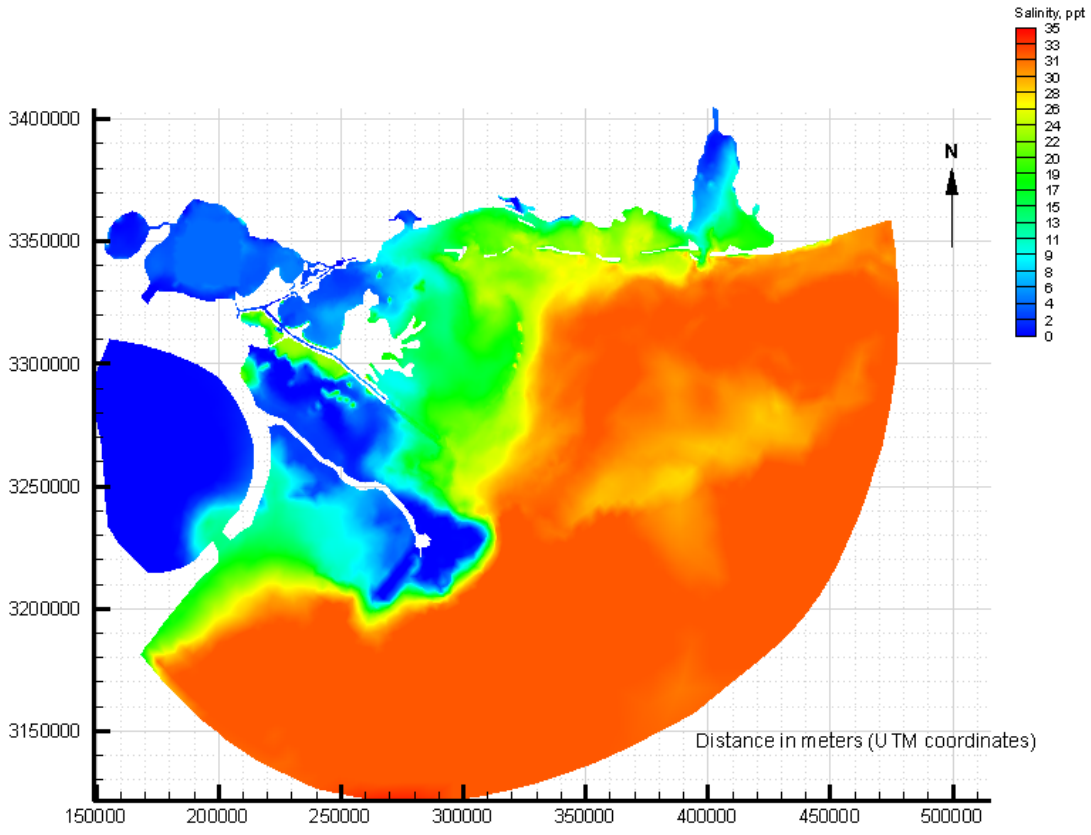

Figure 6.3: Initial condition for surface salinity used in the model.

The initial elevation and velocity vector field were initialized from the 24th hour of the 120 day run. The datum is relative to mean sea level (MSL) and the ramp-up period for the boundary conditions was 8 hours.

5.8.2.2 Boundary Conditions

The open boundary was set up with the radiative baroclinic boundary. The tidal range was based on the tidal constituents of the locations of the nodes along the open boundary. The main tidal constituents for the nodes representing the OB are K_1 and O_1, each with an amplitude of approximately 15 cm, and phases of 17 and 20 hours, respectively. Tidal constituents were taken from the ADCIRC Tidal Database version 2001 (ADCIRC, 2008). A constant temperature of 25°C was defined for the initial and boundary conditions. The inflow prescribed salinity at the OB was 35 ppt.

The meteorological forcing consisted on a constant precipitation and evaporation of 4.24 mm/day and 3.28 mm/day respectively. Moderate uniform wind was forced to overcome the fictitious effect of solid body rotation observed in Lake Pontchartrain. A prescribed 3 m/s constant wind was used with varying hourly wind direction. The wind direction rate of change was set to 1 degree per hour, counterclockwise. Tributary discharges represent the runoff and major rivers flowing into the Pontchartrain Basin including the Amite, Blind, Tickfaw in Lake Maurepas; the Tangipahoa and Tchefuncte Rivers, the leakage from the Bonnet Carré Spillway in Lake Pontchartrain; the Pearl River near the Louisiana and Mississippi State border; the Wolf and Jourdan Rivers in Bay Saint Louis, the Biloxi and Pascogoula Rivers in Mississippi State; the Mobile River

in Alabama; the MR freshwater diversions Davis Pond in Barataria Bay, Violet in Lake Borgne and Caernarvon in Breton Sound; and the Mississippi River. Figure 6.4 shows the tributary flows.

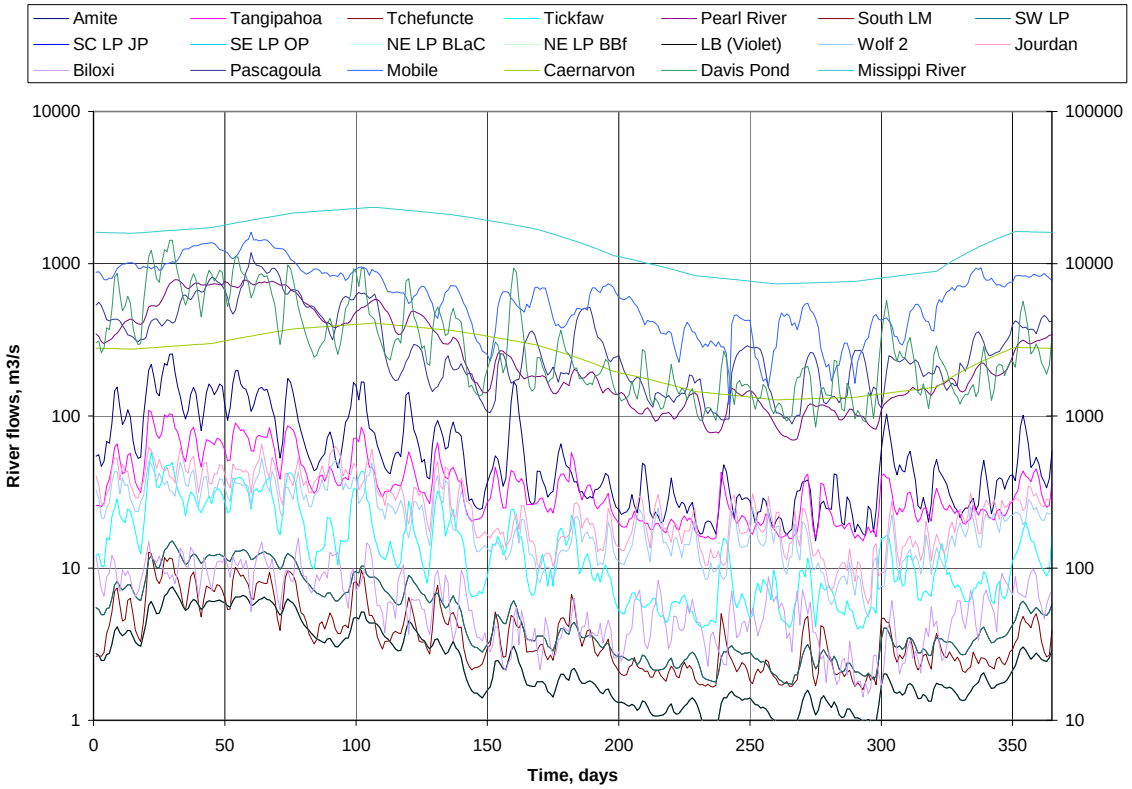

Figure 6.4 Tributary flows used in the model (flows represent a 17 year average of the mean daily flow for each day for rivers in the Pontchartrain estuary, and a 2-5 year daily average for the remaining rivers).

The model reproduced reasonably spring tidal ranges for the system. For example, the stations shown in Table 6.1 indicate that the ranges fall within the margin of variability of the measured data from the monitoring stations. The results from the west end of the The Rigolets showed a degree of under-prediction; however, the tidal prism propagated properly into the head of the estuary since the tidal ranges at Lake Pontchartrain and Pass Manchac in Lake Maurepas are well represented.

Table 6.1 Observed and simulated tidal ranges for the spring tide.

		Lake Maurepas (1)	Lake Pontchartrain (2)	The Rigolets (1)	Waveland (3)	Biloxi Bay (1)	SW Pass (4)	Mobile Bay (1)
Observed	Range, m	0.16	0.16	0.25	0.53	0.85	0.68	0.54
	Variability, m	0.01	0.01	0.03	0.07	0.11	0.09	0.07
Simulated	Range, m	0.17	0.17	0.18	0.66	0.79	0.56	0.60

(1) USGS station at Pass Manchac, The Rigolets, and East Biloxi Bay; (2) DEQ Midlake station in Lake Pontchartrain; (3) NOAA station at the Yacht Club and Mobile Bay; (4) LUMCON station at SW Pass.

Figure 6.5 shows the predicted salinities at seven stations in the study area. The results indicate that FVCOM with tide, wind and hydrologic forcing captures the seasonal variations in salinity in all areas except Lake Pontchartrain where the interaction of wind shear and the density flows in the region of the passes tends to reduce the salt fluxes into the Lake.

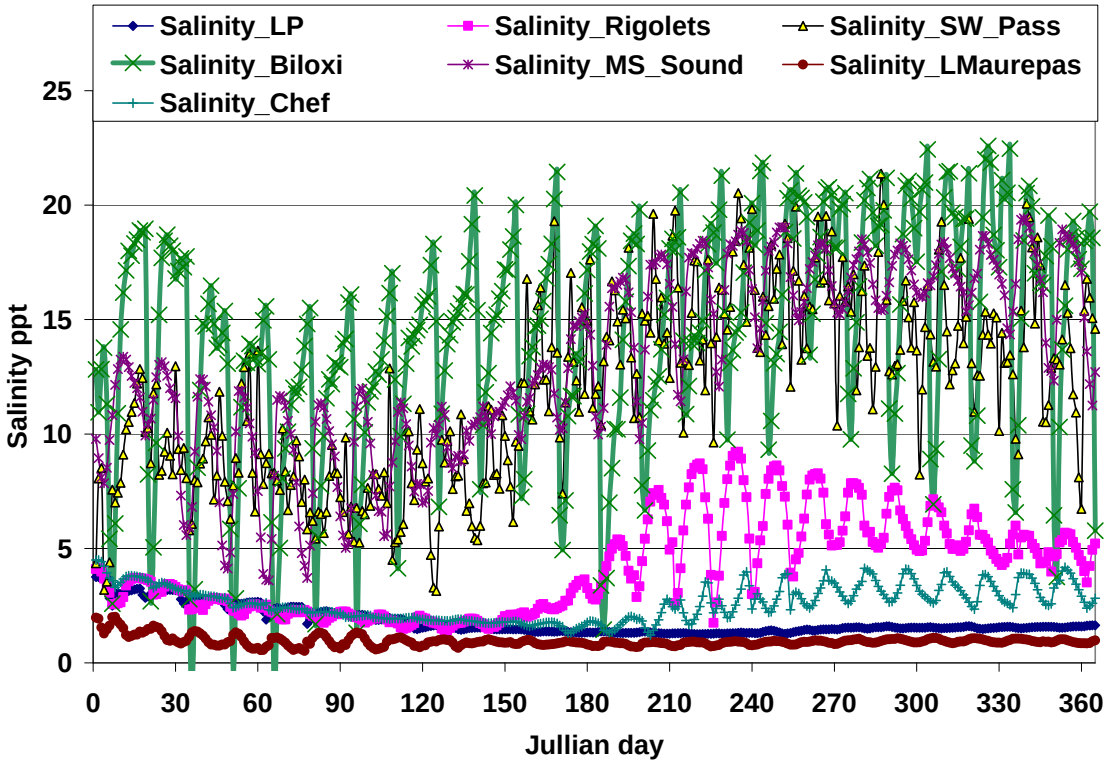

Figure 6.5: Annual variation in salinity (FVCOM) at selected stations

Table 6.2 show the average observed and predicted salinities at selected stations. This table also indicated the variability in the field data. Figure 6.5 shows the variability in the model results. The salinities are generally within the range of variability; however, the average salinity in the middle of Lake Pontchartrain is under-estimated by more than 1 ppt under wind forcing.

Table 6.2: Observed and simulated average salinities over a one year period

		Pass Manchac (1)	Lake Pontchartrain(2)	The Rigolets(1)	Chef Menteur Pass(2)	Biloxi Bay(1)	Mississipi Sound(1)
Observed	Average, m	0.9	3.3	5.5	5.5	14.6	17.4
	Variability, m	0.9	2.0	6.0	5.0	7.0	12.0
Simulated	Average, m	1.0	1.8	4.1	2.6	14.6	13.2

(1) USGS station at Turtle Cove, The Rigolets, East Biloxi Bay, and Mississippi Sound; (2) DEQ Midlake station in Lake Pontchartrain and Chef Menteur.

Figure 6.6 represents the predicted surface salinities at the time the average system salinity near its minimum (April). The corresponding maximum average system salinities are illustrated in Figure 6.7.

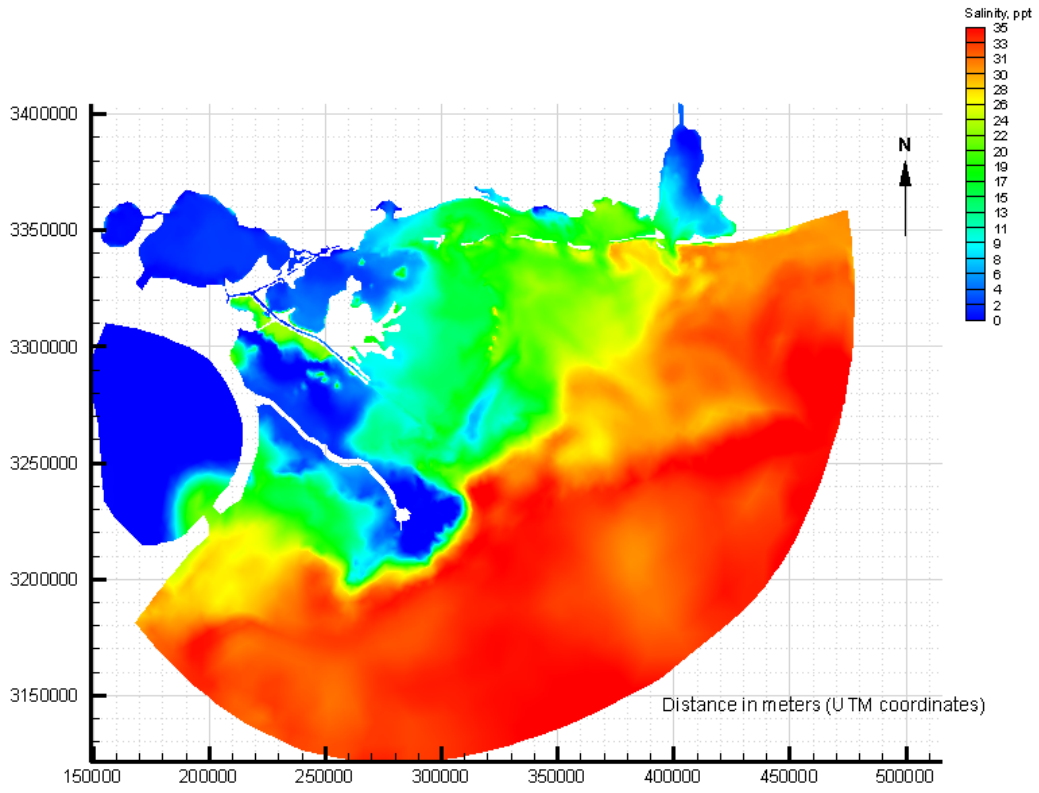

Figure 6.6: Surface Salinity Distribution at minimum system salinity.

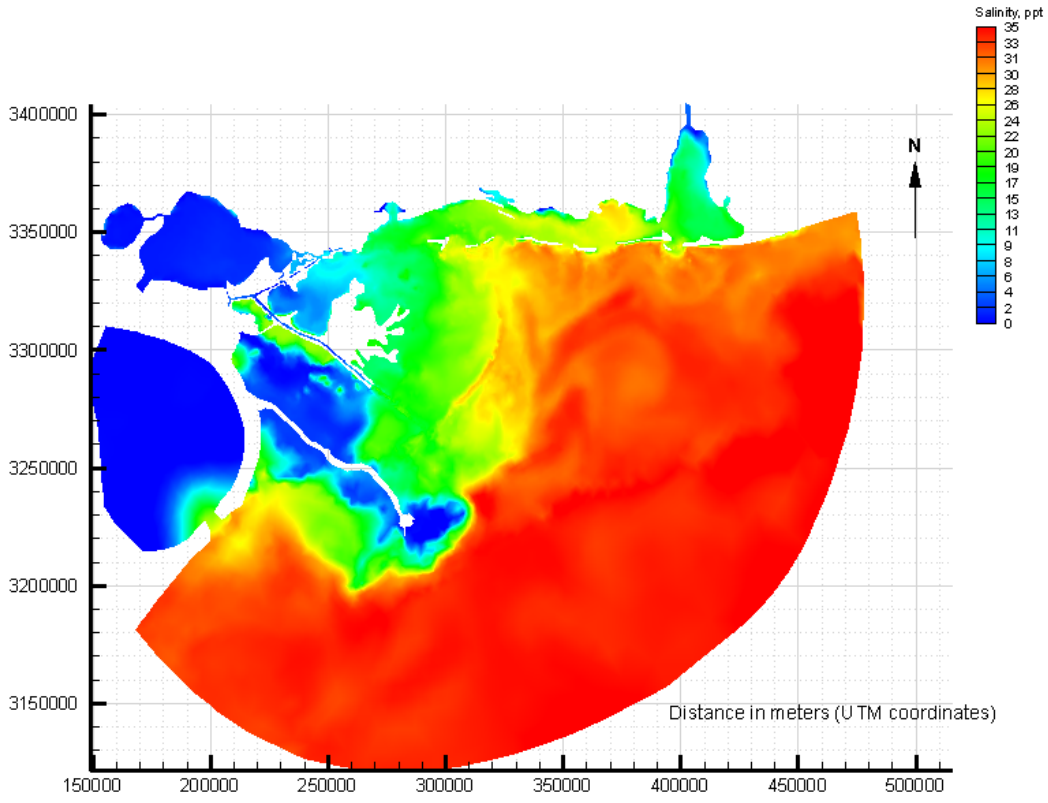

Figure 6.7: Surface Salinity Distribution at maximum system salinity.

Figure 6.8 and 6.9 show the top and bottom salinities at the end of one year of simulation. These figures indicate that there is significant stratification, especially offshore of the Barrier Islands.

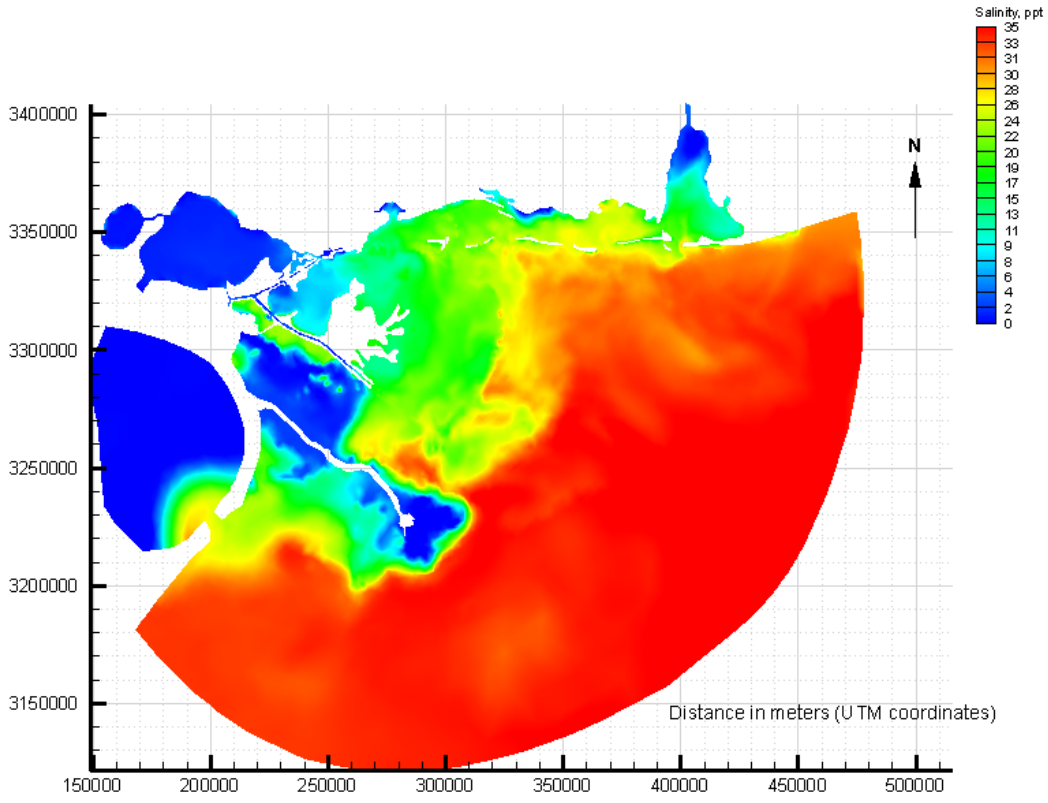

Figure 6.8: Surface Salinity Distribution at the end of one year.

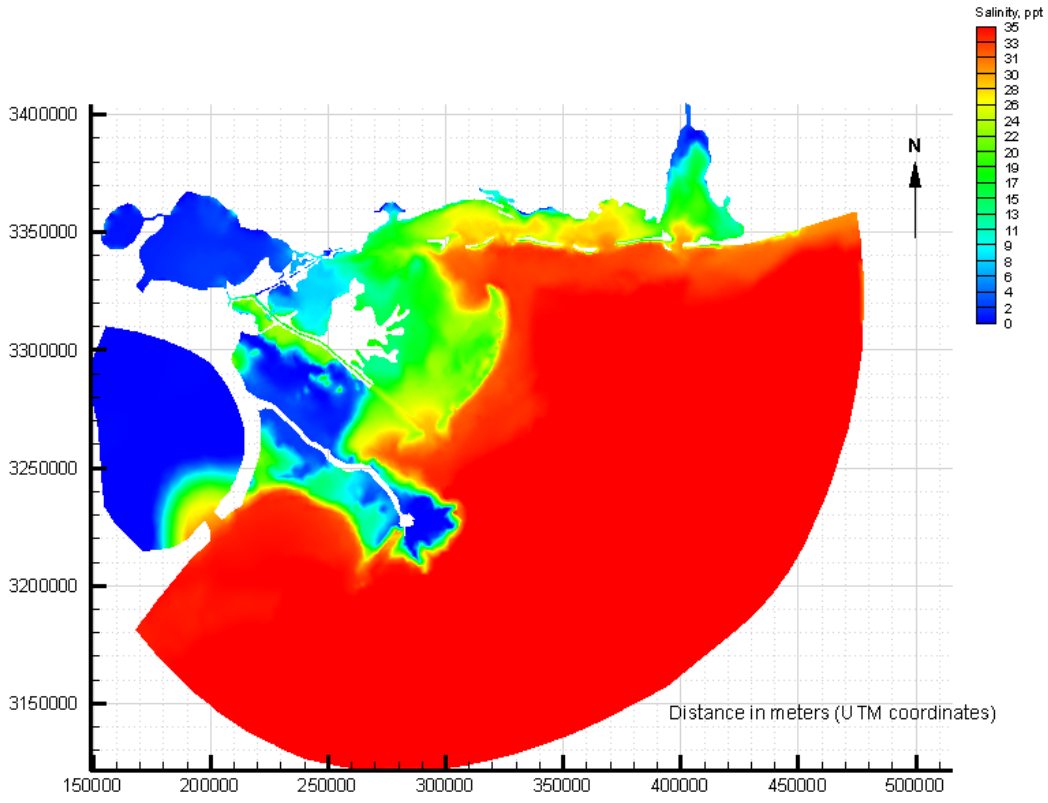

Figure 6.9: Bottom Salinity Distribution at the end of one year.

7. DISCUSSION

7.1 Physical Model

The results from the physical model were necessary to understand the behavior of exchange flows and the internal gravity waves in channels and tidal passes. The exchange flow is driven by the conversion of potential energy into kinetic energy for the primary density current; when the head of the density current reaches the end wall, a reflection occurs. Where the reflected wave meets the primary density current, it is possible for an internal hydraulic jump to occur; this results in increased internal losses.

The physical experiment proved that there are additional non-conservative forces that dissipate the energy in the system and they may not have been fully captured in the hydrostatic numerical model. Zhu and Lawrence (1998 and 2000) have shown that the hydrostatic assumption sometimes limits the applicability of the hydraulic theory. Hydrostatic models generally do not predict the effect of Kelvin-Helmholtz or Holmboe instabilities produced by the interfacial shear stress. For this reason, the model overestimated the speed of the secondary and subsequent density currents. Internal hydraulic jump, non-hydrostatic effects and the interfacial shear stress are some of the internal losses that the model could not represent.

Even though the model cannot capture the internal losses, it was capable of capturing speed of propagation of the primary density current. In spite of being a hydrostatic model, FVCOM provided good agreement with the structural shape of the

plume in the constant velocity phase of the displacement. The model also reproduced the Brunt-Vaisala frequency (1/6 Hz for the lock exchange test). This frequency, according to Linden and Kleissl (2007), is proportional to the strength of the stratification in the system. The experiment indicated that the less constricted the opening, the stronger the stratification because the constriction introduced additional mixing and destratified the water column.

It was found that the speed of propagation of density currents vary according to the opening of the constriction. The experiment indicated that the speed of propagation decreased with increasing constriction; however, at the 86% constriction the density current was subject to an internal transcritical condition in which the densimetric Froude number goes from subcritical in the enclosed basin through critical at the constriction into supercritical flow; the supercritical flow spreads radially with increasing frictional effects. This condition first accelerated the density current and the speed of propagation increased. Armi, (1986) has reported similar results.

7.2 Idealized Basin (Benchmark test)

The idealized basin provides a benchmark test for testing CFD models in coastal applications. It offers the advantages of performing several different types of long-term tests with reasonable computational efficiency. As described earlier, the idealized basin was developed based on the hydraulic characteristics of the Pontchartrain Basin. Designed with an enclosed basin, a main tidal pass, and a semi-enclosed basin, the benchmark was used to study the behavior of density currents at the open boundary, the

pressure gradient error associated with sigma coordinates, and to develop a baroclinic open boundary capable of radiating internal gravity waves out of the basin.

The idealized basin model reproduced the main hydrodynamic conditions (tidal prism, tidal pumping) and the salinity transport processes representative of the Pontchartrain System. In the horizontal coordinates, the grid dependency test indicated that a mesh with 1023 elements and 523 nodes, whose resolution varies from 2500 m at the center of the enclosed basin and 400 m near the tidal pass, is enough to guarantee similar hydraulic results to the medium and fine resolution. The coarse grid showed the best computational efficiency of the three grids. However, the transport of salinity was sensitive in the vertical coordinate; for example, salinity flux increased when a parabolic distribution was used instead of constant distribution of the sigma levels. The use of fewer sigma levels showed more progressive density currents but this low resolution could resolve the amplitudes of the internal gravity waves.

The sensitivity analysis indicated that the tide and salinity transport in FVCOM are very sensitive to friction. The higher the friction the more attenuated the tidal range in the enclosed basin. Increased mean water level resulted from increasing the friction in the enclosed basin, so the tidal pumping in the enclosed basin is proportional to friction. The salinity transport is also affected by friction; high shear stress coefficients gave less net salt mass into the system. Hence, friction reduced the salt flux entering in the system and slowed down the propagation of the saline density current into the enclosed basin.

The analysis of the advective scheme showed that central difference has more net salt mass in the system compared to the second order upwind scheme. The small artificial diffusivity introduced by the upwind scheme appears to influence the local balance of turbulent production and dissipation.

The vertical turbulence model was also tested with the idealized basin. FVCOM has two choices for the calculation of vertical diffusivities: closure (based on the MY level 2.5) and constant (specified by UMOL). If constant is selected UMOL represents a background mixing, if constant is selected, UMOL represents the actual vertical diffusivity. The model response of the salt balance under either closure or constant turbulence model was the same. The model was very sensitive to the vertical diffusivity (UMOL). UMOL was varied between [10^{-4} and10^{-6}] m^2/s. High diffusivities showed much less salt mass in the system. For instance, when UMOL=10^{-4} m^2/s, the salt in the system decreased by 92% when compared with UMOL=10^{-6} m^2/s.

The model response to the horizontal turbulence submodel showed that it is insensitive to horizontal diffusivity less than 1 (HORCON). The horizontal diffusion, HORCON in the range 10^{-4} to 1 is insufficient to increase the salinity transport when additional forcing such as tides and winds are included.

7.3 Radiative Baroclinic Open Boundary

A contribution of this research is the development and testing of a radiative baroclinic open boundary in an unstructured grid. The open boundary has bidirectional

inflow and outflow boundary conditions. The modified model proved with the aid of the idealized basin that is capable of radiating internal gravity waves. Figure 7.1 shows the velocity vector field at the open boundary allowing radiation of freshwater out of the system while forcing prescribed salinities for the saltwater flux.

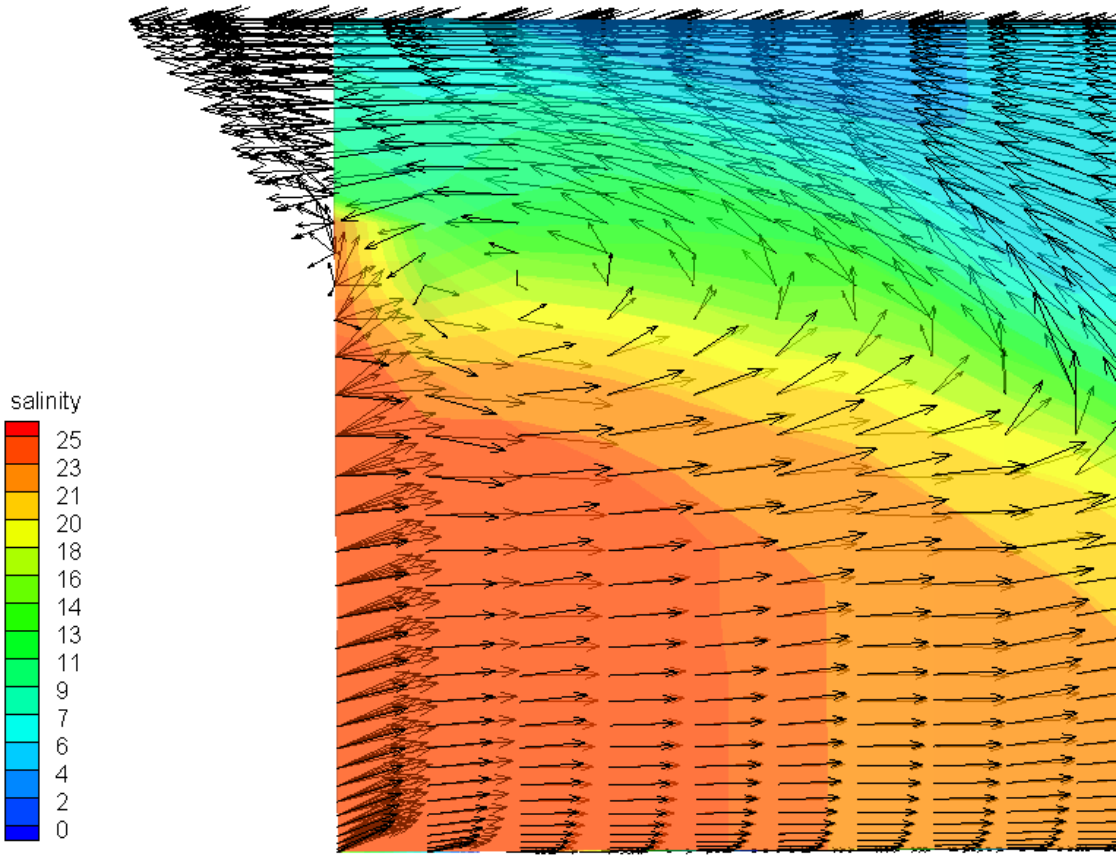

Figure 7.1 Velocity vector field at the open boundary [side view]. Salinity in ppt.

The numerical algorithm is similar to that by Rochford and Shulman (2000) and Rochford and Martin (2001) and it can be classified as an unstructured radiative-advective boundary condition. It must be mentioned that the development of the radiative baroclinic open boundary in FVCOM was developed independently of the

aforementioned studies. For this reason, the treatment is somewhat different. The new treatment operates on a two-space level upwind method of the velocity gradient. The velocity gradient would dictate if salinity at any sigma level should be radiated out or forced into the system depending on the direction from where the information is coming. In addition, to reduce noise, a 3-node filter along every node of the open boundary was applied giving more stability to the open boundary. A relaxation method is recommended to store the information that is being radiated. The relaxation method can be used to force the proper values when the velocity reverses to bring salinity back into the system.

7.4 Sigma pressure gradient

Three types of geometries were designed to study the effect of sigma pressure gradient error on the salinity balance. The geometries are described as follows:

1) A flat bottom bathymetry with constant depth of 4m. This geometry did not introduced pressure gradient since the bathymetric and pressure gradients are zero.
2) A flat bottom bathymetry (constant depth of 4m), and interconnecting channel 10 m deep. This geometry introduced a strong pressure gradient at the channel.
3) Laterally/longitudinally changing bathymetry in the enclosed basin. This geometry introduced a mild pressure gradient at the enclosed basin.

The mass balance of salt in the three geometries was observed for long-term simulations of up to 2 years. These geometries were forced under three types of conditions:

a) Salinity gradient

A prescribed salinity of 25 ppt was forced in the system. The initial background salinity of the system was 0.2 ppt. The results indicated that the expected time to reach 99% of the total saline condition was approximately 3 years for the cases with no pressure gradient and a mild pressure gradient. The case with strong pressure gradient took 6 more months to arrive to the same condition. It also showed that is the case with the lowest amount of salt in the system.

b) Salinity gradient and tides

In addition to the previous condition, tidal forcing was imposed. It was found that the inclusion of tides initially accelerate the transport of salinity until the system has 50% of the total saline condition, thereafter the transport rate decelerates. The case with strong pressure gradient showed the lowest net salt in the system.

c) Salinity gradients, tides and hydrology

The hydrologic input introduced in the trend of salt mass in the system a seasonal pattern. The periods of high and low freshwater input correspond to the Spring and Summer seasons, respectively. A cyclical balance is shown between fresh and saltwater. The case with strong pressure gradient gave the least amount salt of the three geometries. Figure 7.2 shows this trend.

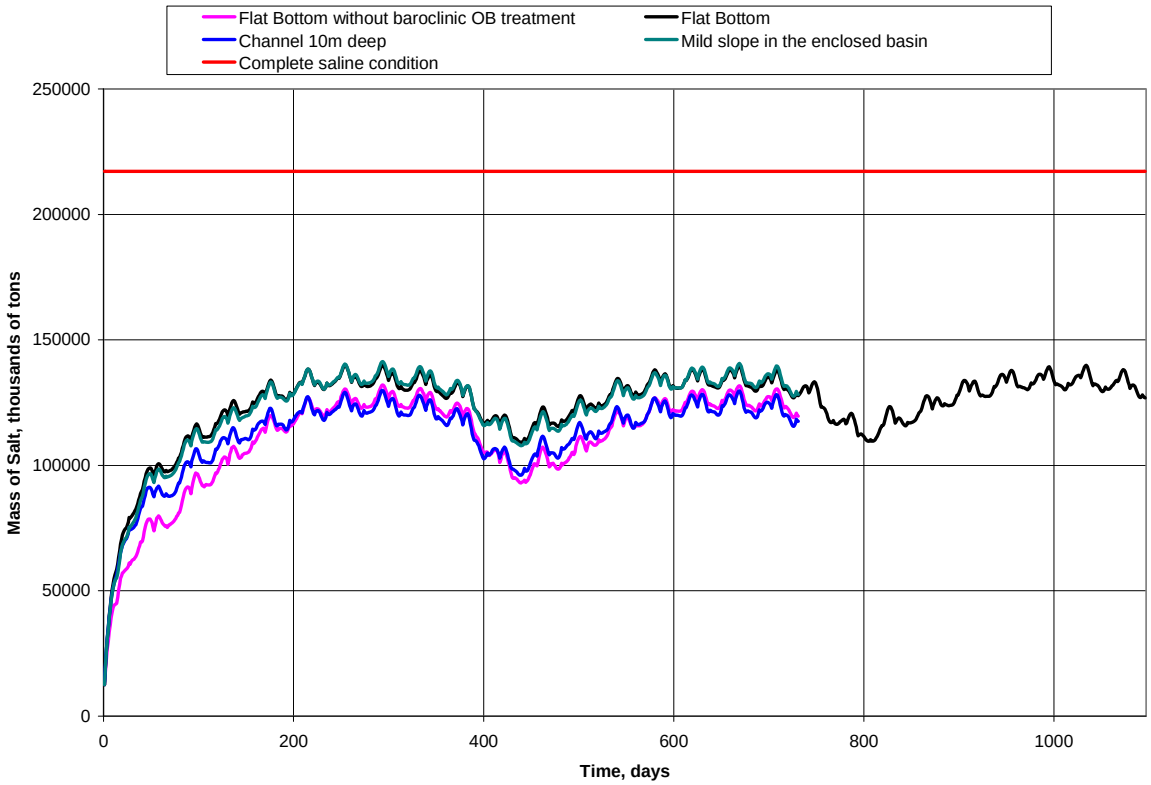

Figure 7.2: Mass Balance of salt with density gradient, tidal and hydrologic forcing. Hourly output. (from Figure 5.49)

Figure 7.2 also shows the mass balance of salt with density gradient, tides and hydrologic forcing. Considering the effectiveness of the baroclinic open boundary, the case without baroclinic open boundary and flat bottom bathymetry, shows the same effect as, the case with baroclinic open boundary and the interconnecting channel 10 m deep. It appears that the lack of radiative baroclinic open boundary has a similar effect as having a strong sigma pressure gradient.

It is noted that the use of the radiative baroclinic open boundary allows the model to radiate freshwater density currents out the domain and force prescribed salinity into the grid domain. The available radiative open boundary options in FVCOM only radiate

surface waves but not internal gravity waves. Furthermore, the model failed when the barotropic open boundary was used under pure density flow because the freshwater plume arrived to the open boundary and could not be radiated. If high friction values were forced with the use of barotropic boundary conditions, an over-freshening effect was observed and the saltwater fluxes were excessively retarded.

7.5 Tidal Pumping Effect

According to Hinwood *et al.*, (2005) the geometry of the inlet, the freshwater inputs in the enclosed basin, and the large spring to neap tide variation are the main factors that promote the occurrence of tidal pumping. Both, the idealized case and the Bonnet Carré Spillway validation case indicated an increase in stage between the seaward and landward side of a tidal inlet. It was found that by having a tidal range with large spring/neap variation the mean water level at the enclosed basin increased. In addition, the results showed that freshwater inputs to the enclosed basin further increased the stage.

The Bonnet Carré Spillway application showed that the model predicted similar results to the observed data; the observed and the model data showed existence of a tidal pumping in Lake Pontchartrain. Even with the influence of high and low pressure systems in the region, the mean water level is above the mean sea level.

7.6 Spatially varying friction

It was found, with the aid of the idealized basin that salinity and tidal transmission in FVCOM are very sensitive to friction. FVCOM has two ways of forcing friction a) by using the shear stress coefficient (BFRIC), or b) by using roughness (ZOB). If roughness were to be used, FVCOM would use the logarithmic law of the wall and this formulation could become unrealistic for shallow depths. Therefore, it is recommended to use the formulation with shear stress coefficient (BFRIC) which gives a more controlled approach to the calculation of bed shear.

The physical domain is composed by areas of open water where friction is low and areas where friction is high. Areas that require more resistance have been identified as tidal passes and waterways because there are features as dunes, and ripples that represent energy losses in addition to the inlet/outlet losses.

Besides, the calibration for the Pontchartrain Estuary revealed that different values of friction across the domain were needed to obtain: the proper distribution of the water surface elevation, the distribution of discharge through the tidal passes, and the salinity distribution in the model domain.

A code modification was needed to implement spatially varying friction. The user prescribes the shear stress coefficient at each element of the mesh in an input file. The subroutines modified are presented in the Appendix C. The final shear stress coefficients that reproduce the best tides, flows and salinity distribution were 0.02 at the IHNC; 0.01

at the tidal passes and MRGO; and 0.006 at open water areas.

7.7 Wind effect

Wind data were forced as a part of the validation using the 2008 Bonnet Carré Spillway Opening. No smoothing of the wind data was performed. The model, with the radiative baroclinic open boundary was able to simulate drastic changes of the wind vector. Some of the velocities were greater than 10 m/s. FVCOM with the new boundary condition proved to be robust.

To analyze the interaction of wind shear and density currents, the same real wind data were used in the idealized basin. It was found that the wind stress virtually "blocks" the salt fluxes from passing through the channel from the semi-enclosed basin to the enclosed basin. The effect was similar as imposing a high vertical diffusivity or high bottom friction. In fact, the effect with wind gave approximately 75% less net salt remaining in the idealized basin than when there was no wind.

For this reason, the idealized basin was re-evaluated with wind forcing. The geometry with a mild slope in the enclosed basin was selected. Southerly wind was forced and varied from 1 to 7 m/s. Figure 7.3 shows the net salt mass in the system for these conditions.

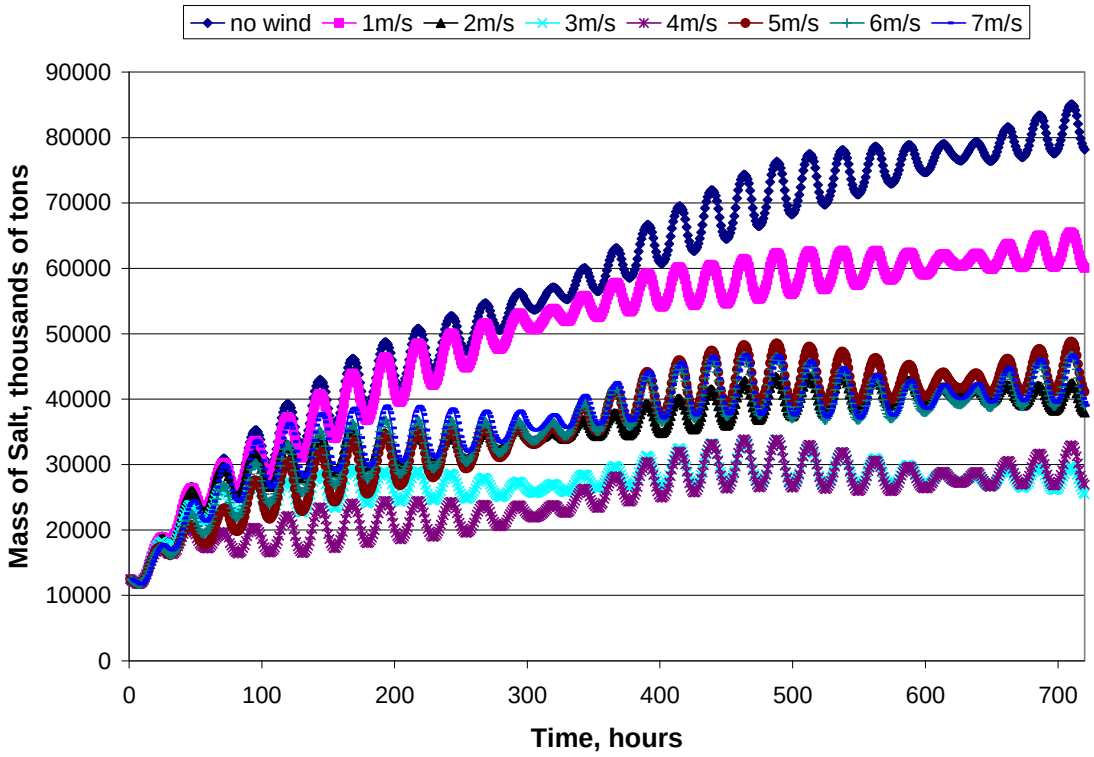

Figure 7.3: Comparison of total mass of salt in the system for various constant wind speeds. Southerly wind. The laterally/longitudinally changing bathymetry in the enclosed basin was used. Hourly output.

It can be noted that wind speeds of 3 and 4 m/s gave lowest salt flux propagation compared to lower or higher wind speeds. This indicates a non-linear relationship between wind shear and salinity flux. The effect of "sheltering" the wind stresses in the narrow channels and passes could help to propagate the density currents.

Nevertheless, density currents are sensitive to the effect of wind. Figure 7.4 shows the effect of upwelling and downwelling due to the currents generated by wind stress.

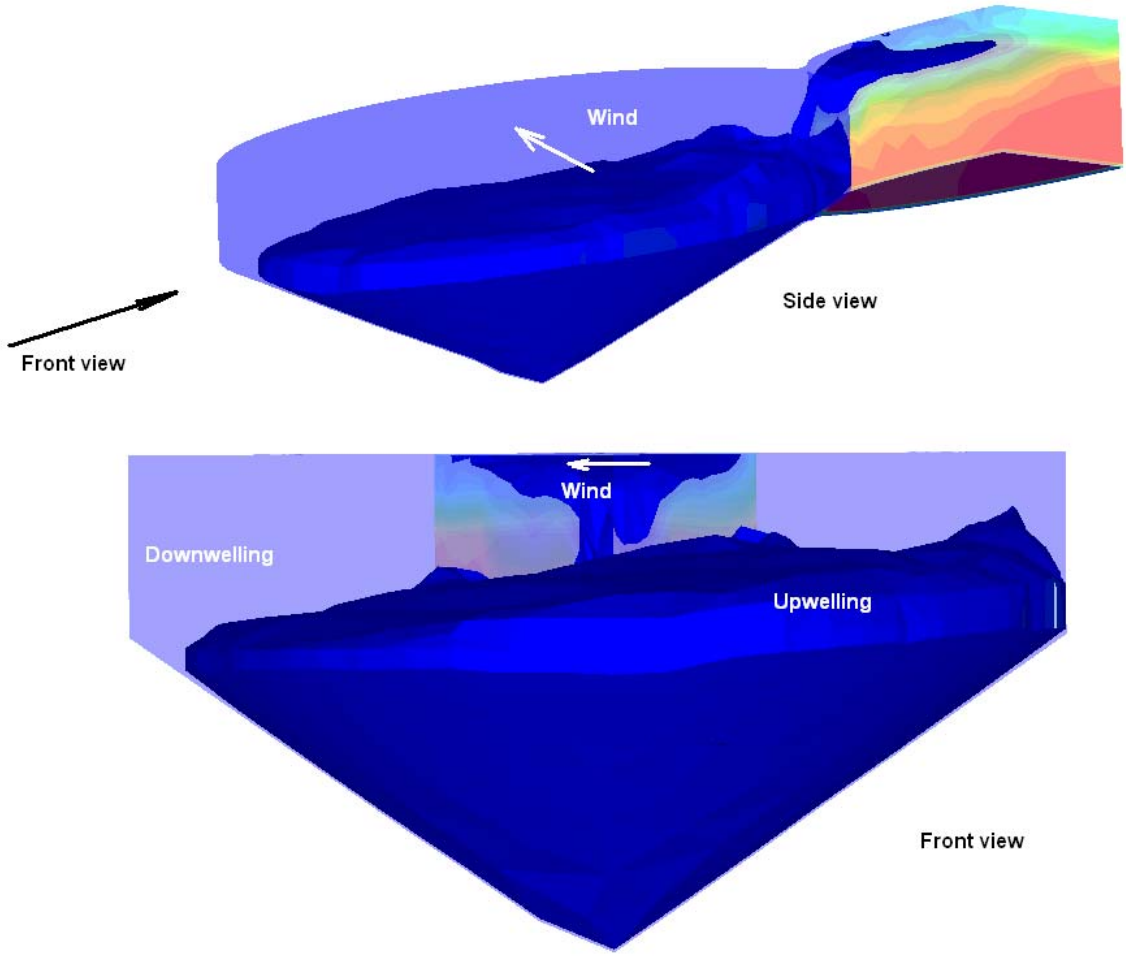

Figure 7.4: Upwelling and downwelling due to 1 m/s southerly wind in the enclosed basin for an isosurface of 2 ppt.

Figure 7.5 shows the salt mass in the system using a coarse resolution grid when southerly and northerly wind of 1 m/s was forced. Figure 7.6 shows the net salt mass in the system using the fine resolution grid for the same wind conditions. The coarse resolution is grid dependent when comparing the results for the north and south wind. Even though the geometry of the idealized basin was symmetrical, a small difference between the trends of the salinity transport was observed. This may be due to some asymmetry in the cell arrangement, especially at the tidal pass. Hence, it is recommended to perform a grid dependency test on the transport for the horizontal and vertical

resolution.

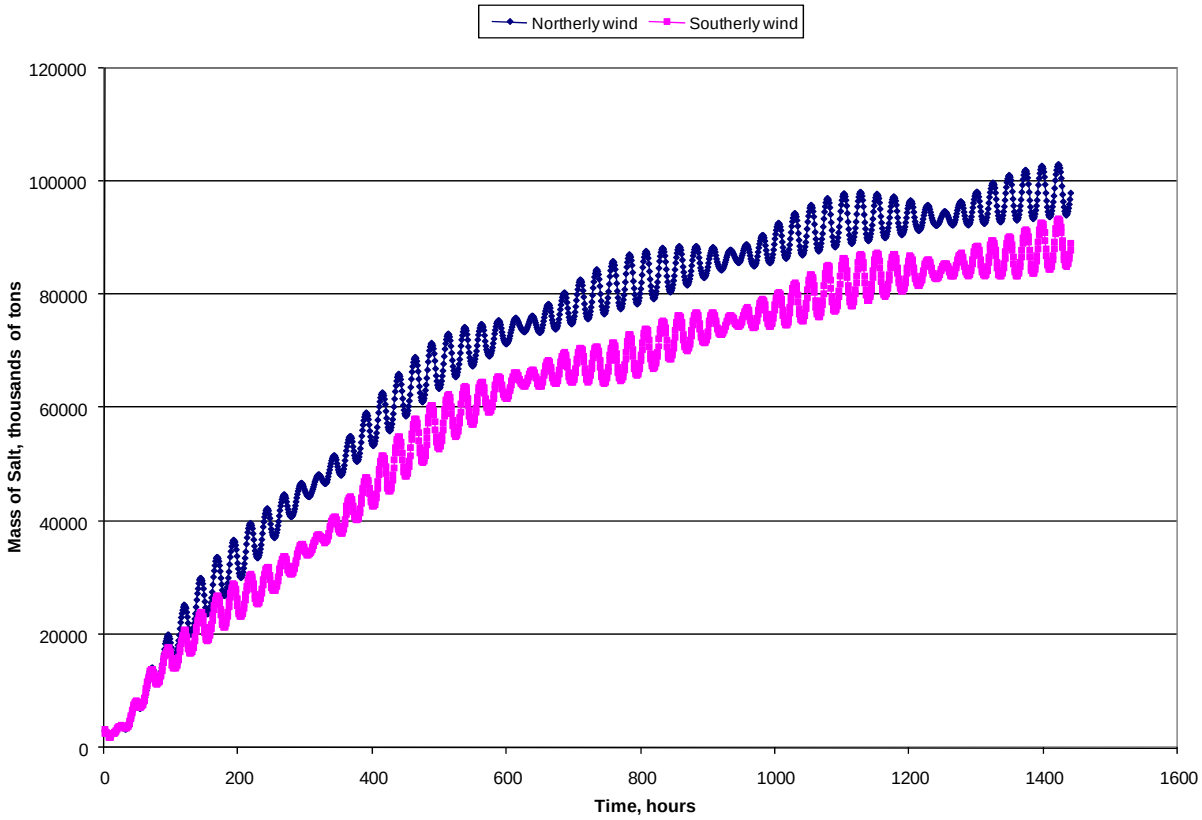

Figure 7.5: Comparison of total mass of salt in the system with coarse resolution for constant wind coming from different directions. The flat bottom bathymetry geometry was used. Hourly output.

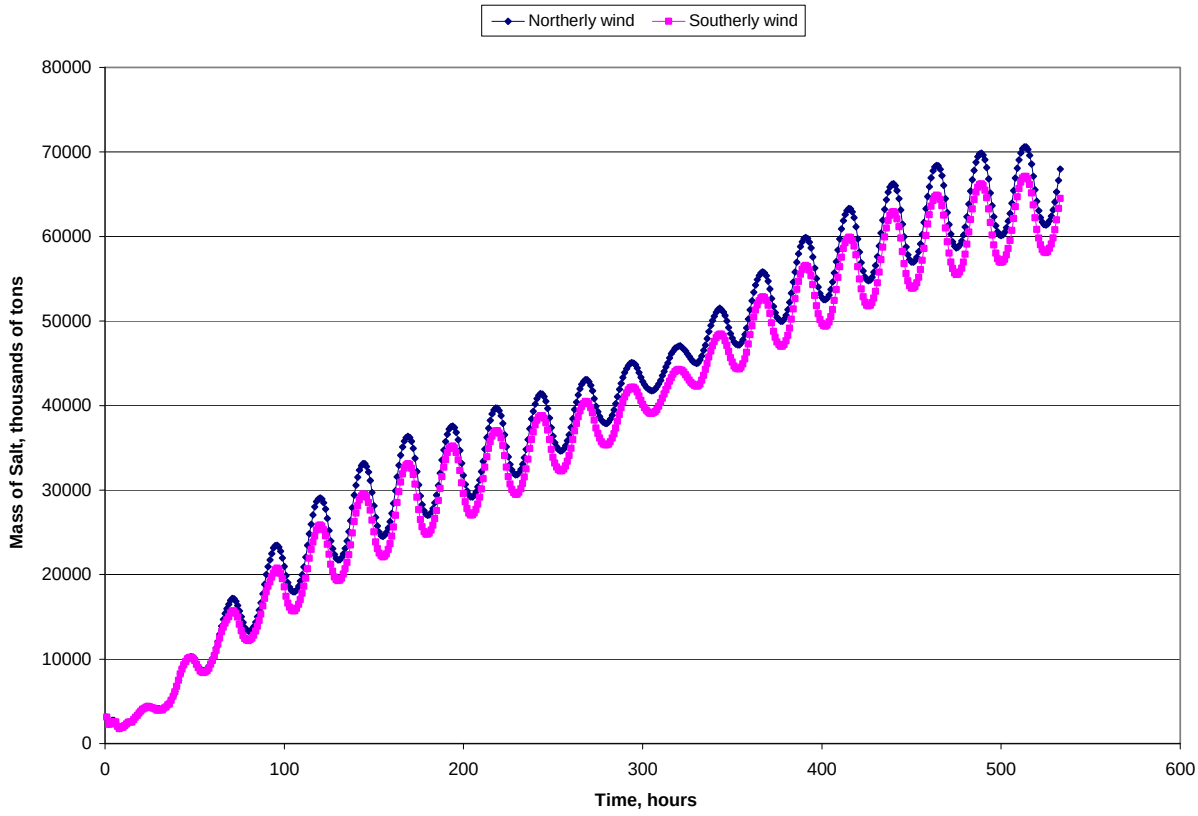

Figure 7.6: Comparison of total mass of salt in the system with fine resolution for constant wind coming from different directions. The flat bottom bathymetry geometry was used. Hourly output.

7.8 Salinity Transport

The analysis of exchange flows through constrictions, the propagation of density currents and radiation of internal gravity waves, with the aid of a physical model helped to better understand some of the principles of internal hydraulics of two-layer flows. These principles are applied to a coastal application in which there will be always an interaction of freshwater coming mainly from land and saltwater from the open water ocean.

The development and implementation of an idealized basin for benchmark testing revealed the response and limitations of FVCOM to coastal applications
The results from the benchmark testing provided the necessary tools to adjust the model parameters to the physical characteristics of the application in study.

The idealized basin also helped to develop a more realistic baroclinic open boundary for the radiation of internal gravity waves.

The calibration of the Pontchartrain Estuary exposed the need for a method of applying spatially varying friction in the grid domain to match the observed characteristics of the estuary.

All these aforementioned factors were brought together to be applied and validated in two grids:
a) the Pontchartrain Estuary; and
b) the Pontchartrain Estuary with the inclusion of the Mississippi and Alabama coasts.

For grid (a) calibration of water surface elevation and flows through the tidal passes were successfully performed with the aid of spatially varying friction, and the best selection of parameters found in the sensitivity analysis. The results proved that the model quantifies the influences of hydrology. For instance, during February-April the net salt mass in the system had its minimum, isohalines were properly shifted towards the open boundary, the area of Breton Sound experienced a freshening effect and the OB

demonstrated to radiate buoyant density current from the MRGO, Mississippi Sound and Biloxi Marshes. On the other hand, by Mid-December, the model showed its most saline condition, the isohalines that were in Spring near the Chandeleur Islands were displaced to the Biloxi Marshes.

The long-term simulation of 365 days in the Pontchartrain Estuary proved that the system returned to the starting value indicating that the model is free of "drift" in salinity. Even though the initial condition started with depth average salinities, a stratified system was observed at the end of the simulation.

The Bonnet Carré Spillway validation proved that the model captures tides and tidal pumping effects. According to observed salinity values of Lake Pontchartrain for April 1st (Lopez, 2008), the forced initial condition was overfreshened. More representative salinity values would be expected if the initial salinity corresponds to that of the beginning of the simulation period.

The model application for grid (b) showed that the salinity values over one year were within the range of variability except that average salinity in the middle of Lake Pontchartrain was underestimated by 1 ppt under wind forcing. As described earlier, wind forcing of 3 m/s was used for this application. It appears that the salinity propagation into Lake Pontchartrain was retarded due to the effect of wind stress. Figure 7.3 confirmed this finding.

The hydrostatic assumption may be also playing a role in retarding the development of salt fluxes. For instance, to initiate the motion of density currents, the saltwater should displace the freshwater from the bottom to the top; conversely, the freshwater should displace the saltwater from the top to the bottom. However, the magnitudes of the horizontal and vertical accelerations are similar to initiate the motion but the hydrostatic assumption assumes that the system does not experience vertical acceleration. Therefore, it takes longer to develop a density current. Also, the relative vertical acceleration at the head of the advancing density current is not negligible.

Simulation time for the idealized basin was 2 hours and 30 min per 30 days on a single CPU processor Mac G5 with a Fortran XLF version 8.1. The simulation time for the 2-year runs for the idealized basin varied between 2 and 4 days using 13 out of the 40 dual processor nodes of a cluster. The variation on the simulation time depended on the communication overhead of the rest of the available nodes for other applications. The cluster was set up with a Fortran PGI version 6.2 for Linux. Figure 7.7 shows the speed up measured for the cluster versus the number of nodes used. Simulation times for the 1-year run for grid (a) were 16 days and 16 hours with 13 nodes on the cluster; and 4 days for grid (b) with the same number of nodes. For the 60-day run of the Bonnet Carré Spillway the cluster took 4 days to complete the simulation with 4 CPUs.

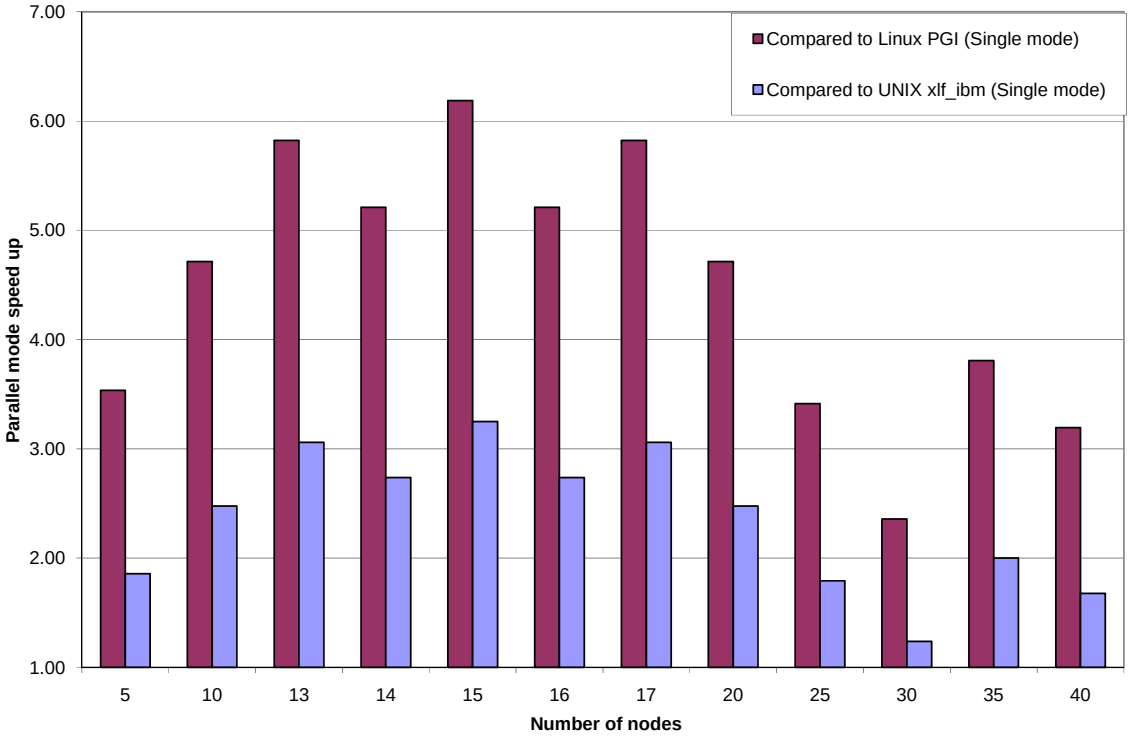

Figure 7.7: Speed up measured versus number of dual processor nodes. Speed up is the ratio of the simulation time in a single processor to the simulation time in a cluster for the same application.

In general, the validity of the model shown by the physical experiment, the implementation of a variable bottom friction, and the development of a radiative baroclinic open boundary makes FVCOM a valuable tool for estuarine applications. The inclusion of non-hydrostatic effects and proper wind shear on the passes would improve the applicability of the model for coastal applications.

8. CONCLUSIONS

The following conclusions can be made based on the research of this study:

- A physical model was constructed to measure the propagation of density currents and radiation of internal gravity waves through a constriction.
- It was found that strength of stratification in the system increases as the constriction decreases.
- A hydrostatic version of FVCOM was validated based on analytical, experimental, idealized basin testing and field datasets to predict the conditions observed for the propagation of density currents and radiation of internal gravity waves in the physical model.
- It was found that the primary density currents are well simulated with zero roughness and low prescribed shear stress friction coefficient. The secondary density currents were overestimated because the hydrostatic version does not account for all the internal energy losses as internal hydraulic jumps.
- Although the model is based on the hydrostatic assumption, it was able to predict the Brunt-Vaisala frequency. However, it did not predict the interfacial instabilities, namely Holmboe or Kelvin-Helmholtz.
- A baroclinic open boundary for radiation of the internal gravity waves was developed using an advective two-space upwind algorithm and a 3-node filter. The inflow and outflow characteristics of salinity of the open boundary proved to be effective in the idealized basin and the Pontchartrain Estuary.
- The model demonstrated to be robust under wide variety of forcing, e.g., tides, hydrology, density currents, and wind; however, in density dominated systems the

model stability was greatly improved by the use of a baroclinic boundary condition.

- An idealized estuary consisting of an enclosed basin, tidal pass and semi-enclosed basin was developed for benchmarking testing the sigma pressure gradient error; the development of a radiative baroclinic open boundary; the sensitivity of the model to various parameters, e.g., friction, wind; the response to the model in a presence of the constrictive tidal pass; and the response of the model to tidal pumping effects.
- Based on the tests on the idealized basin, the salinity transport was found to be sensitive to the advective scheme, friction, the vertical diffusivity, and wind stress. These last three parameters greatly retard the upstream flux of saltwater.
- A finer and more symmetrical grid resolution is required for mass transport compared to the hydrodynamic grid dependency test.
- The evaluation of the mass conservation of salinity in response to changes in the sigma pressure gradient error was studied with the use of the idealized basin and the implementation of the baroclinic open boundary. Three geometries were developed for the idealized basin with null, mild and strong bathymetric changes. The analysis proved that the higher the sigma pressure gradient, the less the amount of net salt mass in the system.
- It was demonstrated that the idealized basin and the Bonnet Carré Spillway case experienced spring tidal pumping, mainly attributable to the tidal range variation between the springs and neaps; the freshwater inflow and the inlet resistance.

- A three-dimensional model with a radiative open boundary condition for internal gravity waves capable of simulating salinity was developed for the Pontchartrain Estuary.
- Calibration showed that forcing a uniform friction coefficient in the system did not predict the expected values in the actual system. Therefore, a varying shear stress coefficient was generated in the model to account for areas where low friction values are dominant e.g., open water basins, and higher friction values for tidal passes or navigation channels since formation of ripples and dunes in these locations produce a higher resistance to the flow than in open water.
- The seasonal salinity regime was captured by FVCOM during a long-term simulation of one year without the wind effect. The model showed that after 365 days the net mass of salt in the system returned to the starting value. Therefore, the model is free of "drift' in the salinity values.
- While FVCOM can duplicate the seasonal salinity in response to radiative baroclinic open boundary, tidal passes, diurnal tide, hydrology, and wind, the predicted salinities upstream of tidal passes tend to be under-estimated when the system is subjected to moderate and high winds. The idealized basin simulations indicated that there is a non-linear relationship between wind and the salinity transport, testing with the idealized case showed that the relationship is not linear.

9. RECOMMENDATIONS

The use of the radiative baroclinic open boundary and the implementation of spatially varying friction should be used with FVCOM for coastal and estuarine applications.

A physical experiment should be set up to evaluate the wind shear stress and its influence on propagation of density currents. The idealized basin should be also used to study this influence and a parameterization study should be set up for wind direction and speed.

A numerical approach is recommended to ensure salinity values that have already been radiated out of the system. This numerical approach is also known as a relaxation method. The method should provide a super ghost cell beyond the OB. For outflow conditions the super cell will integrate at each time step the salinity value that is being radiated out. Therefore, when the velocity gradient dictates an inflow condition, instead of forcing directly the prescribed salinity value So, the relaxation will use a combined method between the prescribed value and the integrated value that has been stored during outflow conditions.

Although it was not studied in this research, coastal ocean models that account for sediment transport processes should implement a similar numerical treatment approach performed for salinity to model the density gradients generated by the sediment transport.

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APPENDIX A

Data Collected in the Experimental Phase

LOCK EXCHANGE
TEST Time in seconds; velocity in cm/s

	Saltwater			Freshwater		
"Time"	"vel_u_SW"	"vel_v_SW"	"vel_w_SW"	"vel_u_FW"	"vel_v_FW"	"vel_w_FW"
0.00	-0.47	-0.05	-0.14	0.30	0.08	-0.07
0.20	-0.40	-0.20	-0.20	0.35	0.07	-0.27
0.40	-0.17	-0.10	-0.11	0.11	0.08	0.17
0.60	-0.34	-0.06	-0.04	0.14	0.30	0.10
0.80	0.00	-0.04	-0.09	0.18	0.25	0.05
1.00	-0.14	-0.23	-0.12	0.20	-0.07	0.06
1.20	0.11	-0.20	-0.12	0.02	0.03	0.12
1.40	-0.06	0.17	-0.02	0.24	0.14	0.02
1.60	0.60	0.42	0.05	0.44	0.15	-0.15
1.80	-0.44	-0.06	-0.10	0.22	0.10	-0.08
2.00	0.93	0.24	-0.02	0.18	0.24	0.12
2.20	-0.51	-0.39	-0.04	0.22	0.03	-0.03
2.40	-0.16	0.10	-0.05	0.12	-0.08	0.12
2.60	0.58	0.18	-0.10	-0.04	0.19	0.22
2.80	-0.18	0.46	-0.10	0.37	0.14	-0.10
3.00	0.44	-0.28	-0.08	0.32	0.05	-0.15
3.20	-0.25	-0.10	0.00	0.07	0.16	0.06
3.40	-0.50	0.67	-0.12	0.33	0.09	-0.08
3.60	-0.15	0.02	-0.14	0.27	-0.15	-0.17
3.80	-0.33	-0.14	-0.13	0.20	0.14	0.07
4.00	-0.26	0.07	-0.07	0.30	0.40	0.10
4.20	0.03	0.13	-0.10	0.07	0.13	0.16
4.40	-0.47	-0.02	-0.15	0.18	0.09	-0.04
4.60	-0.21	-0.07	-0.10	0.24	0.07	0.07
4.80	-0.29	-0.13	-0.10	0.15	0.10	-0.01
5.00	0.04	-0.14	-0.07	0.26	0.17	-0.03
5.20	0.22	0.02	-0.09	0.31	0.28	-0.07
5.40	0.17	-0.21	-0.07	0.25	0.18	-0.10
5.60	0.18	0.10	-0.10	0.26	0.06	-0.06
5.80	0.16	0.09	-0.15	0.10	0.06	0.14
6.00	-0.22	-0.43	-0.06	0.11	0.29	0.16
6.20	0.06	0.00	-0.06	0.10	0.17	0.29
6.40	-0.04	0.03	-0.11	0.22	0.14	0.13
6.60	0.11	-0.11	-0.11	0.40	0.17	-0.17
6.80	-0.03	0.18	-0.08	0.22	0.12	-0.01
7.00	-0.02	0.05	-0.14	0.24	0.16	0.00
7.20	-0.35	-0.20	-0.13	0.31	0.26	-0.01
7.40	0.01	0.15	-0.17	0.22	0.30	0.18
7.60	-0.26	-0.20	-0.07	0.13	0.17	0.16
7.80	-0.03	0.00	-0.08	0.18	-0.02	-0.02
8.00	-0.34	-0.08	-0.17	0.24	0.05	-0.06
8.20	-0.23	0.03	-0.09	0.13	0.22	0.05
8.40	0.10	0.02	-0.12	0.15	0.15	0.12
8.60	1.03	-0.22	-0.15	0.46	0.27	-0.02
8.80	0.93	-0.62	0.00	1.37	0.67	0.18

9.00	-0.35	-0.22	0.22	0.69	1.61	-3.17
9.20	-0.25	-0.17	-0.21	-0.23	2.01	3.78
9.40	-0.36	-0.36	0.05	0.93	1.80	-1.82
9.60	-0.43	-0.67	-0.04	0.56	2.46	-0.80
9.80	-0.26	-0.31	-0.06	0.78	2.09	-1.98
10.00	-0.25	-0.56	0.01	0.59	2.17	-2.78
10.20	-0.19	-0.34	0.06	0.24	2.86	-3.33
10.40	-0.28	-0.28	0.09	0.39	-2.22	-3.99
10.60	-0.40	0.01	0.21	6.74	-0.59	-1.80
10.80	-0.13	-0.93	0.20	4.86	1.05	2.04
11.00	-1.09	-0.76	0.16	4.88	2.40	0.62
11.20	-1.24	-0.50	0.30	4.67	3.54	-0.17
11.40	-1.21	-0.62	0.27	6.01	2.59	0.61
11.60	-1.47	-0.48	0.38	6.57	2.71	1.78
11.80	-1.48	-0.65	0.48	7.38	1.20	3.98
12.00	-1.67	-0.59	0.72	6.72	1.51	3.47
12.20	-1.29	-0.93	0.92	6.21	0.82	4.18
12.40	0.04	-0.70	1.30	6.02	1.26	3.45
12.60	0.60	-1.08	1.55	5.72	0.93	3.35
12.80	0.00	-1.21	1.81	6.30	1.13	3.29
13.00	-0.80	-1.03	2.29	6.28	-2.58	0.25
13.20	-2.94	-1.09	2.17	4.32	-0.72	2.97
13.40	-4.42	-0.25	0.98	4.60	-1.72	-1.38
13.60	-5.26	-0.76	-0.21	4.94	2.29	-0.10
13.80	-5.79	-1.40	-0.11	5.47	1.31	0.01
14.00	-6.25	-1.77	0.18	5.75	1.90	0.48
14.20	-6.34	-2.02	0.33	5.48	2.25	1.23
14.40	-6.62	-2.12	0.18	4.75	1.20	-0.86
14.60	-7.32	-2.21	0.23	4.57	1.80	-0.07
14.80	-7.46	-2.06	0.44	5.87	2.02	0.02
15.00	-7.99	-1.81	0.63	6.08	1.79	0.03
15.20	-7.96	-0.30	-0.12	5.33	2.03	-0.51
15.40	-7.62	-0.11	0.10	5.44	2.45	0.17
15.60	-6.92	0.98	-0.38	5.85	2.02	0.71
15.80	-4.60	3.23	-2.61	5.08	1.77	-0.24
16.00	-4.81	0.79	-1.89	4.67	2.19	0.25
16.20	-6.45	0.78	-1.88	4.72	1.96	1.07
16.40	-5.85	-0.59	-1.94	3.78	1.60	-0.19
16.60	-6.42	-0.36	-1.70	2.85	1.58	0.49
16.80	-6.13	-0.43	-1.34	3.72	1.49	0.49
17.00	-6.79	-0.14	-1.33	4.59	0.82	-1.04
17.20	-6.08	-0.68	-0.81	4.70	1.22	-0.85
17.40	-6.34	-0.90	-0.51	5.01	0.68	0.44
17.60	-6.90	-1.15	-0.50	4.13	0.47	-0.17
17.80	-6.75	-1.34	-0.25	2.62	0.28	0.07
18.00	-8.00	-1.12	-0.41	3.32	-0.52	0.84
18.20	-5.03	-0.78	-2.46	4.85	-0.72	-2.18
18.40	-4.83	-0.99	-1.99	5.81	0.53	-0.09
18.60	-6.46	-0.80	-1.22	5.00	0.38	-1.56
18.80	-6.30	-0.67	-0.86	4.15	0.88	-2.80

19.00	-5.82	-0.69	-0.59	5.16	0.16	-1.66
19.20	-5.05	-0.68	0.19	5.78	-0.31	-2.02
19.40	-4.49	-0.97	0.66	5.17	-0.62	-0.76
19.60	-5.52	0.52	0.75	5.28	-0.46	-0.12
19.80	-4.93	1.05	-0.14	6.01	-0.64	-1.12
20.00	-5.29	0.80	0.00	6.96	0.18	0.35
20.20	-5.20	0.56	0.49	6.35	-0.29	-0.35
20.40	-5.82	0.43	0.61	5.74	-1.00	0.07
20.60	-5.61	-0.07	-1.01	5.84	-0.36	-1.36
20.80	-5.14	-0.13	-1.38	5.18	-0.40	-1.75
21.00	-4.00	-0.85	-1.11	4.76	1.22	-1.37
21.20	-4.21	-0.96	-0.79	4.62	-0.59	-1.42
21.40	-4.72	-0.38	-1.00	6.27	-0.68	0.28
21.60	-4.88	0.01	-0.70	6.61	-0.59	-0.42
21.80	-5.83	0.66	-0.51	6.78	-0.75	0.02
22.00	-5.57	0.56	-0.47	5.72	-1.70	-1.10
22.20	-5.38	0.68	-0.40	6.63	-0.91	0.31
22.40	-5.67	1.02	-0.25	6.24	-1.48	0.01
22.60	-6.37	0.91	-0.16	6.13	-1.22	0.81
22.80	-6.18	1.05	-0.27	5.70	-1.25	-0.06
23.00	-5.96	0.90	-0.33	5.38	-0.43	0.87
23.20	-5.86	0.50	-0.24	3.82	-0.71	0.13
23.40	-6.45	0.52	-0.03	4.56	-0.20	0.09
23.60	-6.28	0.79	0.21	4.81	-0.44	0.42
23.80	-6.11	0.68	0.24	4.06	-1.78	-0.30
24.00	-6.23	0.80	0.20	4.48	-1.15	-0.06
24.20	-5.53	0.71	0.09	5.14	-0.92	0.47
24.40	-5.58	0.52	0.32	5.56	-1.14	0.32
24.60	-6.17	0.60	-0.04	4.96	-1.29	-0.28
24.80	-6.16	0.37	-0.41	5.17	-1.03	0.24
25.00	-6.02	0.08	-0.51	3.86	-0.22	-0.14
25.20	-6.55	0.12	-0.40	3.50	-0.37	0.63
25.40	-6.23	0.22	-0.40	4.42	-0.06	0.92
25.60	-6.18	0.03	-0.46	3.70	-0.44	0.16
25.80	-5.64	0.02	-0.44	4.47	-0.21	-0.80
26.00	-5.41	0.15	-0.37	5.11	-0.35	-0.14
26.20	-5.33	-0.03	-0.22	4.34	-0.15	-0.34
26.40	-5.03	0.29	-0.36	4.50	-0.41	-0.71
26.60	-4.85	0.01	-0.47	5.46	0.02	-0.62
26.80	-4.84	0.04	-0.29	5.91	-0.44	-0.34
27.00	-5.03	-0.30	-0.24	6.27	-0.03	-0.06
27.20	-5.28	-0.07	-0.38	5.79	-0.37	-0.17
27.40	-6.01	-0.14	-0.34	5.02	-0.47	-1.21
27.60	-5.66	-0.19	-0.28	5.67	-0.02	-0.50
27.80	-5.19	-0.31	-0.27	5.76	0.33	-0.44
28.00	-5.40	-0.13	-0.20	4.96	0.12	-1.00
28.20	-4.92	-0.33	-0.23	4.85	-0.05	0.06
28.40	-4.79	-0.33	-0.26	5.33	-0.08	-0.49
28.60	-4.79	-0.17	-0.30	5.77	0.17	-0.54
28.80	-4.85	-0.35	-0.26	6.20	0.44	-0.51

29.00	-5.04	-0.34	-0.09	6.08	0.25	-0.54
29.20	-5.33	-0.29	-0.17	5.39	0.02	-0.74
29.40	-5.43	-0.53	-0.11	5.08	-0.35	-0.88
29.60	-4.90	-0.66	-0.26	5.58	0.14	-0.27
29.80	-4.78	-0.54	-0.24	5.52	0.26	-0.12
30.00	-5.87	-0.75	-0.21	4.27	0.17	-1.28
30.20	-6.14	-0.75	-0.34	3.49	0.77	-0.11
30.40	-5.83	-0.98	-0.33	4.03	0.36	-0.27
30.60	-5.22	-0.69	-0.40	4.06	-0.14	-0.57
30.80	-5.50	-0.62	-0.43	3.78	-0.27	0.10
31.00	-5.49	-0.49	-0.33	4.47	0.33	-0.09
31.20	-5.34	-0.51	-0.46	4.48	0.62	0.22
31.40	-5.09	-0.85	-0.49	4.81	0.63	-0.63
31.60	-4.91	-1.03	-0.24	4.33	1.14	0.69
31.80	-5.52	-0.65	-0.29	3.76	0.63	-0.80
32.00	-5.76	-0.68	-0.24	3.59	1.20	-0.37
32.20	-5.79	-0.74	-0.13	3.38	1.02	0.65
32.40	-5.88	-0.63	-0.16	3.99	1.11	-0.61
32.60	-5.59	-0.66	-0.36	2.78	0.61	-0.60
32.80	-4.90	-0.82	-0.27	4.25	-0.12	0.10
33.00	-4.57	-0.88	-0.24	4.21	0.09	0.51
33.20	-4.90	-0.73	-0.14	4.18	0.13	0.16
33.40	-4.52	-0.70	-0.18	4.11	0.19	0.00
33.60	-4.17	-0.51	-0.35	4.29	0.32	0.31
33.80	-4.82	-0.35	-0.38	4.73	0.47	0.25
34.00	-4.96	-0.65	-0.29	5.12	0.94	0.14
34.20	-5.17	-0.27	-0.26	5.95	1.00	-0.58
34.40	-5.17	-0.31	-0.35	4.66	0.35	-0.60
34.60	-5.05	-0.29	-0.33	3.88	-0.50	-0.28
34.80	-5.40	-0.32	-0.39	3.22	-0.15	-0.43
35.00	-5.08	-0.13	-0.29	4.71	0.20	-0.74
35.20	-4.11	-0.25	-0.24	3.97	-0.24	0.15
35.40	-4.44	0.02	-0.27	4.57	0.33	-0.69
35.60	-4.49	-0.01	-0.29	4.76	0.15	-0.38
35.80	-4.24	-0.11	-0.22	5.95	-0.25	1.24
36.00	-5.00	-0.03	-0.24	4.97	-0.38	-0.02
36.20	-4.88	0.10	-0.36	5.20	0.35	-0.49
36.40	-4.49	0.13	-0.32	5.37	0.46	0.53
36.60	-4.45	-0.11	-0.05	5.03	-0.20	-0.25
36.80	-4.66	-0.24	-0.14	3.55	-0.47	-0.16
37.00	-5.22	-0.10	-0.26	4.08	-0.72	0.14
37.20	-5.39	0.08	-0.07	3.58	-0.32	-0.07
37.40	-5.65	0.01	0.15	4.25	-0.19	0.50
37.60	-5.77	-0.17	0.00	3.73	-0.02	-0.21
37.80	-5.45	0.00	-0.34	3.61	-0.21	-0.64
38.00	-5.55	0.27	-0.44	3.80	-0.25	-0.35
38.20	-5.40	0.09	-0.37	4.92	0.08	-0.26
38.40	-4.90	0.19	-0.33	5.17	-0.19	0.50
38.60	-5.50	0.23	-0.21	4.23	-0.97	0.80
38.80	-6.20	0.30	-0.07	2.20	-0.34	1.58

39.00	-5.83	0.28	-0.10	3.93	-0.84	0.15
39.20	-5.57	0.28	-0.15	3.73	-0.76	-0.17
39.40	-5.22	0.27	-0.21	3.40	-1.20	-0.22
39.60	-5.25	0.45	-0.23	4.03	-0.55	0.56
39.80	-4.97	0.11	-0.13	4.23	-0.67	-0.47
40.00	-4.67	0.14	-0.19	4.27	-0.46	-0.46
40.20	-4.19	0.25	-0.09	5.28	-0.69	-0.16
40.40	-4.01	0.23	0.00	4.90	-0.73	0.48
40.60	-4.47	0.22	0.01	4.56	-0.42	-0.29
40.80	-4.39	0.42	-0.14	4.89	-0.42	0.64
41.00	-4.01	0.75	-0.54	4.38	1.38	-0.16
41.20	-4.30	0.39	-0.68	5.27	-1.03	-0.93
41.40	-4.58	0.17	-0.54	4.91	-0.36	-0.64
41.60	-4.89	-0.08	-0.12	4.76	-0.52	-0.10
41.80	-5.07	0.10	0.15	4.44	-0.30	-0.10
42.00	-4.60	0.20	0.00	4.34	-0.15	-0.25
42.20	-4.59	0.24	-0.11	3.81	0.04	-0.59
42.40	-4.64	0.11	-0.16	3.73	-0.50	0.65
42.60	-4.34	-0.11	-0.09	6.33	-1.00	-0.91
42.80	-4.55	-0.10	0.04	5.80	-0.75	0.02
43.00	-5.13	-0.11	0.12	4.60	-0.27	-0.25
43.20	-5.19	-0.09	0.03	4.65	-0.24	-0.47
43.40	-5.08	-0.21	-0.10	4.57	-0.27	0.30
43.60	-5.72	-0.17	-0.05	4.24	-0.55	-0.54
43.80	-5.46	-0.31	-0.15	4.14	-0.45	0.03
44.00	-5.30	-0.22	-0.21	3.73	-0.54	-0.56
44.20	-5.56	-0.27	-0.19	2.75	0.08	-0.41
44.40	-5.80	-0.27	-0.22	3.26	0.28	-0.29
44.60	-5.92	-0.24	-0.19	3.39	0.60	-1.15
44.80	-5.58	-0.40	-0.31	3.43	1.03	-1.06
45.00	-5.20	-0.32	-0.27	4.28	0.22	-0.56
45.20	-5.40	-0.42	-0.21	4.05	0.10	0.00
45.40	-5.54	-0.40	-0.26	4.40	-0.21	-0.43
45.60	-5.48	-0.68	-0.35	4.68	-0.32	0.12
45.80	-5.58	-0.60	-0.17	4.49	0.40	-0.52
46.00	-5.86	-0.66	-0.17	4.22	0.11	-0.32
46.20	-5.82	-0.68	-0.14	3.47	0.57	-0.39
46.40	-5.44	-0.51	-0.10	3.29	0.69	-0.73
46.60	-4.70	-0.55	-0.23	3.57	0.60	-0.43
46.80	-4.69	-0.67	-0.29	3.84	0.86	-0.57
47.00	-4.72	-0.81	-0.15	4.63	0.51	-0.26
47.20	-4.23	-0.79	-0.09	5.30	0.51	-0.37
47.40	-4.78	-0.44	-0.14	4.07	0.57	-0.43
47.60	-4.74	-0.52	-0.22	4.22	0.44	-0.96
47.80	-4.64	-0.53	-0.21	5.24	0.21	-0.09
48.00	-5.03	-0.52	-0.10	5.04	0.36	-0.08
48.20	-5.41	-0.77	-0.13	4.29	0.81	-0.50
48.40	-5.30	-0.66	-0.19	4.02	0.44	-0.33
48.60	-5.16	-0.54	-0.17	4.57	0.75	-0.29
48.80	-4.62	-0.61	-0.17	4.15	0.48	0.20

49.00	-4.44	-0.44	-0.13	4.28	0.32	-0.24
49.20	-4.48	-0.45	-0.28	4.05	0.73	0.26
49.40	-4.41	-0.54	-0.14	4.05	0.49	-0.35
49.60	-4.54	-0.52	-0.12	4.13	0.60	-0.37
49.80	-4.38	-0.55	-0.26	4.50	0.65	-0.32
50.00	-4.83	-0.77	-0.22	4.27	-0.54	0.54
50.20	-5.42	-0.79	-0.04	4.41	-0.75	0.25
50.40	-5.73	-0.57	0.04	4.42	0.29	-0.56
50.60	-5.45	-0.51	0.06	3.75	1.14	-0.10
50.80	-5.63	-0.47	-0.05	3.40	0.33	0.09
51.00	-5.69	-0.39	-0.09	3.57	0.14	-0.58
51.20	-5.36	-0.49	-0.02	3.98	0.48	-0.33
51.40	-5.37	-0.33	0.00	4.24	-0.02	-0.23
51.60	-5.82	-0.26	0.02	3.43	1.82	-1.76
51.80	-5.72	-0.31	-0.11	3.59	0.44	-0.90
52.00	-5.49	-0.30	-0.13	4.00	0.23	0.26
52.20	-5.72	-0.34	-0.13	3.54	1.10	0.48
52.40	-5.39	-0.17	0.03	3.97	0.64	0.85
52.60	-5.22	-0.27	0.11	3.77	-0.34	0.67
52.80	-5.61	-0.23	0.02	3.08	-0.34	0.15
53.00	-6.06	-0.20	-0.06	3.30	-0.25	0.10
53.20	-5.64	-0.08	-0.01	3.79	-0.57	0.11
53.40	-5.37	-0.03	0.07	3.38	-0.54	0.27
53.60	-5.04	0.02	-0.07	2.35	-0.53	-0.37
53.80	-4.60	0.14	-0.18	2.78	-0.69	0.41
54.00	-4.47	0.02	-0.08	4.23	-0.72	0.52
54.20	-4.74	0.13	-0.14	4.30	-0.66	0.55
54.40	-5.15	0.29	-0.09	5.06	-0.47	-0.60
54.60	-4.95	0.11	-0.02	4.59	-0.38	-0.58
54.80	-5.25	0.06	0.04	4.25	-0.89	0.28
55.00	-5.57	0.12	-0.02	3.95	-1.00	0.34
55.20	-5.45	0.24	-0.10	3.79	-0.11	-0.04
55.40	-5.46	0.30	-0.05	4.69	0.23	-0.69
55.60	-5.14	0.31	-0.07	4.23	0.31	-0.25
55.80	-4.97	0.35	-0.09	4.31	0.33	-0.26
56.00	-4.88	0.30	-0.08	3.50	0.27	-0.89
56.20	-4.68	0.32	-0.20	4.07	-0.20	-1.04
56.40	-4.63	0.42	-0.24	4.43	-0.52	0.05
56.60	-5.19	0.34	-0.12	3.38	-0.14	0.90
56.80	-5.37	0.31	-0.11	3.94	-0.27	-0.19
57.00	-5.31	0.31	-0.18	3.95	0.69	0.23
57.20	-5.68	0.11	-0.09	3.87	0.00	-1.37
57.40	-5.66	0.21	-0.11	4.01	-0.01	-0.49
57.60	-5.66	0.02	-0.02	3.93	-0.34	0.07
57.80	-5.95	-0.08	-0.04	2.60	0.21	-0.45
58.00	-6.15	0.13	-0.15	2.66	-0.22	-0.02
58.20	-5.59	0.10	-0.18	3.62	-0.08	0.12
58.40	-5.34	0.13	-0.14	3.76	0.31	0.14
58.60	-5.62	-0.18	-0.08	4.09	0.20	-0.30
58.80	-5.48	-0.28	-0.10	3.78	0.49	-0.94

59.00	-5.82	-0.09	-0.13	4.00	-0.06	-0.73
59.20	-5.60	0.03	-0.06	3.93	0.20	-0.80
59.40	-5.08	-0.05	0.04	4.61	0.29	-0.76
59.60	-5.45	-0.05	-0.07	3.39	-0.19	0.01
59.80	-5.61	-0.19	-0.05	3.64	-0.38	-0.82
60.00	-5.28	-0.15	0.04	3.28	-0.15	0.66
60.20	-5.14	-0.09	0.11	3.19	0.70	0.45
60.40	-5.20	-0.26	0.02	2.86	0.50	-0.52
60.60	-4.67	-0.43	0.04	3.89	0.24	0.02
60.80	-4.71	-0.58	0.07	4.32	-0.11	-0.07
61.00	-4.50	-0.52	-0.06	4.45	0.78	-1.46
61.20	-4.41	-0.41	-0.02	4.75	1.04	-1.00
61.40	-4.75	-0.50	0.01	4.09	0.55	-1.17
61.60	-5.21	-0.61	-0.09	4.73	0.28	-0.33
61.80	-5.36	-0.50	0.02	4.72	0.26	-0.48
62.00	-5.04	-0.52	0.03	4.75	-0.17	0.08
62.20	-4.85	-0.58	0.03	4.21	-0.13	-0.78
62.40	-5.01	-0.60	0.06	3.46	0.23	-0.48
62.60	-4.84	-0.60	0.02	4.18	0.90	-0.40
62.80	-4.66	-0.58	0.08	4.82	0.51	-0.74
63.00	-4.54	-0.54	0.09	3.36	0.44	-0.37
63.20	-4.49	-0.57	0.14	3.45	0.38	-0.53
63.40	-4.28	-0.46	-0.01	3.37	-0.30	-0.15
63.60	-4.87	-0.51	0.01	3.84	0.00	-0.45
63.80	-4.89	-0.48	0.13	3.95	0.36	-0.51
64.00	-5.12	-0.53	0.06	3.84	1.06	-0.17
64.20	-5.65	-0.48	0.10	3.09	0.88	-0.75
64.40	-5.41	-0.60	0.10	2.39	0.45	0.23
64.60	-5.52	-0.38	0.08	2.72	0.50	-0.40
64.80	-5.29	-0.32	0.04	2.17	0.32	0.20
65.00	-5.20	-0.35	-0.06	2.35	0.15	0.10
65.20	-5.42	-0.33	-0.04	3.25	0.49	-0.09
65.40	-5.52	-0.06	-0.02	3.76	0.15	-0.55
65.60	-5.34	-0.16	-0.11	3.48	-0.14	0.10
65.80	-5.47	-0.17	-0.17	3.41	-0.12	-1.51
66.00	-5.26	0.04	-0.18	4.06	0.29	0.48
66.20	-5.12	-0.17	-0.06	3.74	0.41	0.60
66.40	-5.75	-0.11	-0.20	2.54	-0.46	-0.16
66.60	-5.39	0.17	-0.27	3.13	-0.62	-0.47
66.80	-4.74	0.17	-0.22	3.39	-0.17	0.05
67.00	-4.93	0.09	-0.09	3.43	0.30	-0.06
67.20	-5.27	0.08	-0.05	3.28	-0.32	-0.11
67.40	-5.09	0.06	0.03	3.35	-1.07	0.28
67.60	-4.51	-0.06	-0.11	4.50	-0.33	-1.82
67.80	-4.57	0.09	-0.27	4.14	-0.21	-1.04
68.00	-4.20	0.04	-0.23	4.75	-0.60	-0.59
68.20	-4.40	0.04	-0.17	5.20	0.11	-0.04
68.40	-4.75	0.12	-0.11	4.68	0.52	-0.53
68.60	-4.94	0.05	-0.17	3.63	0.10	-0.39
68.80	-4.98	-0.04	-0.19	3.57	0.16	-0.03

69.00	-5.09	0.09	-0.17	3.46	-0.11	-0.82
69.20	-4.84	0.11	-0.17	3.39	-0.32	-0.78
69.40	-4.76	0.02	-0.13	3.56	-0.45	-0.14
69.60	-4.41	0.11	-0.06	3.06	-0.30	-0.65
69.80	-4.25	-0.05	-0.05	3.87	0.17	0.55
70.00	-4.38	-0.08	0.00	3.91	-0.15	1.06
70.20	-4.79	0.07	0.02	3.96	-0.07	0.48
70.40	-4.96	-0.13	0.04	4.33	-0.07	0.15
70.60	-4.83	-0.09	0.05	4.20	-0.42	0.04
70.80	-5.10	0.09	-0.02	3.20	-0.89	-0.03
71.00	-5.59	-0.10	-0.05	2.76	0.02	-0.07
71.20	-5.73	-0.03	0.02	3.67	-0.37	-0.91
71.40	-5.80	-0.03	0.07	3.61	-0.54	0.00
71.60	-5.60	-0.11	0.12	3.47	0.04	-0.38
71.80	-5.37	-0.20	-0.06	2.72	0.50	-0.58
72.00	-5.26	-0.17	-0.07	2.92	0.28	0.03
72.20	-5.28	-0.16	-0.04	3.47	-0.18	-0.88
72.40	-5.37	-0.25	-0.11	4.55	0.00	-1.08
72.60	-5.28	-0.15	-0.09	4.33	-0.13	-0.34
72.80	-5.43	0.00	-0.03	3.88	-0.73	-0.09
73.00	-5.26	-0.10	0.01	3.85	-0.04	-0.27
73.20	-5.24	-0.21	-0.05	3.65	0.29	-0.97
73.40	-5.51	-0.07	0.00	4.08	0.13	-0.70
73.60	-5.28	-0.10	0.07	4.02	-0.40	0.35
73.80	-5.28	-0.29	-0.01	3.70	0.00	0.21
74.00	-5.42	-0.16	-0.03	3.64	0.26	-0.79
74.20	-4.71	-0.32	-0.02	3.95	-0.12	0.48
74.40	-4.84	-0.24	-0.02	4.05	0.77	0.38
74.60	-4.73	-0.30	-0.07	3.99	0.30	-0.44
74.80	-4.57	-0.16	-0.11	4.42	-0.27	0.11
75.00	-4.76	-0.20	0.00	4.76	0.55	0.50
75.20	-5.01	-0.20	-0.07	3.97	-0.28	-0.34
75.40	-4.88	-0.43	-0.16	4.40	0.10	-0.31
75.60	-5.14	-0.24	-0.10	4.37	0.28	-0.38
75.80	-5.45	-0.13	-0.03	4.05	0.28	0.67
76.00	-5.66	-0.14	-0.06	3.60	-0.49	-0.04
76.20	-5.26	-0.35	-0.15	3.35	-0.49	-0.53
76.40	-4.90	-0.39	-0.26	3.77	0.17	-0.88
76.60	-4.49	-0.21	-0.17	4.42	0.82	-1.37
76.80	-4.70	-0.25	-0.09	4.72	0.59	-0.35
77.00	-4.86	-0.25	-0.14	4.39	0.31	-0.85
77.20	-5.02	-0.22	-0.13	4.11	0.11	-0.36
77.40	-5.18	-0.39	-0.08	3.86	-0.91	2.71
77.60	-5.37	-0.43	-0.05	4.58	-0.19	-0.58
77.80	-5.96	-0.39	-0.06	4.27	0.03	-0.25
78.00	-5.78	-0.33	-0.05	3.83	0.55	-0.25
78.20	-6.01	-0.34	-0.05	4.14	0.63	-0.38
78.40	-5.90	-0.49	-0.06	3.80	0.48	-0.22
78.60	-6.08	-0.60	-0.02	3.15	0.66	-0.34
78.80	-5.74	-0.41	0.01	3.54	0.40	-0.82

79.00	-5.40	-0.56	-0.05	3.59	-0.21	-0.32
79.20	-5.60	-0.59	-0.01	3.59	0.08	-1.30
79.40	-5.48	-0.55	-0.06	3.80	0.49	-0.49
79.60	-5.44	-0.53	-0.03	4.59	0.58	-0.44
79.80	-5.68	-0.46	0.02	4.20	-0.10	-0.56
80.00	-5.78	-0.45	-0.07	3.99	-0.13	-0.25
80.20	-5.77	-0.33	0.03	4.16	0.25	-0.20
80.40	-5.37	-0.48	0.09	3.46	0.46	-0.17
80.60	-5.38	-0.54	-0.03	3.42	0.16	0.19
80.80	-5.49	-0.29	-0.08	3.59	0.89	-0.34
81.00	-5.29	-0.39	0.01	4.60	0.62	0.36
81.20	-5.11	-0.48	0.00	4.47	0.08	0.50
81.40	-5.09	-0.40	-0.06	4.10	-0.21	-0.74
81.60	-4.94	-0.34	-0.09	4.46	0.28	-0.12
81.80	-4.88	-0.12	-0.04	4.87	0.35	0.25
82.00	-5.14	-0.34	-0.03	5.20	0.40	-0.41
82.20	-4.98	-0.31	-0.04	4.63	0.52	-0.01
82.40	-5.14	-0.29	-0.03	4.55	-0.26	0.04
82.60	-5.60	-0.21	-0.11	4.11	-0.42	-0.59
82.80	-5.42	-0.10	-0.03	4.64	-0.76	-0.15
83.00	-5.36	-0.10	-0.03	4.11	-0.04	-0.50
83.20	-5.32	-0.19	-0.11	4.15	0.03	-1.19
83.40	-5.06	-0.01	-0.09	4.17	0.31	-0.55
83.60	-4.86	0.01	-0.11	4.55	-0.21	0.27
83.80	-4.71	-0.03	-0.13	4.60	0.17	-0.80
84.00	-4.60	-0.05	-0.17	4.29	0.39	-0.07
84.20	-4.79	0.06	-0.08	4.35	-0.13	-0.29
84.40	-5.42	0.18	-0.07	3.55	-0.57	-0.76
84.60	-5.64	0.12	-0.13	3.29	-0.19	-0.23
84.80	-5.70	0.16	-0.11	3.38	0.09	-1.06
85.00	-5.63	0.23	-0.07	3.56	0.40	-0.31
85.20	-5.57	0.32	-0.02	3.73	-0.27	-0.95
85.40	-5.60	0.33	-0.02	3.66	0.04	-0.53
85.60	-5.65	0.13	0.04	3.29	-0.78	-0.40
85.80	-5.35	0.29	0.02	3.13	-0.65	-0.82
86.00	-5.27	0.23	-0.12	3.39	-0.14	-0.71
86.20	-5.02	0.15	-0.04	4.07	0.16	-0.85
86.40	-5.08	0.28	0.07	3.78	-0.32	-0.60
86.60	-5.24	0.26	0.01	4.35	-0.26	-0.74
86.80	-5.25	0.11	-0.07	4.26	-0.77	-0.86
87.00	-5.16	0.16	0.01	4.39	-0.46	0.21
87.20	-5.31	0.11	0.11	4.18	-0.45	0.23
87.40	-5.38	0.23	0.05	3.15	-0.80	-0.78
87.60	-5.07	0.11	0.03	3.16	-0.29	-0.85
87.80	-4.64	0.25	0.08	3.91	-0.05	-0.61
88.00	-4.72	-0.03	0.07	4.36	-0.08	-0.04
88.20	-4.78	0.14	0.04	4.50	-0.51	-0.11
88.40	-4.75	0.13	-0.01	4.93	-0.25	-0.13
88.60	-4.62	0.12	0.01	5.10	0.00	-0.28
88.80	-4.68	0.00	0.02	4.16	-0.36	-0.08

89.00	-4.60	0.18	-0.02	4.15	0.08	-1.04
89.20	-4.68	0.22	-0.09	4.11	0.21	0.37
89.40	-4.86	-0.15	-0.06	4.32	0.16	0.06
89.60	-5.04	-0.06	0.00	4.94	-0.56	0.12
89.80	-4.79	-0.09	-0.01	4.48	-0.42	0.55
90.00	-5.06	-0.01	0.04	3.68	0.00	0.00
90.20	-4.74	-0.02	-0.01	3.56	-0.29	-0.22
90.40	-4.49	-0.10	0.06	4.38	-0.53	-0.26
90.60	-4.63	-0.13	0.02	4.31	-0.38	-0.97
90.80	-4.23	-0.01	0.03	4.54	-0.31	-0.62
91.00	-4.04	-0.02	0.04	4.74	-0.65	-0.88
91.20	-4.78	-0.17	-0.04	4.14	-0.04	-1.12
91.40	-5.09	-0.26	-0.03	3.94	0.02	-0.01
91.60	-5.16	-0.33	0.07	4.04	-0.29	0.02
91.80	-5.30	-0.03	0.04	3.75	0.13	-0.61
92.00	-5.40	-0.13	-0.03	2.90	-0.20	-0.47
92.20	-5.28	-0.23	-0.07	3.46	-0.01	-0.20
92.40	-4.82	-0.26	0.04	4.00	0.35	-0.74
92.60	-4.48	-0.17	0.08	3.83	0.11	-0.45
92.80	-4.83	-0.31	0.02	3.39	-0.19	-0.56
93.00	-4.74	-0.13	0.06	3.41	0.55	-0.90
93.20	-4.59	-0.25	0.08	4.12	0.62	-0.58
93.40	-4.36	-0.43	0.09	3.67	1.27	-1.38
93.60	-4.41	-0.46	0.06	3.58	0.18	-1.07
93.80	-4.35	-0.45	0.10	3.72	0.16	-0.05
94.00	-4.54	-0.35	0.24	3.37	0.38	-0.38
94.20	-4.60	-0.51	0.15	2.63	0.51	-0.55
94.40	-4.25	-0.36	0.18	2.65	0.16	-0.51
94.60	-3.77	-0.36	0.22	2.72	0.32	-0.41
94.80	-3.55	-0.39	0.20	2.73	-0.19	0.08
95.00	-3.51	-0.34	0.24	3.34	-0.22	-0.81
95.20	-3.26	-0.24	0.26	3.22	0.26	-0.42
95.40	-3.21	-0.41	0.21	3.73	0.16	-0.91
95.60	-3.14	-0.37	0.24	3.54	0.01	-0.74
95.80	-3.22	-0.41	0.27	3.42	0.56	0.00
96.00	-3.04	-0.54	0.32	3.12	0.44	-0.04
96.20	-3.02	-0.47	0.27	2.46	0.37	-0.29
96.40	-2.95	-0.44	0.29	2.07	0.54	-0.32
96.60	-2.91	-0.41	0.31	1.85	-0.33	-0.41
96.80	-3.10	-0.36	0.26	2.03	-0.30	-0.58
97.00	-3.18	-0.23	0.30	1.82	0.10	-0.96
97.20	-2.83	-0.16	0.26	1.71	-0.61	-0.51
97.40	-2.63	-0.10	0.16	1.95	-0.16	-0.95
97.60	-2.52	-0.12	0.22	1.98	-0.32	-0.46
97.80	-2.43	-0.14	0.22	1.92	-0.23	0.37
98.00	-2.73	-0.22	0.14	1.83	0.19	0.37
98.20	-3.03	-0.33	0.12	1.92	-0.17	-0.49
98.40	-2.79	0.02	0.19	1.95	0.02	0.91
98.60	-3.26	0.08	0.15	1.09	-0.16	0.96
98.80	-3.41	-0.18	0.06	0.94	-0.06	-0.57

99.00	-3.08	-0.05	0.00	1.03	0.49	0.00
99.20	-2.84	-0.07	0.07	1.17	0.09	0.28
99.40	-2.43	-0.07	0.08	0.88	0.22	-0.09
99.60	-2.13	-0.01	0.00	0.85	0.04	0.05
99.80	-2.16	0.02	-0.02	1.21	-0.04	-0.36
100.00	-2.18	0.02	0.04	1.30	0.08	0.48
100.20	-2.11	0.10	0.00	1.73	0.01	0.32
100.40	-2.25	0.23	0.04	1.38	-0.41	-0.30
100.60	-2.01	0.07	0.01	1.17	-0.34	-0.03
100.80	-2.01	0.16	-0.02	1.37	-0.07	0.02
101.00	-2.14	0.25	-0.02	1.28	-0.40	0.22
101.20	-2.02	0.35	0.04	1.30	-0.28	0.87
101.40	-1.90	0.23	0.02	0.90	-0.40	1.03
101.60	-1.97	0.29	-0.09	0.94	-0.36	0.52
101.80	-1.67	0.29	-0.11	1.16	-0.69	0.69
102.00	-1.43	0.42	-0.11	2.01	-0.08	0.75
102.20	-1.24	0.42	-0.12	2.26	-0.40	0.32
102.40	-1.31	0.59	-0.15	1.57	-0.67	1.11
102.60	-1.66	0.52	-0.17	1.72	-0.73	0.23
102.80	-1.80	0.46	-0.14	1.39	-0.79	0.06
103.00	-1.65	0.58	-0.13	1.17	-1.06	-0.10
103.20	-1.29	0.57	-0.13	0.81	-1.23	0.20
103.40	-1.63	0.61	-0.20	0.64	-0.82	-0.11
103.60	-1.54	0.55	-0.12	0.47	-0.68	0.04
103.80	-1.38	0.63	-0.13	0.70	0.05	-0.22
104.00	-1.21	0.56	-0.21	0.65	-0.27	-0.29
104.20	-1.35	0.49	-0.19	0.35	-0.17	-0.53
104.40	-1.12	0.69	-0.13	0.85	-0.34	0.26
104.60	-0.80	0.65	-0.06	0.98	-0.37	0.55
104.80	-0.99	0.60	-0.13	0.48	-0.33	-0.02
105.00	-1.19	0.61	-0.17	0.40	-0.06	0.03
105.20	-1.15	0.63	-0.07	1.02	-0.22	0.25
105.40	-1.38	0.62	-0.07	0.86	0.05	0.33
105.60	-1.78	0.53	-0.04	0.09	0.23	0.36
105.80	-1.42	0.56	-0.05	0.03	-0.09	-0.04
106.00	-1.02	0.62	-0.08	-0.07	0.09	0.25
106.20	-0.96	0.47	-0.06	0.04	-0.21	0.26
106.40	-0.76	0.44	-0.04	0.10	0.16	0.80
106.60	-0.46	0.51	0.01	0.51	0.36	0.52
106.80	-0.44	0.43	0.03	0.38	-0.09	-0.31
107.00	-0.16	0.47	-0.02	0.32	0.02	0.31
107.20	-0.36	0.43	0.03	0.21	0.11	0.52
107.40	-0.57	0.38	0.03	0.16	-0.16	0.26
107.60	-0.43	0.40	0.05	0.15	-0.16	0.21
107.80	-0.33	0.36	0.05	-0.09	0.15	-0.09
108.00	-0.16	0.35	0.08	-0.09	-0.14	0.60
108.20	0.19	0.34	0.10	-0.21	0.09	0.31
108.40	0.03	0.28	0.05	-0.41	-0.11	0.62
108.60	0.13	0.30	0.03	-0.25	0.09	-0.02
108.80	0.32	0.37	0.05	-0.11	0.33	0.63

109.00	0.36	0.36	0.07	-0.26	0.31	0.31
109.20	0.45	0.22	0.00	-0.23	-0.08	0.12
109.40	0.40	0.24	0.00	-0.11	0.44	0.46
109.60	0.23	0.31	0.05	-0.01	0.37	0.53
109.80	0.14	0.21	0.10	-0.32	0.31	0.56
110.00	0.04	0.20	0.13	-0.75	-0.17	0.21
110.20	0.11	0.30	0.07	-1.58	0.71	0.06
110.40	0.09	0.17	0.04	-1.34	0.20	0.36
110.60	0.33	0.24	0.09	-1.11	0.18	0.76
110.80	0.43	0.14	0.11	-1.33	0.09	0.78
111.00	0.46	0.22	0.02	-1.19	-0.02	0.49
111.20	0.42	0.13	0.06	-1.47	0.19	0.61
111.40	0.37	0.11	0.10	-1.26	0.42	0.83
111.60	0.49	-0.01	0.01	-1.30	0.29	0.26
111.80	0.56	-0.06	0.03	-1.33	0.19	0.48
112.00	0.47	-0.01	0.06	-1.70	0.45	0.77
112.20	-0.03	-0.17	-0.03	-1.73	-0.02	0.88
112.40	-0.20	-0.13	-0.03	-1.70	0.35	0.23
112.60	-0.06	-0.06	0.01	-1.72	-0.10	0.56
112.80	0.01	-0.17	0.04	-1.83	0.73	0.51
113.00	-0.07	-0.19	0.07	-2.11	0.30	-0.14
113.20	0.30	-0.26	0.08	-1.98	0.45	0.57
113.40	0.76	0.00	0.22	-1.73	0.46	0.44
113.60	0.90	-0.04	0.16	-1.86	0.10	0.33
113.80	0.97	0.08	0.01	-1.53	-0.11	0.49
114.00	0.71	0.12	-0.03	-1.42	0.30	0.75
114.20	0.74	0.13	-0.06	-1.54	0.27	0.80
114.40	0.83	0.17	-0.11	-1.98	0.18	0.58
114.60	0.96	0.18	-0.18	-2.07	-0.07	0.37
114.80	0.75	0.08	-0.16	-2.01	0.17	0.58
115.00	0.95	0.06	-0.09	-1.78	0.06	0.82
115.20	1.26	0.04	-0.17	-1.82	0.48	0.88
115.40	1.19	-0.06	-0.28	-2.12	0.71	0.46
115.60	1.37	0.03	-0.41	-1.94	0.41	0.64
115.80	1.32	0.10	-0.44	-1.80	0.41	1.15
116.00	1.23	0.08	-0.38	-1.59	0.72	0.03
116.20	1.23	0.05	-0.42	-1.92	0.70	0.71
116.40	1.07	0.02	-0.37	-1.71	0.35	0.31
116.60	1.34	-0.09	-0.32	-1.73	0.21	-0.24
116.80	1.34	-0.07	-0.33	-1.64	0.40	0.62
117.00	0.98	-0.18	-0.40	-1.98	0.11	0.05
117.20	1.00	-0.17	-0.39	-2.25	-0.12	-0.21
117.40	1.59	-0.40	-0.43	-1.88	0.93	0.12
117.60	1.65	-0.34	-0.51	-2.13	0.17	0.04
117.80	1.72	-0.33	-0.56	-2.31	0.25	0.44
118.00	1.87	-0.32	-0.67	-2.05	0.50	0.71
118.20	1.83	-0.44	-0.74	-1.89	0.00	0.01
118.40	1.54	-0.29	-0.71	-2.29	0.26	0.34
118.60	1.63	-0.02	-0.68	-2.37	0.39	0.27
118.80	1.81	-0.05	-0.74	-2.37	0.36	0.66

119.00	1.59	-0.27	-0.72	-2.66	0.22	0.56
119.20	1.19	-0.09	-0.62	-2.52	-0.02	0.56
119.40	1.36	-0.07	-0.51	-2.43	0.00	0.56
119.60	1.40	-0.17	-0.50	-2.75	-0.31	0.35
119.80	1.29	-0.02	-0.51	-3.15	0.23	0.33
120.00	1.74	0.03	-0.52	-2.41	0.25	0.28
120.20	1.85	-0.01	-0.43	-1.99	0.50	0.50
120.40	2.19	-0.05	-0.37	-2.11	0.39	-0.08
120.60	2.26	0.03	-0.44	-2.34	0.33	0.65
120.80	2.29	0.01	-0.49	-2.23	0.28	0.42
121.00	2.03	0.00	-0.46	-2.12	0.60	0.38
121.20	2.14	-0.04	-0.35	-1.97	0.20	0.93
121.40	2.08	0.08	-0.32	-2.31	-0.64	0.35
121.60	2.03	-0.01	-0.33	-2.74	-0.33	1.07
121.80	2.30	0.05	-0.31	-2.72	-0.26	1.20
122.00	2.41	0.01	-0.29	-2.68	0.18	0.75
122.20	2.48	0.11	-0.34	-2.10	0.32	-0.12
122.40	2.57	0.12	-0.36	-2.20	0.22	0.45
122.60	2.39	0.22	-0.31	-1.90	-0.05	0.59
122.80	2.37	0.14	-0.33	-1.93	0.03	0.89
123.00	2.33	0.19	-0.40	-1.79	-0.22	0.73
123.20	2.28	0.06	-0.44	-1.78	-0.35	0.62
123.40	2.04	0.16	-0.39	-1.86	-0.47	0.61
123.60	2.03	0.34	-0.35	-1.57	-0.61	0.12
123.80	2.02	0.27	-0.31	-1.83	-0.87	0.58
124.00	2.20	0.34	-0.32	-1.98	-0.35	0.40
124.20	2.25	0.15	-0.29	-2.10	0.02	-0.09
124.40	2.01	0.33	-0.33	-2.36	0.37	0.65
124.60	1.88	0.18	-0.31	-2.30	-0.01	0.10
124.80	2.20	0.21	-0.25	-2.34	-0.42	0.83
125.00	2.42	0.27	-0.25	-2.36	-0.23	1.05
125.20	2.28	0.18	-0.29	-2.31	-0.14	0.30
125.40	2.29	0.21	-0.25	-1.55	-0.13	0.14
125.60	2.03	0.32	-0.19	-1.79	0.04	0.72
125.80	1.88	0.16	-0.26	-2.11	0.13	-0.17
126.00	1.91	0.28	-0.31	-2.39	0.24	0.22
126.20	1.97	0.13	-0.22	-2.65	-0.05	-0.06
126.40	2.04	0.16	-0.18	-2.56	-0.33	0.04
126.60	1.96	0.00	-0.17	-2.81	-0.10	0.71
126.80	2.14	0.08	-0.10	-2.84	-0.46	0.74
127.00	2.50	0.13	-0.05	-2.06	-0.01	-0.52
127.20	2.75	0.12	-0.02	-1.66	-0.04	-0.58
127.40	3.02	0.02	-0.06	-2.04	-0.17	0.13
127.60	3.08	-0.06	-0.20	-2.20	-0.31	0.36
127.80	2.93	-0.16	-0.37	-2.04	-0.40	-0.35
128.00	2.83	-0.08	-0.44	-2.35	-0.09	0.25
128.20	2.32	0.11	-0.53	-2.59	-0.60	0.61
128.40	2.27	0.12	-0.53	-2.66	0.64	0.37
128.60	2.54	0.10	-0.54	-2.44	0.23	0.46
128.80	2.86	0.20	-0.52	-2.54	0.07	0.98

129.00	2.84	0.30	-0.43	-2.68	-0.75	0.56
129.20	2.81	0.18	-0.38	-3.16	-0.68	1.02
129.40	2.91	0.33	-0.29	-2.43	-0.49	0.21
129.60	2.76	0.24	-0.24	-2.09	0.08	0.29
129.80	2.79	0.24	-0.17	-2.03	0.17	0.77
130.00	2.62	0.20	-0.05	-1.40	0.52	0.33
130.20	2.59	0.15	-0.08	-1.62	0.51	-0.23
130.40	2.55	-0.04	-0.19	-1.86	0.42	-1.02
130.60	2.51	0.12	-0.23	-2.10	0.13	-0.49
130.80	2.74	0.13	-0.18	-2.18	-0.34	0.17
131.00	2.94	0.00	-0.18	-2.77	-0.82	0.89
131.20	2.62	0.18	-0.22	-3.19	-0.73	1.17
131.40	2.58	0.11	-0.21	-2.88	0.04	0.89
131.60	3.00	0.17	-0.19	-2.56	0.20	0.63
131.80	2.99	0.24	-0.22	-3.10	0.61	0.76
132.00	2.91	0.21	-0.27	-3.48	-0.50	0.61
132.20	2.89	0.27	-0.31	-2.79	-0.39	0.76
132.40	2.85	0.10	-0.33	-2.25	0.06	-0.05
132.60	2.54	0.27	-0.33	-2.72	0.05	0.43
132.80	2.64	0.30	-0.33	-3.05	-0.19	1.05
133.00	2.44	0.38	-0.33	-3.08	-0.76	0.62
133.20	2.10	0.32	-0.27	-3.17	-0.31	0.19
133.40	2.31	0.34	-0.22	-2.88	0.79	0.15
133.60	2.61	0.41	-0.25	-2.54	0.40	0.70
133.80	2.72	0.28	-0.23	-2.50	-0.43	0.00
134.00	2.61	0.21	-0.20	-2.28	-0.40	-0.10
134.20	2.84	0.10	-0.18	-1.64	0.08	0.72
134.40	3.06	0.19	-0.24	-1.67	0.34	0.06
134.60	3.42	0.34	-0.29	-2.78	0.37	-0.41
134.80	3.33	0.47	-0.21	-2.39	0.22	0.41
135.00	3.33	0.67	-0.15	-2.30	-0.20	0.61
135.20	3.11	0.73	-0.10	-2.27	-0.16	0.52
135.40	3.08	0.68	-0.04	-2.44	-0.45	0.66
135.60	3.10	0.54	-0.01	-2.32	-0.71	0.91
135.80	3.22	0.50	-0.05	-2.14	0.07	0.83
136.00	3.56	0.48	-0.06	-1.87	0.95	-0.30
136.20	3.71	0.49	-0.05	-1.70	0.72	0.14
136.40	3.63	0.45	-0.06	-1.64	-0.28	-0.11
136.60	3.65	0.29	-0.10	-1.91	-1.06	0.05
136.80	3.53	0.13	-0.01	-2.01	-0.67	0.67
137.00	3.48	0.16	0.04	-2.05	0.39	0.30
137.20	3.56	0.19	-0.01	-2.11	0.41	-0.31
137.40	3.46	0.39	0.01	-2.01	0.54	0.12
137.60	3.48	0.62	0.01	-2.18	0.07	0.13
137.80	3.51	0.61	0.01	-2.84	-0.34	0.39
138.00	3.33	0.47	-0.08	-2.72	-0.15	0.96
138.20	3.16	0.62	-0.09	-2.70	0.80	1.34
138.40	3.48	0.47	-0.03	-2.21	1.12	0.35
138.60	3.51	0.28	-0.12	-2.01	0.30	-0.85
138.80	3.25	0.23	-0.23	-2.52	-0.07	-0.33

139.00	3.17	0.13	-0.22	-2.15	0.72	0.22
139.20	3.17	0.10	-0.22	-2.06	0.62	0.29
139.40	3.24	0.17	-0.21	-1.93	-0.54	-0.14
139.60	3.04	0.23	-0.14	-3.28	-0.40	0.85
139.80	3.03	0.23	-0.17	-3.99	-0.66	1.29
140.00	2.79	0.15	-0.23	-3.18	-0.30	0.42
140.20	2.76	0.12	-0.16	-1.85	0.01	0.28
140.40	2.94	0.24	-0.09	-1.93	1.29	-0.70
140.60	3.04	0.24	-0.11	-2.49	0.22	-0.27
140.80	3.47	0.26	-0.11	-1.90	-0.26	-0.49
141.00	3.45	0.33	-0.07	-1.33	-0.06	0.24
141.20	3.44	0.33	-0.03	-1.57	0.13	0.06
141.40	3.60	0.28	-0.04	-2.69	-0.69	1.06
141.60	3.69	0.39	-0.08	-2.42	-0.07	1.73
141.80	3.48	0.22	-0.15	-2.82	0.37	1.16
142.00	3.30	0.21	-0.18	-2.93	0.29	1.19
142.20	3.55	0.32	-0.18	-2.70	-0.50	1.14
142.40	3.40	0.43	-0.24	-2.34	-0.59	-0.18
142.60	3.27	0.22	-0.21	-2.05	0.26	-0.26
142.80	3.22	0.24	-0.03	-2.40	0.68	0.10
143.00	3.71	0.25	0.07	-2.49	0.30	0.31
143.20	4.09	0.12	-0.07	-2.34	0.37	-0.01
143.40	3.77	0.20	-0.12	-2.61	-1.44	0.46
143.60	3.81	0.08	-0.02	-1.88	-0.12	0.93
143.80	3.70	0.02	-0.07	-1.60	-0.36	1.06
144.00	3.42	0.17	-0.06	-2.24	-0.49	-0.30
144.20	3.44	0.34	-0.05	-2.81	0.13	-0.22
144.40	3.51	0.24	-0.10	-2.74	-0.27	1.33
144.60	3.35	0.06	-0.09	-2.35	0.09	0.29
144.80	3.31	0.12	-0.10	-2.46	0.77	-1.04
145.00	3.49	0.12	-0.09	-1.89	0.60	-1.15
145.20	3.53	0.13	0.02	-2.29	0.18	-1.75
145.40	3.37	0.12	0.03	-2.97	0.36	-0.01
145.60	3.29	-0.02	0.01	-3.20	-1.29	0.54
145.80	3.48	0.00	-0.14	-2.79	-0.38	0.48
146.00	3.41	-0.06	-0.27	-2.64	0.24	1.21
146.20	3.15	0.21	-0.15	-2.90	0.24	0.58
146.40	3.24	0.19	-0.14	-2.89	0.01	0.31
146.60	3.18	0.35	-0.08	-2.79	-0.14	0.83
146.80	2.97	0.40	-0.06	-2.65	0.25	0.44
147.00	3.06	0.36	-0.03	-2.54	0.64	-0.22
147.20	3.30	0.22	0.00	-2.18	0.48	0.15
147.40	3.26	0.21	-0.01	-1.82	0.31	-0.91
147.60	3.43	0.09	-0.04	-1.83	-0.25	-0.69
147.80	3.64	-0.11	-0.15	-1.87	0.31	0.51
148.00	3.82	-0.13	-0.15	-2.22	0.19	-0.07
148.20	3.78	-0.09	-0.10	-2.66	-0.78	0.12
148.40	3.86	-0.03	-0.03	-2.09	0.07	1.18
148.60	3.77	0.12	-0.01	-1.92	0.32	0.03
148.80	3.77	0.22	-0.02	-2.07	0.76	-0.32

149.00	3.87	0.17	-0.06	-2.01	-0.60	0.81
149.20	3.61	0.07	-0.09	-2.38	-0.34	1.77
149.40	3.65	0.01	-0.12	-2.78	-0.37	2.29
149.60	3.73	-0.20	-0.06	-2.82	0.30	1.12
149.80	3.84	-0.18	0.02	-2.60	0.12	0.92
150.00	3.86	-0.22	0.03	-2.60	0.88	-0.08
150.20	4.07	-0.19	-0.03	-2.53	0.86	0.60
150.40	3.86	-0.42	-0.01	-2.29	0.61	0.57
150.60	3.81	-0.20	0.00	-2.13	-0.28	1.19
150.80	3.72	-0.12	-0.06	-2.22	-0.14	1.20
151.00	3.41	-0.02	-0.06	-2.97	0.24	1.46
151.20	3.30	0.02	-0.09	-3.25	-0.79	0.83
151.40	3.25	0.00	-0.14	-2.91	0.81	0.14
151.60	3.59	-0.12	-0.16	-3.11	0.50	0.54
151.80	3.71	-0.14	-0.21	-3.94	0.75	1.15
152.00	3.74	-0.07	-0.16	-3.88	-0.30	0.96
152.20	3.68	-0.09	-0.17	-2.53	-0.92	0.24
152.40	3.58	-0.47	-0.16	-2.17	-0.01	1.19
152.60	3.57	-0.52	-0.17	-2.15	0.61	0.10
152.80	3.85	-0.53	-0.14	-2.64	0.89	0.13
153.00	3.84	-0.36	-0.16	-2.95	-0.77	0.48
153.20	3.60	-0.40	-0.03	-2.58	0.36	0.20
153.40	3.34	-0.32	0.10	-2.39	-0.31	0.55
153.60	3.47	-0.10	0.15	-3.14	-0.66	1.04
153.80	3.28	-0.13	0.12	-2.75	-0.11	0.94
154.00	3.21	0.13	0.10	-3.60	0.40	0.69
154.20	3.19	0.05	0.11	-4.01	0.16	3.31
154.40	3.47	0.02	0.13	-2.84	0.32	1.23
154.60	3.57	0.16	0.04	-2.49	-0.27	1.37
154.80	3.43	-0.01	0.02	-2.73	0.95	0.76
155.00	3.77	0.11	0.06	-2.85	1.17	-0.37
155.20	3.86	0.15	0.09	-2.28	0.20	-0.29
155.40	3.62	0.10	0.03	-2.73	-0.06	-0.48
155.60	3.65	0.08	-0.07	-2.80	-0.96	0.63
155.80	3.83	0.11	-0.07	-2.64	-0.98	1.76
156.00	3.54	-0.10	-0.24	-3.16	0.55	2.15
156.20	3.44	-0.01	-0.33	-3.35	-0.22	2.67
156.40	3.67	0.03	-0.24	-2.92	-1.23	1.19
156.60	3.72	0.08	-0.20	-2.67	-1.47	1.49
156.80	3.68	0.00	-0.20	-2.20	-0.33	0.27
157.00	3.72	0.02	-0.19	-1.97	0.80	-0.75
157.20	3.83	0.03	-0.22	-2.10	-0.63	-1.20
157.40	3.68	0.06	-0.24	-2.48	-0.96	0.18
157.60	3.59	0.05	-0.18	-2.71	-0.70	1.20
157.80	3.54	0.11	-0.14	-2.81	-0.05	1.88
158.00	3.36	-0.02	-0.20	-2.70	0.79	1.19
158.20	3.16	0.21	-0.17	-2.28	0.60	1.25
158.40	3.27	0.24	-0.12	-2.56	0.28	0.67
158.60	3.42	0.22	-0.10	-2.17	0.14	-0.65
158.80	3.42	0.26	-0.11	-2.61	0.39	-0.20

159.00	3.26	0.20	-0.15	-2.65	0.55	0.17
159.20	3.30	0.31	-0.11	-1.85	0.58	0.03
159.40	3.39	0.30	-0.07	-1.13	-0.01	0.06
159.60	3.32	0.19	0.00	-2.01	0.92	-0.46
159.80	3.17	0.11	-0.13	-2.51	-0.25	0.18
160.00	2.88	0.18	-0.20	-2.73	-0.90	0.44
160.20	3.06	0.06	-0.17	-2.97	-1.43	0.54
160.40	3.07	0.06	-0.09	-2.20	-0.32	0.38
160.60	3.15	0.17	-0.06	-2.46	0.83	0.00
160.80	2.84	0.19	-0.09	-2.31	0.75	-0.03
161.00	3.07	-0.11	-0.10	-2.27	1.08	0.43
161.20	3.28	-0.08	-0.05	-2.34	0.80	0.13
161.40	3.66	-0.18	-0.21	-2.23	1.06	-0.79
161.60	3.78	-0.01	-0.24	-2.42	-0.13	0.37
161.80	3.76	0.01	-0.07	-1.78	-0.58	0.56
162.00	4.12	-0.07	0.00	-1.93	0.61	0.40
162.20	3.96	0.20	-0.07	-2.58	0.26	1.19
162.40	3.97	0.06	-0.11	-1.98	0.75	-0.47
162.60	3.94	0.11	-0.11	-2.03	0.09	-0.02
162.80	3.78	0.04	-0.16	-2.58	-0.08	1.00
163.00	3.42	-0.03	-0.17	-2.57	0.63	1.25
163.20	3.70	-0.05	-0.19	-2.24	0.75	0.50
163.40	3.76	0.00	-0.21	-1.65	0.41	-0.35
163.60	3.62	-0.07	-0.17	-1.31	-0.27	-0.82
163.80	3.97	-0.07	-0.17	-1.10	-0.11	-0.32
164.00	3.95	-0.14	-0.09	-0.95	0.69	-0.83
164.20	3.90	-0.25	-0.12	-2.19	-0.42	-1.48
164.40	3.82	-0.01	-0.18	-2.65	-0.56	-0.16
164.60	3.54	-0.12	-0.13	-2.13	-0.09	0.15
164.80	3.51	-0.09	-0.17	-1.86	0.68	0.19
165.00	3.57	0.00	-0.20	-1.68	1.00	0.54
165.20	3.50	0.02	-0.24	-1.69	0.00	-0.64
165.40	3.38	-0.05	-0.16	-1.98	-0.42	0.98
165.60	3.46	-0.02	-0.13	-1.98	0.59	0.51
165.80	3.44	-0.06	-0.10	-2.59	0.40	-0.06
166.00	3.58	-0.28	-0.05	-2.76	1.27	0.35
166.20	3.62	-0.09	-0.04	-2.35	0.63	-0.44
166.40	3.46	0.01	-0.02	-1.96	0.02	0.28
166.60	3.14	-0.01	0.00	-2.27	-0.53	0.67
166.80	3.11	0.00	-0.06	-2.18	-0.69	0.52
167.00	3.27	-0.11	-0.06	-2.00	0.49	0.80
167.20	3.17	-0.28	-0.07	-2.37	0.97	-0.30
167.40	3.24	-0.18	-0.05	-2.71	0.24	0.00
167.60	3.21	-0.14	-0.05	-3.03	-0.48	0.84
167.80	3.27	-0.17	-0.02	-2.24	-1.11	0.71
168.00	3.45	-0.21	0.02	-1.92	-0.15	1.06
168.20	3.53	-0.01	0.04	-2.09	0.68	-0.05
168.40	3.61	-0.17	-0.01	-3.12	0.67	-0.11
168.60	3.80	-0.04	-0.01	-3.16	-0.53	1.17
168.80	3.86	-0.10	-0.03	-2.65	-0.38	0.99

169.00	3.90	-0.15	-0.04	-1.92	-1.32	-0.05
169.20	3.78	-0.05	0.03	-1.38	-1.06	-0.44
169.40	3.63	-0.02	0.04	-2.03	-0.15	0.82
169.60	3.56	0.07	-0.02	-2.64	0.08	1.23
169.80	3.34	-0.09	-0.06	-2.66	0.01	1.24
170.00	3.73	-0.02	0.00	-2.61	-0.51	1.80
170.20	3.68	0.02	0.02	-2.94	-0.01	2.18
170.40	3.54	-0.21	-0.13	-2.93	-0.35	1.29
170.60	3.69	-0.10	-0.11	-2.50	0.12	1.14
170.80	3.97	0.05	-0.11	-2.42	-0.56	1.86
171.00	3.59	-0.11	-0.14	-1.87	0.23	0.68
171.20	3.70	-0.05	-0.16	-1.98	-0.04	-0.19
171.40	3.81	0.05	-0.16	-2.41	1.07	-0.52
171.60	3.56	0.00	-0.05	-2.48	0.05	-0.47
171.80	3.50	0.03	-0.04	-2.49	-0.44	0.45
172.00	3.42	0.14	-0.10	-1.96	-0.05	-0.33
172.20	3.25	0.07	-0.08	-2.02	0.82	0.38
172.40	3.49	-0.07	-0.01	-2.00	1.20	0.17
172.60	3.49	-0.06	0.07	-2.16	0.72	0.17
172.80	3.52	-0.18	0.02	-2.40	0.86	-0.66
173.00	3.55	-0.16	-0.06	-2.50	0.14	-0.62
173.20	3.42	0.10	-0.01	-2.69	-0.79	0.66
173.40	3.35	-0.06	-0.02	-2.03	0.02	0.65
173.60	3.40	0.21	-0.04	-1.69	1.47	0.07
173.80	3.06	0.26	-0.01	-2.21	0.71	-0.72
174.00	3.08	0.24	-0.06	-2.30	0.99	-0.17
174.20	3.06	0.16	-0.08	-2.16	1.23	-0.45
174.40	2.99	0.24	-0.07	-2.63	-0.34	-0.31
174.60	3.19	0.28	-0.06	-2.80	-0.44	0.47
174.80	3.42	0.15	-0.05	-2.46	-0.24	0.88
175.00	3.39	0.16	-0.09	-2.09	0.00	0.22
175.20	3.24	-0.04	-0.08	-2.09	0.85	0.78
175.40	3.68	0.15	-0.06	-1.64	1.20	-0.62
175.60	3.69	0.18	-0.12	-1.59	0.97	-1.75
175.80	3.67	0.16	-0.09	-2.18	0.62	-1.31
176.00	3.62	0.25	-0.03	-2.66	-1.03	0.88
176.20	3.64	0.21	-0.01	-2.58	-0.80	1.26
176.40	3.67	0.13	-0.07	-2.36	-0.04	0.30
176.60	3.54	0.09	-0.04	-1.73	-0.11	-0.07
176.80	3.39	0.10	-0.01	-1.50	1.63	-1.01
177.00	3.40	0.00	-0.01	-2.08	0.83	-0.28
177.20	3.49	-0.06	-0.04	-2.22	0.32	-0.48
177.40	3.73	0.09	0.02	-2.04	0.35	-0.11
177.60	3.79	-0.03	0.02	-1.65	0.43	0.17
177.80	3.77	-0.03	0.04	-1.89	0.39	-0.88
178.00	3.63	0.10	-0.01	-2.04	0.10	-1.32
178.20	3.74	-0.04	-0.01	-1.97	-0.27	-0.19
178.40	3.62	0.11	-0.02	-1.82	-0.30	-0.42
178.60	3.56	0.03	0.03	-1.53	0.12	-0.25
178.80	3.61	0.04	0.04	-1.53	0.07	0.51

179.00	3.30	0.13	0.04	-1.81	1.00	0.34
179.20	3.35	0.05	0.05	-2.23	1.11	-0.24
179.40	3.47	0.06	0.02	-2.02	0.18	0.10
179.60	3.38	-0.02	0.06	-1.93	0.33	0.06
179.80	3.44	0.04	0.07	-1.89	0.64	0.07
180.00	3.46	0.00	0.03	-1.75	0.21	-0.47
180.20	3.24	0.01	0.04	-2.05	-0.30	0.05
180.40	3.30	-0.01	0.02	-1.58	-0.66	0.46
180.60	3.30	0.10	0.00	-1.23	-0.45	0.57
180.80	2.97	0.02	0.02	-1.63	0.05	-0.05
181.00	3.06	0.08	0.02	-1.80	0.01	0.10
181.20	3.05	0.11	-0.05	-1.67	0.12	0.17
181.40	3.08	0.03	-0.01	-1.87	0.07	0.72
181.60	3.26	0.08	-0.06	-2.52	0.33	0.58
181.80	3.28	0.07	-0.12	-1.90	0.43	-0.25
182.00	3.48	-0.01	-0.08	-1.18	-0.58	0.01
182.20	3.70	0.06	-0.05	-1.27	-0.80	0.91
182.40	3.70	-0.09	-0.01	-1.54	-0.40	0.78
182.60	3.66	-0.04	-0.06	-1.51	0.10	0.01
182.80	3.86	-0.04	-0.03	-0.91	-0.04	-0.47
183.00	3.78	-0.13	-0.03	-1.05	0.94	-0.86
183.20	3.75	-0.23	-0.10	-1.81	-0.16	-0.65
183.40	3.56	-0.08	-0.12	-1.82	-0.22	0.11
183.60	3.60	0.04	-0.14	-1.55	0.56	0.12
183.80	3.30	-0.07	-0.16	-1.51	0.00	0.39
184.00	3.15	-0.18	-0.21	-1.63	0.18	0.71
184.20	3.38	-0.15	-0.23	-1.94	-0.25	0.94
184.40	3.50	-0.10	-0.23	-1.90	-0.13	-0.03
184.60	3.39	0.10	-0.28	-1.80	-0.17	-0.22
184.80	3.30	-0.10	-0.29	-2.09	0.44	-0.18
185.00	3.07	0.01	-0.25	-1.68	0.59	-0.95
185.20	2.98	0.13	-0.27	-1.41	0.18	-1.16
185.40	2.77	0.04	-0.29	-1.50	0.04	-0.87
185.60	2.76	0.07	-0.24	-2.07	-0.58	-1.16
185.80	2.42	0.06	-0.28	-2.67	-0.24	-0.37
186.00	2.30	-0.15	-0.25	-2.33	0.32	-0.26
186.20	2.31	0.10	-0.20	-1.81	-0.43	0.62
186.40	2.00	-0.09	-0.13	-1.84	-0.96	0.12
186.60	2.22	-0.17	-0.05	-1.94	-0.17	-0.50
186.80	2.23	-0.04	0.00	-2.01	0.45	-0.04
187.00	2.32	-0.03	0.03	-1.99	-0.22	0.38
187.20	2.06	0.02	0.05	-1.96	-0.53	-0.56
187.40	2.18	0.02	0.15	-1.60	0.01	-1.97
187.60	2.13	0.09	0.17	-2.14	-0.24	-0.57
187.80	2.01	-0.07	0.12	-2.34	-0.14	-0.01
188.00	2.20	0.05	0.18	-2.13	-0.67	0.57
188.20	2.39	0.03	0.22	-1.98	-1.01	0.51
188.40	2.31	0.18	0.21	-1.82	-0.84	0.52
188.60	2.58	0.15	0.16	-2.10	0.07	0.26
188.80	2.65	0.21	0.14	-2.01	-0.64	-0.23

189.00	2.88	0.15	0.13	-1.82	-0.50	-0.22
189.20	3.01	0.12	0.15	-1.90	0.56	0.44
189.40	2.86	0.16	0.18	-2.16	-0.07	-0.54
189.60	3.03	0.17	0.13	-2.01	0.27	-1.35
189.80	3.02	0.24	0.12	-2.09	-0.19	-0.65
190.00	3.04	0.21	0.10	-2.27	0.59	-0.77
190.20	3.06	0.10	0.09	-1.72	1.13	-1.01
190.40	3.11	0.07	0.08	-1.28	1.34	-1.37
190.60	2.83	0.16	0.08	-1.26	0.85	-0.62
190.80	2.95	0.12	0.05	-0.55	1.07	-1.17
191.00	3.01	0.18	0.05	-0.78	0.53	-0.84
191.20	2.90	0.28	0.01	-0.98	0.53	-0.63
191.40	3.00	0.05	-0.01	0.07	0.07	-0.74
191.60	3.26	0.24	0.04	0.49	0.00	-0.87
191.80	3.24	0.10	0.03	0.66	0.51	-1.03
192.00	3.16	0.27	0.00	0.60	-0.32	-1.12
192.20	2.91	0.23	-0.02	0.55	0.04	-1.27
192.40	2.78	0.16	-0.03	0.64	0.32	-0.92
192.60	2.57	0.16	-0.02	0.71	0.06	-0.86
192.80	2.71	0.19	0.00	0.50	0.72	-0.99
193.00	2.66	0.21	-0.07	0.16	-0.34	-0.86
193.20	2.47	0.19	-0.07	0.18	0.45	-0.67
193.40	2.65	0.14	-0.06	0.66	0.51	-0.89
193.60	2.69	0.16	-0.08	0.91	0.70	-1.14
193.80	2.55	0.18	-0.11	0.59	0.54	-0.73
194.00	2.50	0.09	-0.15	0.67	0.77	-0.63
194.20	2.65	0.09	-0.14	0.91	1.26	-0.33
194.40	2.39	0.06	-0.10	0.86	0.66	-0.25
194.60	2.21	0.12	-0.09	0.92	0.55	0.15
194.80	2.40	0.13	-0.10	0.97	0.44	-0.06
195.00	2.28	0.19	-0.07	1.17	0.78	0.08
195.20	2.20	0.11	-0.03	0.86	0.38	0.27
195.40	2.35	0.08	-0.08	1.05	0.48	-0.41
195.60	2.37	0.05	-0.08	1.23	0.14	0.22
195.80	2.48	0.05	-0.02	1.23	1.00	-0.41
196.00	2.30	0.08	-0.06	1.30	0.67	-0.08
196.20	2.33	-0.02	-0.02	1.30	0.51	0.04
196.40	2.33	0.00	0.04	1.11	0.28	0.15
196.60	2.26	0.05	0.04	1.29	0.10	0.61
196.80	1.99	0.15	0.11	1.20	0.06	0.10
197.00	1.95	0.04	0.16	0.93	-0.41	-0.01
197.20	1.93	0.22	0.18	0.98	-0.20	0.01
197.40	1.74	0.05	0.15	0.70	-0.06	-0.09
197.60	1.88	0.06	0.16	0.75	0.01	0.49
197.80	1.84	0.02	0.21	1.15	0.01	0.17
198.00	1.51	0.02	0.27	0.79	-0.38	0.20
198.20	1.48	0.01	0.24	0.62	0.10	-0.59
198.40	1.57	-0.07	0.27	0.88	0.32	-0.19
198.60	1.66	-0.10	0.30	0.96	0.01	-0.28
198.80	1.65	-0.08	0.33	0.77	0.41	-0.09

199.00	1.46	-0.08	0.36	0.92	0.00	-0.42
199.20	1.30	-0.13	0.41	0.69	-0.18	-0.34
199.40	1.20	-0.12	0.42	0.56	0.18	-0.49
199.60	1.08	-0.16	0.49	0.40	-0.09	-0.32
199.80	0.93	-0.11	0.45	0.09	-0.25	-0.49
200.00	0.88	-0.18	0.44	0.05	0.26	-0.05
200.20	0.84	-0.23	0.48	0.28	0.14	-0.32
200.40	1.08	-0.26	0.52	0.36	0.07	-0.16
200.60	0.92	-0.26	0.47	0.18	-0.04	-0.04
200.80	0.74	-0.31	0.47	0.09	-0.39	-0.37
201.00	0.71	-0.26	0.51	0.33	0.24	0.01
201.20	0.76	-0.34	0.48	0.40	0.14	-0.31
201.40	0.67	-0.26	0.46	0.27	0.33	-1.14
201.60	0.60	-0.19	0.45	0.03	0.05	-0.44
201.80	0.47	-0.27	0.43	0.12	-0.08	-0.39
202.00	0.43	-0.21	0.41	0.05	0.05	-0.25
202.20	0.49	-0.30	0.41	0.08	0.02	-0.35
202.40	0.49	-0.32	0.42	-0.03	-0.67	-0.26
202.60	0.62	-0.27	0.34	-0.15	0.08	-0.43
202.80	0.70	-0.33	0.31	-0.14	0.30	-0.41
203.00	0.66	-0.29	0.30	-0.04	0.14	0.18
203.20	0.73	-0.25	0.28	0.31	0.09	-0.54
203.40	0.57	-0.24	0.27	0.21	0.77	0.15
203.60	0.47	-0.32	0.22	0.09	-0.04	-0.55
203.80	0.42	-0.33	0.19	0.29	-0.36	-0.07
204.00	0.47	-0.29	0.18	0.13	-0.27	-0.40
204.20	0.27	-0.25	0.12	-0.02	0.08	-0.26
204.40	0.10	-0.31	0.07	0.00	0.37	-0.26
204.60	0.16	-0.29	0.06	0.04	0.01	-0.04
204.80	0.00	-0.28	0.01	0.10	-0.10	-0.09
205.00	-0.01	-0.35	-0.02	0.16	0.33	-0.47
205.20	0.22	-0.30	-0.05	0.22	0.15	0.14
205.40	0.04	-0.22	-0.06	0.25	0.25	-0.03
205.60	0.11	-0.23	-0.07	0.28	-0.08	0.08
205.80	-0.01	-0.20	-0.10	0.35	0.38	0.41
206.00	-0.20	-0.25	-0.14	0.18	0.19	-0.05
206.20	-0.19	-0.09	-0.16	0.49	0.18	-0.28
206.40	-0.28	-0.13	-0.14	0.49	0.46	0.35
206.60	-0.56	-0.16	-0.15	0.09	0.36	0.22
206.80	-0.59	-0.19	-0.21	-0.02	0.09	0.18
207.00	-0.48	-0.13	-0.21	0.21	0.20	-0.37
207.20	-0.40	-0.12	-0.24	0.27	0.02	0.10
207.40	-0.47	-0.07	-0.25	0.43	0.44	0.28
207.60	-0.26	-0.18	-0.25	0.60	0.05	0.28
207.80	-0.30	-0.10	-0.26	0.73	-0.19	0.27
208.00	-0.61	-0.10	-0.26	0.70	-0.01	0.09
208.20	-0.56	-0.01	-0.28	0.81	0.14	0.14
208.40	-0.53	-0.05	-0.26	0.92	0.24	0.06
208.60	-0.53	0.00	-0.25	0.83	-0.12	-0.02
208.80	-0.63	-0.02	-0.24	0.61	0.35	0.53

209.00	-0.47	0.02	-0.22	0.92	0.15	-0.03
209.20	-0.37	0.00	-0.20	0.99	0.16	0.27
209.40	-0.33	-0.04	-0.17	0.85	-0.07	-0.08
209.60	-0.31	0.00	-0.20	0.94	-0.19	0.22
209.80	-0.21	-0.01	-0.16	1.24	0.26	0.38
210.00	-0.11	0.02	-0.12	1.32	0.32	-0.04
210.20	-0.18	-0.01	-0.16	1.40	0.16	-0.06
210.40	-0.36	0.01	-0.16	1.50	-0.05	0.26
210.60	-0.47	0.04	-0.11	1.52	-0.06	0.10
210.80	-0.47	0.00	-0.09	1.63	0.12	0.16
211.00	-0.46	0.09	-0.07	1.35	0.10	0.13
211.20	-0.50	0.02	-0.10	1.03	-0.02	0.04
211.40	-0.66	0.02	-0.12	1.12	0.29	-0.41
211.60	-0.56	-0.09	-0.12	1.24	-0.22	-0.14
211.80	-0.47	0.08	-0.10	1.33	-0.06	-0.10
212.00	-0.33	-0.03	-0.10	1.40	0.20	0.03
212.20	-0.51	-0.02	-0.11	1.15	-0.15	0.01
212.40	-0.44	-0.03	-0.09	1.03	0.27	0.41
212.60	-0.34	-0.10	-0.09	1.22	-0.32	-0.08
212.80	-0.44	-0.14	-0.09	1.09	-0.12	0.04
213.00	-0.80	-0.08	-0.09	0.84	0.08	-0.11
213.20	-0.66	-0.12	-0.09	0.98	0.08	-0.11
213.40	-0.80	-0.19	-0.11	1.04	0.52	-0.60
213.60	-0.77	-0.21	-0.08	0.64	0.28	-0.23
213.80	-0.85	-0.13	-0.06	0.73	0.41	-0.28
214.00	-0.85	-0.32	-0.08	0.66	0.39	0.02
214.20	-0.72	-0.25	-0.10	0.55	0.04	-0.44
214.40	-0.53	-0.22	-0.06	0.81	-0.15	-0.11
214.60	-0.45	-0.23	-0.06	0.97	0.22	-0.06
214.80	-0.51	-0.27	-0.07	0.77	0.31	0.10
215.00	-0.55	-0.21	-0.05	1.08	0.13	-0.22
215.20	-0.81	-0.32	0.04	0.97	0.27	0.04
215.40	-0.88	-0.24	0.02	0.81	-0.04	0.06
215.60	-0.86	-0.13	0.02	0.86	0.56	0.07
215.80	-0.77	-0.20	0.06	0.99	0.06	-0.30
216.00	-0.67	-0.29	0.09	1.12	-0.29	0.07
216.20	-0.58	-0.38	0.08	1.12	0.29	-0.05
216.40	-0.61	-0.27	0.08	0.88	-0.11	-0.34
216.60	-0.52	-0.21	0.08	1.16	-0.35	0.24
216.80	-0.46	-0.33	0.10	1.47	-0.39	0.22
217.00	-0.56	-0.32	0.08	1.50	-0.30	0.21
217.20	-0.63	-0.37	0.09	1.56	-0.09	-0.17
217.40	-0.70	-0.24	0.08	1.61	-0.13	-0.47
217.60	-0.89	-0.38	0.07	1.59	-0.46	-0.66
217.80	-0.96	-0.32	0.11	1.52	0.69	0.25
218.00	-1.24	-0.29	0.10	1.33	0.29	-0.21
218.20	-1.21	-0.32	0.12	1.35	-0.44	-0.18
218.40	-1.11	-0.35	0.12	1.19	-0.17	0.13
218.60	-1.08	-0.33	0.14	1.24	-0.32	-0.09
218.80	-1.10	-0.31	0.13	1.43	-0.16	0.11

219.00	-1.22	-0.26	0.14	1.45	-0.11	0.12
219.20	-1.26	-0.26	0.15	1.56	-0.41	0.14
219.40	-1.32	-0.31	0.18	1.37	-0.15	0.31
219.60	-1.39	-0.29	0.17	1.37	-0.40	-0.06
219.80	-1.32	-0.25	0.16	1.25	-0.09	-0.05
220.00	-1.56	-0.23	0.14	1.22	-0.13	0.07
220.20	-1.81	-0.32	0.14	1.12	-0.53	0.04
220.40	-1.87	-0.27	0.12	1.07	0.51	0.20
220.60	-1.78	-0.18	0.13	1.05	-0.67	0.21
220.80	-1.86	-0.19	0.10	0.79	-0.15	0.08
221.00	-1.88	-0.07	0.05	0.91	0.51	-0.20
221.20	-1.76	-0.01	0.09	1.26	0.16	0.24
221.40	-1.68	-0.04	0.10	1.35	0.27	0.21
221.60	-1.74	0.10	0.06	1.30	0.40	-0.30
221.80	-1.64	0.11	0.03	1.42	0.18	0.06
222.00	-1.71	0.05	0.04	1.77	-0.05	0.27
222.20	-1.86	-0.03	0.01	1.71	0.29	0.25
222.40	-1.72	0.07	-0.04	1.67	-0.24	-0.10
222.60	-1.72	-0.15	-0.10	1.60	-0.02	-0.03
222.80	-1.69	-0.19	-0.16	1.54	-0.09	-0.02
223.00	-1.34	-0.27	-0.16	1.62	-0.26	0.02
223.20	-1.10	-0.13	-0.16	1.82	-0.07	0.19
223.40	-1.28	-0.19	-0.16	1.82	0.09	0.14
223.60	-1.08	-0.18	-0.15	1.78	-0.19	0.37
223.80	-1.14	-0.20	-0.18	1.88	0.08	-0.10
224.00	-1.36	-0.10	-0.16	1.80	-0.06	-0.24
224.20	-1.25	0.02	-0.15	1.85	0.05	0.06
224.40	-1.44	-0.10	-0.15	1.92	-0.02	-0.13
224.60	-1.43	-0.02	-0.11	1.90	-0.20	0.25
224.80	-1.45	-0.02	-0.11	1.85	-0.22	0.05
225.00	-1.55	-0.03	-0.08	1.65	0.29	-0.09
225.20	-1.59	0.06	-0.11	1.71	0.10	0.14
225.40	-1.51	0.07	-0.09	1.74	0.19	-0.26
225.60	-1.45	0.13	-0.13	1.84	0.09	-0.58
225.80	-1.50	0.02	-0.13	1.91	0.11	-0.06
226.00	-1.40	-0.03	-0.11	1.89	0.37	-0.38
226.20	-1.48	-0.03	-0.20	2.09	0.50	-0.05
226.40	-1.49	0.16	-0.14	2.19	0.12	-0.12
226.60	-1.56	0.06	-0.12	2.04	0.54	0.12
226.80	-1.67	0.09	-0.11	1.99	0.26	-0.44
227.00	-1.56	0.16	-0.13	1.65	0.25	-0.12
227.20	-1.80	0.14	-0.12	1.66	0.08	0.26
227.40	-1.74	0.07	-0.08	1.74	0.23	0.14
227.60	-1.94	0.07	-0.10	1.86	0.18	0.03
227.80	-2.03	0.10	-0.06	1.63	-0.02	0.05
228.00	-1.92	0.06	-0.07	1.65	0.07	-0.46
228.20	-1.72	-0.02	-0.05	1.96	0.39	-0.37
228.40	-1.87	0.04	-0.07	1.82	0.12	-0.09
228.60	-1.93	0.06	-0.07	1.93	0.14	0.00
228.80	-1.85	-0.05	-0.08	2.18	0.26	0.05

229.00	-1.93	0.00	-0.04	2.18	-0.03	-0.43
229.20	-1.96	0.01	-0.05	2.09	-0.27	0.25
229.40	-2.12	-0.06	-0.05	2.08	0.03	0.09
229.60	-2.22	-0.08	-0.08	2.02	-0.17	-0.01
229.80	-2.25	-0.10	-0.09	2.09	0.05	-0.05
230.00	-1.91	-0.02	-0.07	2.14	-0.74	0.02
230.20	-1.77	-0.12	-0.09	2.17	-0.21	-0.14
230.40	-1.84	-0.07	-0.08	2.20	-0.09	-0.10
230.60	-1.84	0.04	-0.10	2.23	-0.28	-0.02
230.80	-1.98	-0.03	-0.04	2.45	-0.33	-0.49
231.00	-2.20	-0.10	-0.05	2.41	-0.01	-0.43
231.20	-2.31	-0.03	-0.13	2.23	0.19	0.52
231.40	-2.56	0.13	-0.12	2.24	-0.06	0.09
231.60	-2.65	0.14	-0.06	2.36	0.04	-0.11
231.80	-2.69	0.07	0.02	2.36	0.29	-0.20
232.00	-2.71	0.00	-0.02	2.25	0.02	-0.22
232.20	-2.62	-0.08	-0.12	2.08	0.12	-0.02
232.40	-2.58	-0.16	-0.16	2.06	0.13	-0.20
232.60	-2.52	-0.23	-0.16	2.20	0.03	-0.21
232.80	-2.26	-0.26	-0.16	2.32	0.26	0.02
233.00	-2.25	-0.25	-0.11	2.28	0.12	-0.20
233.20	-2.35	-0.36	-0.07	2.30	-0.02	-0.19
233.40	-2.58	-0.25	-0.04	2.38	0.11	-0.33
233.60	-2.54	-0.16	0.01	2.12	0.09	-0.01
233.80	-2.66	-0.04	0.02	1.79	-0.13	0.03
234.00	-2.79	-0.04	0.02	1.80	-0.38	0.09
234.20	-2.77	0.05	0.00	1.76	-0.15	0.32
234.40	-2.79	-0.01	-0.03	1.61	0.72	0.44
234.60	-2.78	-0.03	-0.08	1.71	-0.42	0.12
234.80	-2.45	-0.06	-0.07	1.87	-0.09	0.41
235.00	-2.58	-0.04	-0.02	2.02	0.12	0.49
235.20	-2.59	-0.13	0.04	2.05	0.26	0.02
235.40	-2.41	-0.17	0.08	2.01	0.36	0.25
235.60	-2.38	-0.10	0.08	1.97	0.15	0.10
235.80	-2.48	-0.18	0.04	2.03	0.55	0.02
236.00	-2.44	-0.19	0.03	2.22	0.27	0.19
236.20	-2.65	-0.11	0.03	2.13	0.07	0.20
236.40	-2.69	-0.21	0.03	1.92	0.17	0.13
236.60	-2.60	-0.09	0.01	2.03	0.23	-0.11
236.80	-2.41	-0.16	0.04	2.01	-0.08	0.35
237.00	-2.12	0.03	0.06	2.03	0.36	0.33
237.20	-2.22	-0.04	0.07	2.13	0.39	-0.16
237.40	-2.23	-0.10	0.06	2.27	-0.12	-0.11
237.60	-2.29	-0.03	0.07	2.41	0.03	0.13
237.80	-2.26	-0.01	0.05	2.52	0.18	0.10
238.00	-2.47	0.11	0.05	2.54	-0.25	0.51
238.20	-2.52	0.03	0.01	2.47	0.03	0.14
238.40	-2.62	-0.07	0.01	2.56	0.49	-0.07
238.60	-2.62	-0.10	0.02	2.53	-0.12	-0.04
238.80	-2.66	0.01	0.06	2.45	0.24	-0.03

239.00	-2.75	0.02	-0.02	2.25	0.31	-0.07
239.20	-2.73	-0.12	-0.13	2.27	0.41	0.10
239.40	-2.65	-0.03	-0.09	2.34	0.66	0.20
239.60	-2.70	-0.20	-0.02	2.46	0.44	0.08
239.80	-2.76	-0.29	-0.08	2.30	0.19	0.09
240.00	-2.73	-0.19	-0.19	2.30	0.16	0.06
240.20	-2.58	-0.14	-0.15	2.51	0.23	0.25
240.40	-2.65	-0.03	-0.05	2.50	-0.09	0.03
240.60	-2.92	0.01	0.05	2.25	-0.05	-0.03
240.80	-3.17	0.07	0.04	2.00	-0.29	0.53
241.00	-3.23	-0.02	0.08	2.03	-0.45	0.25
241.20	-3.31	0.10	0.00	2.07	-0.16	0.00
241.40	-3.16	-0.09	-0.08	2.10	-0.09	0.28
241.60	-2.98	-0.10	-0.12	2.38	0.43	-0.38
241.80	-2.72	-0.17	-0.14	2.29	0.34	0.24
242.00	-2.89	-0.07	-0.13	2.50	0.40	0.12
242.20	-2.75	-0.07	-0.11	2.41	0.29	-0.05
242.40	-2.51	-0.01	-0.10	2.53	-0.41	-0.43
242.60	-2.55	0.00	-0.07	2.31	-0.14	-0.37
242.80	-2.65	-0.03	-0.07	2.15	0.04	-0.34
243.00	-2.65	0.01	-0.14	2.33	-0.13	0.38
243.20	-2.80	-0.06	-0.12	2.34	-0.17	-0.26
243.40	-2.77	-0.06	-0.13	2.25	0.39	0.03
243.60	-2.64	-0.04	-0.15	2.36	0.42	-0.15
243.80	-2.65	-0.07	-0.12	2.39	0.07	-0.10
244.00	-2.47	0.00	-0.13	2.42	0.13	0.01
244.20	-2.43	-0.04	-0.16	2.74	-0.42	-0.37
244.40	-2.44	-0.05	-0.18	2.68	-0.43	0.10
244.60	-2.51	0.08	-0.13	2.88	-0.46	-0.27
244.80	-2.64	0.00	-0.04	3.21	-0.12	-0.19
245.00	-2.85	0.06	-0.02	2.84	0.16	-0.54
245.20	-2.90	0.16	0.00	2.60	0.18	-0.26
245.40	-2.95	0.11	-0.02	2.57	0.11	-0.18
245.60	-2.98	0.08	-0.02	2.67	0.00	-0.50
245.80	-2.94	0.07	0.04	2.45	-0.06	-0.68
246.00	-3.07	0.17	0.05	2.38	0.03	-0.64
246.20	-2.87	0.07	0.05	2.45	0.26	-0.36
246.40	-2.72	0.10	0.07	2.56	0.32	-0.29
246.60	-2.96	0.17	0.06	2.62	0.04	-0.20
246.80	-3.04	0.07	0.04	2.52	-0.27	-0.29
247.00	-3.03	0.17	-0.01	2.47	0.02	0.21
247.20	-2.89	0.07	-0.01	2.35	0.41	-0.49
247.40	-2.99	0.17	0.09	2.19	-0.20	-0.17
247.60	-3.00	-0.03	0.11	2.34	0.47	0.09
247.80	-3.16	0.01	0.08	2.19	0.03	0.17
248.00	-3.31	0.05	0.02	2.08	-0.04	-0.30
248.20	-3.33	0.04	-0.02	2.20	0.31	-0.38
248.40	-3.37	0.07	0.01	2.25	0.28	0.03
248.60	-3.20	0.15	-0.03	2.22	0.28	-0.29
248.80	-3.20	0.04	-0.01	2.49	0.43	-0.11

249.00	-3.20	0.04	0.01	2.75	0.54	-0.69
249.20	-3.18	0.20	0.10	2.49	0.49	-0.46
249.40	-3.10	0.35	0.11	2.40	0.13	-0.50
249.60	-3.28	0.30	0.04	2.42	0.15	-0.11
249.80	-3.26	0.23	0.05	2.41	0.12	0.10
250.00	-3.37	0.13	0.04	2.59	-0.19	-0.11
250.20	-3.39	0.07	0.05	2.55	0.17	-0.06
250.40	-3.29	0.06	0.02	2.36	0.07	-0.11
250.60	-3.28	0.00	0.01	2.43	0.05	-0.10
250.80	-3.15	0.11	0.03	2.57	-0.05	0.08
251.00	-3.04	0.14	-0.03	2.57	0.32	-0.31
251.20	-2.86	0.06	-0.10	2.54	0.13	-0.28
251.40	-2.86	0.14	-0.08	2.52	0.04	-0.21
251.60	-2.91	0.04	-0.04	2.59	0.12	-0.21
251.80	-3.15	0.01	-0.02	2.70	0.28	-0.15
252.00	-3.21	0.08	0.00	2.55	-0.21	-0.27
252.20	-3.50	0.13	-0.07	2.59	0.07	-0.13
252.40	-3.46	-0.07	-0.15	2.25	0.41	-0.86
252.60	-3.58	0.04	-0.14	2.14	0.68	-0.38
252.80	-3.40	0.05	-0.06	2.23	0.26	0.02
253.00	-3.39	0.08	-0.05	2.50	-0.08	0.01
253.20	-3.35	-0.06	-0.01	2.64	0.29	-0.35
253.40	-3.42	-0.22	-0.01	2.62	0.32	-0.42
253.60	-3.29	-0.22	0.03	2.52	0.09	0.01
253.80	-3.32	-0.16	0.05	2.45	0.29	-0.24
254.00	-3.30	-0.19	0.05	2.44	0.12	-0.51
254.20	-3.54	-0.13	0.00	2.46	0.22	-0.40
254.40	-3.52	-0.01	0.09	2.60	0.40	-0.17
254.60	-3.56	-0.22	0.12	2.42	0.06	-0.24
254.80	-3.63	-0.19	0.11	1.98	-0.05	0.22
255.00	-3.68	-0.22	0.06	1.98	0.20	0.13
255.20	-3.50	-0.11	0.02	2.16	-0.22	-0.24
255.40	-3.48	-0.04	0.03	2.19	-0.49	0.19
255.60	-3.48	-0.24	0.05	2.17	-0.45	-0.18
255.80	-3.22	-0.13	0.03	2.41	0.00	-0.30
256.00	-3.10	-0.13	-0.01	2.58	-0.13	-0.46
256.20	-3.09	-0.17	0.01	2.52	-0.10	-0.35
256.40	-3.33	-0.23	0.01	2.46	-0.12	0.07
256.60	-3.09	-0.22	0.03	2.67	-0.12	-0.59
256.80	-3.22	-0.08	0.04	2.81	-0.29	-0.60
257.00	-3.20	-0.17	0.05	2.83	0.51	-0.61
257.20	-3.24	-0.13	0.05	2.61	-0.21	0.41
257.40	-3.12	0.02	0.05	2.65	-0.28	0.05
257.60	-3.20	0.00	0.06	2.42	-0.16	0.30
257.80	-2.93	-0.13	0.07	2.65	0.29	-0.54
258.00	-3.03	0.08	0.02	2.59	0.24	-0.34
258.20	-2.93	0.08	0.02	2.66	0.01	-0.08
258.40	-2.94	-0.10	-0.02	2.90	-0.39	-0.03
258.60	-3.05	0.04	-0.02	2.97	-0.18	-0.34
258.80	-3.16	-0.11	-0.03	2.91	-0.21	-0.09

259.00	-3.25	-0.08	-0.03	2.98	-0.13	0.26
259.20	-3.45	0.14	-0.04	2.98	0.27	-0.21
259.40	-3.34	-0.03	-0.09	2.89	-0.02	-0.38
259.60	-3.38	0.20	-0.08	2.96	0.05	-0.12
259.80	-3.17	-0.01	-0.11	2.98	-0.16	-0.11
260.00	-3.25	-0.13	-0.13	2.72	-0.10	-0.12
260.20	-3.25	-0.27	-0.13	2.89	0.09	-0.11
260.40	-3.00	-0.20	-0.16	3.11	0.08	-0.38
260.60	-3.32	-0.08	-0.10	3.02	0.01	-0.45
260.80	-3.21	-0.10	-0.08	3.09	0.11	-0.73
261.00	-3.33	0.09	-0.06	2.90	-0.07	-0.51
261.20	-3.59	0.10	-0.10	2.81	-0.60	-0.22
261.40	-3.59	0.15	-0.10	2.74	-0.13	0.16
261.60	-3.53	-0.13	-0.10	2.74	-0.34	-0.16
261.80	-3.55	-0.05	-0.09	2.69	-0.30	-0.64
262.00	-3.53	-0.09	-0.07	2.67	0.37	-0.22
262.20	-3.42	0.14	-0.03	2.55	0.21	-0.70
262.40	-3.38	0.04	-0.05	2.74	-0.02	-0.31
262.60	-3.14	0.09	-0.06	2.93	0.19	-0.36
262.80	-3.34	0.08	-0.02	2.97	0.07	-0.69
263.00	-3.26	0.05	0.01	2.98	0.16	-0.27
263.20	-3.19	0.00	0.03	3.14	-0.32	-0.42
263.40	-3.21	0.06	0.02	2.94	-0.36	-0.79
263.60	-3.22	0.00	-0.01	2.59	-0.33	-0.26
263.80	-3.33	-0.01	0.01	2.66	0.00	-0.29
264.00	-3.49	-0.08	-0.01	2.38	0.06	0.21
264.20	-3.26	0.01	0.01	2.51	-0.13	0.35
264.40	-3.00	0.06	0.02	2.86	0.39	-0.10
264.60	-3.09	0.02	0.00	2.95	-0.24	-0.30
264.80	-3.12	-0.12	0.01	3.15	0.58	-0.70
265.00	-3.16	0.06	0.00	3.36	0.29	-0.09
265.20	-3.12	0.08	0.00	3.20	0.02	-0.23
265.40	-3.16	0.06	-0.03	2.91	1.19	-0.46
265.60	-3.34	0.02	-0.04	3.08	0.51	-0.35
265.80	-3.29	-0.05	-0.02	2.86	0.25	0.48
266.00	-3.39	-0.11	-0.02	2.78	-0.63	0.01
266.20	-3.49	-0.16	-0.04	2.68	-0.43	-0.13
266.40	-3.42	-0.12	0.02	2.70	-1.03	-0.54
266.60	-3.31	-0.19	0.05	2.78	-0.23	0.07
266.80	-3.25	-0.15	0.05	2.82	-0.08	-0.11
267.00	-3.31	-0.14	0.02	3.05	-0.13	-0.59
267.20	-3.21	-0.09	0.08	3.28	-0.04	-0.51
267.40	-3.31	-0.15	0.03	3.32	-0.05	-0.39
267.60	-3.41	-0.11	0.03	3.11	0.23	0.07
267.80	-3.53	-0.12	0.02	2.98	0.23	-0.23
268.00	-3.46	-0.22	0.03	3.01	-0.37	0.06
268.20	-3.45	-0.16	0.01	2.93	-0.33	0.29
268.40	-3.49	-0.07	0.03	2.81	-0.10	-0.17
268.60	-3.63	-0.24	0.00	2.82	0.48	-0.37
268.80	-3.47	-0.13	-0.01	2.85	0.28	-0.18

269.00	-3.50	-0.19	-0.04	3.05	0.24	-0.35
269.20	-3.44	-0.29	-0.02	3.05	-0.48	0.07
269.40	-3.37	-0.16	0.00	3.14	-0.04	-0.12
269.60	-3.28	-0.19	-0.02	2.96	-0.11	0.03
269.80	-3.43	-0.23	-0.01	3.13	-0.33	-0.03
270.00	-3.27	-0.20	-0.06	3.31	-0.10	-0.19
270.20	-3.17	-0.26	-0.08	3.23	-0.42	-0.37
270.40	-3.24	-0.16	-0.02	2.93	-0.33	-0.02
270.60	-3.30	-0.09	-0.02	2.83	0.00	-0.13
270.80	-3.27	-0.15	-0.07	2.78	-0.29	-0.23
271.00	-3.29	-0.30	-0.04	2.81	0.08	-0.14
271.20	-3.01	-0.23	-0.03	2.88	-0.46	-0.12
271.40	-3.18	-0.28	-0.05	2.92	0.02	-0.70
271.60	-3.19	-0.22	-0.04	2.97	-0.11	-0.21
271.80	-3.03	-0.24	-0.01	3.30	-0.11	-0.38
272.00	-3.00	-0.37	0.01	3.41	0.11	-0.31
272.20	-3.22	-0.35	-0.06	3.38	0.03	-0.68
272.40	-3.18	-0.36	0.00	3.26	0.07	0.02
272.60	-3.31	-0.27	0.01	3.36	-0.30	-0.29
272.80	-3.35	-0.27	0.01	3.25	-0.14	-0.51
273.00	-3.40	-0.17	0.04	3.21	0.10	-0.50
273.20	-3.40	-0.20	0.04	3.29	0.10	-0.25
273.40	-3.54	-0.15	0.04	3.39	-0.08	-0.42
273.60	-3.55	-0.13	0.04	3.24	-0.21	-0.44
273.80	-3.39	-0.13	0.00	3.24	0.02	-0.14
274.00	-3.31	-0.05	-0.01	3.27	0.31	-0.13
274.20	-3.49	0.01	0.01	3.14	0.13	-0.52
274.40	-3.41	-0.21	0.04	3.30	-0.01	-0.31
274.60	-3.56	-0.15	0.06	3.33	-0.26	-0.41
274.80	-3.67	0.04	0.04	3.08	0.48	-0.44
275.00	-3.69	-0.09	0.01	3.05	0.60	-0.37
275.20	-3.70	-0.15	-0.01	3.18	0.38	-0.53
275.40	-3.58	-0.03	0.00	3.10	0.39	-0.31
275.60	-3.65	-0.14	0.00	3.05	0.21	-0.09
275.80	-3.65	-0.09	0.00	2.92	0.22	-0.10
276.00	-3.50	-0.20	-0.01	2.92	0.81	0.01
276.20	-3.46	-0.07	0.01	2.81	0.12	-0.04
276.40	-3.43	0.02	0.04	2.86	0.12	-0.59
276.60	-3.27	-0.21	0.01	2.81	-0.43	-0.90
276.80	-3.35	-0.07	0.01	2.79	0.44	-0.27
277.00	-3.22	0.02	0.01	3.19	0.71	-0.26
277.20	-3.23	0.06	0.01	3.11	0.38	0.22
277.40	-3.19	0.02	0.02	3.32	0.34	-0.32
277.60	-3.45	0.01	0.02	3.45	0.00	0.06
277.80	-3.39	0.09	0.04	3.48	0.11	-0.40
278.00	-3.06	-0.01	0.03	3.41	-0.10	-0.92
278.20	-3.23	-0.02	0.02	3.12	0.70	-0.14
278.40	-3.22	0.01	0.00	3.26	0.56	-0.25
278.60	-3.07	0.06	0.01	3.52	1.24	-0.22
278.80	-2.82	0.04	0.02	3.54	0.75	0.01

279.00	-3.08	0.08	0.05	3.30	0.58	-0.26
279.20	-3.16	0.02	0.03	3.23	0.54	0.02
279.40	-3.14	0.07	0.06	3.19	0.38	-0.26
279.60	-3.19	0.11	0.06	3.26	0.09	-0.26
279.80	-3.33	-0.02	0.09	3.13	0.16	-0.38
280.00	-3.28	0.06	0.08	2.75	-0.13	-0.28
280.20	-3.22	0.05	0.07	2.47	0.30	0.10
280.40	-3.27	0.04	0.08	2.54	-0.05	0.24
280.60	-3.14	0.14	0.11	2.54	-0.17	-0.21
280.80	-3.11	0.15	0.13	2.48	0.02	-0.39
281.00	-3.12	0.24	0.11	2.44	0.36	-0.23
281.20	-2.98	-0.02	0.13	2.42	-0.23	-0.43
281.40	-3.08	0.05	0.13	2.31	0.20	0.18
281.60	-3.11	-0.05	0.14	2.56	-0.38	-0.31
281.80	-3.09	-0.06	0.16	2.33	0.22	-0.36
282.00	-3.31	-0.07	0.16	2.32	0.38	0.01
282.20	-3.24	-0.03	0.16	2.38	0.10	-0.08
282.40	-3.07	-0.03	0.15	2.40	0.27	-0.67
282.60	-2.94	-0.05	0.17	2.48	0.25	-0.53
282.80	-2.88	-0.17	0.13	2.49	0.34	-0.53
283.00	-2.80	-0.09	0.13	2.64	-0.28	-0.17
283.20	-2.96	-0.06	0.18	2.62	0.13	0.00
283.40	-2.69	-0.09	0.19	2.32	-0.11	0.15
283.60	-2.73	-0.24	0.21	2.23	-0.11	-0.10
283.80	-2.55	-0.05	0.20	2.20	-0.08	0.23
284.00	-2.47	-0.15	0.22	2.29	0.07	-0.05
284.20	-2.56	-0.10	0.25	2.29	-0.02	0.32
284.40	-2.40	-0.03	0.20	2.27	-0.26	-0.01
284.60	-2.39	-0.02	0.26	2.27	0.10	-0.03
284.80	-2.38	-0.09	0.26	2.42	-0.23	-0.50
285.00	-2.20	-0.11	0.25	2.49	-0.20	-0.33
285.20	-2.25	0.02	0.25	2.38	-0.32	-0.15
285.40	-2.05	0.04	0.24	2.55	-0.36	-0.36
285.60	-2.02	-0.10	0.23	2.53	-0.29	0.40
285.80	-2.08	0.06	0.26	2.59	-0.06	0.00
286.00	-1.82	0.05	0.24	2.68	-0.24	-0.13
286.20	-1.84	0.05	0.25	2.72	-0.05	-0.31
286.40	-2.02	-0.12	0.26	2.44	-0.09	-0.44
286.60	-2.04	0.04	0.26	2.40	-0.08	-0.44
286.80	-2.08	-0.04	0.24	2.42	-0.71	-0.02
287.00	-2.04	-0.04	0.22	2.26	-0.31	-0.31
287.20	-1.97	0.00	0.20	2.27	-0.05	-0.31
287.40	-1.82	-0.01	0.23	2.29	-0.39	0.14
287.60	-1.77	0.08	0.23	2.15	-0.13	0.26
287.80	-1.63	0.05	0.21	2.10	-0.07	0.01
288.00	-1.61	0.02	0.19	2.11	-0.49	0.09
288.20	-1.59	0.07	0.16	2.41	-0.50	-0.21
288.40	-1.51	-0.01	0.16	2.29	-0.34	0.14
288.60	-1.52	-0.14	0.16	2.23	-0.22	-0.13
288.80	-1.64	0.07	0.14	2.13	-0.40	-0.09

289.00	-1.59	0.14	0.13	2.09	-0.28	0.16
289.20	-1.54	0.08	0.12	2.08	-0.13	0.02
289.40	-1.43	0.02	0.11	1.92	0.05	0.19
289.60	-1.40	0.17	0.10	1.65	-0.90	0.27
289.80	-1.24	0.11	0.09	1.66	-0.69	-0.05
290.00	-1.03	0.15	0.06	1.96	-0.30	-0.10
290.20	-1.14	0.20	0.06	2.02	-0.33	-0.55
290.40	-1.19	0.19	0.02	2.05	-0.04	-0.38
290.60	-1.05	0.11	0.01	2.09	-0.62	-0.08
290.80	-0.97	0.13	0.01	2.11	0.06	-0.01
291.00	-0.99	0.13	-0.01	2.08	-0.45	-0.40
291.20	-0.86	0.16	-0.02	1.86	-0.41	-0.08
291.40	-0.87	0.09	-0.02	1.94	-0.35	0.04
291.60	-0.81	0.23	-0.04	1.74	0.03	0.01
291.80	-0.94	0.13	-0.08	1.58	-0.53	-0.11
292.00	-0.89	0.18	-0.10	1.68	0.16	-0.48
292.20	-0.81	0.14	-0.11	1.61	0.31	-0.18
292.40	-0.83	0.11	-0.14	1.58	0.13	-0.30
292.60	-0.95	0.26	-0.13	1.65	0.41	-0.28
292.80	-0.87	0.24	-0.10	1.62	0.19	0.19
293.00	-0.89	0.24	-0.15	1.68	-0.34	-0.32
293.20	-0.97	0.20	-0.16	1.53	0.23	-0.20
293.40	-1.11	0.22	-0.16	1.32	0.00	0.52
293.60	-1.25	0.21	-0.15	1.42	-0.55	0.41
293.80	-1.15	0.25	-0.16	1.22	0.05	0.13
294.00	-1.13	0.25	-0.16	1.06	-0.73	-0.06
294.20	-1.16	0.06	-0.19	1.17	-0.11	-0.07
294.40	-1.26	0.25	-0.17	1.13	-0.11	-0.01
294.60	-1.13	0.29	-0.17	1.10	-0.06	-0.07
294.80	-1.12	0.28	-0.18	0.95	0.24	0.22
295.00	-1.15	0.30	-0.17	0.76	-0.24	-0.23
295.20	-1.12	0.16	-0.17	0.78	-0.89	-0.07
295.40	-1.23	0.25	-0.16	0.79	-0.32	0.13
295.60	-1.39	0.17	-0.16	0.66	-0.28	0.39
295.80	-1.23	0.08	-0.17	0.58	-0.51	0.27
296.00	-1.32	0.02	-0.15	0.57	-0.47	0.20
296.20	-1.31	-0.05	-0.14	0.33	-0.37	0.26
296.40	-1.33	0.14	-0.15	0.35	-0.33	0.12
296.60	-1.26	0.06	-0.13	0.36	-0.15	0.21
296.80	-1.20	-0.02	-0.09	0.30	-0.53	0.22
297.00	-1.01	0.11	-0.08	0.38	-0.03	-0.12
297.20	-1.04	0.06	-0.09	0.37	-0.29	-0.06
297.40	-0.99	0.02	-0.05	0.34	-0.59	0.10
297.60	-1.01	0.03	-0.03	0.39	0.04	-0.04
297.80	-1.05	0.02	-0.03	0.35	-0.09	0.20
298.00	-0.97	0.05	0.03	0.31	-0.40	0.08
298.20	-0.90	0.05	0.04	0.19	-0.38	0.05
298.40	-0.87	-0.06	0.04	0.10	0.14	-0.11
298.60	-0.96	-0.03	0.04	0.09	-0.14	-0.05
298.80	-0.96	-0.01	0.11	0.16	-0.39	0.03

299.00	-0.87	-0.10	0.10	0.19	-0.27	-0.06
299.20	-0.86	-0.13	0.09	-0.03	-0.11	0.21
299.40	-0.84	-0.12	0.10	-0.03	-0.22	-0.12
299.60	-0.83	-0.01	0.14	0.12	-0.65	-0.22
299.80	-0.68	-0.12	0.15	0.14	-0.51	-0.16
300.00	-0.89	-0.09	0.17	0.00	-0.41	0.17
300.20	-0.89	-0.16	0.17	-0.10	-0.58	0.01
300.40	-0.76	-0.11	0.20	-0.03	-0.20	-0.18
300.60	-0.88	-0.15	0.20	-0.18	-0.22	-0.09
300.80	-0.81	-0.04	0.21	-0.22	0.07	-0.31
301.00	-0.67	-0.18	0.21	-0.36	-0.34	-0.23
301.20	-0.61	-0.14	0.22	-0.38	-0.07	0.06
301.40	-0.46	-0.22	0.21	-0.33	-0.28	-0.03
301.60	-0.31	-0.15	0.23	-0.23	-0.17	-0.31
301.80	-0.37	-0.12	0.21	-0.31	-0.46	0.10
302.00	-0.39	-0.13	0.22	-0.35	-0.33	-0.04
302.20	-0.29	-0.19	0.20	-0.30	-0.22	0.09
302.40	-0.42	-0.06	0.18	-0.37	-0.36	-0.02
302.60	-0.41	-0.14	0.17	-0.46	0.04	-0.04
302.80	-0.23	-0.19	0.16	-0.48	0.59	0.13
303.00	-0.28	-0.11	0.11	-0.39	-0.18	-0.10
303.20	-0.23	-0.15	0.14	-0.37	0.03	0.11
303.40	-0.11	-0.14	0.12	-0.37	0.23	0.33
303.60	0.08	-0.17	0.07	-0.35	0.03	-0.47
303.80	0.08	-0.01	0.06	-0.35	-0.05	0.20
304.00	0.21	-0.15	0.02	-0.21	-0.05	0.53
304.20	0.31	-0.09	-0.01	0.08	0.15	0.07
304.40	0.39	-0.12	-0.04	0.03	0.27	0.02
304.60	0.25	-0.06	-0.09	0.00	-0.28	0.33
304.80	0.38	-0.10	-0.11	-0.02	0.24	0.31
305.00	0.35	-0.08	-0.11	0.15	0.00	-0.14
305.20	0.41	-0.02	-0.15	0.10	0.14	-0.23
305.40	0.41	-0.02	-0.17	-0.07	-0.27	0.17
305.60	0.47	-0.05	-0.19	0.09	-0.26	-0.06
305.80	0.52	0.02	-0.21	0.09	-0.23	0.29
306.00	0.37	-0.02	-0.24	0.22	0.16	-0.27
306.20	0.37	-0.02	-0.28	0.30	0.31	0.21
306.40	0.37	-0.06	-0.26	0.31	-0.17	-0.04
306.60	0.38	-0.01	-0.26	0.37	0.10	-0.01
306.80	0.29	0.13	-0.26	0.33	0.23	-0.17
307.00	0.41	0.06	-0.28	0.29	-0.04	0.08
307.20	0.15	0.10	-0.29	0.28	0.24	0.04
307.40	0.13	0.18	-0.28	0.35	0.23	-0.09
307.60	0.11	0.16	-0.28	0.17	0.03	0.10
307.80	0.07	0.14	-0.27	0.13	-0.08	-0.02
308.00	0.10	0.14	-0.29	0.00	0.06	0.20
308.20	0.17	0.11	-0.26	0.11	0.17	-0.05
308.40	0.23	0.17	-0.26	0.13	0.11	0.17
308.60	0.18	0.10	-0.24	0.12	0.12	0.02
308.80	0.10	0.10	-0.25	0.07	-0.02	0.12

309.00	0.12	0.16	-0.21	0.13	0.16	-0.26
309.20	0.04	0.20	-0.21	0.05	0.12	0.12
309.40	0.00	0.06	-0.21	0.03	0.20	0.08
309.60	0.02	0.23	-0.18	-0.04	-0.21	-0.02
309.80	-0.03	0.14	-0.19	-0.08	0.06	-0.23
310.00	-0.06	0.10	-0.20	-0.11	-0.13	-0.06
310.20	0.07	0.20	-0.16	-0.10	0.13	0.00
310.40	0.17	0.22	-0.14	-0.13	-0.14	0.05
310.60	0.13	0.17	-0.11	-0.17	0.13	-0.20
310.80	0.18	0.24	-0.10	-0.21	0.10	0.00
311.00	0.16	0.11	-0.06	-0.14	-0.09	-0.32
311.20	0.16	0.13	-0.05	-0.25	0.40	0.24
311.40	0.23	0.17	-0.04	-0.27	0.41	0.18
311.60	0.10	0.22	-0.03	-0.24	0.39	-0.37
311.80	0.13	0.09	0.02	-0.31	-0.16	-0.04
312.00	0.15	0.14	0.02	-0.43	-0.02	0.06
312.20	0.10	0.16	0.02	-0.54	-0.69	0.36
312.40	0.17	0.06	0.03	-0.75	-0.16	0.07
312.60	0.15	0.07	0.06	-0.54	0.11	-0.18
312.80	0.18	0.08	0.04	-0.65	0.21	-0.26
313.00	0.13	0.11	0.07	-0.69	0.40	-0.07
313.20	0.08	0.04	0.06	-0.66	0.11	0.05
313.40	0.12	-0.02	0.06	-0.75	-0.12	-0.19
313.60	0.12	0.01	0.09	-0.79	-0.05	0.09
313.80	0.08	-0.02	0.09	-0.79	-0.16	0.10
314.00	0.13	-0.08	0.07	-0.95	-0.38	0.00
314.20	0.00	0.02	0.06	-0.97	-0.22	-0.34
314.40	-0.01	-0.01	0.09	-1.05	-0.50	-0.20
314.60	0.01	0.04	0.08	-1.12	0.16	0.29
314.80	-0.02	0.00	0.09	-1.19	0.12	-0.06
315.00	0.09	0.05	0.08	-1.24	0.10	-0.13
315.20	0.16	0.07	0.08	-1.33	-0.07	0.16
315.40	0.23	-0.07	0.07	-1.36	-0.05	0.00
315.60	0.19	0.00	0.08	-1.25	-0.31	0.25
315.80	0.26	-0.01	0.05	-1.14	-0.19	0.38
316.00	0.16	-0.05	0.04	-1.20	0.19	0.00
316.20	0.15	0.03	0.06	-1.13	0.06	-0.51
316.40	0.11	-0.06	0.06	-1.19	-0.55	-0.35
316.60	0.23	-0.07	0.02	-1.27	-0.12	-0.04
316.80	0.21	-0.10	0.00	-1.29	0.20	0.08
317.00	0.35	-0.02	0.01	-1.06	-0.44	0.07
317.20	0.44	-0.08	0.04	-1.00	0.03	-0.02
317.40	0.42	-0.01	0.02	-1.04	0.26	0.10
317.60	0.58	0.01	0.00	-0.95	-0.60	0.38
317.80	0.66	-0.04	0.01	-0.81	-0.07	-0.26
318.00	0.64	-0.07	-0.01	-0.81	-0.39	0.07
318.20	0.69	-0.02	0.01	-0.79	-0.31	-0.11
318.40	0.75	-0.01	-0.01	-0.65	-0.08	-0.14
318.60	0.87	-0.11	0.00	-0.67	-0.42	-0.33
318.80	0.74	0.00	0.00	-0.81	-0.08	0.31

319.00	0.70	-0.10	0.00	-0.51	-0.24	-0.25
319.20	0.74	-0.11	0.00	-0.58	-0.58	-0.18
319.40	0.71	-0.09	0.01	-0.69	0.05	-0.14
319.60	0.82	-0.08	-0.04	-0.66	-0.19	-0.10
319.80	1.00	-0.13	-0.01	-0.36	-0.28	-0.17
320.00	0.91	-0.09	-0.02	-0.50	-0.11	0.28
320.20	0.89	-0.04	-0.02	-0.40	-0.03	-0.01
320.40	0.75	-0.03	-0.03	-0.35	-0.41	-0.09
320.60	0.95	-0.09	0.00	-0.34	-0.03	-0.27
320.80	0.85	-0.02	-0.02	-0.48	-0.11	-0.13
321.00	0.87	0.04	-0.03	-0.49	-0.23	-0.17
321.20	0.87	0.08	-0.03	-0.55	-0.22	0.07
321.40	0.90	-0.04	-0.05	-0.60	-0.37	-0.01
321.60	0.92	0.05	-0.02	-0.59	-0.47	0.03
321.80	0.84	-0.07	-0.02	-0.70	0.05	-0.18
322.00	0.91	-0.05	-0.05	-0.67	-0.43	-0.17
322.20	1.11	-0.06	-0.06	-0.70	-0.26	0.17
322.40	1.10	0.04	-0.02	-0.59	0.38	0.07
322.60	1.08	0.03	-0.02	-0.65	-0.04	-0.01
322.80	1.04	-0.05	-0.06	-0.71	-0.51	0.34
323.00	0.99	-0.04	-0.06	-0.66	-0.15	0.26
323.20	1.06	-0.01	-0.04	-0.58	-0.07	0.03
323.40	0.78	0.05	-0.03	-0.76	-0.03	0.32
323.60	0.89	0.00	-0.06	-0.83	-0.13	0.53
323.80	1.11	0.13	-0.05	-0.78	-0.19	0.56
324.00	1.08	0.02	-0.04	-0.62	-0.09	0.31
324.20	1.11	0.00	-0.03	-0.57	-0.12	0.48
324.40	1.15	0.10	-0.02	-0.41	0.22	-0.24
324.60	1.38	0.11	-0.02	-0.37	0.04	-0.15
324.80	1.28	-0.10	-0.04	-0.37	0.52	0.07
325.00	1.22	-0.04	-0.02	-0.41	-0.11	0.22
325.20	1.34	0.09	-0.01	-0.34	0.02	-0.23
325.40	1.28	0.09	-0.02	-0.39	0.30	0.06
325.60	1.32	0.05	-0.02	-0.42	0.35	-0.05
325.80	1.16	-0.03	-0.02	-0.67	0.31	0.27
326.00	1.27	0.03	-0.01	-0.66	0.22	0.01
326.20	1.23	-0.06	-0.02	-0.64	0.43	0.15
326.40	1.13	-0.06	-0.01	-0.83	0.31	0.57
326.60	1.13	-0.01	-0.03	-0.82	-0.06	0.38
326.80	1.15	0.00	-0.01	-0.74	0.11	0.25
327.00	1.05	-0.02	-0.04	-0.83	0.34	0.33
327.20	1.07	-0.11	-0.04	-0.84	0.00	0.10
327.40	1.05	0.04	-0.02	-0.86	-0.01	0.09
327.60	0.96	0.03	-0.01	-0.82	-0.18	-0.09
327.80	0.93	-0.04	-0.02	-1.10	-0.43	-0.19
328.00	0.88	-0.05	-0.02	-1.20	-0.36	-0.29
328.20	0.85	0.02	-0.02	-1.46	-0.23	0.21
328.40	0.85	-0.04	-0.02	-1.43	-0.66	0.15
328.60	0.89	0.01	-0.02	-1.38	-0.31	-0.16
328.80	0.95	0.02	-0.02	-1.59	0.00	0.47

329.00	0.83	0.04	-0.02	-1.51	0.02	-0.06
329.20	0.87	0.00	-0.02	-1.07	-0.08	0.33
329.40	0.88	0.02	-0.02	-1.17	0.86	0.51
329.60	0.85	0.03	-0.03	-1.36	0.53	0.38
329.80	0.92	-0.04	-0.04	-1.11	0.18	0.00
330.00	0.83	-0.02	-0.02	-1.13	0.84	0.34
330.20	0.80	-0.02	-0.05	-1.23	0.53	0.54
330.40	0.70	-0.02	-0.06	-1.17	0.19	-0.20
330.60	0.71	0.05	-0.06	-1.25	0.42	0.57
330.80	0.82	0.03	-0.07	-1.16	-0.26	-0.19
331.00	0.88	0.08	-0.09	-1.21	-0.16	-0.26
331.20	1.08	0.08	-0.07	-1.14	-0.07	0.06
331.40	1.04	0.05	-0.07	-1.02	0.53	-0.43
331.60	1.07	0.10	-0.08	-1.15	0.75	-0.19
331.80	1.11	0.15	-0.08	-1.08	0.88	-0.24
332.00	1.14	0.07	-0.09	-1.14	0.28	0.35
332.20	1.19	0.08	-0.07	-1.21	0.49	0.16
332.40	1.17	0.11	-0.07	-1.38	0.16	0.56
332.60	1.14	0.16	-0.09	-1.09	0.31	0.19
332.80	1.07	0.16	-0.07	-1.13	0.59	0.10
333.00	1.07	0.13	-0.06	-1.36	0.00	1.25
333.20	1.23	0.21	-0.06	-1.34	0.28	0.92
333.40	1.20	0.21	-0.07	-1.29	-0.10	1.11
333.60	1.18	0.14	-0.07	-1.40	0.57	0.88
333.80	1.22	0.10	-0.04	-1.29	1.08	1.17
334.00	1.07	0.25	-0.05	-1.07	0.91	0.09
334.20	1.14	0.12	-0.05	-1.11	0.62	0.60
334.40	1.14	0.20	-0.05	-1.05	-0.01	0.54
334.60	1.20	0.19	-0.03	-0.80	0.26	-0.49
334.80	1.05	0.27	-0.02	-1.02	-0.66	0.27
335.00	1.14	0.22	-0.04	-1.07	-0.36	-0.39
335.20	1.18	0.22	-0.01	-1.19	0.04	0.38
335.40	1.18	0.25	0.01	-1.05	-0.44	-0.15
335.60	1.23	0.11	0.00	-1.20	0.31	0.49
335.80	1.28	0.20	0.03	-1.30	0.16	0.26
336.00	1.41	0.18	0.04	-1.25	-0.16	0.68
336.20	1.48	0.13	0.06	-1.37	0.17	1.16
336.40	1.38	0.14	0.03	-1.13	-0.07	0.24
336.60	1.44	0.27	0.07	-1.04	-0.25	-0.04
336.80	1.43	0.15	0.06	-0.76	0.34	-0.54
337.00	1.43	0.11	0.04	-0.83	-0.04	-0.19
337.20	1.53	0.11	0.08	-0.72	-0.56	-0.14
337.40	1.51	0.07	0.07	-0.93	0.10	0.25
337.60	1.54	0.13	0.06	-0.76	-0.17	-0.22
337.80	1.54	0.15	0.07	-0.80	0.32	-0.28
338.00	1.83	0.03	0.08	-0.60	0.61	-0.28
338.20	1.85	-0.02	0.07	-0.71	0.45	-0.09
338.40	1.85	0.04	0.08	-0.79	0.50	-0.25
338.60	1.85	0.13	0.06	-0.92	0.54	-0.24
338.80	1.87	0.03	0.06	-0.92	0.46	-0.05

339.00	1.84	0.03	0.03	-0.87	0.33	-0.13
339.20	1.85	0.02	0.05	-0.82	-0.50	0.29
339.40	1.78	0.03	0.05	-0.80	-0.05	-0.10
339.60	1.75	0.04	0.05	-0.67	-0.32	-0.39
339.80	1.76	0.00	0.06	-0.68	-0.22	-0.18
340.00	1.72	-0.06	0.04	-0.66	-0.17	-0.43
340.20	1.72	0.01	0.06	-0.78	-0.11	-0.20
340.40	1.70	0.00	0.07	-0.67	-0.36	-0.65
340.60	1.71	0.07	0.05	-0.79	-0.53	-0.48
340.80	1.73	-0.04	0.03	-0.92	-0.12	-0.46
341.00	1.67	-0.12	0.01	-1.15	-0.15	-0.16
341.20	1.55	0.00	0.02	-1.00	-0.54	0.00
341.40	1.50	0.05	0.05	-1.08	-0.95	0.37
341.60	1.66	-0.01	0.01	-1.27	-0.69	0.63
341.80	1.47	0.08	0.01	-1.45	-0.63	0.18
342.00	1.64	-0.01	0.03	-1.51	-0.46	0.00
342.20	1.51	0.03	0.00	-1.30	-0.45	0.11
342.40	1.52	0.09	0.00	-1.56	-0.06	0.51
342.60	1.54	0.06	-0.02	-1.22	0.32	-0.66
342.80	1.60	0.08	-0.01	-1.32	-0.18	-0.09
343.00	1.55	-0.08	-0.05	-1.41	-0.12	0.04
343.20	1.61	0.04	-0.02	-1.15	0.43	-0.28
343.40	1.57	0.00	-0.03	-0.98	0.41	-0.21
343.60	1.58	0.13	-0.04	-0.99	0.33	-0.33
343.80	1.55	-0.05	-0.06	-1.03	-1.21	0.44
344.00	1.62	0.06	-0.08	-0.98	-0.40	0.54
344.20	1.55	0.12	-0.05	-0.95	-0.09	0.68
344.40	1.57	0.14	-0.07	-1.16	-0.13	0.75
344.60	1.65	0.12	-0.07	-1.07	-0.11	0.08
344.80	1.66	0.01	-0.06	-1.07	-0.37	0.35
345.00	1.80	0.12	-0.07	-0.98	0.26	-0.07
345.20	1.83	0.18	-0.08	-0.79	0.51	-0.10
345.40	1.98	0.04	-0.13	-0.56	0.05	-0.29
345.60	1.98	0.08	-0.10	-0.57	0.33	0.32
345.80	1.95	0.01	-0.08	-0.50	0.12	0.20
346.00	1.76	0.07	-0.10	-0.43	0.29	-0.15
346.20	1.75	-0.01	-0.10	-0.71	0.51	0.34
346.40	1.81	0.11	-0.12	-0.73	0.44	-0.05
346.60	1.77	0.02	-0.11	-0.79	-0.01	-0.04
346.80	1.77	0.06	-0.09	-1.01	0.60	0.12
347.00	1.73	0.11	-0.12	-1.05	0.37	-0.25
347.20	1.75	0.11	-0.11	-1.05	0.54	-0.17
347.40	1.87	0.02	-0.12	-0.75	0.89	-1.33
347.60	1.83	-0.04	-0.11	-0.90	0.34	-0.55
347.80	1.64	0.11	-0.11	-0.95	0.37	-0.38
348.00	1.60	0.07	-0.09	-1.16	0.11	-1.04
348.20	1.65	0.04	-0.11	-1.27	0.06	-0.67
348.40	1.73	-0.18	-0.14	-1.32	-0.08	-0.40
348.60	1.63	0.01	-0.10	-1.32	0.08	0.21
348.80	1.45	-0.14	-0.08	-1.36	0.09	0.83

349.00	1.47	-0.04	-0.06	-1.36	0.41	0.13
349.20	1.65	-0.04	-0.08	-1.33	0.47	0.41
349.40	1.56	-0.03	-0.05	-1.07	0.73	0.02
349.60	1.57	0.02	-0.02	-1.14	-0.33	-0.19
349.80	1.55	0.06	-0.03	-1.05	-0.59	0.06
350.00	1.63	-0.02	0.00	-1.04	0.39	-0.07
350.20	1.65	-0.03	0.03	-1.06	-0.04	0.10
350.40	1.70	-0.01	0.03	-0.95	0.05	-0.14
350.60	1.63	-0.04	0.01	-1.07	0.30	0.13
350.80	1.59	-0.05	0.01	-1.01	-0.12	0.00
351.00	1.64	0.02	0.05	-0.90	-0.04	0.36
351.20	1.68	0.00	0.04	-0.99	0.11	0.02
351.40	1.70	-0.01	0.04	-1.11	0.17	0.14
351.60	1.59	-0.03	0.02	-1.14	-0.36	0.00
351.80	1.78	0.00	0.02	-1.24	0.41	-0.37
352.00	1.93	-0.04	0.04	-1.16	1.46	-0.49
352.20	2.06	-0.16	0.03	-1.22	0.94	-0.94
352.40	1.95	0.00	0.04	-1.17	0.07	-0.52
352.60	2.00	-0.02	0.02	-1.16	0.26	0.03
352.80	2.03	0.04	0.03	-1.00	-0.13	0.18
353.00	1.83	-0.10	0.01	-1.02	0.31	-0.20
353.20	1.90	0.05	0.00	-1.02	0.48	-0.33
353.40	1.88	0.08	-0.02	-1.22	0.44	0.03
353.60	1.91	-0.02	-0.02	-1.27	0.31	0.17
353.80	1.95	0.06	-0.02	-0.98	0.02	-0.86
354.00	1.92	0.11	0.00	-1.04	-0.33	-0.64
354.20	1.88	0.02	-0.01	-1.05	-0.33	-0.65
354.40	1.82	0.17	-0.04	-1.07	-0.53	-0.28
354.60	1.90	0.24	-0.02	-0.90	-0.15	0.13
354.80	1.80	0.18	-0.03	-0.85	-0.15	0.21
355.00	1.90	0.10	-0.05	-0.91	-0.61	0.10
355.20	1.94	0.13	-0.05	-0.86	0.26	0.12
355.40	1.86	0.13	-0.06	-0.92	-0.55	0.34
355.60	1.83	0.13	-0.04	-0.99	-0.30	0.03
355.80	1.83	0.17	-0.05	-1.17	-0.44	0.17
356.00	1.88	0.18	-0.04	-1.13	0.57	-0.65
356.20	2.03	0.19	-0.01	-1.18	-0.29	-0.07
356.40	1.89	0.13	-0.05	-1.20	0.07	0.03
356.60	1.94	0.03	-0.08	-1.11	0.23	-0.38
356.80	2.06	0.23	-0.07	-1.18	-0.51	0.18
357.00	2.08	0.08	-0.03	-0.99	-0.62	0.53
357.20	1.99	0.21	-0.04	-1.04	-0.86	0.24
357.40	1.91	0.16	-0.03	-1.05	-0.80	0.25
357.60	1.98	0.09	-0.03	-1.00	-0.50	-0.04
357.80	2.04	0.04	-0.02	-1.01	-0.06	0.04
358.00	2.16	0.03	-0.02	-1.02	0.27	-0.03
358.20	2.00	0.05	-0.06	-0.78	-0.15	-0.51
358.40	2.05	0.10	-0.03	-0.68	-0.32	-0.09
358.60	2.02	0.16	0.00	-0.73	-0.02	0.05
358.80	2.29	0.13	-0.02	-0.69	-0.45	0.18

359.00	2.32	0.12	-0.03	-0.67	-0.02	0.25
359.20	2.29	0.08	-0.03	-0.89	-0.32	0.51
359.40	2.30	0.20	-0.01	-0.94	-0.47	0.70
359.60	2.45	0.12	0.01	-1.01	-0.58	1.07
359.80	2.23	0.05	0.00	-0.89	-0.32	0.54
360.00	2.30	0.00	0.00	-1.01	-0.37	1.16
360.20	2.30	-0.04	0.00	-0.97	0.13	1.14
360.40	2.04	-0.02	0.00	-1.11	-0.22	0.74
360.60	2.16	-0.03	0.00	-1.21	0.03	0.64
360.80	2.20	0.02	0.02	-1.22	-0.69	0.78
361.00	2.34	-0.07	-0.01	-1.37	-0.54	0.55
361.20	2.29	0.03	0.01	-1.35	-0.61	0.00
361.40	2.15	0.03	0.01	-1.07	0.00	0.05
361.60	2.06	0.13	-0.01	-0.97	-0.01	1.01
361.80	2.17	-0.12	-0.03	-1.26	-0.82	1.21
362.00	2.18	0.03	-0.04	-1.31	-1.15	0.41
362.20	2.09	0.08	-0.03	-1.52	-1.28	0.07
362.40	2.18	-0.07	0.01	-1.52	-1.11	0.16
362.60	2.27	-0.02	-0.02	-1.49	-0.58	-0.18
362.80	2.11	0.03	-0.03	-1.60	-0.24	0.60
363.00	2.17	0.05	-0.02	-1.60	-0.15	0.27
363.20	2.13	0.08	-0.02	-1.61	0.03	0.55
363.40	2.12	0.02	-0.01	-1.42	0.44	0.51
363.60	2.10	0.03	-0.06	-1.24	0.65	0.58
363.80	2.47	-0.07	0.00	-1.09	0.86	-0.24
364.00	2.30	-0.06	-0.06	-1.20	0.17	-0.54
364.20	2.18	0.06	-0.05	-1.28	0.21	0.00
364.40	2.22	0.02	-0.03	-1.27	-0.41	-0.51
364.60	2.25	0.03	-0.07	-1.46	0.26	-0.35
364.80	2.14	-0.03	-0.07	-1.51	0.16	-0.53
365.00	2.31	-0.04	-0.05	-1.45	0.84	-0.52
365.20	2.25	0.05	-0.03	-1.17	0.47	-0.77
365.40	2.43	-0.04	-0.06	-1.15	0.36	-0.98
365.60	2.46	0.03	-0.05	-1.08	0.74	-0.27
365.80	2.37	-0.05	-0.03	-1.13	0.15	0.18
366.00	2.51	0.06	-0.03	-0.97	-0.40	-0.04
366.20	2.49	0.15	-0.02	-0.87	0.46	-0.11
366.40	2.51	0.05	-0.05	-0.85	0.27	-0.11
366.60	2.46	0.04	-0.02	-0.72	-0.23	-0.03
366.80	2.50	0.00	-0.02	-0.75	-0.46	-0.25
367.00	2.31	0.06	0.03	-0.87	0.24	-0.40
367.20	2.25	0.10	0.00	-1.09	0.26	-0.76
367.40	2.32	0.07	0.03	-1.34	0.20	-0.87
367.60	2.34	0.09	0.02	-1.73	0.84	0.09
367.80	2.41	0.09	0.00	-1.49	0.56	0.29
368.00	2.34	0.08	0.02	-1.31	0.23	0.06
368.20	2.45	0.02	0.02	-0.95	0.40	0.22
368.40	2.39	-0.03	0.01	-0.84	0.50	-0.23
368.60	2.41	0.02	0.02	-0.96	0.57	-0.21
368.80	2.38	-0.03	0.00	-1.21	0.19	-0.16

369.00	2.21	0.04	0.06	-1.30	-0.07	-0.16
369.20	2.24	-0.04	0.00	-1.18	-0.05	-0.68
369.40	2.26	-0.04	-0.01	-1.36	-0.21	-0.08
369.60	2.30	-0.09	-0.01	-1.46	-0.85	-0.11
369.80	2.39	0.04	-0.01	-1.62	-0.51	0.42
370.00	2.23	0.03	0.00	-1.63	-0.61	0.33
370.20	2.20	0.01	-0.01	-1.49	-0.11	0.37
370.40	2.33	0.14	-0.01	-1.58	-0.72	-0.04
370.60	2.35	0.05	-0.02	-1.53	-0.36	-0.01
370.80	2.38	-0.01	-0.03	-1.40	-0.52	-0.40
371.00	2.25	0.03	-0.02	-1.58	-0.62	-0.11
371.20	2.34	-0.05	-0.03	-1.64	-0.67	-0.47
371.40	2.33	0.12	-0.02	-1.75	-0.47	-0.14
371.60	2.35	0.09	-0.01	-1.95	-0.59	0.06
371.80	2.40	0.08	-0.02	-1.61	-0.46	-0.04
372.00	2.34	0.04	-0.03	-1.48	-0.40	-0.02
372.20	2.50	0.12	-0.03	-1.14	0.22	-0.48
372.40	2.65	0.12	-0.04	-0.88	0.48	0.12
372.60	2.45	-0.09	-0.03	-0.63	-0.66	-0.10
372.80	2.53	0.09	-0.03	-0.73	0.15	-0.18
373.00	2.57	0.16	-0.03	-0.55	-0.55	-0.20
373.20	2.68	0.08	-0.02	-0.74	-0.24	-0.79
373.40	2.56	0.08	-0.01	-0.78	-0.32	-0.04
373.60	2.55	-0.02	-0.01	-0.83	-0.61	0.15
373.80	2.55	0.13	-0.01	-0.63	-0.17	-1.16
374.00	2.38	0.12	-0.02	-0.71	0.91	-1.09
374.20	2.29	-0.04	-0.05	-0.91	1.67	-0.81
374.40	2.48	0.10	-0.02	-0.84	0.20	0.06
374.60	2.34	0.15	-0.01	-0.96	0.30	-0.48
374.80	2.40	0.07	-0.06	-1.05	0.32	-0.62
375.00	2.41	0.01	-0.08	-0.96	-0.73	-0.30
375.20	2.43	0.02	-0.08	-1.06	-0.77	-0.05
375.40	2.32	0.04	-0.06	-1.01	0.51	-0.29
375.60	2.35	0.06	-0.06	-0.81	-0.51	0.10
375.80	2.38	0.12	-0.05	-0.97	-0.13	-0.27
376.00	2.69	-0.05	-0.02	-1.14	-0.08	-0.07
376.20	2.33	0.04	-0.03	-1.13	-0.42	-0.54
376.40	2.37	0.05	-0.04	-0.99	-0.07	0.07
376.60	2.37	0.12	-0.02	-1.04	-0.29	-0.09
376.80	2.30	0.11	-0.04	-0.99	-0.10	-0.43
377.00	2.42	0.13	-0.02	-0.84	0.35	-0.76
377.20	2.26	0.15	-0.03	-0.74	0.09	-0.63
377.40	2.33	0.02	0.00	-0.90	-0.21	-0.20
377.60	2.26	0.08	-0.03	-1.04	-0.44	0.03
377.80	2.38	0.17	-0.01	-1.05	-0.45	-0.63
378.00	2.39	0.10	-0.02	-1.05	-0.12	0.08
378.20	2.39	0.17	-0.01	-1.03	-0.31	-0.31
378.40	2.43	0.08	-0.01	-0.99	0.20	-0.93
378.60	2.41	0.07	0.01	-0.95	-0.15	-0.32
378.80	2.35	0.13	0.01	-0.90	-0.29	-0.63

379.00	2.53	0.14	0.00	-1.04	-0.28	-0.65
379.20	2.50	0.10	0.00	-1.11	-0.89	0.00
379.40	2.46	0.20	-0.01	-0.92	-0.63	-0.37
379.60	2.54	0.02	0.00	-0.67	-0.38	-0.09
379.80	2.59	0.07	0.01	-0.56	-0.39	-0.09
380.00	2.54	0.14	0.00	-0.53	-0.16	-0.03
380.20	2.47	0.16	-0.01	-0.58	-1.05	-0.16
380.40	2.29	0.16	-0.01	-0.68	-0.86	-0.27
380.60	2.35	0.24	-0.02	-0.76	0.03	-0.80
380.80	2.21	0.17	-0.02	-0.75	-0.53	-0.28
381.00	2.31	0.16	-0.02	-1.06	0.05	-0.32
381.20	2.33	0.13	-0.01	-1.31	0.13	-0.27
381.40	2.19	0.12	-0.03	-1.51	0.04	-0.28
381.60	2.12	0.06	-0.04	-1.46	-1.04	0.45
381.80	2.20	0.06	0.00	-1.35	0.02	0.63
382.00	2.27	-0.05	-0.02	-1.10	0.00	0.02
382.20	2.21	0.08	-0.02	-1.03	0.08	-0.31
382.40	2.12	0.04	-0.03	-0.84	0.41	-0.96
382.60	2.13	0.08	-0.03	-0.76	0.62	-1.01
382.80	2.12	0.04	-0.02	-0.80	0.38	-0.91
383.00	1.92	-0.07	-0.01	-0.72	0.15	-0.96
383.20	1.96	-0.14	-0.03	-0.80	-0.24	-0.55
383.40	1.96	-0.06	-0.03	-0.96	0.07	-0.30
383.60	1.95	-0.11	-0.02	-0.83	-0.20	-0.52
383.80	1.95	-0.05	-0.02	-0.69	-1.08	-0.29
384.00	1.94	-0.11	-0.03	-0.65	-0.83	-0.03
384.20	1.90	-0.03	-0.02	-0.77	-0.11	0.17
384.40	1.99	-0.15	-0.02	-0.56	-0.19	-0.38
384.60	1.95	-0.18	-0.03	-0.62	-0.13	-0.36
384.80	1.76	-0.14	-0.03	-0.71	-0.10	-0.48
385.00	1.88	-0.18	-0.03	-0.57	-0.09	-0.90
385.20	1.83	-0.07	-0.01	-0.63	0.11	-0.64
385.40	1.82	-0.23	-0.03	-0.67	0.34	-0.65
385.60	1.94	-0.09	-0.01	-0.59	0.45	-1.06
385.80	1.81	-0.07	-0.01	-0.58	0.11	-0.70
386.00	1.81	-0.03	-0.02	-0.50	-0.64	-0.54
386.20	1.94	-0.07	0.01	-0.38	-0.20	-0.71
386.40	2.02	-0.07	0.01	-0.33	0.10	-1.06
386.60	1.92	-0.04	0.02	-0.39	0.56	-0.02
386.80	1.94	-0.04	0.04	-0.38	0.44	-0.53
387.00	1.74	-0.13	0.02	-0.19	-0.51	-0.50
387.20	1.75	0.12	0.03	-0.14	1.03	-0.49
387.40	1.71	0.09	0.04	-0.40	0.28	0.21
387.60	1.64	0.11	0.04	-0.37	0.53	-0.54
387.80	1.69	0.08	0.04	-0.27	0.07	-0.43
388.00	1.53	0.00	0.03	-0.26	0.25	-0.59
388.20	1.59	0.04	0.02	-0.30	0.36	-0.44
388.40	1.59	0.14	0.03	-0.41	0.34	-0.21
388.60	1.58	-0.04	0.04	-0.19	0.05	-0.49
388.80	1.63	0.06	0.06	-0.29	0.24	-0.42

389.00	1.66	0.09	0.08	-0.29	0.68	-0.31
389.20	1.66	0.02	0.07	-0.15	0.35	-0.55
389.40	1.58	0.04	0.07	-0.09	0.16	-0.75
389.60	1.72	0.10	0.09	-0.10	0.17	-0.41
389.80	1.38	0.08	0.07	-0.16	0.28	-0.26
390.00	1.46	0.19	0.09	-0.05	0.39	-0.60
390.20	1.36	0.02	0.09	-0.04	0.40	-0.79
390.40	1.49	0.07	0.10	-0.02	0.00	-0.24
390.60	1.60	-0.05	0.09	0.01	-0.35	-0.59
390.80	1.54	0.00	0.07	0.12	0.23	-0.98
391.00	1.56	0.16	0.07	0.29	-0.35	0.10
391.20	1.54	0.12	0.10	0.28	-0.04	-0.17
391.40	1.55	0.12	0.11	0.33	0.52	-0.30
391.60	1.51	0.03	0.08	0.39	0.07	-0.06
391.80	1.56	0.11	0.07	0.39	0.23	-0.02
392.00	1.42	0.07	0.07	0.43	0.30	0.01
392.20	1.61	0.06	0.09	0.56	0.45	-0.07
392.40	1.56	0.04	0.08	0.54	1.06	-0.16
392.60	1.61	0.05	0.10	0.62	0.58	-0.32
392.80	1.51	-0.05	0.10	0.64	0.35	0.14
393.00	1.58	-0.02	0.11	0.77	0.52	0.03
393.20	1.55	-0.02	0.14	0.87	0.32	-0.13
393.40	1.64	0.01	0.11	1.08	0.08	0.01
393.60	1.42	0.09	0.14	1.17	-0.39	-0.58
393.80	1.45	0.02	0.11	1.08	-0.61	0.29
394.00	1.45	0.08	0.17	0.99	-0.57	0.62
394.20	1.24	-0.05	0.14	0.89	-0.35	0.10
394.40	1.24	-0.03	0.10	0.97	-0.02	-0.41
394.60	1.15	-0.10	0.16	0.91	0.04	0.15
394.80	1.09	-0.05	0.18	0.92	0.09	-0.53
395.00	0.88	-0.08	0.18	1.05	0.21	-0.75
395.20	0.99	-0.07	0.16	1.08	-0.37	-0.45
395.40	0.89	-0.10	0.17	1.07	0.13	-0.14
395.60	0.81	0.07	0.19	1.10	0.34	-0.29
395.80	0.84	-0.09	0.19	1.11	-0.20	0.04
396.00	0.78	-0.14	0.18	1.13	0.30	-0.35
396.20	0.77	-0.14	0.17	0.94	0.18	-0.13
396.40	0.69	-0.07	0.18	1.09	-0.38	-0.39
396.60	0.68	0.00	0.17	1.01	-0.29	-0.08
396.80	0.48	-0.02	0.15	0.90	-0.21	-0.13
397.00	0.33	0.02	0.16	0.85	0.16	-0.20
397.20	0.32	-0.09	0.16	0.76	-0.11	0.17
397.40	0.43	0.02	0.14	0.76	0.21	0.17
397.60	0.36	0.05	0.12	0.86	0.06	-0.22
397.80	0.41	-0.06	0.11	0.85	0.31	-0.39
398.00	0.31	0.04	0.13	0.94	-0.07	-0.40
398.20	0.32	0.13	0.09	0.87	0.00	-0.34
398.40	0.13	0.05	0.08	1.00	0.04	-0.28
398.60	0.10	0.02	0.07	0.96	0.19	-0.24
398.80	0.11	0.09	0.07	0.96	0.20	-0.42

399.00	0.15	0.02	0.03	0.79	0.07	-0.13
399.20	0.08	0.13	0.04	0.80	-0.03	-0.50
399.40	0.14	-0.01	0.03	0.50	-0.03	-0.08
399.60	0.10	0.05	0.00	0.58	0.20	-0.25
399.80	0.09	-0.07	0.01	0.61	0.09	-0.17
400.00	0.07	0.08	0.00	0.41	-0.03	0.30
400.20	-0.17	0.15	-0.02	0.44	0.25	-0.17
400.40	0.08	0.11	-0.03	0.37	0.14	-0.06
400.60	-0.11	0.13	-0.03	0.50	0.08	-0.51
400.80	-0.05	0.03	-0.03	0.42	0.23	-0.08
401.00	-0.07	0.04	-0.06	0.48	-0.10	-0.35
401.20	-0.14	0.08	-0.06	0.36	0.38	-0.48
401.40	-0.19	0.09	-0.07	0.33	0.44	-0.29
401.60	-0.25	0.04	-0.07	0.23	0.22	0.27
401.80	-0.37	0.08	-0.09	0.22	-0.21	-0.62
402.00	-0.35	0.09	-0.08	0.28	-0.20	-0.40
402.20	-0.39	0.08	-0.08	0.12	0.43	0.12
402.40	-0.38	0.12	-0.09	0.09	-0.20	0.13
402.60	-0.38	0.01	-0.09	0.14	0.24	-0.01
402.80	-0.45	0.05	-0.09	0.25	0.06	-0.18
403.00	-0.38	0.03	-0.08	0.23	0.15	0.12
403.20	-0.46	-0.06	-0.09	0.14	0.00	0.25
403.40	-0.40	0.05	-0.09	0.12	0.06	0.13
403.60	-0.43	0.07	-0.10	0.11	-0.25	0.02
403.80	-0.32	0.02	-0.08	0.15	0.00	-0.14
404.00	-0.42	0.01	-0.10	0.12	-0.22	0.16
404.20	-0.48	-0.01	-0.09	0.11	-0.42	0.01
404.40	-0.41	0.06	-0.08	0.19	-0.10	0.00
404.60	-0.32	0.06	-0.07	0.26	0.15	-0.34
404.80	-0.26	0.01	-0.10	0.30	-0.09	0.04
405.00	-0.22	0.08	-0.10	0.40	-0.27	-0.03
405.20	-0.19	-0.02	-0.09	0.54	-0.23	-0.54
405.40	-0.17	-0.05	-0.08	0.38	0.19	0.20
405.60	-0.16	-0.05	-0.09	0.55	0.01	-0.24
405.80	-0.09	0.00	-0.11	0.54	0.00	0.08
406.00	-0.17	0.00	-0.09	0.64	-0.73	-0.35
406.20	-0.14	0.01	-0.09	0.46	0.09	0.29
406.40	0.05	-0.07	-0.10	0.55	-0.25	-0.34
406.60	-0.01	-0.12	-0.11	0.60	-0.19	-0.55
406.80	0.03	-0.07	-0.11	0.57	-0.42	-0.15
407.00	0.06	-0.09	-0.12	0.64	-0.15	-0.40
407.20	0.04	-0.06	-0.13	0.66	-0.61	-0.16
407.40	0.00	0.00	-0.12	0.85	-0.01	-0.45
407.60	0.09	-0.08	-0.13	0.87	0.17	-0.39
407.80	0.00	-0.08	-0.15	0.85	-0.17	-0.49
408.00	0.13	-0.05	-0.13	0.89	0.27	-0.41
408.20	0.03	-0.01	-0.15	0.84	0.10	-0.25
408.40	-0.04	-0.09	-0.16	0.82	-0.21	0.06
408.60	-0.09	-0.10	-0.17	0.90	0.13	-0.60
408.80	0.00	-0.13	-0.17	0.89	0.05	-0.15

409.00	-0.02	-0.07	-0.17	0.83	-0.07	-0.32
409.20	0.05	-0.07	-0.17	0.92	-0.39	-0.57
409.40	0.02	-0.08	-0.18	0.96	0.00	-0.30
409.60	0.16	-0.08	-0.17	1.05	0.09	-0.29
409.80	0.16	-0.02	-0.19	0.93	-0.11	0.23
410.00	0.02	-0.03	-0.17	0.98	-0.66	-0.41
410.20	0.01	0.01	-0.17	1.09	-0.04	-0.12
410.40	-0.06	-0.03	-0.16	1.07	-0.26	-0.10
410.60	-0.06	-0.01	-0.16	1.02	0.09	-0.30
410.80	-0.15	-0.03	-0.16	0.89	-0.61	0.18
411.00	-0.12	0.05	-0.16	0.84	0.16	0.46
411.20	-0.03	-0.07	-0.15	0.85	-0.07	0.08
411.40	-0.10	-0.04	-0.13	0.93	-0.18	0.49
411.60	0.02	-0.07	-0.12	1.17	-0.10	-0.43
411.80	-0.17	-0.08	-0.13	1.16	0.37	-0.11
412.00	-0.07	-0.08	-0.10	1.16	-0.10	0.09
412.20	0.07	0.00	-0.09	1.38	0.33	-0.13
412.40	-0.01	-0.04	-0.09	1.14	0.16	0.15
412.60	-0.17	0.09	-0.05	1.27	0.08	-0.30
412.80	-0.22	-0.01	-0.06	1.18	-0.16	0.08
413.00	-0.10	0.04	-0.02	1.12	-0.22	-0.06
413.20	-0.23	-0.04	-0.02	1.06	-0.31	-0.43
413.40	-0.19	0.09	-0.02	0.95	0.75	-0.25
413.60	-0.17	0.05	0.00	1.18	0.10	-0.45
413.80	-0.25	0.01	0.02	1.16	0.04	-0.25
414.00	-0.24	0.00	0.03	1.07	0.31	0.18
414.20	-0.24	0.09	0.04	1.08	-0.06	0.15
414.40	-0.33	-0.03	0.04	1.17	0.06	-0.15
414.60	-0.39	-0.06	0.05	1.21	0.15	0.12
414.80	-0.57	-0.03	0.06	1.21	-0.02	-0.64
415.00	-0.55	-0.06	0.06	1.07	0.74	-0.15
415.20	-0.48	-0.01	0.07	1.07	0.06	-0.17
415.40	-0.60	-0.07	0.07	1.04	0.36	-0.21
415.60	-0.66	0.04	0.09	0.94	-0.30	-0.23
415.80	-0.68	0.02	0.09	0.92	0.20	-0.26
416.00	-0.70	-0.02	0.08	0.82	0.23	-0.19
416.20	-0.80	-0.01	0.07	0.72	0.16	-0.36
416.40	-0.70	0.00	0.07	0.82	-0.06	-0.95
416.60	-0.81	0.02	0.07	0.83	-0.43	-0.50
416.80	-0.91	-0.06	0.07	0.92	-0.39	-0.48
417.00	-0.89	0.03	0.07	0.86	0.33	-0.07
417.20	-0.95	-0.09	0.05	0.70	-0.26	-0.18
417.40	-1.01	-0.05	0.07	0.64	0.33	-0.27
417.60	-0.99	0.04	0.04	0.56	-0.17	0.04
417.80	-1.04	0.06	0.04	0.63	0.28	-0.12
418.00	-0.94	0.03	0.06	0.65	0.02	-0.16
418.20	-0.94	-0.10	0.05	0.72	0.14	0.40
418.40	-0.94	-0.08	0.05	0.70	0.13	0.04
418.60	-0.85	-0.02	0.04	0.77	-0.04	-0.34
418.80	-0.91	0.02	0.02	0.78	-0.03	0.18

419.00	-0.89	-0.03	0.04	0.84	-0.19	0.06
419.20	-0.85	-0.04	-0.01	0.77	0.01	0.16
419.40	-0.79	0.00	0.00	0.80	-0.15	-0.01
419.60	-0.82	0.06	0.00	0.82	-0.12	-0.03
419.80	-0.86	0.08	-0.01	0.77	-0.08	0.01
420.00	-0.84	0.01	-0.01	0.80	0.14	0.17
420.20	-0.82	-0.07	-0.01	0.78	0.10	0.28
420.40	-0.78	-0.01	0.00	0.77	-0.07	-0.12
420.60	-0.68	0.02	-0.01	0.88	0.02	-0.22
420.80	-0.69	-0.03	-0.04	0.91	-0.02	-0.50
421.00	-0.72	0.02	-0.03	0.85	-0.33	0.19
421.20	-0.70	0.02	-0.04	0.86	-0.59	-0.26
421.40	-0.75	0.04	-0.05	0.95	0.08	0.15
421.60	-0.74	-0.03	-0.05	0.89	0.21	0.29
421.80	-0.76	0.01	-0.05	1.02	0.19	0.17
422.00	-0.76	-0.01	-0.05	1.07	-0.37	0.18
422.20	-0.78	-0.03	-0.05	0.99	0.23	-0.01
422.40	-0.90	0.14	-0.06	0.96	0.14	-0.21
422.60	-0.91	-0.01	-0.06	0.92	0.21	0.08
422.80	-0.94	0.05	-0.08	1.13	0.05	-0.19
423.00	-0.91	0.08	-0.05	1.07	0.32	-0.38
423.20	-0.86	0.02	-0.07	1.07	-0.06	-0.27
423.40	-0.72	-0.03	-0.07	1.16	0.25	-0.13
423.60	-0.80	0.11	-0.05	1.15	0.16	-0.19
423.80	-0.69	-0.14	-0.09	1.12	0.33	-0.08
424.00	-0.64	0.02	-0.08	1.12	0.15	-0.09
424.20	-0.75	-0.06	-0.08	1.07	0.61	-0.64
424.40	-0.83	0.00	-0.08	1.03	0.39	-0.03
424.60	-0.86	-0.05	-0.11	0.91	0.53	-0.56
424.80	-0.79	0.03	-0.09	0.95	0.70	-0.89
425.00	-0.86	0.09	-0.11	0.91	0.67	-0.60
425.20	-0.67	-0.04	-0.10	1.10	0.39	-0.39
425.40	-0.73	-0.16	-0.10	0.96	0.36	0.18
425.60	-0.63	0.03	-0.08	1.04	0.24	0.02
425.80	-0.70	-0.11	-0.09	1.01	-0.02	0.03
426.00	-0.65	0.04	-0.11	1.06	-0.06	0.08
426.20	-0.72	0.08	-0.08	1.15	0.40	0.02
426.40	-0.62	-0.03	-0.08	1.15	-0.03	0.10
426.60	-0.76	-0.04	-0.08	1.29	-0.38	-0.37
426.80	-0.77	-0.02	-0.07	1.19	0.14	-0.48
427.00	-0.62	-0.07	-0.07	1.26	0.14	-0.31
427.20	-0.69	0.01	-0.05	1.21	-0.08	-0.17
427.40	-0.69	-0.05	-0.04	1.20	-0.21	-0.02
427.60	-0.67	-0.03	-0.05	1.29	-0.28	-0.67
427.80	-0.70	-0.06	-0.04	1.37	0.35	-0.43
428.00	-0.62	-0.02	-0.03	1.22	-0.01	0.03
428.20	-0.81	-0.01	-0.02	1.31	-0.46	-0.34
428.40	-0.69	-0.07	-0.05	1.36	0.13	-0.21
428.60	-0.82	0.12	-0.02	1.32	-0.54	-0.21
428.80	-0.90	-0.02	-0.03	1.19	-0.80	-0.33

429.00	-0.98	0.00	-0.02	0.99	0.32	0.06
429.20	-1.01	0.06	0.00	1.05	-1.43	0.42
429.40	-0.97	-0.12	-0.02	1.28	0.05	-0.49
429.60	-1.05	-0.09	-0.02	1.26	0.36	0.15
429.80	-1.04	-0.05	-0.01	1.15	0.01	-0.55
430.00	-1.11	-0.02	-0.03	1.20	0.56	-0.35
430.20	-1.00	-0.05	-0.01	1.22	0.27	-0.29
430.40	-1.17	-0.02	-0.01	1.22	-0.39	0.06
430.60	-1.08	0.01	-0.01	1.22	0.14	-0.21
430.80	-1.02	-0.06	-0.01	1.09	0.27	0.49
431.00	-1.09	-0.04	0.02	1.25	-0.19	0.32
431.20	-1.12	-0.19	0.01	1.25	0.01	-0.26
431.40	-1.17	-0.08	-0.01	1.20	-0.16	-0.33
431.60	-1.13	-0.03	0.00	1.35	0.15	-0.16
431.80	-1.06	-0.05	0.01	1.21	0.97	0.15
432.00	-1.13	-0.04	0.02	1.33	0.24	0.01
432.20	-1.11	0.04	0.01	1.34	-0.25	-0.19
432.40	-1.02	-0.04	0.02	1.29	-0.32	-0.19
432.60	-1.05	-0.05	0.02	1.30	0.18	0.33
432.80	-1.03	-0.03	0.02	1.34	0.18	-0.04
433.00	-1.06	-0.02	0.01	1.53	0.21	-0.31
433.20	-1.13	0.00	0.02	1.54	0.31	-0.16
433.40	-1.14	-0.04	0.00	1.42	-0.14	-0.17
433.60	-1.07	-0.09	-0.01	1.35	-0.37	-0.42
433.80	-1.15	-0.17	0.00	1.52	0.59	0.07
434.00	-1.10	-0.12	0.01	1.47	0.20	-0.10
434.20	-1.06	-0.12	0.00	1.40	0.17	-0.06
434.40	-1.08	-0.15	0.00	1.48	0.86	-0.34
434.60	-1.07	-0.22	0.00	1.34	-0.01	0.02
434.80	-1.02	-0.07	0.01	1.43	0.50	-0.14
435.00	-1.08	0.00	-0.03	1.43	0.26	-0.12
435.20	-1.15	-0.05	0.00	1.42	-0.24	-0.26
435.40	-1.28	-0.27	-0.01	1.38	-0.06	0.03
435.60	-1.30	-0.12	0.00	1.47	-0.19	-0.45
435.80	-1.24	-0.06	0.01	1.29	0.52	-0.36
436.00	-1.29	-0.10	0.00	1.52	0.15	-0.77
436.20	-1.28	-0.09	0.00	1.60	0.10	-0.97
436.40	-1.29	-0.05	0.03	1.43	-0.13	-0.72
436.60	-1.33	-0.12	0.01	1.42	-0.24	-0.14
436.80	-1.29	-0.07	0.00	1.37	1.07	-0.41
437.00	-1.29	-0.12	0.01	1.36	-0.11	0.02
437.20	-1.39	-0.11	0.01	1.48	1.38	-0.83
437.40	-1.30	-0.12	0.02	1.48	0.22	-0.20
437.60	-1.30	-0.02	0.03	1.50	0.04	-0.24
437.80	-1.25	-0.20	0.01	1.47	0.18	-0.13
438.00	-1.45	-0.04	0.01	1.46	-0.12	-0.23
438.20	-1.40	-0.17	0.02	1.44	0.60	-0.18
438.40	-1.41	-0.11	0.02	1.34	-0.08	0.16
438.60	-1.35	-0.13	0.02	1.40	0.04	-0.51
438.80	-1.33	-0.12	0.00	1.34	0.75	-0.33

439.00	-1.37	-0.03	0.03	1.49	0.83	-0.71
439.20	-1.30	-0.11	0.03	1.58	-0.50	-0.02
439.40	-1.25	-0.12	0.02	1.43	0.02	0.33
439.60	-1.31	-0.07	0.02	1.52	-0.01	-0.27
439.80	-1.23	-0.06	0.01	1.64	0.46	-0.12
440.00	-1.28	-0.03	0.04	1.61	0.12	-0.14
440.20	-1.31	-0.11	0.02	1.57	-0.15	0.23
440.40	-1.30	-0.01	0.02	1.58	-0.07	-0.18
440.60	-1.35	0.01	0.01	1.58	-0.26	-0.17
440.80	-1.19	-0.06	0.01	1.60	-0.07	-0.11
441.00	-1.36	-0.02	0.01	1.66	0.21	-0.05
441.20	-1.20	-0.02	-0.01	1.61	0.06	0.29
441.40	-1.34	-0.01	0.01	1.61	-0.18	0.21
441.60	-1.24	-0.01	-0.01	1.90	-0.38	-0.18
441.80	-1.33	0.06	-0.03	1.88	0.02	0.03
442.00	-1.24	-0.08	-0.03	1.83	0.04	0.45
442.20	-1.42	-0.01	-0.04	1.85	-0.13	0.03
442.40	-1.42	-0.01	-0.02	1.87	-0.26	-0.03
442.60	-1.43	0.02	-0.03	1.90	-0.02	-0.60
442.80	-1.50	0.05	-0.03	1.91	-0.29	-0.01
443.00	-1.44	0.02	-0.05	1.82	0.48	-0.54
443.20	-1.45	-0.07	-0.04	1.78	0.12	-0.12
443.40	-1.48	0.00	-0.05	1.87	-0.02	-0.13
443.60	-1.39	0.01	-0.04	1.82	0.74	-0.54
443.80	-1.54	-0.04	-0.07	1.85	-0.40	-0.48
444.00	-1.58	0.04	-0.06	1.83	0.34	-0.16
444.20	-1.64	-0.03	-0.06	1.86	0.18	-0.41
444.40	-1.52	0.12	-0.05	1.76	0.27	0.25
444.60	-1.59	0.02	-0.06	1.75	-0.10	-0.17
444.80	-1.50	-0.01	-0.06	1.67	0.16	-0.07
445.00	-1.48	-0.03	-0.07	1.70	-0.27	0.09
445.20	-1.50	-0.05	-0.08	1.71	2.07	-1.60
445.40	-1.65	-0.11	-0.07	1.78	0.32	-0.59
445.60	-1.58	-0.02	-0.06	1.79	-0.60	-1.02
445.80	-1.51	-0.01	-0.08	1.73	-0.25	0.16
446.00	-1.50	0.01	-0.07	1.79	-0.44	0.08
446.20	-1.47	0.01	-0.09	1.79	-0.26	-0.11
446.40	-1.43	-0.01	-0.11	1.79	-0.25	0.03
446.60	-1.42	-0.10	-0.06	1.86	0.09	-0.09
446.80	-1.44	-0.08	-0.07	1.80	0.30	-0.08
447.00	-1.50	-0.02	-0.06	1.66	0.17	0.11
447.20	-1.46	-0.02	-0.06	1.76	-0.17	-0.68
447.40	-1.43	0.01	-0.07	1.80	0.44	-0.14
447.60	-1.40	0.04	-0.05	1.56	-0.11	-0.30
447.80	-1.52	0.00	-0.07	1.59	-0.42	-0.53
448.00	-1.38	0.07	-0.06	1.77	-0.14	-0.27
448.20	-1.50	-0.05	-0.03	1.64	-0.08	0.28
448.40	-1.58	0.00	-0.06	1.70	0.49	0.06
448.60	-1.48	-0.14	-0.04	1.84	0.36	-0.18
448.80	-1.59	0.05	-0.05	1.80	-0.13	-0.31

449.00	-1.55	-0.02	-0.04	1.81	-0.02	-0.01
449.20	-1.72	0.01	-0.04	1.73	0.59	-0.28
449.40	-1.76	-0.03	-0.04	1.67	0.73	-0.38
449.60	-1.69	-0.03	-0.02	1.69	0.97	-0.80
449.80	-1.70	-0.03	0.00	1.64	-0.25	-0.54
450.00	-1.73	-0.07	-0.01	1.54	-0.23	-0.32
450.20	-1.72	-0.06	-0.04	1.55	-0.31	-0.36
450.40	-1.72	-0.12	-0.01	1.47	-0.72	-0.08
450.60	-1.69	-0.13	-0.03	1.37	1.13	-1.89
450.80	-1.68	-0.12	-0.02	1.53	-0.04	0.51
451.00	-1.74	-0.09	-0.01	1.63	0.35	-0.48
451.20	-1.60	-0.05	0.00	1.56	0.25	0.06
451.40	-1.76	-0.14	-0.01	1.60	-0.27	-0.14
451.60	-1.60	-0.20	-0.01	1.40	-0.26	0.09
451.80	-1.81	-0.15	-0.01	1.47	-0.25	-0.18
452.00	-1.62	-0.18	0.01	1.58	0.07	-0.16
452.20	-1.95	-0.15	0.01	1.59	0.51	-0.57
452.40	-1.76	-0.27	0.03	1.61	0.30	-0.51
452.60	-1.73	-0.14	0.02	1.66	-0.18	-0.16
452.80	-1.65	-0.09	0.02	1.51	0.15	0.02
453.00	-1.65	-0.23	0.04	1.66	0.31	-0.56
453.20	-1.63	-0.14	0.03	1.65	0.04	-0.20
453.40	-1.59	-0.19	0.03	1.61	0.84	-0.98
453.60	-1.47	-0.14	0.03	1.66	-0.26	-0.03
453.80	-1.60	-0.30	0.04	1.63	0.11	0.16
454.00	-1.56	-0.18	0.02	1.44	0.01	0.28
454.20	-1.57	-0.05	0.03	1.51	0.21	-0.01
454.40	-1.69	-0.15	0.04	1.63	0.03	-0.07
454.60	-1.53	-0.16	0.02	1.45	-0.49	0.23
454.80	-1.38	-0.11	0.04	1.56	0.04	0.23
455.00	-1.51	-0.20	0.01	1.60	-0.07	0.16
455.20	-1.57	-0.06	0.00	1.63	0.11	0.09
455.40	-1.51	-0.06	0.00	1.60	-0.34	0.07
455.60	-1.65	-0.18	-0.01	1.72	0.40	-0.11
455.80	-1.63	-0.09	0.00	1.64	0.04	-0.17
456.00	-1.61	-0.11	-0.03	1.56	0.04	0.16
456.20	-1.74	-0.01	0.00	1.65	0.04	-0.17
456.40	-1.71	0.00	-0.01	1.63	-0.29	-0.15
456.60	-1.64	0.02	0.01	1.60	-0.26	0.43
456.80	-1.72	-0.05	-0.03	1.61	0.35	-0.30
457.00	-1.85	-0.03	-0.04	1.62	0.32	-0.25
457.20	-1.78	-0.02	-0.03	1.65	-0.22	0.05
457.40	-1.76	-0.04	-0.03	1.50	-0.32	-0.02
457.60	-1.65	-0.05	-0.01	1.67	0.56	-0.51
457.80	-1.78	0.10	-0.04	1.73	-0.01	-0.35
458.00	-1.63	0.15	-0.03	1.56	-1.96	-1.71
458.20	-1.68	0.14	-0.04	1.73	-0.20	0.33
458.40	-1.65	0.01	-0.05	1.78	-0.19	-0.05
458.60	-1.80	0.10	-0.04	1.76	-0.03	-0.41
458.80	-1.77	0.13	-0.05	1.64	-0.26	0.07

459.00	-1.67	-0.03	-0.06	1.75	-0.42	-0.21
459.20	-1.74	0.04	-0.04	1.78	-0.05	-0.16
459.40	-1.74	0.09	-0.05	1.84	-0.31	0.24
459.60	-1.58	-0.02	-0.06	1.79	0.15	-0.26
459.80	-1.76	-0.03	-0.05	1.77	-0.34	-0.29
460.00	-1.48	-0.02	-0.08	1.73	-0.53	0.38
460.20	-1.69	0.01	-0.08	1.92	0.58	-0.51
460.40	-1.61	0.07	-0.05	1.92	0.03	-0.01
460.60	-1.70	0.05	-0.06	1.97	-0.13	-0.17
460.80	-1.71	-0.01	-0.05	1.91	0.29	-0.55
461.00	-1.71	0.02	-0.05	1.87	0.25	-0.18
461.20	-1.63	0.01	-0.05	1.90	0.10	-0.25
461.40	-1.80	0.12	-0.04	1.94	0.29	-0.31
461.60	-1.76	-0.07	-0.04	1.86	0.36	-0.30
461.80	-1.73	0.01	-0.04	1.93	-0.28	-0.54
462.00	-1.61	0.02	-0.03	1.94	0.37	-0.28
462.20	-1.63	-0.05	-0.06	1.96	0.20	0.00
462.40	-1.75	0.06	-0.03	2.01	0.42	-0.26
462.60	-1.76	0.04	-0.02	1.91	-0.36	0.06
462.80	-1.79	0.05	-0.04	1.88	-0.09	0.00
463.00	-1.97	-0.05	-0.04	1.82	0.15	-0.68
463.20	-2.01	0.02	-0.06	1.67	-0.03	0.09
463.40	-1.93	-0.10	-0.06	1.80	0.28	0.09
463.60	-2.06	-0.08	-0.05	1.70	0.42	-0.02
463.80	-1.95	-0.10	-0.02	1.68	0.10	-0.56
464.00	-1.97	0.01	-0.04	1.55	-0.06	0.06
464.20	-1.94	-0.12	-0.03	1.51	-0.08	0.15
464.40	-1.97	-0.07	-0.03	1.56	0.28	-0.07
464.60	-2.03	0.04	-0.03	1.57	0.22	-0.04
464.80	-2.00	-0.06	-0.05	1.56	0.11	0.07
465.00	-2.10	0.07	-0.02	1.59	0.03	0.04
465.20	-2.16	-0.13	-0.03	1.59	-0.09	0.02
465.40	-2.07	-0.12	0.01	1.55	0.11	-0.18
465.60	-1.95	-0.15	-0.02	1.61	0.43	-0.32
465.80	-2.00	-0.13	-0.03	1.53	0.13	-0.65
466.00	-2.14	-0.06	-0.02	1.52	0.09	-0.47
466.20	-2.02	-0.13	-0.01	1.40	-0.16	0.38
466.40	-2.09	-0.19	-0.02	1.58	-0.20	-0.61
466.60	-2.10	-0.09	-0.02	1.55	0.77	-0.51
466.80	-2.00	-0.04	0.01	1.59	0.57	-0.43
467.00	-2.11	-0.14	0.01	1.56	0.38	0.01
467.20	-2.06	-0.09	0.01	1.44	0.22	0.04
467.40	-2.11	-0.20	-0.01	1.61	0.24	-0.54
467.60	-2.04	-0.16	-0.01	1.57	0.33	-0.48
467.80	-2.03	-0.15	0.01	1.51	-0.27	-0.30
468.00	-2.10	-0.07	0.00	1.53	0.05	-0.06
468.20	-1.98	-0.22	0.01	1.46	0.16	-0.22
468.40	-2.07	-0.07	0.00	1.40	-0.25	0.11
468.60	-2.14	-0.24	-0.01	1.35	0.76	-0.70
468.80	-2.11	-0.13	0.01	1.40	-0.07	-0.28

469.00	-2.00	-0.22	0.00	1.51	0.50	-0.60
469.20	-2.04	-0.21	-0.02	1.54	0.20	-0.09
469.40	-2.05	-0.18	-0.02	1.49	-0.22	-0.41
469.60	-2.05	-0.23	0.00	1.59	-0.30	-0.28
469.80	-2.12	0.03	-0.02	1.49	-0.19	-0.62
470.00	-2.16	-0.06	-0.02	1.70	0.68	-0.48
470.20	-2.17	-0.08	-0.03	1.55	0.28	0.05
470.40	-2.26	-0.13	-0.04	1.55	-0.25	-0.38
470.60	-2.00	-0.21	-0.04	1.70	0.35	-0.39
470.80	-2.04	-0.10	-0.02	1.64	0.89	-0.59
471.00	-2.19	-0.28	-0.05	1.69	-0.12	-0.04
471.20	-2.14	-0.14	-0.04	1.71	0.50	-0.58
471.40	-2.11	-0.03	-0.04	1.65	0.03	-0.23
471.60	-1.96	-0.03	-0.03	1.72	0.34	-0.30
471.80	-2.09	0.00	-0.02	1.55	0.26	0.24
472.00	-2.14	-0.12	-0.06	1.61	0.26	0.28
472.20	-2.11	-0.10	-0.05	1.74	0.17	0.06
472.40	-1.92	-0.11	-0.06	1.56	-0.01	0.27
472.60	-2.21	-0.12	-0.03	1.55	-0.21	-0.18
472.80	-2.03	-0.05	-0.02	1.60	0.18	-0.14
473.00	-2.05	-0.23	-0.07	1.58	0.05	-0.38
473.20	-1.92	-0.03	-0.02	1.61	0.39	-0.33
473.40	-2.06	0.00	-0.04	1.71	0.60	-0.43
473.60	-1.95	-0.04	-0.07	1.67	0.00	-0.43
473.80	-1.80	-0.10	-0.02	1.64	-0.28	-0.23
474.00	-1.88	-0.02	-0.04	1.70	-0.39	-0.22
474.20	-2.01	-0.05	-0.03	1.82	0.22	-0.46
474.40	-1.86	-0.03	-0.02	1.86	0.32	-0.26
474.60	-1.98	-0.08	-0.02	1.81	-0.34	0.20
474.80	-1.97	0.00	-0.01	1.88	-0.17	0.08
475.00	-2.00	-0.03	0.00	1.84	0.40	0.18
475.20	-1.91	-0.07	0.01	1.85	0.08	0.00
475.40	-1.87	-0.13	-0.02	1.91	-0.07	-0.22
475.60	-1.92	-0.03	-0.02	1.92	0.05	-0.14
475.80	-1.82	-0.04	0.00	1.73	0.47	-0.07
476.00	-1.94	-0.03	0.01	1.80	0.06	-0.21
476.20	-1.83	-0.03	0.01	1.73	-0.09	0.36
476.40	-1.85	-0.06	0.01	1.61	-0.33	0.25
476.60	-2.02	-0.06	0.02	1.66	0.14	-0.15
476.80	-1.95	-0.01	0.04	1.57	0.23	0.01
477.00	-1.98	0.01	0.05	1.50	0.19	-0.05
477.20	-1.95	0.03	0.01	1.48	-0.05	-0.02
477.40	-2.14	0.06	0.06	1.48	-0.22	-0.03
477.60	-2.02	0.00	0.06	1.48	0.51	-0.01
477.80	-2.01	-0.03	0.05	1.56	0.15	-0.17
478.00	-1.87	0.04	0.05	1.54	-0.24	-0.01
478.20	-1.95	0.02	0.04	1.54	0.16	0.09
478.40	-1.96	0.04	0.06	1.52	0.15	0.22
478.60	-1.95	-0.01	0.05	1.46	-0.02	0.03
478.80	-1.90	-0.07	0.06	1.53	0.34	-0.61

479.00	-1.91	0.04	0.08	1.20	0.13	0.22
479.20	-1.92	-0.08	0.08	1.40	-0.78	-0.39
479.40	-1.88	0.01	0.06	1.49	-0.12	0.14
479.60	-1.97	-0.02	0.09	1.72	-0.25	-0.60
479.80	-1.89	-0.07	0.09	1.52	-0.02	-0.03
480.00	-1.74	-0.02	0.08	1.48	-0.10	0.01
480.20	-1.80	-0.08	0.07	1.35	-0.59	-0.15
480.40	-1.61	-0.04	0.09	1.58	1.07	-0.64
480.60	-1.61	0.05	0.07	1.25	0.26	-1.10
480.80	-1.54	-0.08	0.08	1.33	-1.16	-0.75
481.00	-1.71	0.01	0.10	1.40	-0.72	-0.14
481.20	-1.55	0.01	0.08	1.51	0.59	-0.16
481.40	-1.66	-0.06	0.10	1.31	0.11	0.01
481.60	-1.57	-0.06	0.09	1.28	-0.02	0.17
481.80	-1.46	-0.07	0.09	1.31	0.19	0.19
482.00	-1.45	-0.03	0.10	1.30	0.25	-0.04
482.20	-1.41	-0.05	0.09	1.20	-0.07	-0.07
482.40	-1.33	-0.08	0.09	1.29	0.14	-0.01
482.60	-1.39	-0.03	0.08	1.23	0.39	-0.05
482.80	-1.54	-0.14	0.10	1.28	-0.29	0.03
483.00	-1.45	0.01	0.13	1.15	0.17	0.16
483.20	-1.37	-0.01	0.08	1.09	0.05	0.50
483.40	-1.32	-0.17	0.08	1.17	-0.06	-0.11
483.60	-1.26	-0.09	0.10	1.06	0.61	-0.09
483.80	-1.38	-0.12	0.09	1.07	-0.26	0.23
484.00	-1.32	-0.08	0.08	0.97	-0.10	0.20
484.20	-1.41	-0.06	0.09	1.09	0.16	-0.09
484.40	-1.22	-0.08	0.09	0.91	-0.17	0.18
484.60	-1.28	-0.11	0.11	0.97	-0.15	-0.02
484.80	-1.18	0.08	0.07	1.02	0.20	0.31
485.00	-1.03	0.01	0.09	1.01	0.18	-0.02
485.20	-1.11	-0.01	0.07	0.94	0.17	-0.03
485.40	-1.13	0.02	0.07	0.95	0.18	-0.21
485.60	-1.06	-0.10	0.06	0.79	-0.45	-0.19
485.80	-0.96	0.00	0.05	0.73	1.45	-0.68
486.00	-1.02	0.00	0.04	0.86	0.46	-0.50
486.20	-0.96	0.05	0.03	0.80	0.33	-0.72
486.40	-0.82	-0.03	0.03	0.76	-0.42	-0.26
486.60	-0.88	-0.06	0.04	0.81	-0.49	-0.06
486.80	-0.79	0.00	0.02	0.89	-0.34	-0.17
487.00	-0.82	-0.05	0.00	0.80	-0.25	0.02
487.20	-0.85	0.06	0.02	0.81	-0.04	-0.09
487.40	-0.72	0.00	0.02	0.79	-0.26	0.21
487.60	-0.51	-0.08	-0.03	0.90	0.17	-0.34
487.80	-0.57	0.00	-0.02	0.96	0.06	-0.44
488.00	-0.64	-0.09	0.00	0.86	-0.27	0.02
488.20	-0.57	0.00	-0.02	0.84	-0.32	-0.17
488.40	-0.55	-0.07	-0.01	0.75	-0.39	-0.28
488.60	-0.52	0.08	-0.02	0.78	-0.69	0.01
488.80	-0.66	0.10	-0.05	0.59	0.12	0.04

489.00	-0.61	0.12	-0.04	0.57	0.61	-0.49
489.20	-0.68	-0.02	-0.03	0.63	0.27	0.26
489.40	-0.48	0.07	-0.06	0.57	0.15	0.07
489.60	-0.61	0.12	-0.06	0.60	0.30	-0.16
489.80	-0.58	-0.04	-0.08	0.56	0.41	0.01
490.00	-0.60	0.01	-0.09	0.52	0.40	0.18
490.20	-0.65	0.08	-0.10	0.46	0.21	0.10
490.40	-0.64	0.17	-0.08	0.52	-0.02	0.20
490.60	-0.69	0.10	-0.11	0.39	0.04	-0.07
490.80	-0.70	0.04	-0.09	0.38	-0.03	-0.08
491.00	-0.66	-0.03	-0.11	0.34	0.45	0.19
491.20	-0.44	0.14	-0.14	0.21	0.23	-0.24
491.40	-0.77	0.10	-0.09	0.22	-0.06	-0.07
491.60	-0.62	0.05	-0.12	0.18	-0.34	-0.07
491.80	-0.59	0.09	-0.09	0.10	0.21	-0.14
492.00	-0.59	0.09	-0.12	0.10	0.11	0.05
492.20	-0.48	0.07	-0.12	0.00	-1.45	0.07
492.40	-0.62	0.06	-0.10	0.10	-0.29	0.16
492.60	-0.59	-0.02	-0.14	0.04	0.26	0.03
492.80	-0.59	-0.04	-0.15	0.00	-0.60	-0.11
493.00	-0.60	0.03	-0.13	-0.04	-0.37	0.38
493.20	-0.52	-0.01	-0.12	-0.01	0.32	0.01
493.40	-0.65	-0.11	-0.14	-0.08	-0.03	0.08
493.60	-0.55	0.04	-0.14	-0.17	-0.10	0.32
493.80	-0.61	0.01	-0.14	-0.13	-0.04	0.03
494.00	-0.45	-0.08	-0.15	-0.09	-0.09	-0.30
494.20	-0.46	-0.07	-0.13	-0.15	-0.16	0.18
494.40	-0.40	-0.17	-0.16	-0.21	0.17	0.17
494.60	-0.52	0.02	-0.13	-0.20	0.33	0.38
494.80	-0.52	0.11	-0.13	-0.21	0.09	-0.05
495.00	-0.51	-0.04	-0.14	-0.28	0.16	0.12
495.20	-0.53	-0.06	-0.13	-0.28	-0.17	0.12
495.40	-0.46	0.08	-0.14	-0.34	-0.36	0.05
495.60	-0.45	-0.08	-0.11	-0.40	0.17	0.27
495.80	-0.63	-0.08	-0.12	-0.42	0.01	0.09
496.00	-0.50	-0.19	-0.13	-0.43	-0.14	0.15
496.20	-0.56	-0.01	-0.12	-0.44	-0.10	0.12
496.40	-0.48	0.03	-0.12	-0.46	0.67	0.19
496.60	-0.48	-0.04	-0.11	-0.49	-0.04	0.51
496.80	-0.65	-0.14	-0.10	-0.53	0.30	0.47
497.00	-0.56	-0.19	-0.11	-0.53	0.04	0.15
497.20	-0.51	-0.09	-0.08	-0.46	0.04	-0.38
497.40	-0.50	-0.14	-0.10	-0.59	-0.36	-0.06
497.60	-0.56	-0.05	-0.08	-0.44	1.61	0.81
497.80	-0.48	-0.17	-0.09	-0.52	0.18	0.20
498.00	-0.59	-0.22	-0.06	-0.52	0.37	0.23
498.20	-0.55	-0.09	-0.07	-0.66	-0.03	-0.03
498.40	-0.36	-0.06	-0.06	-0.73	1.72	-0.38
498.60	-0.40	-0.09	-0.06	-0.71	0.92	0.08
498.80	-0.30	-0.14	-0.05	-0.54	-0.18	0.00

499.00	-0.29	-0.12	-0.04	-0.57	-0.02	0.41
499.20	-0.24	-0.09	-0.03	-0.61	1.24	-0.48
499.40	-0.28	-0.02	-0.03	-0.59	-0.46	0.14
499.60	-0.22	-0.23	-0.03	-0.49	-0.40	-0.10
499.80	-0.43	-0.14	-0.02	-0.52	0.45	0.26
500.00	-0.28	-0.04	0.00	-0.44	-0.12	0.01
500.20	-0.07	-0.21	-0.01	-0.47	-0.55	0.07
500.40	-0.13	-0.13	0.00	-0.67	-0.15	0.51
500.60	-0.18	-0.07	0.00	-0.44	-0.11	-0.18
500.80	-0.05	0.15	0.00	-0.47	0.03	0.08
501.00	-0.05	0.00	0.03	-0.44	-0.14	0.02
501.20	0.04	0.19	0.04	-0.40	-0.06	-0.02
501.40	-0.02	0.16	0.05	-0.40	-0.25	-0.07
501.60	-0.01	0.09	0.02	-0.40	-0.29	0.04
501.80	0.04	0.12	0.00	-0.31	-0.19	-0.17
502.00	0.02	-0.02	0.05	-0.28	-0.33	-0.08
502.20	0.27	0.10	0.03	-0.44	-0.31	0.21
502.40	0.12	0.04	0.04	-0.40	-0.32	0.22
502.60	0.09	0.03	0.02	-0.37	-0.10	0.43
502.80	0.10	0.07	0.06	-0.46	-0.29	0.78
503.00	0.07	0.00	0.05	-0.49	-0.16	-0.37
503.20	0.07	0.09	0.03	-0.44	-0.69	0.55
503.40	0.06	0.15	0.05	-0.51	-0.68	0.27
503.60	0.09	0.09	0.03	-0.42	0.37	-0.16
503.80	-0.02	0.08	0.03	-0.53	0.02	0.02
504.00	0.13	0.12	0.03	-0.46	-0.09	0.15
504.20	-0.04	0.09	0.04	-0.51	0.06	0.53
504.40	-0.14	-0.03	0.03	-0.50	-0.26	0.37
504.60	-0.10	0.16	0.05	-0.44	0.07	-0.08
504.80	-0.09	0.17	0.05	-0.72	-0.10	0.66
505.00	-0.03	0.15	0.02	-0.44	0.09	0.40
505.20	0.00	-0.01	0.02	-0.43	-0.02	0.48
505.40	-0.02	0.07	0.03	-0.39	-0.01	-0.23
505.60	0.04	0.15	0.01	-0.48	-0.13	0.25
505.80	0.10	0.21	0.04	-0.67	-0.33	0.87
506.00	0.03	-0.03	0.00	-0.27	-0.20	-0.27
506.20	0.14	-0.02	0.00	-0.63	0.02	1.15
506.40	0.07	0.05	-0.01	-0.37	0.61	0.23
506.60	0.13	0.12	-0.02	-0.32	0.19	0.13
506.80	0.17	-0.09	-0.04	-0.26	-0.25	0.13
507.00	0.05	0.09	0.00	-0.25	-0.07	0.06
507.20	0.14	0.08	0.00	-0.21	-0.16	-0.27
507.40	0.04	0.13	-0.02	-0.27	-0.05	0.30
507.60	0.16	0.14	-0.03	-0.30	0.30	0.20
507.80	0.13	-0.03	-0.04	-0.25	-0.40	-0.05
508.00	0.23	0.09	-0.01	-0.15	0.27	-0.30
508.20	0.17	0.07	-0.04	-0.28	-0.02	0.02
508.40	0.15	0.05	-0.02	-0.30	-0.31	0.02
508.60	0.20	0.06	-0.02	-0.32	0.29	-0.54
508.80	0.22	0.08	-0.05	-0.26	0.04	0.31

509.00	0.05	0.05	-0.05	-0.19	0.59	-0.30
509.20	0.12	0.00	-0.05	-0.36	-0.43	0.09
509.40	0.19	0.04	-0.05	-0.30	-0.20	0.00
509.60	0.10	0.06	-0.04	-0.32	-0.19	0.16
509.80	0.16	0.03	-0.05	-0.39	-0.21	0.06
510.00	0.15	0.02	-0.06	-0.44	0.05	-0.10
510.20	0.08	0.13	-0.07	-0.41	0.20	0.12
510.40	0.18	-0.02	-0.10	-0.49	-0.38	0.30
510.60	0.11	0.07	-0.09	-0.46	-0.20	0.07
510.80	0.05	0.19	-0.09	-0.48	-0.23	-0.20
511.00	0.05	0.08	-0.11	-0.58	-0.03	0.08
511.20	0.05	0.01	-0.11	-0.58	-0.06	0.35
511.40	0.04	0.01	-0.09	-0.69	0.24	0.47
511.60	0.05	0.08	-0.10	-0.68	-0.54	0.57
511.80	0.08	0.08	-0.11	-0.74	0.08	-0.14
512.00	-0.03	0.05	-0.13	-0.85	-0.13	0.10
512.20	0.05	0.01	-0.11	-0.85	0.00	0.27
512.40	0.08	0.06	-0.13	-0.98	0.11	0.37
512.60	0.08	0.02	-0.13	-1.00	-0.03	0.41
512.80	0.10	0.00	-0.12	-0.92	0.31	0.37
513.00	0.09	0.04	-0.13	-0.93	0.93	0.82
513.20	0.21	0.06	-0.13	-0.99	0.65	0.23
513.40	0.16	0.02	-0.12	-1.01	0.49	-0.32
513.60	0.10	-0.01	-0.11	-1.06	-0.39	-0.03
513.80	0.16	0.02	-0.12	-1.12	-0.04	-0.07
514.00	0.33	-0.04	-0.12	-1.03	0.13	-0.07
514.20	0.26	0.01	-0.12	-1.18	-0.26	-0.24
514.40	0.13	0.06	-0.12	-1.04	-0.44	0.43
514.60	0.19	0.04	-0.14	-1.06	-0.21	0.26
514.80	0.21	0.06	-0.12	-1.07	-0.23	-0.05
515.00	0.21	-0.03	-0.10	-1.07	0.37	0.11
515.20	0.29	0.05	-0.10	-1.08	0.14	0.10
515.40	0.26	0.09	-0.10	-0.92	0.06	-0.34
515.60	0.20	0.07	-0.10	-1.06	-0.23	0.23
515.80	0.23	0.09	-0.08	-1.04	0.00	0.02
516.00	0.25	0.07	-0.10	-1.03	-0.07	0.19
516.20	0.32	-0.04	-0.09	-0.97	-0.16	-0.01
516.40	0.32	0.02	-0.08	-1.07	-0.16	0.25
516.60	0.25	-0.03	-0.05	-1.08	0.17	-0.03
516.80	0.22	-0.04	-0.05	-1.00	0.41	0.06
517.00	0.32	-0.03	-0.03	-1.11	-0.48	-0.28
517.20	0.40	-0.07	-0.06	-1.01	0.09	0.36
517.40	0.28	0.08	-0.02	-1.11	-0.11	-0.08
517.60	0.29	0.03	-0.03	-1.13	-0.13	-0.15
517.80	0.29	0.07	-0.03	-1.03	0.51	-0.31
518.00	0.28	0.04	-0.01	-0.96	0.48	-0.50
518.20	0.27	0.10	-0.01	-1.10	-0.17	0.04
518.40	0.30	-0.02	0.01	-1.03	-0.28	-0.11
518.60	0.32	-0.01	0.00	-1.10	0.17	0.82
518.80	0.28	0.01	0.02	-1.09	-0.38	0.42

519.00	0.24	0.05	0.01	-1.09	-0.30	0.21
519.20	0.42	0.02	0.00	-0.86	0.42	0.26
519.40	0.34	0.00	0.01	-0.95	-0.08	0.05
519.60	0.44	0.09	0.04	-0.93	-0.13	0.38
519.80	0.47	-0.01	0.01	-0.98	-0.05	0.18
520.00	0.47	0.04	0.02	-0.71	-0.02	-0.60
520.20	0.38	-0.04	0.02	-0.90	-0.51	0.21
520.40	0.50	0.03	0.02	-0.64	-0.18	-0.09
520.60	0.44	0.04	0.03	-0.79	-0.01	-0.06
520.80	0.52	0.07	0.02	-0.88	0.15	0.45
521.00	0.53	0.10	0.02	-0.88	-0.25	0.27
521.20	0.49	0.15	0.03	-0.91	0.03	0.14
521.40	0.49	0.01	0.02	-0.95	-0.20	0.15
521.60	0.60	-0.04	0.02	-0.81	0.30	-0.18
521.80	0.66	0.17	0.03	-0.81	-0.17	0.14
522.00	0.61	0.04	0.04	-0.89	-0.26	0.92
522.20	0.61	0.02	0.04	-0.72	0.06	0.13
522.40	0.73	0.07	0.03	-0.75	-0.35	-0.13
522.60	0.76	-0.02	0.02	-0.71	-0.09	0.17
522.80	0.62	-0.05	0.04	-0.77	-0.21	0.73
523.00	0.64	0.02	0.02	-0.80	-0.06	0.06
523.20	0.70	0.11	0.03	-0.82	-0.32	-0.29
523.40	0.66	0.01	0.05	-0.69	-0.50	-0.05
523.60	0.65	-0.10	0.04	-0.68	-0.08	0.02
523.80	0.69	0.06	0.02	-0.75	-0.44	-0.08
524.00	0.53	0.07	0.02	-0.77	-0.12	0.21
524.20	0.61	0.00	0.01	-0.78	-0.15	0.28
524.40	0.64	0.03	0.01	-0.77	-0.31	0.29
524.60	0.60	0.05	0.03	-0.71	-0.10	0.44
524.80	0.60	0.13	0.02	-0.68	0.25	0.17
525.00	0.66	0.21	0.02	-0.78	0.27	0.51
525.20	0.51	0.09	0.00	-0.64	0.00	0.05
525.40	0.63	0.15	0.02	-0.72	-0.24	0.42
525.60	0.60	0.09	0.02	-0.69	0.00	0.27
525.80	0.72	-0.05	0.02	-0.83	-0.22	0.41
526.00	0.64	-0.02	0.01	-0.82	-0.46	0.58
526.20	0.55	0.09	0.02	-0.63	0.19	0.50
526.40	0.77	0.08	0.00	-0.61	0.11	0.39
526.60	0.67	0.10	0.01	-0.56	0.00	0.18
526.80	0.84	-0.01	0.00	-0.54	-0.03	0.19
527.00	0.69	0.18	-0.01	-0.60	0.07	0.28
527.20	0.64	-0.02	-0.01	-0.60	0.05	0.34
527.40	0.82	-0.01	-0.02	-0.60	-0.08	0.65
527.60	0.79	0.04	-0.03	-0.58	0.34	0.39
527.80	0.78	0.02	-0.04	-0.63	0.10	0.50
528.00	0.71	0.13	-0.02	-0.75	-0.10	0.57
528.20	0.83	0.05	-0.03	-0.63	-0.45	0.21
528.40	0.91	0.03	-0.04	-0.68	0.48	0.43
528.60	0.87	0.07	-0.05	-0.78	-1.32	-0.60
528.80	0.81	-0.03	-0.05	-0.68	0.00	0.61

529.00	0.93	0.02	-0.01	-0.56	-0.77	0.50
529.20	0.83	-0.10	-0.03	-0.51	0.30	-0.02
529.40	0.84	0.01	-0.06	-0.56	-0.09	0.32
529.60	0.88	-0.04	-0.03	-0.61	-0.12	0.50
529.80	0.86	-0.07	-0.04	-0.55	-0.03	-0.19
530.00	0.91	-0.05	-0.04	-0.62	0.18	0.16
530.20	0.82	-0.09	-0.06	-0.68	0.54	-0.18
530.40	0.94	0.02	-0.05	-0.73	0.50	-0.01
530.60	0.84	0.07	-0.06	-0.71	0.37	0.37
530.80	0.75	0.09	-0.04	-0.76	0.66	-0.04
531.00	0.82	0.05	-0.05	-0.65	0.58	-0.55
531.20	0.88	0.03	-0.05	-0.85	0.24	0.33
531.40	0.77	0.06	-0.06	-0.88	0.11	0.22
531.60	0.88	-0.04	-0.07	-0.90	0.60	0.22
531.80	0.91	0.06	-0.07	-0.93	0.34	0.25
532.00	0.86	-0.08	-0.07	-0.98	0.59	0.21
532.20	0.83	0.04	-0.06	-0.88	-0.06	-0.14
532.40	0.88	0.09	-0.05	-0.72	0.16	-0.63
532.60	0.84	-0.05	-0.04	-0.87	-0.06	-0.29
532.80	0.91	0.06	-0.05	-0.83	-0.10	0.01
533.00	0.83	0.01	-0.06	-0.87	-0.26	0.07
533.20	0.82	0.05	-0.05	-0.78	-0.04	0.48
533.40	0.92	-0.09	-0.06	-0.69	-0.17	-0.21
533.60	0.80	0.09	-0.04	-0.68	-0.08	0.19
533.80	0.87	-0.04	-0.05	-0.67	-0.26	-0.13
534.00	0.87	0.08	-0.05	-0.75	-0.18	0.28
534.20	0.95	-0.03	-0.04	-0.82	0.42	-0.15
534.40	0.86	-0.06	-0.05	-0.73	-0.57	-0.07
534.60	1.01	-0.03	-0.06	-0.79	0.01	-0.84
534.80	0.89	0.03	-0.02	-0.82	0.33	-0.05
535.00	0.87	-0.05	-0.03	-0.78	0.20	-0.60
535.20	1.04	-0.10	-0.06	-0.93	-0.21	-0.31
535.40	0.99	-0.03	-0.04	-1.26	0.13	0.13
535.60	1.00	0.03	-0.02	-1.16	0.54	0.18
535.80	0.95	0.08	-0.03	-0.94	0.21	0.09
536.00	1.00	0.00	-0.01	-0.83	-0.03	-0.12
536.20	0.98	-0.04	0.00	-0.78	-0.02	-0.09
536.40	0.98	0.09	-0.02	-0.80	-0.03	0.30
536.60	1.04	0.02	-0.02	-0.77	-0.41	-0.07
536.80	0.90	0.03	0.01	-0.79	-0.37	-0.12
537.00	1.00	-0.06	-0.01	-0.90	0.10	0.04
537.20	0.94	-0.02	0.01	-0.78	0.47	-0.16
537.40	0.91	0.06	-0.01	-0.97	-0.11	0.20
537.60	0.98	-0.09	0.00	-0.97	-0.07	0.15
537.80	1.02	-0.05	0.00	-0.90	-0.22	0.76
538.00	0.90	0.09	0.00	-0.84	0.27	0.39
538.20	0.84	0.07	0.02	-0.88	0.58	0.22
538.40	0.90	0.15	0.01	-0.87	-0.02	0.14
538.60	0.96	0.00	0.00	-0.87	-0.04	0.08
538.80	0.87	-0.07	0.00	-0.89	0.09	-0.11

539.00	0.86	0.04	0.00	-0.83	0.01	0.13
539.20	0.95	-0.03	0.02	-0.90	-0.30	0.17
539.40	1.01	0.04	-0.03	-0.90	-0.32	0.16
539.60	0.95	0.09	-0.01	-0.78	-0.59	0.03
539.80	1.02	0.02	-0.01	-0.96	-0.19	0.52
540.00	0.95	0.06	-0.02	-0.89	0.88	-0.13
540.20	0.94	-0.06	-0.01	-0.79	-0.46	-0.05
540.40	0.97	0.03	0.01	-0.84	-0.08	0.19
540.60	0.94	0.00	0.00	-0.80	-0.34	-0.28
540.80	1.08	-0.13	-0.01	-0.82	0.29	0.18
541.00	1.17	0.02	0.00	-0.73	-0.12	0.29
541.20	0.94	0.06	0.00	-0.91	-0.18	0.70
541.40	0.99	-0.01	0.01	-0.73	0.27	0.28
541.60	1.08	-0.05	-0.03	-0.70	-0.15	0.37
541.80	1.08	0.05	-0.01	-0.71	-0.09	0.02
542.00	1.06	0.03	-0.01	-0.70	0.45	0.26
542.20	1.07	0.07	0.00	-0.62	0.44	0.31
542.40	1.06	0.02	-0.02	-0.55	0.18	0.31
542.60	1.11	0.06	-0.02	-0.46	0.16	-0.26
542.80	1.08	-0.07	-0.01	-0.42	-0.01	-0.23
543.00	1.20	0.06	-0.03	-0.43	0.18	0.16
543.20	1.11	-0.02	-0.02	-0.43	0.33	0.03
543.40	1.07	0.02	-0.01	-0.49	0.26	0.14
543.60	1.23	0.00	-0.01	-0.38	-0.02	0.03
543.80	1.07	-0.02	-0.03	-0.46	0.17	0.07
544.00	1.15	-0.03	0.00	-0.47	0.36	-0.05
544.20	1.11	-0.01	0.01	-0.42	-0.08	-0.20
544.40	1.14	-0.13	-0.02	-0.46	-0.01	-0.11
544.60	0.98	-0.02	-0.01	-0.40	0.06	0.02
544.80	1.14	-0.07	-0.03	-0.50	-0.08	0.04
545.00	1.10	0.08	-0.03	-0.40	0.02	0.38
545.20	1.11	0.02	-0.02	-0.51	0.17	0.25
545.40	1.07	0.02	0.00	-0.50	0.04	0.17
545.60	1.16	0.04	-0.01	-0.47	0.49	0.24
545.80	1.07	-0.04	-0.02	-0.52	-0.14	0.27
546.00	1.08	0.06	-0.01	-0.60	0.66	0.51
546.20	1.16	0.15	0.01	-0.57	0.50	0.27
546.40	1.16	0.01	0.01	-0.65	-0.06	0.26
546.60	1.15	0.14	0.03	-0.59	0.16	0.16
546.80	1.16	-0.13	-0.02	-0.57	0.35	-0.05
547.00	1.34	-0.02	0.02	-0.56	0.19	-0.10
547.20	1.23	-0.03	-0.01	-0.55	0.22	-0.02
547.40	1.19	-0.02	0.01	-0.54	0.71	0.14
547.60	1.22	-0.02	0.01	-0.37	0.99	-0.20
547.80	1.25	-0.01	-0.01	-0.40	0.36	0.11
548.00	1.30	0.01	0.00	-0.43	0.24	-0.44
548.20	1.20	0.07	0.01	-0.32	0.16	-0.84
548.40	1.33	-0.01	0.00	-0.42	0.33	-0.08
548.60	1.29	0.06	0.01	-0.40	0.19	0.08
548.80	1.33	0.01	-0.01	-0.44	-0.08	-0.03

549.00	1.30	-0.01	0.00	-0.39	0.29	-0.16
549.20	1.33	0.07	0.02	-0.41	0.53	-0.48
549.40	1.38	0.05	0.00	-0.47	0.30	-0.24
549.60	1.34	0.13	0.00	-0.49	0.19	-0.27
549.80	1.36	0.17	0.00	-0.46	0.74	-0.37
550.00	1.40	0.19	0.00	-0.54	0.29	-0.55
550.20	1.29	0.05	0.01	-0.53	0.03	-0.08
550.40	1.31	0.00	0.00	-0.61	0.03	-0.13
550.60	1.29	0.05	0.02	-0.55	-0.09	-0.26
550.80	1.34	-0.03	0.01	-0.54	0.16	-0.21
551.00	1.20	0.00	0.00	-0.65	0.06	-0.46
551.20	1.19	-0.04	0.00	-0.60	-0.34	0.14
551.40	1.18	-0.05	0.00	-0.53	-0.23	-0.09
551.60	1.27	0.09	-0.02	-0.57	0.02	-0.04
551.80	1.26	-0.09	0.00	-0.61	0.10	-0.16
552.00	1.27	0.04	0.00	-0.57	0.22	-0.33
552.20	1.30	0.15	0.00	-0.53	-0.13	-0.33
552.40	1.28	0.08	-0.02	-0.36	0.21	-0.53
552.60	1.21	0.11	-0.02	-0.63	-0.20	0.33
552.80	1.36	-0.11	0.00	-0.54	-0.57	-0.16
553.00	1.31	0.05	0.00	-0.49	0.06	-0.37
553.20	1.31	0.05	0.00	-0.57	-0.33	-0.45
553.40	1.31	0.12	-0.01	-0.67	0.40	0.18
553.60	1.25	0.17	0.00	-0.58	-0.18	-0.56
553.80	1.34	0.04	-0.01	-0.54	-0.84	-0.46
554.00	1.38	0.08	0.02	-0.48	-0.06	-0.21
554.20	1.36	0.01	-0.01	-0.57	-0.14	0.15
554.40	1.39	0.14	0.01	-0.54	0.58	0.06
554.60	1.35	0.07	0.01	-0.55	-0.04	-0.14
554.80	1.48	0.09	-0.02	-0.59	0.12	0.51
555.00	1.31	0.09	0.02	-0.63	0.19	-0.20
555.20	1.32	0.06	-0.02	-0.60	-0.30	-0.28
555.40	1.28	0.03	0.02	-0.62	-0.15	-0.35
555.60	1.31	0.04	-0.02	-0.59	-0.32	-0.47
555.80	1.56	0.06	0.01	-0.46	0.01	-0.37
556.00	1.44	0.10	0.00	-0.51	0.13	0.23
556.20	1.55	-0.02	0.01	-0.47	0.18	-0.06
556.40	1.43	-0.04	0.01	-0.53	-0.28	0.15
556.60	1.53	0.00	0.00	-0.45	-0.12	0.22
556.80	1.45	-0.04	0.01	-0.40	0.09	-0.05
557.00	1.51	0.06	0.00	-0.47	0.35	-0.07
557.20	1.44	-0.05	-0.03	-0.48	0.27	0.05
557.40	1.46	0.05	-0.02	-0.39	-0.21	-0.21
557.60	1.34	0.10	-0.01	-0.48	0.18	0.00
557.80	1.40	0.07	0.01	-0.41	0.34	-0.02
558.00	1.44	0.06	-0.02	-0.40	0.21	-0.08
558.20	1.33	-0.03	0.00	-0.41	-0.21	-0.72
558.40	1.31	-0.07	-0.02	-0.55	0.41	0.60
558.60	1.40	0.06	-0.01	-0.63	0.06	0.62
558.80	1.37	-0.04	-0.01	-0.38	-0.33	-0.81

559.00	1.26	0.22	-0.02	-0.35	-0.19	-0.48
559.20	1.36	-0.02	-0.02	-0.43	0.50	-1.31
559.40	1.25	-0.02	-0.02	-0.75	-0.09	-0.56
559.60	1.39	0.01	-0.01	-0.69	-1.60	1.34
559.80	1.40	0.02	-0.03	-0.73	-1.35	0.76
560.00	1.31	0.09	-0.02	-0.59	-0.11	0.02
560.20	1.42	0.14	-0.03	-0.64	-0.06	-0.05
560.40	1.35	0.11	0.00	-0.66	-0.37	-0.43
560.60	1.32	-0.04	-0.01	-0.75	4.49	1.24
560.80	1.43	0.08	-0.02	-0.49	1.45	-0.62
561.00	1.40	0.02	-0.02	-1.07	-0.37	0.48
561.20	1.41	0.06	0.00	-0.59	-0.90	0.02
561.40	1.41	0.05	-0.01	-0.25	2.94	-0.30
561.60	1.40	0.06	-0.01	-0.63	-1.36	-0.46
561.80	1.49	0.15	0.00	-0.50	0.05	0.07
562.00	1.42	0.09	-0.02	-0.63	1.77	1.01
562.20	1.51	0.00	0.01	-0.56	0.24	0.18
562.40	1.37	-0.02	-0.01	-0.63	0.57	-0.30
562.60	1.46	-0.02	-0.01	-0.56	0.45	-0.24
562.80	1.53	0.03	0.01	-0.40	0.39	-0.45
563.00	1.44	-0.01	-0.01	-0.64	0.49	0.23
563.20	1.59	-0.03	-0.02	-0.41	0.11	-0.02
563.40	1.53	0.06	0.00	-0.34	0.64	1.14
563.60	1.55	0.10	-0.03	-1.05	-0.28	1.65
563.80	1.50	0.04	0.00	-0.18	0.55	-0.22
564.00	1.50	0.04	0.00	-0.57	-0.55	0.19
564.20	1.57	0.03	-0.03	-1.13	0.28	2.11
564.40	1.46	0.06	-0.03	-0.51	-0.41	0.16
564.60	1.48	0.00	-0.02	-0.59	0.41	0.40
564.80	1.36	0.06	-0.04	-0.51	0.22	0.25
565.00	1.49	0.03	-0.01	-0.48	0.08	0.52
565.20	1.45	0.03	-0.01	-0.36	0.13	-0.56
565.40	1.42	0.10	-0.02	-0.85	-0.08	1.33
565.60	1.37	0.03	-0.02	-0.63	0.08	0.63
565.80	1.39	-0.06	-0.04	-0.46	-0.10	-0.21
566.00	1.39	0.01	-0.02	-0.60	-0.89	0.51
566.20	1.38	0.05	-0.02	-0.83	-2.20	0.98
566.40	1.36	0.02	-0.02	-0.67	0.04	-0.13
566.60	1.41	0.09	-0.03	-0.73	-0.21	-0.14
566.80	1.46	-0.01	0.00	-0.53	0.60	-0.96
567.00	1.41	0.01	-0.01	-0.66	0.06	-0.23
567.20	1.45	-0.02	-0.01	-0.75	-0.81	0.43
567.40	1.55	0.01	-0.02	-0.74	0.03	0.07
567.60	1.44	0.09	0.01	-0.73	-0.02	-0.24
567.80	1.44	0.12	0.01	-0.65	-0.58	-0.30
568.00	1.53	0.10	-0.01	-0.64	-0.54	-0.21
568.20	1.54	0.09	0.00	-0.73	-0.14	0.84
568.40	1.43	0.12	-0.01	-0.61	0.29	0.42
568.60	1.36	-0.05	0.00	-0.63	0.39	0.01
568.80	1.60	0.07	-0.02	-0.46	0.59	-0.57

569.00	1.46	0.06	0.00	-0.50	0.17	0.08
569.20	1.51	0.10	0.00	-0.47	0.09	-0.37
569.40	1.40	0.07	-0.02	-0.47	0.15	-0.10
569.60	1.51	0.06	-0.02	-0.55	-0.28	-0.18
569.80	1.64	0.05	-0.01	-0.61	-0.40	-0.12
570.00	1.67	0.10	-0.02	-0.44	0.20	-0.21
570.20	1.46	0.09	-0.03	-0.57	-0.03	-0.30
570.40	1.49	0.13	-0.01	-0.55	0.05	-0.23
570.60	1.52	-0.01	-0.03	-0.49	0.14	0.04
570.80	1.54	0.12	0.00	-0.60	0.21	0.20
571.00	1.46	0.12	-0.02	-0.52	0.40	-0.01
571.20	1.44	0.09	-0.02	-0.42	0.35	0.41
571.40	1.49	0.22	-0.02	-0.32	-0.58	0.64
571.60	1.35	0.11	-0.02	-0.47	-0.51	0.90
571.80	1.34	0.15	-0.03	-0.34	-0.95	0.48
572.00	1.45	0.07	-0.02	-0.26	-0.14	-0.42
572.20	1.34	0.04	-0.02	-0.64	0.17	0.67
572.40	1.34	0.17	-0.02	-0.40	0.20	-0.34
572.60	1.40	-0.02	-0.03	-0.39	-0.20	-0.40
572.80	1.43	0.04	-0.03	-0.48	0.16	0.64
573.00	1.43	0.09	-0.04	-0.47	0.45	0.20
573.20	1.43	0.17	-0.02	-0.51	-0.05	0.61
573.40	1.30	0.15	-0.02	-0.44	0.09	0.25
573.60	1.32	0.10	-0.02	-0.59	-0.79	0.84
573.80	1.34	0.04	-0.03	-0.76	-0.15	0.51
574.00	1.35	0.07	0.00	-0.53	0.00	-0.16
574.20	1.40	0.10	-0.02	-0.52	-0.07	-0.47
574.40	1.38	0.19	-0.02	-0.58	0.41	-0.39
574.60	1.46	0.07	-0.04	-0.59	0.45	0.24
574.80	1.53	0.02	-0.02	-0.42	-0.22	-0.93
575.00	1.35	0.11	-0.02	-0.57	0.08	0.11
575.20	1.49	0.04	-0.03	-0.61	-0.23	0.15
575.40	1.30	0.10	-0.02	-0.52	0.04	-0.40
575.60	1.33	0.12	-0.02	-0.40	0.31	-0.48
575.80	1.45	0.03	-0.03	-0.50	0.14	0.04
576.00	1.37	0.04	-0.01	-0.52	0.51	0.40
576.20	1.42	0.00	-0.02	-0.52	-0.11	0.30
576.40	1.34	-0.01	-0.03	-0.44	0.31	0.11
576.60	1.27	0.00	-0.02	-0.40	0.04	0.16
576.80	1.27	-0.02	-0.03	-0.35	1.23	0.26
577.00	1.39	0.11	-0.04	-0.49	0.39	0.00
577.20	1.32	-0.04	-0.04	-0.38	0.28	-0.08
577.40	1.27	-0.09	-0.04	-0.45	0.57	-0.19
577.60	1.27	-0.05	-0.06	-0.23	0.75	-0.16
577.80	1.31	0.01	-0.03	-0.37	-0.68	0.10
578.00	1.19	-0.01	-0.07	-0.37	0.14	0.44
578.20	1.06	-0.13	-0.03	-0.35	0.88	-0.46
578.40	1.06	-0.07	-0.03	-0.23	0.05	0.15
578.60	1.19	-0.01	-0.03	-0.31	-0.35	0.44
578.80	1.25	0.10	-0.06	-0.25	0.36	-0.49

579.00	1.15	0.02	-0.04	-0.41	0.70	0.03
579.20	1.17	-0.03	-0.04	-0.19	-0.02	-0.23
579.40	1.15	-0.07	-0.03	-0.25	0.11	0.28
579.60	1.09	0.01	-0.05	-0.22	0.06	-0.03
579.80	0.98	0.02	-0.03	-0.32	0.74	0.33
580.00	1.27	-0.10	-0.07	-0.71	1.36	1.28
580.20	1.10	-0.13	-0.03	-0.10	-0.55	-0.17
580.40	1.12	-0.11	-0.04	-0.15	0.69	-0.27
580.60	0.95	-0.04	-0.03	-0.14	0.56	-0.53
580.80	0.99	-0.08	-0.05	-0.14	0.59	-0.33
581.00	0.98	-0.01	-0.05	-0.03	0.33	-0.49
581.20	1.06	0.09	-0.02	-0.03	-0.23	-0.40
581.40	1.00	-0.08	-0.04	-0.01	0.40	-0.42
581.60	1.03	-0.02	-0.03	0.08	-0.11	-0.49
581.80	1.10	-0.12	-0.03	-0.15	0.23	0.13
582.00	0.97	-0.08	-0.03	-0.01	0.43	-0.21
582.20	1.07	-0.06	-0.04	0.13	0.11	-1.04
582.40	0.95	-0.05	-0.02	0.22	0.54	-0.67
582.60	1.04	-0.04	-0.05	0.00	0.25	-0.16
582.80	1.08	-0.14	-0.02	0.17	-0.08	-0.53
583.00	0.97	-0.08	-0.02	0.21	0.25	-0.29
583.20	0.99	-0.09	-0.03	0.10	-0.51	-0.33
583.40	0.96	-0.03	-0.01	0.18	-0.89	-1.19
583.60	1.01	-0.04	-0.01	0.40	-0.44	-0.84
583.80	0.88	0.02	-0.04	0.37	-0.31	-1.08
584.00	0.90	-0.10	-0.02	0.27	0.72	0.12
584.20	0.87	-0.02	-0.03	0.51	0.31	-0.64
584.40	0.87	0.03	-0.02	0.45	0.55	-0.19
584.60	0.70	0.00	0.00	-0.10	0.30	0.68
584.80	0.78	-0.02	0.02	0.84	0.66	-2.40
585.00	0.74	0.00	-0.02	0.52	0.06	-0.48
585.20	0.67	-0.01	-0.01	0.47	-0.17	-0.25
585.40	0.84	-0.12	-0.02	0.34	0.45	-0.29
585.60	0.68	-0.04	-0.01	0.56	0.35	-0.63
585.80	0.68	-0.07	0.00	0.50	-0.58	0.52
586.00	0.61	0.04	-0.01	0.45	-0.30	-0.30
586.20	0.62	0.03	0.03	0.50	0.52	0.00
586.40	0.67	-0.07	0.01	0.46	-0.67	-0.18
586.60	0.50	0.07	0.01	0.36	-1.10	-0.14
586.80	0.54	0.02	0.01	0.54	-0.33	0.27
587.00	0.58	0.04	0.02	0.57	-0.28	-0.16
587.20	0.43	-0.02	0.04	0.73	0.23	-0.33
587.40	0.48	-0.01	0.05	0.57	-0.09	0.25
587.60	0.51	0.03	0.01	0.68	0.14	-0.13
587.80	0.47	-0.09	0.05	0.70	-0.02	0.18
588.00	0.47	0.04	0.03	0.75	-0.06	0.02
588.20	0.56	-0.02	0.04	0.77	-0.23	0.15
588.40	0.47	0.10	0.05	0.83	-0.15	-0.03
588.60	0.49	0.01	0.03	0.68	-0.33	0.14
588.80	0.53	0.08	0.06	0.74	-0.35	-0.11

589.00	0.35	0.06	0.09	0.74	-0.74	-0.81
589.20	0.61	0.06	0.06	0.79	-0.30	0.04
589.40	0.31	0.09	0.08	0.84	-0.01	-0.31
589.60	0.54	0.12	0.07	0.75	0.11	-0.32
589.80	0.44	-0.10	0.08	0.86	0.07	-0.43
590.00	0.47	-0.07	0.08	0.79	-0.23	-0.31
590.20	0.44	0.01	0.09	0.81	0.07	-0.40
590.40	0.43	0.02	0.09	0.81	-0.02	-0.34
590.60	0.45	-0.01	0.09	0.77	-0.12	-0.18
590.80	0.41	-0.05	0.11	0.75	0.23	-0.07
591.00	0.45	-0.04	0.09	0.59	0.52	-0.22
591.20	0.38	0.07	0.10	0.66	0.29	-0.17
591.40	0.33	0.06	0.10	0.64	-0.09	0.21
591.60	0.36	0.04	0.09	0.77	-0.13	-0.33
591.80	0.17	0.05	0.11	0.83	0.28	-0.38
592.00	0.25	0.01	0.08	0.93	-0.43	-0.06
592.20	0.23	0.06	0.08	0.72	-0.30	-0.22
592.40	0.22	0.02	0.10	0.68	-0.10	-0.24
592.60	0.29	-0.13	0.06	0.61	0.32	-0.19
592.80	0.31	0.08	0.07	0.55	0.17	0.37
593.00	0.22	0.07	0.09	0.71	-0.10	0.16
593.20	0.27	-0.09	0.06	0.64	-0.19	-0.19
593.40	0.17	-0.07	0.05	0.63	-0.01	-0.23
593.60	0.10	-0.13	0.06	0.59	0.39	0.16
593.80	0.05	-0.16	0.06	0.65	0.21	-0.19
594.00	0.28	-0.06	0.01	0.54	0.40	0.05
594.20	0.20	-0.01	0.05	0.62	0.40	-0.25
594.40	0.07	-0.02	0.04	0.69	0.28	0.24
594.60	0.15	0.01	0.02	0.61	0.25	0.20
594.80	0.09	0.02	0.01	0.67	0.15	-0.21
595.00	0.04	0.10	0.02	0.53	0.19	0.51
595.20	0.10	-0.10	0.01	0.62	0.12	-0.07
595.40	0.07	0.08	-0.01	0.65	0.31	-0.22
595.60	0.07	-0.01	-0.01	0.68	0.89	-0.50
595.80	0.06	0.02	-0.01	0.71	0.82	-0.45
596.00	0.00	0.04	0.00	0.57	-0.05	-0.10
596.20	0.06	0.00	-0.02	0.66	-0.09	-0.04
596.40	0.09	-0.05	-0.05	0.72	1.14	-0.65
596.60	0.01	-0.07	-0.04	0.65	0.01	0.38
596.80	0.01	-0.06	-0.02	0.63	0.13	-0.02
597.00	0.03	0.06	-0.05	0.60	0.34	0.21
597.20	-0.22	-0.03	-0.06	0.61	-0.18	0.12
597.40	-0.02	0.03	-0.06	0.54	-0.01	0.17
597.60	-0.01	-0.03	-0.06	0.62	0.04	-0.24
597.80	-0.08	-0.09	-0.08	0.66	-0.05	-0.04
598.00	-0.08	-0.02	-0.09	0.46	0.15	0.18
598.20	-0.20	-0.06	-0.09	0.67	0.27	-0.46
598.40	-0.14	0.05	-0.11	0.41	0.50	0.40
598.60	-0.23	0.16	-0.09	0.46	-0.65	-0.24
598.80	-0.18	-0.06	-0.08	0.35	-0.06	-0.23

599.00	-0.24	-0.06	-0.10	0.32	-0.59	0.29
599.20	-0.17	-0.02	-0.10	0.33	0.32	-0.37
599.40	-0.47	-0.11	-0.09	0.27	0.09	0.18
599.60	-0.30	0.02	-0.10	0.31	-0.29	-0.24
599.80	-0.35	-0.04	-0.05	0.40	-0.23	-0.18
600.00	-0.36	0.01	-0.10	0.23	-0.17	0.23
600.20	-0.26	-0.17	-0.08	0.34	-0.10	-0.12
600.40	-0.30	-0.05	-0.09	0.23	-0.18	-0.22
600.60	-0.25	0.01	-0.08	0.28	-0.90	0.35
600.80	-0.25	-0.02	-0.09	0.27	0.10	0.14
601.00	-0.30	-0.04	-0.10	0.30	-0.05	-0.76
601.20	-0.33	0.06	-0.07	0.26	-0.37	0.06
601.40	-0.37	-0.12	-0.08	0.09	-0.33	0.34
601.60	-0.27	-0.13	-0.09	0.30	-0.07	-0.09
601.80	-0.28	-0.04	-0.09	0.24	-0.33	-0.33
602.00	-0.28	-0.06	-0.09	0.22	-0.05	-0.05
602.20	-0.32	0.08	-0.09	0.12	-0.24	0.31
602.40	-0.34	-0.16	-0.09	0.20	-0.24	0.03
602.60	-0.32	0.03	-0.08	0.20	0.20	-0.03
602.80	-0.28	0.02	-0.08	0.29	-0.05	-0.26
603.00	-0.36	-0.03	-0.08	0.26	0.27	-0.11
603.20	-0.24	0.01	-0.08	0.21	-0.12	-0.10
603.40	-0.29	-0.05	-0.07	0.25	0.18	-0.10
603.60	-0.25	-0.08	-0.08	0.23	-0.12	-0.23
603.80	-0.25	0.02	-0.09	0.21	-0.25	-0.14
604.00	-0.29	-0.02	-0.09	0.24	-0.01	0.09
604.20	-0.17	0.05	-0.07	0.29	-0.22	-0.60
604.40	-0.32	-0.05	-0.08	0.20	-0.16	0.13
604.60	-0.20	-0.08	-0.08	0.28	-0.35	-0.27
604.80	-0.36	-0.04	-0.09	0.19	0.10	0.01
605.00	-0.35	0.01	-0.07	0.31	0.36	-0.02
605.20	-0.23	-0.02	-0.08	0.31	-0.38	-0.07
605.40	-0.29	0.01	-0.06	0.39	0.31	-0.45
605.60	-0.38	0.01	-0.06	0.31	-0.12	-0.22
605.80	-0.33	-0.03	-0.06	0.31	0.40	-0.18
606.00	-0.30	0.09	-0.06	0.26	-0.26	0.17
606.20	-0.32	0.03	-0.04	0.27	-0.01	0.12
606.40	-0.19	-0.02	-0.05	0.28	0.01	-0.22
606.60	-0.40	-0.03	-0.04	0.38	0.28	-0.14
606.80	-0.28	0.00	-0.04	0.37	0.15	0.08
607.00	-0.29	-0.09	-0.04	0.46	0.21	0.18
607.20	-0.15	-0.10	-0.05	0.46	-0.20	-0.02
607.40	-0.16	-0.09	-0.03	0.44	-0.17	-0.70
607.60	-0.30	0.04	-0.02	0.43	0.02	-0.01
607.80	-0.14	-0.03	-0.03	0.52	0.55	-0.15
608.00	-0.23	0.00	-0.01	0.54	0.50	-0.08
608.20	-0.13	0.07	-0.02	0.48	0.13	-0.23
608.40	-0.18	0.12	-0.02	0.57	0.00	0.11
608.60	-0.11	0.02	-0.05	0.52	0.43	-0.09
608.80	-0.05	-0.10	0.00	0.66	0.32	-0.08

609.00	-0.06	-0.17	-0.01	0.76	-0.02	-0.18
609.20	-0.07	0.07	-0.03	0.70	-0.12	0.11
609.40	-0.08	0.01	-0.01	0.79	-0.27	0.26
609.60	-0.17	0.18	0.01	0.82	0.11	-0.16
609.80	-0.14	0.12	-0.01	0.93	0.43	-0.57
610.00	-0.16	-0.03	-0.04	0.93	-0.05	-0.06
610.20	-0.13	0.01	-0.02	0.85	0.27	0.10
610.40	-0.13	-0.02	-0.02	1.00	0.18	0.15
610.60	-0.08	-0.03	-0.02	1.00	0.12	-0.21
610.80	-0.16	0.12	-0.02	1.04	0.10	-0.10
611.00	-0.08	-0.08	-0.01	0.90	0.18	0.25
611.20	-0.23	-0.04	-0.02	1.01	0.62	0.10
611.40	-0.33	0.04	-0.01	0.90	0.37	0.02
611.60	-0.28	0.02	-0.04	0.96	0.62	0.03
611.80	-0.29	0.21	0.01	1.03	0.34	0.16
612.00	-0.30	0.06	-0.01	0.96	0.21	-0.25
612.20	-0.24	-0.03	-0.03	1.04	0.14	-0.12
612.40	-0.32	0.01	-0.03	0.97	0.15	0.15
612.60	-0.24	0.02	-0.02	0.95	0.02	0.13
612.80	-0.37	-0.08	-0.02	0.89	0.96	-0.09
613.00	-0.28	-0.09	-0.02	0.92	-0.51	0.32
613.20	-0.31	0.02	0.00	0.99	0.37	0.02
613.40	-0.32	-0.08	0.00	0.92	0.12	0.29
613.60	-0.21	-0.06	-0.01	0.94	-0.05	0.07
613.80	-0.33	-0.02	0.00	0.94	0.30	0.06
614.00	-0.31	-0.11	-0.02	0.95	0.36	-0.16
614.20	-0.26	-0.15	-0.02	0.93	0.30	-0.07
614.40	-0.31	-0.13	-0.01	0.95	0.61	0.19
614.60	-0.36	0.02	-0.01	0.86	0.20	0.40
614.80	-0.40	-0.04	-0.01	0.95	-0.02	-0.28
615.00	-0.22	-0.07	0.00	0.69	0.00	0.34
615.20	-0.46	-0.12	0.01	0.97	-1.07	-0.16
615.40	-0.32	-0.10	0.00	0.95	-0.10	-0.04
615.60	-0.42	0.00	0.01	0.81	-0.12	0.11
615.80	-0.47	-0.02	0.03	0.89	-0.36	-0.25
616.00	-0.37	-0.08	0.00	0.81	-0.23	-0.11
616.20	-0.38	-0.01	0.00	0.91	-0.06	0.06
616.40	-0.34	-0.08	0.00	0.97	-0.01	-0.29
616.60	-0.40	0.01	-0.01	0.79	-0.06	-0.39
616.80	-0.38	0.02	-0.01	0.87	0.37	-0.34
617.00	-0.37	-0.12	0.00	0.79	0.17	-0.59
617.20	-0.50	-0.01	0.00	0.63	0.35	0.58
617.40	-0.43	-0.07	0.01	0.69	-0.36	0.03
617.60	-0.42	-0.01	-0.01	0.71	-0.02	0.25
617.80	-0.55	0.07	-0.01	0.75	-0.17	-0.10
618.00	-0.44	0.00	0.01	0.70	0.23	0.03
618.20	-0.66	0.03	0.00	0.67	0.31	0.21
618.40	-0.52	-0.08	0.01	0.70	-0.40	0.16
618.60	-0.57	0.04	-0.02	0.67	-0.11	0.20
618.80	-0.49	0.01	0.02	0.62	0.34	0.25

619.00	-0.62	0.05	-0.01	0.57	-0.20	0.14
619.20	-0.75	-0.02	0.01	0.60	0.09	-0.15
619.40	-0.68	-0.01	-0.02	0.54	-0.28	0.42
619.60	-0.66	-0.05	-0.01	0.55	0.36	-0.33
619.80	-0.76	0.01	0.00	0.50	0.27	-0.04
620.00	-0.69	-0.09	-0.03	0.52	0.00	-0.15
620.20	-0.76	0.01	-0.02	0.45	0.33	0.08
620.40	-0.69	0.00	-0.01	0.56	-0.21	-0.30
620.60	-0.75	-0.12	-0.03	0.56	0.01	-0.34
620.80	-0.65	0.00	-0.04	0.49	0.16	-0.14
621.00	-0.69	0.06	-0.04	0.46	-0.01	0.01
621.20	-0.77	-0.02	-0.04	0.45	0.12	-0.18
621.40	-0.70	-0.03	-0.04	0.46	0.04	-0.08
621.60	-0.71	-0.09	-0.08	0.62	-0.08	-0.45
621.80	-0.77	-0.09	-0.04	0.40	-0.12	0.15
622.00	-0.77	-0.05	-0.06	0.39	-0.16	0.38
622.20	-0.72	0.04	-0.06	0.42	-0.01	0.09
622.40	-0.66	-0.11	-0.07	0.43	-0.32	-0.13
622.60	-0.73	-0.11	-0.04	0.41	-0.43	-0.33
622.80	-0.83	0.04	-0.04	0.57	-0.55	-0.10
623.00	-0.64	0.01	-0.06	0.45	0.45	0.20
623.20	-0.66	-0.10	-0.06	0.54	-0.13	0.17
623.40	-0.69	-0.24	-0.08	0.51	-0.15	0.04
623.60	-0.74	0.05	-0.04	0.56	-0.17	0.19
623.80	-0.74	-0.04	-0.06	0.55	0.02	0.02
624.00	-0.76	0.05	-0.07	0.55	0.13	0.02
624.20	-0.73	-0.14	-0.08	0.46	-0.21	0.29
624.40	-0.73	-0.10	-0.07	0.52	-0.28	0.44
624.60	-0.71	0.00	-0.06	0.60	0.24	-0.25
624.80	-0.65	-0.02	-0.06	0.47	0.13	-0.42
625.00	-0.72	-0.05	-0.06	0.64	0.81	-0.25
625.20	-0.84	0.08	-0.05	0.57	0.12	-0.47
625.40	-0.75	0.00	-0.06	0.56	0.43	-0.49
625.60	-0.73	-0.04	-0.07	0.56	1.30	0.86
625.80	-0.82	0.04	-0.03	0.60	-0.15	-0.22
626.00	-0.83	-0.12	-0.04	0.53	-0.23	-0.03
626.20	-0.88	-0.14	-0.06	0.63	-0.11	0.04
626.40	-0.81	0.03	-0.05	0.62	0.05	-0.04
626.60	-0.71	-0.13	-0.03	0.52	0.28	0.03
626.80	-0.72	-0.12	-0.05	0.67	-0.23	0.08
627.00	-0.75	-0.17	-0.06	0.74	-0.37	-0.21
627.20	-0.81	-0.10	-0.04	0.69	-0.27	-0.06
627.40	-0.78	0.05	-0.03	0.64	0.09	0.23
627.60	-0.73	-0.07	-0.02	0.74	-0.10	-0.09
627.80	-0.72	-0.20	-0.02	0.78	0.01	-0.26
628.00	-0.77	-0.10	-0.04	0.60	-0.08	0.25
628.20	-0.73	0.01	-0.03	0.61	0.03	0.26
628.40	-0.72	-0.05	-0.02	0.69	0.00	0.14
628.60	-0.71	-0.11	-0.02	0.69	-0.17	0.02
628.80	-0.79	-0.05	-0.03	0.72	0.59	-0.03

629.00	-0.71	-0.01	-0.03	0.88	-0.20	-0.07
629.20	-0.72	-0.04	-0.03	0.86	-0.41	-0.17
629.40	-0.57	-0.05	-0.04	0.84	0.30	0.17
629.60	-0.63	0.01	-0.02	0.91	0.48	-0.22
629.80	-0.63	-0.12	-0.04	0.88	-0.17	0.11
630.00	-0.61	-0.06	-0.04	0.90	0.48	-0.02
630.20	-0.65	-0.15	-0.01	0.89	0.05	0.17
630.40	-0.67	-0.10	-0.02	1.02	0.18	-0.36
630.60	-0.57	-0.07	0.00	0.99	-0.14	-0.13
630.80	-0.68	0.01	-0.03	1.00	-0.62	-0.30
631.00	-0.65	0.00	-0.04	0.75	-0.04	-0.84
631.20	-0.74	-0.09	-0.04	0.79	-0.58	0.28
631.40	-0.76	-0.03	-0.03	0.99	-0.23	0.00
631.60	-0.58	0.00	-0.03	1.06	0.04	-0.37
631.80	-0.73	-0.01	-0.04	0.88	0.12	0.25
632.00	-0.58	-0.04	-0.01	1.04	0.14	-0.12
632.20	-0.71	-0.09	-0.02	0.82	-0.16	0.51
632.40	-0.66	-0.02	0.00	0.95	0.26	0.34
632.60	-0.62	-0.07	-0.02	1.10	-0.39	-0.14
632.80	-0.68	-0.10	-0.01	1.09	0.31	-0.68
633.00	-0.63	-0.04	0.00	1.01	-0.14	0.16
633.20	-0.78	-0.03	-0.02	1.00	-0.27	-0.52
633.40	-0.68	-0.03	0.00	0.87	-0.83	-0.28
633.60	-0.69	-0.08	0.01	1.05	0.30	0.13
633.80	-0.79	-0.03	0.00	1.06	0.06	-0.09
634.00	-0.67	0.01	0.02	0.94	-0.03	0.56
634.20	-0.80	-0.06	0.01	1.03	-0.20	-0.15
634.40	-0.69	-0.03	0.02	1.02	0.59	-0.40
634.60	-0.63	0.06	0.02	1.02	0.21	0.13
634.80	-0.79	0.16	0.02	1.06	0.10	-0.14
635.00	-0.77	-0.06	0.00	1.04	0.12	0.25
635.20	-0.73	0.04	-0.01	1.03	-0.09	0.11
635.40	-0.78	0.01	0.01	0.96	0.25	-0.30
635.60	-0.89	0.04	0.03	0.89	-0.19	0.62
635.80	-0.80	0.07	0.03	0.86	0.15	0.49
636.00	-0.70	0.08	0.01	0.96	-0.14	0.12
636.20	-0.87	0.08	0.01	0.29	0.10	2.41
636.40	-0.88	0.07	0.02	1.04	-0.02	-0.17
636.60	-0.89	0.07	0.00	0.98	0.00	0.03
636.80	-0.82	0.11	0.00	1.05	-0.27	-0.12
637.00	-0.75	0.09	0.02	1.11	-0.06	-0.44
637.20	-0.76	-0.05	0.00	1.11	-0.59	-0.50
637.40	-0.82	-0.11	0.01	1.17	-0.10	-0.43
637.60	-0.79	0.00	-0.01	1.16	0.61	-0.09
637.80	-0.82	-0.02	-0.02	1.25	0.04	-0.01
638.00	-0.89	0.02	0.00	1.15	0.14	0.14
638.20	-0.86	0.02	0.01	1.19	-0.05	0.15
638.40	-1.07	0.09	-0.01	1.24	-0.24	-0.33
638.60	-0.94	0.08	0.01	1.17	0.01	-0.50
638.80	-0.98	-0.02	0.00	1.16	-0.18	-0.44

639.00	-1.07	-0.02	0.00	1.18	0.01	-0.15
639.20	-1.09	0.00	-0.02	1.24	-0.24	-0.20
639.40	-0.98	-0.10	-0.04	1.16	0.06	-0.08
639.60	-0.90	-0.05	-0.02	1.00	0.17	-0.03
639.80	-1.11	-0.05	0.00	1.09	-0.84	-0.25
640.00	-1.22	-0.03	-0.01	1.09	-0.05	0.02
640.20	-1.13	-0.04	-0.02	1.03	-0.36	-0.18
640.40	-1.04	-0.02	-0.01	0.99	1.81	-1.52
640.60	-1.14	-0.06	-0.02	0.97	-0.50	-0.10
640.80	-1.18	-0.04	-0.03	1.00	-0.07	0.00
641.00	-1.10	-0.04	-0.01	0.99	0.39	-0.07
641.20	-1.21	0.01	-0.03	0.99	-0.49	-0.55
641.40	-1.11	-0.09	-0.01	1.02	-0.49	0.16
641.60	-1.11	-0.04	0.01	0.87	-0.47	-0.78
641.80	-1.20	0.06	0.00	0.84	1.18	-0.13
642.00	-1.15	-0.05	0.00	0.91	-1.42	1.29
642.20	-1.07	0.01	-0.04	1.08	-0.32	-0.35
642.40	-1.22	0.10	0.01	1.08	0.44	0.15
642.60	-1.09	-0.08	-0.02	0.99	0.05	0.10
642.80	-1.28	-0.05	0.01	1.16	-0.10	-0.34
643.00	-1.12	-0.14	-0.02	1.08	0.10	-0.27
643.20	-1.16	-0.10	-0.03	0.97	0.24	0.13
643.40	-1.14	-0.11	-0.01	1.00	-0.07	0.20
643.60	-0.98	-0.10	-0.02	1.04	0.25	0.27
643.80	-1.13	-0.09	-0.02	0.95	0.37	0.38
644.00	-1.11	-0.13	-0.02	1.14	0.40	-0.32
644.20	-1.07	-0.03	-0.04	1.08	-0.17	-0.07
644.40	-1.09	-0.12	-0.01	1.11	-0.17	-0.45
644.60	-1.21	0.02	-0.03	1.19	1.41	-0.58
644.80	-1.20	-0.07	-0.05	0.92	1.75	-1.52
645.00	-1.16	0.01	-0.02	1.16	-0.46	0.21
645.20	-1.15	-0.02	-0.03	1.06	0.20	-0.06
645.40	-1.00	-0.04	-0.05	1.08	-0.15	-0.17
645.60	-1.12	-0.07	-0.03	1.04	0.70	-0.12
645.80	-1.17	-0.10	-0.04	1.00	-0.13	-0.90
646.00	-1.12	-0.13	-0.02	1.01	-0.11	-0.25
646.20	-1.02	-0.07	-0.04	1.28	0.83	-0.99
646.40	-1.20	-0.10	-0.04	1.04	0.72	-0.02
646.60	-1.09	-0.12	-0.05	0.15	0.55	2.57
646.80	-1.26	-0.12	-0.04	0.79	0.80	0.36
647.00	-1.05	-0.09	-0.04	1.05	-0.99	0.48
647.20	-1.24	0.03	-0.03	0.97	-0.49	-0.97
647.40	-1.15	-0.09	-0.03	0.88	1.22	-0.55
647.60	-1.17	-0.07	-0.04	1.09	0.10	-0.50
647.80	-1.01	-0.17	-0.06	1.06	0.19	-0.51
648.00	-1.09	0.03	-0.06	0.99	0.12	0.16
648.20	-1.00	-0.06	-0.04	1.21	0.94	-0.97
648.40	-1.02	-0.06	-0.04	0.39	-1.94	2.13
648.60	-0.97	-0.04	-0.04	0.87	1.94	0.77
648.80	-1.08	-0.09	-0.03	1.15	2.85	-0.28

649.00	-1.04	-0.06	-0.05	1.01	0.54	-0.19
649.20	-1.15	-0.01	-0.04	1.09	0.36	-0.55
649.40	-1.08	-0.02	-0.03	1.17	-0.17	-0.34
649.60	-1.21	-0.03	-0.05	1.16	0.15	-0.15
649.80	-1.13	-0.15	-0.05	1.17	-0.05	0.12
650.00	-1.22	-0.17	-0.05	1.28	0.30	-0.18
650.20	-0.97	-0.11	-0.05	1.12	-0.52	0.00
650.40	-0.98	-0.09	-0.05	1.17	0.41	-0.14
650.60	-1.00	-0.12	-0.04	1.06	-0.30	0.08
650.80	-1.05	-0.10	-0.05	1.28	-0.23	-0.23
651.00	-1.08	-0.06	-0.04	1.14	0.41	-0.15
651.20	-1.18	-0.09	-0.04	1.23	-0.17	-0.11
651.40	-1.08	-0.13	-0.06	1.28	0.15	-0.15
651.60	-1.10	-0.05	-0.03	1.29	-0.01	0.07
651.80	-1.07	0.02	0.00	1.30	0.24	-0.21
652.00	-0.98	-0.10	-0.01	1.26	-0.44	0.18
652.20	-1.02	-0.05	-0.01	1.38	-0.13	-0.62
652.40	-1.12	-0.01	-0.02	1.13	-0.14	-0.81
652.60	-1.11	0.03	-0.04	1.23	-0.22	-0.14
652.80	-1.20	-0.09	-0.04	1.56	-0.52	-1.55
653.00	-1.23	-0.02	0.01	1.15	0.08	-0.94
653.20	-1.15	0.12	-0.04	1.06	0.11	-0.12
653.40	-1.07	0.00	-0.03	1.14	0.01	-0.61
653.60	-1.12	-0.08	-0.02	1.23	-0.06	-0.19
653.80	-1.08	0.01	-0.01	1.05	0.45	0.25
654.00	-1.17	-0.03	-0.01	1.36	-0.99	0.70
654.20	-1.22	-0.07	-0.02	1.26	0.09	-0.55
654.40	-1.21	-0.05	-0.02	1.23	-0.04	-0.11
654.60	-1.13	-0.03	-0.01	1.24	-0.49	-0.47
654.80	-1.07	-0.06	-0.01	1.10	0.60	-0.27
655.00	-1.21	-0.01	-0.02	1.19	0.27	-0.19
655.20	-1.10	-0.03	-0.04	1.21	-0.23	-0.15
655.40	-1.19	-0.09	0.00	1.25	-0.41	-0.48
655.60	-1.14	0.00	-0.01	1.25	-0.24	-0.17
655.80	-1.10	-0.05	-0.02	1.31	-0.19	-0.49
656.00	-1.10	0.03	0.00	1.33	0.08	-0.10
656.20	-1.18	-0.07	-0.04	1.17	-0.66	-0.18
656.40	-1.19	-0.05	-0.01	1.32	2.36	0.46
656.60	-1.14	-0.13	-0.02	0.93	-2.23	-0.93
656.80	-1.09	0.03	0.02	1.33	0.07	-0.14
657.00	-1.15	0.01	0.00	1.26	-0.04	0.22
657.20	-1.20	-0.02	0.00	1.20	0.31	-0.17
657.40	-1.22	-0.03	-0.01	1.31	0.00	-0.35
657.60	-1.19	0.03	-0.02	1.39	0.50	-0.32
657.80	-1.15	0.02	-0.02	1.38	0.18	-0.30
658.00	-1.14	-0.02	-0.02	1.30	0.09	-0.17
658.20	-1.21	-0.03	-0.01	1.16	-0.55	-0.67
658.40	-1.21	0.01	-0.01	1.27	-2.30	-0.65
658.60	-1.17	-0.09	-0.02	1.28	0.35	0.07
658.80	-1.19	-0.05	-0.02	1.16	0.34	-0.37

659.00	-1.15	-0.04	-0.04	1.14	-0.71	-0.93
659.20	-1.26	0.02	-0.03	1.09	0.73	0.06
659.40	-1.27	-0.02	-0.02	1.25	-0.21	-0.25
659.60	-1.24	0.06	0.01	1.29	-0.01	-0.24
659.80	-1.18	0.04	0.01	1.38	0.23	-0.33
660.00	-1.21	0.07	-0.02	1.20	0.22	0.21
660.20	-1.25	-0.04	-0.03	1.25	-0.43	-0.08
660.40	-1.24	-0.13	-0.03	1.22	-0.18	-0.20
660.60	-1.32	-0.14	-0.01	1.25	0.19	-0.18
660.80	-1.26	0.01	0.00	1.10	0.61	-0.06
661.00	-1.29	0.01	-0.02	1.23	-0.24	-0.17
661.20	-1.29	0.04	-0.04	1.19	0.12	-0.15
661.40	-1.27	-0.02	-0.01	1.18	-0.12	0.21
661.60	-1.29	-0.09	-0.01	1.29	1.11	0.26
661.80	-1.28	0.00	0.00	1.05	-0.77	-0.34
662.00	-1.39	-0.05	-0.02	1.24	0.53	-0.69
662.20	-1.35	-0.05	0.01	0.94	1.27	0.36
662.40	-1.37	0.04	-0.01	1.18	0.11	-0.28
662.60	-1.20	0.02	-0.02	1.12	-0.22	-0.03
662.80	-1.18	-0.08	-0.02	1.13	0.12	-0.16
663.00	-1.21	-0.02	-0.02	1.13	-0.06	0.33
663.20	-1.16	-0.08	0.02	1.03	0.32	-0.18
663.40	-1.29	-0.12	0.00	1.05	-0.24	0.21
663.60	-1.36	-0.09	0.01	0.96	-0.11	0.43
663.80	-1.32	-0.01	0.00	1.11	-0.25	-0.55
664.00	-1.26	-0.04	0.00	1.03	-0.16	0.01
664.20	-1.30	-0.13	-0.01	0.96	0.03	0.67
664.40	-1.28	-0.02	-0.02	1.12	0.15	0.04
664.60	-1.33	0.00	-0.03	1.00	-0.54	0.38
664.80	-1.20	-0.04	0.00	0.93	0.35	-0.02
665.00	-1.26	-0.04	0.01	1.18	-0.15	-0.13
665.20	-1.36	-0.08	0.01	0.96	-0.16	0.22
665.40	-1.32	-0.01	0.00	0.98	-2.67	0.14
665.60	-1.31	-0.04	0.00	1.00	-0.21	-0.18
665.80	-1.17	-0.09	-0.02	1.35	0.49	-1.27
666.00	-1.36	-0.18	0.00	1.21	-0.31	-0.89
666.20	-1.25	-0.06	-0.02	1.03	0.19	-0.40
666.40	-1.26	-0.10	0.00	0.99	-0.27	-0.01
666.60	-1.40	-0.02	-0.01	1.11	-0.02	-0.20
666.80	-1.17	-0.22	-0.02	0.99	-0.48	0.22
667.00	-1.32	-0.07	-0.01	1.10	0.56	-0.48
667.20	-1.31	-0.05	0.00	1.01	0.32	-1.28
667.40	-1.39	-0.05	-0.01	1.00	1.97	-1.32
667.60	-1.37	0.02	-0.01	0.98	-0.19	-0.24
667.80	-1.31	-0.04	0.00	0.75	0.47	0.55
668.00	-1.27	-0.02	-0.02	1.04	0.79	0.24
668.20	-1.20	0.00	0.00	1.05	0.23	-0.36
668.40	-1.25	-0.06	-0.01	1.03	0.20	-0.41
668.60	-1.24	-0.06	-0.01	1.04	-0.30	-0.09
668.80	-1.25	-0.05	0.00	0.90	0.10	0.37

669.00	-1.31	-0.01	0.00	0.98	0.49	0.01
669.20	-1.13	0.00	-0.01	1.06	-0.13	0.11
669.40	-1.17	-0.07	0.00	0.91	-0.10	0.43
669.60	-1.17	-0.03	-0.01	1.01	-0.15	-0.61
669.80	-1.14	-0.05	0.02	1.09	0.35	-0.12
670.00	-1.20	-0.17	0.00	1.00	0.29	-0.04
670.20	-1.10	-0.07	-0.01	1.07	-0.24	-0.06
670.40	-1.23	-0.01	-0.02	1.01	-0.45	0.01
670.60	-1.19	-0.03	-0.01	1.17	0.40	-0.49
670.80	-1.11	-0.11	0.01	1.21	-0.46	0.19
671.00	-1.17	-0.02	0.01	1.25	-0.51	-0.68
671.20	-0.98	-0.09	-0.01	1.05	0.25	-0.08
671.40	-1.07	-0.05	0.01	1.25	-0.11	-0.44
671.60	-0.97	0.01	-0.01	1.12	-0.54	-0.28
671.80	-1.08	-0.02	0.01	1.05	-1.29	-0.52
672.00	-1.02	-0.08	-0.01	1.01	-0.89	-0.84
672.20	-1.09	0.02	-0.01	1.06	-0.36	-0.22
672.40	-0.97	-0.16	0.00	0.91	0.26	0.18
672.60	-0.96	-0.09	0.00	1.13	0.09	-0.28
672.80	-1.09	-0.02	0.01	1.08	-0.24	0.19
673.00	-1.00	-0.02	-0.01	1.12	0.10	0.07
673.20	-1.09	-0.03	0.01	1.05	-0.08	0.20
673.40	-1.00	-0.08	0.01	0.82	0.42	0.64
673.60	-1.02	-0.05	0.03	0.99	0.53	-0.01
673.80	-1.01	-0.14	-0.01	1.01	-0.01	-0.34
674.00	-0.98	-0.07	0.00	0.77	-2.08	-1.32
674.20	-1.02	-0.01	0.02	1.02	1.22	-1.08
674.40	-1.01	-0.01	0.01	0.86	0.16	-0.31
674.60	-0.92	0.01	0.02	0.81	-0.25	-0.21
674.80	-0.91	-0.16	0.00	1.00	0.55	-0.42
675.00	-0.87	-0.07	0.02	0.87	-0.29	-0.25
675.20	-0.85	-0.04	0.03	0.91	-0.31	-0.05
675.40	-0.83	-0.05	0.03	0.70	0.03	0.40
675.60	-0.74	-0.09	0.02	0.84	0.23	-0.02
675.80	-0.81	-0.22	0.01	0.90	0.13	-0.08
676.00	-0.70	0.01	0.02	0.84	0.36	-0.37
676.20	-0.72	-0.16	0.04	0.83	-0.25	0.06
676.40	-0.94	0.06	0.03	0.92	0.22	-0.58
676.60	-0.71	-0.10	0.04	0.90	0.20	0.36
676.80	-0.66	-0.04	0.02	0.95	1.36	-1.06
677.00	-0.69	-0.06	0.04	0.61	0.11	0.88
677.20	-0.75	-0.13	0.03	0.86	0.15	0.08
677.40	-0.61	-0.14	0.03	0.79	0.00	-0.38
677.60	-0.66	-0.02	0.03	0.73	-0.68	-0.43
677.80	-0.51	-0.10	0.05	0.88	-0.92	-0.75
678.00	-0.51	0.04	0.04	0.72	-0.12	-0.35
678.20	-0.54	-0.05	0.06	0.79	-0.78	0.01
678.40	-0.45	0.05	0.03	0.77	-0.06	-0.45
678.60	-0.54	0.08	0.05	0.80	0.12	-0.04
678.80	-0.57	0.02	0.01	0.83	-0.19	-0.30

679.00	-0.55	-0.04	0.02	0.82	-0.15	0.00
679.20	-0.44	-0.02	0.02	0.78	-0.31	-0.26
679.40	-0.66	-0.01	0.02	0.50	-1.80	-0.33
679.60	-0.51	-0.09	0.02	0.74	1.42	-0.84
679.80	-0.48	-0.01	0.01	0.65	-0.22	0.33
680.00	-0.48	0.01	0.02	0.67	0.51	0.29
680.20	-0.45	-0.01	0.02	0.78	-0.42	-0.25
680.40	-0.53	0.00	0.02	0.71	0.36	0.62
680.60	-0.47	0.08	0.00	0.69	0.32	-0.10
680.80	-0.36	-0.09	0.00	0.68	-0.19	-0.17
681.00	-0.50	0.01	0.01	0.62	-0.05	-0.09
681.20	-0.45	-0.02	-0.01	0.54	-0.13	-0.39
681.40	-0.46	-0.09	-0.02	0.43	1.20	1.25
681.60	-0.42	0.09	0.00	0.38	0.65	-1.26
681.80	-0.35	0.00	-0.02	0.62	0.41	0.27
682.00	-0.42	0.02	0.00	0.43	-0.35	0.08
682.20	-0.36	0.01	-0.01	0.28	0.55	0.00
682.40	-0.34	-0.08	-0.03	0.42	0.44	0.02
682.60	-0.30	0.01	-0.02	0.58	0.14	-0.17
682.80	-0.41	0.05	0.00	0.60	-0.56	-0.40
683.00	-0.22	0.06	-0.02	0.51	0.16	0.16
683.20	-0.31	-0.03	-0.05	0.41	-0.26	0.38
683.40	-0.27	-0.06	-0.05	0.37	0.23	0.27
683.60	-0.22	0.03	-0.02	0.40	0.00	0.07
683.80	-0.22	-0.10	-0.05	0.30	-0.66	0.49
684.00	-0.11	-0.05	-0.05	0.37	0.00	0.19
684.20	-0.24	-0.05	-0.03	0.36	0.27	-0.06
684.40	-0.20	-0.07	-0.06	0.40	0.66	-0.58
684.60	-0.24	-0.12	-0.05	0.41	-0.31	0.27
684.80	-0.20	0.00	-0.06	0.41	0.27	-0.76
685.00	-0.04	-0.17	-0.05	0.23	0.17	0.17
685.20	-0.12	0.02	-0.07	0.21	-0.01	0.39
685.40	-0.11	-0.09	-0.06	0.27	-0.02	0.01
685.60	-0.12	-0.04	-0.07	0.30	0.19	0.03
685.80	-0.03	-0.01	-0.08	0.30	0.27	0.34
686.00	-0.08	0.02	-0.07	0.33	-0.12	-0.49
686.20	-0.13	-0.09	-0.06	0.17	0.26	-0.06
686.40	-0.10	-0.11	-0.08	0.22	-1.08	0.01
686.60	0.01	0.00	-0.07	0.11	-0.19	-0.09
686.80	-0.04	-0.04	-0.09	0.16	-0.33	-0.03
687.00	-0.18	-0.04	-0.07	0.14	-0.85	-0.22
687.20	-0.11	-0.06	-0.08	0.20	-1.31	0.97
687.40	-0.04	-0.06	-0.10	0.15	-0.96	0.62
687.60	-0.11	-0.04	-0.10	0.09	-0.39	0.29
687.80	-0.16	-0.12	-0.10	0.03	-0.75	-0.42
688.00	-0.12	0.08	-0.11	0.16	0.07	-0.60
688.20	-0.15	-0.04	-0.11	0.04	-0.43	0.35
688.40	-0.19	-0.09	-0.08	-0.16	-1.70	0.79
688.60	-0.12	0.05	-0.11	-0.21	-0.07	0.31
688.80	-0.16	0.02	-0.13	0.05	-0.21	-0.84

689.00	-0.12	0.10	-0.10	-0.10	-0.58	-0.38
689.20	0.04	0.00	-0.12	-0.06	1.75	1.79
689.40	0.02	0.00	-0.11	-0.07	-0.29	-0.51
689.60	-0.03	-0.03	-0.12	-0.11	-0.90	0.00
689.80	0.03	0.08	-0.10	0.01	-0.03	-0.44
690.00	0.08	0.00	-0.11	-0.08	-0.39	0.08
690.20	0.06	-0.01	-0.11	-0.20	-0.05	-0.02
690.40	0.01	-0.03	-0.14	-0.13	0.94	-0.87
690.60	0.03	-0.04	-0.12	-0.27	0.06	-0.07
690.80	-0.05	-0.08	-0.11	-0.16	-0.04	0.08
691.00	-0.19	0.04	-0.10	-0.17	0.38	-0.01
691.20	0.04	-0.05	-0.13	-0.22	0.11	-0.10
691.40	0.01	-0.07	-0.11	0.07	-1.02	-0.12
691.60	-0.04	0.05	-0.13	-0.09	-0.03	-0.14
691.80	-0.03	-0.06	-0.11	-0.16	-0.74	-0.26
692.00	0.01	-0.02	-0.12	-0.07	0.44	-0.29
692.20	-0.02	-0.17	-0.08	-0.20	-0.18	-0.19
692.40	0.09	0.18	-0.12	-0.21	-0.53	-0.19
692.60	-0.10	-0.06	-0.12	-0.23	-0.08	-0.07
692.80	-0.02	0.01	-0.11	-0.23	0.09	0.03
693.00	0.09	-0.11	-0.12	-0.17	0.24	-0.13
693.20	0.06	0.03	-0.12	-0.30	0.07	-0.25
693.40	-0.05	-0.07	-0.11	-0.32	0.44	0.06
693.60	0.00	-0.07	-0.10	-0.33	0.02	0.21
693.80	0.02	0.05	-0.11	-0.19	-0.53	-0.36
694.00	-0.02	-0.15	-0.07	-0.20	-0.16	-0.11
694.20	-0.19	-0.20	-0.07	-0.27	-0.39	-0.01
694.40	0.05	0.02	-0.07	-0.23	-0.23	-0.14
694.60	-0.06	0.06	-0.07	-0.21	-0.02	-0.09
694.80	-0.07	0.05	-0.07	-0.31	-0.10	0.41
695.00	-0.06	-0.01	-0.08	-0.24	-0.09	0.32
695.20	-0.08	-0.05	-0.07	-0.17	0.02	-0.17
695.40	0.11	-0.09	-0.06	-0.21	0.44	0.02
695.60	-0.05	0.19	-0.07	-0.25	-0.06	0.23
695.80	-0.05	0.03	-0.06	-0.26	-0.08	0.22
696.00	0.02	-0.06	-0.06	-0.22	-0.32	0.18
696.20	-0.03	0.05	-0.05	-0.15	-0.19	0.10
696.40	-0.05	0.00	-0.04	-0.18	-0.13	0.15
696.60	0.09	0.08	-0.05	-0.13	-0.45	0.62
696.80	0.02	0.02	-0.04	-0.19	-0.23	0.32
697.00	0.08	-0.06	-0.05	-0.30	-0.54	-0.20
697.20	0.11	-0.02	-0.01	-0.17	-0.07	0.06
697.40	-0.03	-0.11	-0.04	-0.21	0.10	-0.07
697.60	0.01	0.06	-0.03	-0.21	0.14	0.11
697.80	0.09	0.09	-0.04	-0.15	-0.05	0.07
698.00	0.08	-0.06	0.00	-0.13	-0.39	-0.21
698.20	0.13	0.00	0.01	-0.20	-0.29	0.17
698.40	0.09	0.20	0.00	-0.17	0.09	0.00
698.60	0.10	-0.04	-0.02	-0.13	-0.14	-0.10
698.80	0.10	0.06	0.03	-0.13	-0.13	0.14

699.00	0.17	0.13	0.01	-0.13	0.25	-0.05
699.20	0.13	0.09	0.02	-0.15	-0.29	0.10
699.40	0.06	0.08	0.02	-0.07	-0.15	-0.07
699.60	0.17	0.13	0.03	-0.23	-0.01	0.27
699.80	0.04	0.00	0.01	-0.15	0.11	0.38
700.00	-0.01	0.15	0.04	-0.11	-0.10	0.24
700.20	0.10	0.01	0.02	-0.19	0.30	0.16
700.40	0.08	-0.07	0.02	-0.21	0.02	0.12
700.60	0.19	0.05	0.01	-0.18	-0.31	0.17
700.80	0.08	-0.06	0.01	-0.14	0.42	-0.08
701.00	0.06	-0.05	0.02	-0.20	-0.05	0.28
701.20	0.08	0.02	0.02	-0.11	0.32	-0.09
701.40	0.00	0.16	0.02	-0.37	0.07	0.58
701.60	0.06	0.11	0.01	-0.25	0.21	0.11
701.80	0.02	-0.18	0.01	-0.11	0.05	-0.18
702.00	0.07	0.05	0.00	-0.32	-0.39	0.39
702.20	0.10	-0.10	0.01	-0.30	-0.19	0.30
702.40	0.14	-0.07	0.03	-0.17	-0.23	-0.41
702.60	0.17	-0.02	0.01	-0.25	0.29	-0.02
702.80	0.21	0.04	0.04	-0.17	-0.07	0.09
703.00	0.14	0.00	0.04	-0.16	-0.55	0.21
703.20	0.21	0.09	0.02	-0.23	-1.36	0.43
703.40	0.26	-0.09	0.01	-0.28	-0.07	-0.23
703.60	0.18	0.09	0.01	-0.21	-0.08	0.14
703.80	0.08	0.06	0.01	0.31	0.34	-1.69
704.00	0.11	0.17	0.04	0.02	0.14	0.20
704.20	0.18	0.07	0.01	-0.09	-0.42	-0.03
704.40	0.17	0.04	-0.01	-0.14	0.73	-0.10
704.60	0.28	0.16	0.01	-0.15	0.45	0.45
704.80	0.31	0.07	-0.03	-0.23	2.01	-0.75
705.00	0.26	0.01	0.00	-0.06	1.20	0.94
705.20	0.13	0.10	-0.02	-0.20	0.00	0.77
705.40	0.30	0.11	-0.02	-0.15	-0.29	0.91
705.60	0.24	0.00	-0.01	-0.27	-0.67	-0.22
705.80	0.30	-0.02	-0.02	-0.27	0.11	-0.24
706.00	0.24	-0.17	-0.02	-0.16	-0.04	0.10
706.20	0.21	0.03	-0.02	-0.26	0.05	0.03
706.40	0.16	0.02	0.03	-0.32	0.38	-0.17
706.60	0.15	0.07	0.02	-0.36	-0.02	-0.40
706.80	0.23	-0.06	-0.03	-0.36	-0.42	0.42
707.00	0.26	-0.04	-0.04	-0.36	0.09	0.53
707.20	0.27	-0.02	-0.04	-0.33	0.06	0.28
707.40	0.29	0.02	-0.03	-0.40	0.05	0.10
707.60	0.24	-0.03	-0.03	-0.44	0.10	0.35
707.80	0.26	0.00	-0.03	-0.44	-0.33	0.26
708.00	0.24	0.00	-0.04	-0.39	-0.15	0.10
708.20	0.30	0.01	-0.03	-0.48	0.05	0.36
708.40	0.36	-0.04	-0.04	-0.28	0.15	-0.13
708.60	0.22	-0.02	-0.05	-0.43	-0.08	0.08
708.80	0.24	0.02	-0.05	-0.36	0.03	0.00

709.00	0.28	0.00	-0.05	-0.51	-0.36	0.45
709.20	0.35	0.00	-0.05	-0.57	-0.35	0.27
709.40	0.37	0.02	-0.06	-0.28	-0.54	0.44
709.60	0.39	0.06	-0.06	-0.57	0.62	-0.97
709.80	0.43	-0.03	-0.07	-0.40	-1.92	-0.25
710.00	0.34	-0.08	-0.07	-0.51	1.34	-0.49
710.20	0.42	0.06	-0.07	-0.54	0.52	-0.07
710.40	0.47	-0.06	-0.08	-0.84	0.98	1.40
710.60	0.48	0.00	-0.07	-0.66	-0.32	1.02
710.80	0.37	-0.04	-0.07	-0.52	-0.05	0.50
711.00	0.37	0.06	-0.09	-0.54	-0.52	0.49
711.20	0.44	0.09	-0.08	-0.54	-1.51	0.74
711.40	0.42	-0.02	-0.06	-0.47	-0.31	0.70
711.60	0.50	0.00	-0.06	-0.69	0.13	0.55
711.80	0.31	0.03	-0.08	-0.52	0.27	-0.20
712.00	0.45	0.03	-0.05	-0.67	0.41	0.44
712.20	0.32	-0.01	-0.07	-0.59	0.67	0.60
712.40	0.48	-0.07	-0.06	-0.61	0.15	0.33
712.60	0.52	-0.03	-0.06	-0.46	-0.34	-0.09
712.80	0.47	0.08	-0.07	-0.48	-0.13	-0.14
713.00	0.42	0.00	-0.05	-0.64	0.59	0.14
713.20	0.49	0.10	-0.06	-0.69	0.03	0.42
713.40	0.48	-0.04	-0.07	-0.63	0.25	0.26
713.60	0.49	-0.03	-0.05	-0.53	-0.33	-0.09
713.80	0.37	-0.10	-0.05	-0.60	0.25	-0.01
714.00	0.41	-0.02	-0.04	-0.60	0.05	-0.11
714.20	0.44	0.01	-0.03	-0.75	-0.35	0.66
714.40	0.44	0.05	-0.04	-0.90	0.66	1.11
714.60	0.40	0.03	-0.02	-0.77	0.70	0.13
714.80	0.38	-0.03	-0.05	-0.57	-0.79	0.84
715.00	0.40	0.02	-0.04	-0.54	-1.43	1.05
715.20	0.38	-0.03	-0.04	-0.72	0.04	0.38
715.40	0.49	0.02	-0.03	-0.56	-0.63	-0.36
715.60	0.39	-0.06	-0.04	-0.86	-1.19	-0.41
715.80	0.45	-0.09	-0.04	-0.41	0.46	-0.70
716.00	0.45	0.03	-0.02	-0.60	0.00	0.24
716.20	0.41	0.02	-0.03	-0.68	-0.32	0.24
716.40	0.50	-0.06	-0.03	-0.72	0.71	-0.29
716.60	0.42	-0.05	-0.02	-0.67	-1.50	0.24
716.80	0.47	0.17	-0.02	-0.51	0.35	-0.29
717.00	0.49	0.00	-0.03	-0.67	-0.27	0.01
717.20	0.52	-0.09	-0.03	-0.66	-0.40	0.57
717.40	0.49	0.02	-0.03	-0.45	-0.23	-0.52
717.60	0.43	-0.04	-0.03	-0.61	-1.82	0.22
717.80	0.44	0.02	-0.02	-0.66	0.92	0.18
718.00	0.58	0.07	-0.02	-0.66	-0.16	0.42
718.20	0.54	0.08	-0.03	-0.67	0.17	0.74
718.40	0.42	0.00	-0.03	-0.37	1.68	0.51
718.60	0.54	0.02	-0.02	-0.56	0.52	0.01
718.80	0.41	0.06	0.00	-0.41	0.43	-0.04

719.00	0.48	-0.05	0.01	-0.48	-0.07	0.01
719.20	0.52	0.08	-0.01	-0.45	0.05	0.00
719.40	0.53	-0.05	-0.01	-0.44	0.36	0.23
719.60	0.51	0.03	-0.01	-0.46	0.29	-0.07
719.80	0.49	0.01	0.00	-0.37	0.26	-0.11
720.00	0.43	0.11	0.00	-0.36	-0.21	-0.18
720.20	0.41	-0.04	-0.02	-0.46	-0.39	0.46
720.40	0.50	0.00	-0.01	-0.46	0.28	0.22
720.60	0.43	0.03	0.01	-0.44	0.10	0.33
720.80	0.42	0.05	-0.01	-0.49	-0.06	0.25
721.00	0.38	0.09	0.00	-0.51	0.00	-0.20
721.20	0.61	0.10	0.01	-0.46	0.25	-0.12
721.40	0.51	0.14	0.01	-0.39	-0.20	-0.29
721.60	0.43	0.12	0.00	-0.35	-0.20	0.03
721.80	0.48	0.03	0.00	-0.43	0.50	0.07
722.00	0.46	0.01	0.01	-0.42	-0.03	0.02
722.20	0.46	0.11	0.03	-0.39	0.35	-0.30
722.40	0.42	0.03	0.00	-0.33	0.06	-0.16
722.60	0.48	0.05	0.01	-0.39	-0.45	0.22
722.80	0.43	0.12	0.02	-0.43	-0.38	-0.03
723.00	0.45	0.12	0.01	-0.40	0.18	0.23
723.20	0.58	0.09	-0.01	-0.40	1.09	0.63
723.40	0.47	0.06	0.01	-0.34	-1.15	-0.47
723.60	0.60	0.04	0.02	0.22	0.12	-2.14
723.80	0.56	0.03	0.02	-0.85	-0.28	1.49
724.00	0.59	0.08	0.02	-0.25	0.08	-0.29
724.20	0.64	0.03	0.02	-0.35	0.35	-0.22
724.40	0.57	0.01	0.01	-0.24	-0.08	-0.08
724.60	0.49	0.13	0.01	-0.19	2.07	0.94
724.80	0.61	0.06	0.02	-0.29	-0.25	0.15
725.00	0.57	-0.09	0.00	-0.27	-0.11	-0.18
725.20	0.58	0.00	0.03	-0.26	-0.11	-0.07
725.40	0.55	0.05	0.02	-0.31	0.00	0.01
725.60	0.66	-0.01	-0.01	-0.20	-0.67	0.29
725.80	0.52	0.04	0.02	-0.39	-0.13	0.05
726.00	0.62	-0.05	0.00	-0.39	-0.53	-0.02
726.20	0.54	0.03	0.01	-0.26	-1.51	0.93
726.40	0.59	0.06	-0.02	-0.23	-1.27	-0.55
726.60	0.72	-0.10	0.00	-0.18	0.04	-0.24
726.80	0.57	-0.01	0.01	-0.27	-0.32	-0.18
727.00	0.64	-0.13	0.00	-0.32	0.48	-0.45
727.20	0.64	0.06	-0.01	-0.33	-1.13	-0.64
727.40	0.54	-0.02	-0.02	-0.23	-0.28	-0.31
727.60	0.62	0.05	0.00	-0.44	-0.07	0.34
727.80	0.61	-0.03	-0.01	-0.85	0.17	1.98
728.00	0.62	-0.03	0.00	-0.33	0.53	-0.13
728.20	0.60	0.00	0.01	-0.31	-0.04	-0.18
728.40	0.62	-0.06	-0.03	-0.34	-0.01	0.16
728.60	0.51	-0.02	-0.02	-0.27	-0.05	-0.53
728.80	0.67	0.06	-0.01	-0.34	1.37	0.29

729.00	0.69	0.02	-0.01	-0.19	-0.29	-0.21
729.20	0.67	-0.01	-0.03	-0.32	-0.49	0.44
729.40	0.70	-0.06	-0.02	-0.38	-0.76	-0.20
729.60	0.63	0.00	-0.01	-0.24	2.44	1.29
729.80	0.70	0.14	-0.03	-0.42	-0.36	0.04
730.00	0.71	0.06	-0.02	-0.32	-0.72	-0.54
730.20	0.68	-0.02	-0.03	-0.46	1.14	-1.13
730.40	0.81	0.06	-0.04	-0.43	0.05	0.35
730.60	0.70	-0.12	-0.05	-0.42	0.51	0.37
730.80	0.74	0.14	-0.03	-0.28	0.41	0.06
731.00	0.85	-0.05	-0.04	-0.35	0.25	0.11
731.20	0.74	-0.03	-0.03	-0.29	0.18	-0.31
731.40	0.83	0.00	-0.02	-0.32	-0.33	0.25
731.60	0.72	0.04	-0.04	-0.31	-0.42	0.80
731.80	0.68	0.04	-0.02	-0.42	0.08	0.30
732.00	0.78	0.02	-0.03	-0.37	0.34	-0.23
732.20	0.84	0.11	-0.05	-0.49	0.04	-0.07
732.40	0.81	-0.01	-0.05	-0.47	-0.17	0.30
732.60	0.85	-0.01	-0.03	-0.49	-0.02	0.19
732.80	0.86	0.20	-0.02	-0.53	-0.27	0.37
733.00	0.78	0.07	-0.03	-0.36	0.25	-0.01
733.20	0.84	0.06	-0.05	-0.48	0.10	-0.04
733.40	0.80	0.01	-0.04	-0.51	-0.08	0.43
733.60	0.88	0.07	-0.04	-0.36	0.05	0.09
733.80	0.72	0.07	-0.03	-0.36	0.09	-0.04
734.00	0.77	-0.02	-0.01	-0.53	-0.23	0.22
734.20	0.81	0.04	-0.04	-0.54	0.07	0.03
734.40	0.74	0.07	-0.05	-0.37	0.09	-0.02
734.60	0.79	0.04	-0.03	-0.37	-0.32	-0.21
734.80	0.87	0.01	-0.04	-0.51	0.13	-0.02
735.00	0.71	0.04	-0.01	-0.60	-0.61	0.91
735.20	0.76	0.05	-0.03	-0.44	0.20	-0.35
735.40	0.72	0.05	-0.02	-0.44	0.55	-0.47
735.60	0.85	-0.03	-0.04	-0.48	0.47	0.10
735.80	0.79	0.06	-0.04	-0.43	-0.27	-0.52
736.00	0.71	-0.01	-0.03	-0.38	-0.09	-0.39
736.20	0.71	0.02	-0.03	-0.53	0.83	-0.04
736.40	0.86	-0.02	-0.06	-0.38	-0.06	-0.42
736.60	0.97	0.04	-0.01	-0.47	0.16	0.20
736.80	0.76	-0.01	-0.02	-0.63	-0.10	0.67
737.00	0.82	-0.02	-0.03	-0.65	0.27	0.49
737.20	0.92	0.01	-0.04	-0.55	0.48	-0.10
737.40	0.84	-0.02	-0.02	-0.55	-0.05	0.00
737.60	0.81	0.03	-0.02	-0.42	-0.34	-0.36
737.80	0.77	0.03	-0.02	-0.39	-0.18	0.07
738.00	0.83	0.01	-0.02	-0.38	0.67	-1.10
738.20	0.76	0.09	-0.03	-0.34	0.20	-0.25
738.40	0.80	0.11	-0.02	-0.55	-0.27	0.07
738.60	0.72	0.05	-0.02	-0.52	-0.12	0.26
738.80	0.86	-0.01	-0.02	-0.40	0.37	-0.52

739.00	0.85	0.06	-0.01	-0.53	-0.19	-0.02
739.20	0.78	0.07	0.00	-0.58	0.28	0.23
739.40	0.93	-0.07	-0.03	-0.54	0.18	-0.21
739.60	0.83	-0.06	-0.03	-0.36	0.26	-0.26
739.80	0.78	0.10	-0.01	-0.55	-0.47	-0.22
740.00	0.79	-0.04	-0.01	-0.52	0.32	-0.22
740.20	0.76	0.01	0.00	-0.68	-0.07	0.34
740.40	0.75	-0.05	-0.03	-0.57	0.17	0.19
740.60	0.71	0.13	-0.01	-0.63	-0.15	0.09
740.80	0.81	-0.02	-0.03	-0.64	0.26	0.32
741.00	0.71	0.00	0.00	-0.51	-0.40	-0.35
741.20	0.77	-0.01	-0.04	-0.48	-0.13	0.39
741.40	0.73	-0.04	0.01	-0.54	-0.48	0.37
741.60	0.75	-0.05	-0.03	-0.54	0.09	-0.27
741.80	0.68	-0.09	0.00	-0.58	-0.47	0.10
742.00	0.79	-0.01	-0.04	-0.48	-0.49	0.08
742.20	0.76	-0.09	-0.01	-0.56	-0.25	0.23
742.40	0.64	0.16	0.00	-0.58	-0.19	-0.03
742.60	0.71	-0.05	-0.02	-0.62	-0.21	0.34
742.80	0.81	-0.09	0.00	-0.60	-0.01	0.61
743.00	0.69	-0.02	-0.02	-0.50	0.11	0.40
743.20	0.69	0.09	0.00	-0.50	-0.07	0.32
743.40	0.88	0.00	0.01	-0.40	0.11	0.13
743.60	0.83	-0.06	0.00	-0.39	-0.10	0.04
743.80	0.82	-0.11	-0.01	-0.41	-0.04	0.00
744.00	0.77	-0.03	0.01	-0.43	0.26	0.21
744.20	0.73	-0.02	0.00	-0.30	-0.19	-0.11
744.40	0.79	-0.07	0.01	-0.32	0.96	-0.31
744.60	0.78	0.03	0.00	-0.31	0.81	0.98
744.80	0.81	0.09	-0.01	-0.52	0.07	0.52
745.00	0.84	0.08	0.02	-0.52	-1.35	-0.58
745.20	0.89	0.01	0.03	-0.35	-0.54	-0.03
745.40	0.81	-0.04	-0.01	0.07	1.45	-0.29
745.60	0.84	0.03	0.00	-0.23	-0.69	-0.66
745.80	0.81	-0.02	0.00	-0.25	1.43	-0.53
746.00	0.80	0.07	0.00	-0.42	-0.11	0.11
746.20	0.88	0.08	-0.02	-0.35	-0.09	0.08
746.40	0.79	0.01	-0.03	-0.24	0.09	0.02
746.60	0.84	-0.02	0.02	-0.32	-0.10	-0.33
746.80	0.85	0.06	-0.02	-0.58	-0.17	1.20
747.00	0.79	-0.05	0.00	-0.47	-0.15	0.34
747.20	0.90	0.03	-0.02	-0.41	0.65	-0.61
747.40	0.95	0.00	-0.01	-0.30	0.01	0.11
747.60	0.86	0.09	-0.01	-0.32	0.46	0.12
747.80	0.78	0.04	-0.01	-0.40	0.06	0.35
748.00	0.76	-0.03	-0.01	-0.27	-0.30	0.20
748.20	0.82	0.08	0.00	-0.31	0.21	0.10
748.40	0.77	0.08	-0.01	-0.36	0.19	0.03
748.60	0.86	0.01	-0.02	-0.21	0.08	-0.53
748.80	0.88	0.01	0.00	-0.30	0.30	0.07

749.00	0.81	0.07	-0.03	-0.29	-0.20	0.14
749.20	0.82	0.04	-0.02	-0.25	0.28	-0.29
749.40	0.80	0.08	-0.02	-0.18	-0.43	-0.02
749.60	0.83	-0.02	-0.02	-0.25	0.14	-0.26
749.80	0.96	0.04	-0.02	-0.17	0.03	-0.22
750.00	0.95	0.01	0.00	-0.23	0.51	-0.21
750.20	0.85	-0.01	-0.02	-0.31	-0.73	0.99
750.40	0.98	0.10	0.00	-0.54	-0.75	0.10
750.60	0.92	0.18	-0.01	-0.43	-2.26	0.34
750.80	0.90	0.18	-0.02	-0.21	0.34	0.57
751.00	1.03	0.07	-0.02	-0.77	-0.12	-0.68
751.20	1.01	0.07	-0.02	-0.24	-2.20	-0.73
751.40	0.91	0.18	-0.02	-0.32	-1.35	-0.75
751.60	0.93	0.04	-0.02	-0.20	-0.72	0.56
751.80	0.92	0.15	-0.01	-0.16	-1.04	0.62
752.00	0.94	0.11	-0.02	-0.51	-0.20	0.79
752.20	1.07	0.01	-0.03	-0.30	0.09	0.10
752.40	1.05	-0.02	-0.01	-0.21	-0.05	-0.19
752.60	0.92	0.11	-0.01	-0.34	0.42	-0.11
752.80	0.92	0.11	-0.03	-0.22	-0.28	-0.28
753.00	1.06	0.03	-0.02	-0.23	0.25	-0.31
753.20	0.94	0.04	0.01	-0.26	0.37	-0.49
753.40	0.97	0.08	-0.01	-0.25	0.58	0.29
753.60	1.05	0.07	0.00	-0.33	0.24	0.17
753.80	1.08	0.02	-0.03	-0.27	0.63	-0.18
754.00	0.98	0.02	-0.03	-0.38	0.15	0.35
754.20	1.00	0.03	-0.02	-0.30	-0.27	0.49
754.40	0.94	0.05	0.00	-0.59	-0.58	0.79
754.60	0.99	0.03	-0.02	-0.34	0.12	-0.25
754.80	0.98	0.03	-0.02	-0.49	0.61	-0.76
755.00	0.88	0.06	-0.02	-0.45	-0.34	0.45
755.20	0.99	-0.07	-0.02	-0.49	0.00	0.13
755.40	1.03	-0.04	-0.02	-0.41	0.23	-0.09
755.60	0.96	0.06	-0.01	-0.36	-1.01	-0.50
755.80	0.96	0.06	-0.03	-0.46	-0.38	-0.11
756.00	0.87	0.00	-0.03	-0.46	-0.06	-0.33
756.20	0.86	0.06	-0.03	-0.58	0.52	0.48
756.40	0.95	0.05	-0.04	-0.53	0.14	0.41
756.60	1.03	-0.06	-0.03	-0.51	0.00	0.22
756.80	1.03	0.06	-0.02	-0.47	0.11	0.21
757.00	1.00	0.07	-0.02	-0.31	0.09	-0.38
757.20	1.07	0.10	-0.02	-0.52	-0.52	-0.45
757.40	0.94	0.08	-0.02	-0.45	-0.17	0.04
757.60	0.91	0.00	-0.01	-0.43	-0.22	-0.38
757.80	0.89	0.03	-0.03	-0.57	-0.29	0.55
758.00	0.97	0.06	-0.02	-0.40	-0.59	0.34
758.20	0.99	-0.04	-0.03	-0.49	-0.10	0.03
758.40	0.99	0.02	-0.02	-0.45	0.65	-0.11
758.60	0.99	0.15	-0.02	-0.50	0.33	-0.79
758.80	0.99	-0.05	-0.03	-0.42	-0.45	-0.26

759.00	0.85	0.04	-0.02	-0.44	-0.64	0.24
759.20	0.95	-0.01	-0.02	-0.40	-0.09	-0.42
759.40	0.93	0.12	-0.01	-0.46	-0.22	0.02
759.60	0.93	0.00	-0.02	-0.49	-0.36	0.25
759.80	0.99	0.01	-0.05	-0.43	-0.68	-0.05
760.00	1.06	0.02	-0.04	-0.51	0.05	0.01
760.20	1.03	-0.01	-0.02	-0.53	-0.12	-0.10
760.40	1.01	-0.01	-0.04	-0.41	0.17	-0.09
760.60	1.02	0.06	-0.02	-0.56	-0.40	0.80
760.80	0.96	-0.11	-0.02	-0.43	-0.42	-0.09
761.00	1.01	0.00	-0.02	-0.51	-0.49	-0.22
761.20	1.02	-0.04	-0.04	-0.52	-0.35	0.15
761.40	0.92	0.00	-0.03	-0.35	0.61	-1.31
761.60	0.86	0.04	-0.02	-0.27	-1.53	-1.35
761.80	0.88	0.00	0.00	-0.39	1.31	-0.19
762.00	0.91	0.05	-0.03	-0.65	0.86	-0.69
762.20	0.90	-0.06	-0.03	-0.50	-0.11	0.10
762.40	0.90	0.05	-0.02	-0.35	0.22	-0.41
762.60	0.84	-0.07	-0.04	-0.56	1.14	-1.10
762.80	0.73	0.11	-0.03	-0.49	0.03	-0.13
763.00	0.87	0.21	-0.04	-0.40	-0.03	-0.08
763.20	0.84	0.04	-0.03	-0.04	0.56	1.16
763.40	0.92	0.01	-0.03	-0.44	-0.10	-0.42
763.60	0.94	0.08	-0.02	-0.45	-0.13	0.10
763.80	0.85	0.00	-0.02	-0.37	0.22	0.29
764.00	0.86	0.05	-0.02	-0.41	-0.11	0.09
764.20	0.83	0.04	-0.04	-0.40	-0.06	-0.07
764.40	0.88	0.00	-0.04	-0.50	0.03	0.08
764.60	0.78	0.05	-0.02	-0.40	0.13	0.10
764.80	0.81	0.10	-0.03	-0.50	-0.14	0.04
765.00	0.92	-0.06	-0.01	-0.33	0.45	0.40
765.20	0.77	-0.02	-0.01	-0.33	0.10	0.02
765.40	0.89	-0.07	-0.02	-0.38	0.31	-0.09
765.60	0.85	-0.01	-0.03	-0.31	-0.44	0.44
765.80	0.93	-0.07	-0.04	-0.41	0.13	0.30
766.00	0.76	-0.04	-0.03	-0.38	0.10	0.23
766.20	0.83	0.01	-0.02	-0.33	-1.38	0.38
766.40	0.83	0.01	-0.03	-0.29	0.47	-0.15
766.60	0.88	-0.03	-0.02	-0.32	0.29	0.03
766.80	0.85	-0.05	-0.04	-0.28	-0.11	-0.22
767.00	0.90	-0.04	-0.04	-0.20	0.40	-0.20
767.20	0.83	0.06	-0.04	0.01	0.81	-1.64
767.40	0.93	0.00	-0.03	-0.37	0.03	-0.08
767.60	0.89	-0.02	-0.02	-0.29	-0.14	-0.08
767.80	0.81	-0.08	-0.03	-0.34	-0.74	0.35
768.00	0.80	-0.03	0.00	0.03	-0.03	-1.08
768.20	0.76	-0.03	-0.04	-0.09	-0.23	-0.09
768.40	0.80	0.01	-0.02	-0.22	0.07	-0.23
768.60	0.81	-0.05	-0.03	-0.23	0.08	0.14
768.80	0.74	-0.13	-0.04	-0.20	1.01	0.19

769.00	0.81	0.04	-0.04	-0.25	0.06	0.00
769.20	0.68	-0.05	-0.02	-0.32	-0.02	0.24
769.40	0.80	0.03	-0.03	-0.31	0.22	0.02
769.60	0.83	-0.04	-0.04	-0.19	0.38	0.52
769.80	0.70	0.03	-0.04	-0.04	-0.70	0.82
770.00	0.73	0.08	-0.03	-0.13	-0.17	-0.35
770.20	0.76	-0.02	-0.02	0.15	-0.16	-1.08
770.40	0.82	0.02	-0.03	-0.13	-1.74	0.36
770.60	0.78	0.06	-0.04	-0.28	-0.45	1.35
770.80	0.75	0.10	-0.03	-0.01	0.37	-0.19
771.00	0.73	-0.06	-0.02	0.22	-0.98	-0.68
771.20	0.71	0.13	-0.03	-0.22	0.60	0.19
771.40	0.72	0.04	0.00	-0.14	0.07	0.39
771.60	0.75	0.06	-0.04	-0.04	0.16	-0.19
771.80	0.73	0.08	-0.04	-0.11	0.45	0.14
772.00	0.67	0.03	-0.02	-0.25	0.25	0.39
772.20	0.77	-0.01	-0.03	0.11	-0.29	-0.77
772.40	0.75	-0.03	-0.02	0.04	0.89	0.40
772.60	0.77	-0.04	-0.02	0.04	0.33	-0.21
772.80	0.78	-0.02	-0.03	0.18	1.23	0.57
773.00	0.73	-0.01	-0.02	0.14	0.80	0.28
773.20	0.67	-0.12	-0.04	0.00	-0.01	-0.06
773.40	0.72	0.01	-0.02	0.06	0.13	-0.34
773.60	0.63	0.15	-0.01	0.09	0.24	0.14
773.80	0.81	0.03	-0.01	0.17	0.12	-0.22
774.00	0.78	-0.05	-0.01	0.16	-0.33	0.02
774.20	0.73	-0.08	-0.02	0.10	-0.40	0.03
774.40	0.78	-0.05	-0.02	0.11	-0.16	0.06
774.60	0.72	0.02	-0.01	0.12	0.14	0.04
774.80	0.65	-0.04	0.00	0.07	-0.57	0.00
775.00	0.74	0.01	-0.02	0.06	-0.48	0.07
775.20	0.61	0.05	-0.03	0.06	-0.31	-0.09
775.40	0.61	-0.01	-0.02	0.19	0.18	-0.18
775.60	0.62	0.01	-0.04	0.12	-0.49	0.33
775.80	0.61	-0.05	-0.03	0.15	-0.09	-0.01
776.00	0.58	0.03	-0.03	0.12	0.05	-0.03
776.20	0.52	0.02	-0.03	0.13	0.23	0.16
776.40	0.53	0.03	-0.03	0.13	-0.10	0.13
776.60	0.51	0.06	-0.02	0.19	-0.17	0.02
776.80	0.54	-0.03	-0.02	0.21	0.02	0.22
777.00	0.58	0.04	-0.01	0.15	-0.16	0.32
777.20	0.62	0.07	0.00	0.22	0.06	0.10
777.40	0.69	0.07	-0.02	0.23	-0.08	0.28
777.60	0.56	0.00	0.00	0.26	0.06	0.30
777.80	0.61	0.06	-0.03	0.29	-0.10	0.08
778.00	0.51	-0.11	-0.02	0.28	0.06	0.11
778.20	0.53	0.09	-0.03	0.28	-0.12	0.51
778.40	0.56	0.01	0.01	0.33	0.02	0.08
778.60	0.46	0.02	0.00	0.34	-0.27	-0.41
778.80	0.52	0.04	-0.01	0.24	0.54	0.84

779.00	0.41	0.04	-0.02	-0.44	1.17	2.18
779.20	0.42	0.07	0.00	0.07	-0.90	0.87
779.40	0.43	0.18	0.00	0.36	2.32	-0.31
779.60	0.42	0.08	0.00	0.85	1.17	-1.73
779.80	0.32	0.04	0.02	-0.03	0.63	1.37
780.00	0.36	-0.08	0.01	0.25	0.37	-0.10
780.20	0.35	0.11	0.02	0.52	-0.40	0.04
780.40	0.36	0.02	0.01	0.54	0.01	-0.38
780.60	0.43	0.08	0.01	0.59	-0.14	-0.05
780.80	0.33	-0.02	0.01	0.57	-0.12	-0.08
781.00	0.35	0.04	0.00	0.77	0.16	-1.20
781.20	0.32	0.02	0.02	0.56	-0.55	0.17
781.40	0.28	0.10	0.02	0.41	-0.14	-1.52
781.60	0.24	0.05	0.03	0.42	3.10	-0.54
781.80	0.24	0.02	0.01	0.42	0.24	-0.04
782.00	0.29	0.06	0.00	0.32	-0.11	0.61
782.20	0.26	-0.01	-0.01	0.45	1.30	1.04
782.40	0.22	-0.03	0.00	0.41	0.52	-0.14
782.60	0.26	0.02	-0.01	0.37	-0.23	-1.34
782.80	0.22	0.00	-0.03	0.43	0.76	0.79
783.00	0.13	0.05	0.00	0.59	-0.21	-0.31
783.20	0.23	-0.02	0.01	0.61	-0.18	-0.09
783.40	0.17	-0.02	0.00	0.67	0.09	-0.38
783.60	0.06	0.06	0.01	0.54	-0.25	0.39
783.80	0.17	-0.10	-0.01	0.52	-0.05	-0.46
784.00	0.19	-0.07	0.00	0.53	-0.17	0.03
784.20	0.10	0.01	-0.01	0.54	-0.40	-0.30
784.40	0.28	-0.09	-0.02	0.22	-0.62	-0.44
784.60	0.07	-0.08	0.01	0.69	0.68	0.22
784.80	0.18	-0.03	-0.01	0.27	-1.04	-0.22
785.00	0.18	0.06	-0.02	0.42	0.47	0.84
785.20	0.05	-0.02	0.00	0.63	-0.28	-0.32
785.40	0.15	0.06	-0.01	0.53	0.00	0.23
785.60	-0.03	0.01	0.01	0.71	-0.21	0.07
785.80	0.06	-0.09	-0.01	0.31	-1.54	0.28
786.00	0.17	0.07	-0.01	0.98	-2.44	-1.50
786.20	0.04	0.04	-0.02	0.20	-2.20	-1.27
786.40	0.13	0.02	0.00	0.92	0.37	-0.73
786.60	-0.02	0.13	-0.02	1.03	0.03	-1.84
786.80	0.02	0.12	0.00	0.43	0.16	-0.33
787.00	0.11	0.08	0.00	0.57	-0.23	-0.15
787.20	-0.09	-0.01	-0.02	0.59	0.64	0.09
787.40	-0.04	0.02	0.02	0.55	-0.48	-0.08
787.60	0.04	-0.09	-0.04	0.57	0.64	-0.47
787.80	0.07	0.08	-0.04	0.50	0.23	-0.20
788.00	0.14	0.03	-0.03	0.19	-0.15	1.44
788.20	-0.06	0.00	-0.02	-0.42	-1.39	1.74
788.40	0.03	0.02	-0.03	0.39	0.51	-1.48
788.60	-0.18	-0.02	-0.03	0.55	-0.06	-0.70
788.80	0.02	0.03	-0.01	0.38	0.10	-0.03

789.00	-0.01	0.04	-0.04	0.52	-0.21	0.23
789.20	-0.08	0.03	-0.01	0.65	0.07	-0.18
789.40	-0.12	0.00	-0.05	0.61	0.58	-0.64
789.60	-0.05	-0.01	-0.03	0.53	-0.07	-0.21
789.80	-0.09	0.05	-0.03	0.64	-0.34	-0.41
790.00	-0.09	-0.04	-0.06	0.57	-0.36	-0.03
790.20	-0.09	-0.01	-0.05	0.37	-0.26	-0.20
790.40	-0.07	-0.04	-0.06	0.24	-0.82	0.26
790.60	-0.08	0.14	-0.03	0.66	-0.26	-1.07
790.80	-0.14	0.07	-0.05	0.39	0.51	0.21
791.00	-0.14	0.06	-0.02	0.34	-0.45	-0.17
791.20	-0.09	0.00	-0.05	0.52	-0.39	-0.24
791.40	-0.10	0.09	-0.04	0.47	0.01	-0.11
791.60	-0.07	-0.01	-0.04	0.51	0.40	0.51
791.80	-0.14	0.08	-0.05	0.51	-0.16	-0.40
792.00	-0.13	-0.09	-0.04	0.36	0.55	0.22
792.20	-0.11	0.00	-0.04	0.40	-0.40	-0.06
792.40	-0.14	0.02	-0.06	0.46	-0.39	0.12
792.60	-0.08	0.08	-0.04	0.41	0.04	-0.13
792.80	-0.05	-0.05	-0.06	0.48	0.00	0.04
793.00	-0.15	-0.03	-0.02	0.35	0.27	0.21
793.20	-0.12	-0.05	-0.06	0.42	-1.01	-0.40
793.40	-0.11	-0.09	-0.05	0.43	0.19	-0.52
793.60	-0.06	-0.04	-0.04	0.44	1.73	-0.48
793.80	-0.18	-0.01	-0.06	0.67	0.03	-1.20
794.00	-0.13	0.00	-0.05	0.16	0.23	0.83
794.20	-0.02	-0.12	-0.06	0.34	-0.73	-0.17
794.40	-0.13	0.05	-0.03	0.44	-0.96	0.02
794.60	-0.05	-0.02	-0.04	0.38	0.29	0.33
794.80	-0.09	-0.01	-0.06	0.37	-0.36	-0.44
795.00	-0.04	0.05	-0.08	0.47	-1.10	-0.33
795.20	-0.12	0.05	-0.05	0.33	-0.46	-0.09
795.40	-0.07	0.03	-0.05	0.31	-0.29	0.11
795.60	-0.14	0.03	-0.05	0.36	-0.10	0.06
795.80	-0.16	-0.11	-0.05	0.28	0.15	0.10
796.00	-0.20	0.05	-0.06	0.23	0.17	0.05
796.20	-0.21	0.03	-0.07	0.30	0.09	-0.43
796.40	-0.18	-0.02	-0.08	0.24	-0.02	-0.57
796.60	-0.16	0.15	-0.05	0.36	-0.43	-0.19
796.80	-0.16	-0.15	-0.08	0.38	-0.32	-0.26
797.00	-0.24	-0.10	-0.07	0.15	-0.04	0.47
797.20	-0.22	0.00	-0.06	0.29	-0.25	0.03
797.40	-0.24	0.02	-0.06	0.33	0.03	-0.24
797.60	-0.24	0.02	-0.06	0.40	-1.42	0.67
797.80	-0.19	0.02	-0.05	0.06	0.72	-0.44
798.00	-0.20	-0.01	-0.05	0.13	-0.17	0.43
798.20	0.02	-0.02	-0.09	0.25	0.05	0.01
798.40	-0.20	0.01	-0.06	0.24	0.01	0.26
798.60	-0.17	-0.02	-0.06	0.23	-0.04	-0.40
798.80	-0.14	0.08	-0.08	-0.17	-0.16	1.20

799.00	-0.14	-0.02	-0.07	0.03	-0.03	0.47
799.20	-0.18	0.06	-0.06	0.29	-0.07	-0.12
799.40	-0.26	-0.08	-0.08	0.42	0.92	0.49
799.60	-0.05	0.04	-0.06	0.14	-0.16	0.22
799.80	-0.19	-0.05	-0.09	0.28	-0.37	0.28
800.00	-0.08	-0.03	-0.09	0.28	0.45	-0.74
800.20	-0.24	-0.04	-0.07	0.19	1.15	-0.45
800.40	-0.21	0.13	-0.07	0.21	0.03	0.19
800.60	-0.22	-0.13	-0.07	0.00	-0.56	0.78
800.80	-0.23	-0.01	-0.07	0.22	-1.22	0.58
801.00	-0.27	-0.03	-0.05	0.05	1.96	-1.31
801.20	-0.24	-0.06	-0.06	0.47	-1.01	-0.30
801.40	-0.21	-0.10	-0.06	-0.10	1.35	0.36
801.60	-0.29	-0.05	-0.05	0.23	-0.26	0.18
801.80	-0.14	0.04	-0.07	0.19	-1.28	-0.03
802.00	-0.31	0.01	-0.04	0.11	0.01	-0.15
802.20	-0.20	-0.07	-0.07	0.27	-1.72	1.17
802.40	-0.25	-0.02	-0.05	0.16	-0.42	-0.38
802.60	-0.26	-0.03	-0.04	0.15	-0.18	0.50
802.80	-0.21	0.00	-0.03	0.14	0.33	-0.22
803.00	-0.27	0.05	-0.05	0.29	-0.24	-0.27
803.20	-0.26	-0.12	-0.05	0.23	-0.28	0.39
803.40	-0.18	-0.12	-0.03	0.15	0.83	-0.69
803.60	-0.20	-0.16	-0.01	0.22	0.49	-0.27
803.80	-0.12	-0.10	-0.03	0.27	0.43	-0.17
804.00	-0.35	-0.11	-0.01	0.27	0.13	-0.11
804.20	-0.32	0.04	-0.05	0.38	-0.17	-0.01
804.40	-0.27	-0.01	-0.04	0.15	0.21	0.38
804.60	-0.19	-0.10	-0.06	0.36	0.17	-0.09
804.80	-0.35	-0.07	-0.04	0.25	-0.25	0.20
805.00	-0.23	-0.07	-0.03	0.29	-0.04	0.22
805.20	-0.20	-0.01	-0.02	0.32	0.48	-0.12
805.40	-0.29	0.05	-0.03	0.19	0.46	-0.17
805.60	-0.17	-0.08	-0.03	0.25	0.80	-0.59
805.80	-0.28	-0.10	-0.06	0.31	0.31	-0.68
806.00	-0.23	-0.03	-0.03	0.42	0.52	0.16
806.20	-0.26	0.18	-0.04	0.32	-0.14	-0.38
806.40	-0.20	-0.01	-0.04	0.11	0.15	1.21
806.60	-0.17	-0.07	-0.03	0.10	-0.30	0.44
806.80	-0.20	0.01	-0.03	0.14	-0.18	0.48
807.00	-0.26	-0.11	0.00	0.37	0.22	0.02
807.20	-0.29	-0.09	-0.05	0.32	-0.06	0.26
807.40	-0.37	-0.12	-0.03	0.41	-0.01	-0.16
807.60	-0.34	-0.07	-0.01	0.36	0.28	-0.42
807.80	-0.21	-0.07	-0.05	0.33	0.97	-0.65
808.00	-0.35	0.06	-0.01	0.40	0.81	-0.39
808.20	-0.13	-0.09	-0.02	0.35	0.23	0.32
808.40	-0.33	-0.10	-0.03	0.47	-0.28	-0.22
808.60	-0.30	-0.02	-0.01	0.40	0.09	-0.08
808.80	-0.31	0.01	-0.03	0.60	-0.13	-0.46

809.00	-0.33	0.06	-0.03	0.28	0.57	-0.60
809.20	-0.23	0.07	-0.02	0.40	-0.17	0.04
809.40	-0.20	-0.11	-0.04	0.40	-0.43	0.23
809.60	-0.33	-0.01	-0.02	0.37	0.16	-0.22
809.80	-0.25	-0.17	-0.02	0.39	0.04	-0.24
810.00	-0.35	-0.13	-0.01	0.36	0.31	0.34
810.20	-0.16	-0.03	-0.05	0.42	-0.05	-0.24
810.40	-0.34	-0.02	-0.01	0.39	-0.34	0.32
810.60	-0.36	-0.02	-0.03	0.56	1.15	0.49
810.80	-0.35	-0.03	0.00	0.34	-1.00	-0.61
811.00	-0.35	0.03	-0.02	0.47	-0.59	0.06
811.20	-0.35	0.03	-0.01	0.37	0.30	-0.04
811.40	-0.31	0.04	-0.01	0.47	0.00	0.01
811.60	-0.27	0.02	-0.01	0.48	-0.19	-0.13
811.80	-0.33	0.04	0.01	0.43	0.44	-0.42
812.00	-0.32	-0.03	-0.03	0.49	-0.22	-0.18
812.20	-0.28	-0.06	-0.02	0.31	0.72	0.12
812.40	-0.39	0.09	-0.02	0.43	-0.05	0.00
812.60	-0.31	0.10	0.00	0.38	0.37	0.02
812.80	-0.30	-0.04	0.00	0.42	0.05	-0.09
813.00	-0.29	-0.04	0.00	0.49	-0.27	-0.20
813.20	-0.29	-0.12	-0.01	0.56	0.37	-0.32
813.40	-0.25	-0.04	-0.01	0.54	0.05	-0.25
813.60	-0.40	0.07	-0.02	0.51	-0.07	-0.05
813.80	-0.44	0.01	0.00	0.53	0.37	0.42
814.00	-0.26	-0.14	-0.04	0.37	-0.31	-0.12
814.20	-0.35	-0.06	-0.01	0.32	-0.13	0.34
814.40	-0.36	0.08	-0.03	0.29	-0.02	-0.13
814.60	-0.36	-0.01	-0.02	0.41	-0.24	0.27
814.80	-0.35	-0.01	-0.03	0.51	-0.53	-0.07
815.00	-0.27	-0.03	-0.01	0.42	0.02	0.20
815.20	-0.50	-0.04	0.00	0.46	-0.28	-0.14
815.40	-0.39	-0.12	-0.04	0.26	0.02	-0.10
815.60	-0.59	-0.12	-0.02	0.51	-0.64	0.37
815.80	-0.43	-0.01	-0.03	0.49	-0.41	0.32
816.00	-0.37	-0.14	-0.03	0.42	0.32	-0.44
816.20	-0.52	-0.05	-0.02	0.48	-0.11	0.09
816.40	-0.35	-0.06	-0.05	0.49	-0.23	0.06
816.60	-0.53	-0.06	0.00	0.51	0.37	-0.23
816.80	-0.52	-0.07	-0.03	0.37	0.08	0.00
817.00	-0.51	-0.03	-0.02	0.42	0.20	-0.18
817.20	-0.47	-0.01	-0.05	0.35	0.23	-0.18
817.40	-0.48	-0.06	-0.04	0.31	-0.09	0.54
817.60	-0.44	0.05	-0.04	0.47	0.14	-0.29
817.80	-0.48	-0.26	-0.04	0.55	0.36	-0.63
818.00	-0.41	-0.17	-0.01	0.29	-0.24	0.12
818.20	-0.53	0.03	-0.03	0.32	-0.04	0.33
818.40	-0.57	0.13	-0.02	0.38	-0.18	0.17
818.60	-0.44	-0.01	-0.04	0.33	-0.19	0.32
818.80	-0.53	-0.02	-0.05	0.35	0.35	0.26

819.00	-0.56	-0.09	-0.03	0.36	-0.22	0.12
819.20	-0.65	0.10	-0.04	0.35	0.22	-0.18
819.40	-0.44	-0.08	-0.04	0.43	-0.14	0.17
819.60	-0.42	0.06	-0.04	0.30	-0.38	0.15
819.80	-0.53	-0.09	-0.04	0.40	-0.13	0.20
820.00	-0.43	0.01	-0.03	0.28	0.05	0.25
820.20	-0.42	0.06	-0.03	0.44	-0.21	-0.25
820.40	-0.62	0.03	-0.04	0.39	0.23	-0.05
820.60	-0.55	-0.14	-0.05	0.39	0.02	-0.07
820.80	-0.56	0.04	-0.05	0.45	0.03	-0.12
821.00	-0.44	-0.08	-0.04	0.36	0.38	-0.41
821.20	-0.59	-0.06	-0.05	0.32	0.14	-0.24
821.40	-0.53	-0.05	-0.07	0.45	0.33	-0.36
821.60	-0.65	-0.02	-0.02	0.46	0.14	-0.31
821.80	-0.70	-0.06	-0.02	0.42	0.10	0.03
822.00	-0.68	0.12	-0.04	0.37	0.05	-0.34
822.20	-0.59	-0.11	-0.05	0.41	-0.09	0.06
822.40	-0.57	-0.05	-0.05	0.44	-0.70	-0.11
822.60	-0.57	-0.08	-0.04	0.33	0.13	-0.01
822.80	-0.57	0.02	-0.04	0.45	0.15	-0.01
823.00	-0.62	-0.05	-0.04	0.39	-0.20	-0.07
823.20	-0.56	-0.02	-0.06	0.20	-0.16	0.47
823.40	-0.51	0.01	-0.05	0.49	-0.16	-0.24
823.60	-0.55	-0.07	-0.05	0.43	-0.04	-0.10
823.80	-0.64	-0.07	-0.02	0.39	-0.03	-0.08
824.00	-0.61	0.03	-0.03	0.48	-0.20	-0.34
824.20	-0.65	0.02	-0.05	0.41	0.19	-0.06
824.40	-0.58	0.05	-0.05	0.47	-0.03	-0.61
824.60	-0.61	0.07	-0.04	0.41	0.34	-0.18
824.80	-0.49	-0.06	-0.05	0.35	0.00	0.28
825.00	-0.59	0.00	-0.05	0.38	0.25	0.06
825.20	-0.43	-0.02	-0.07	0.44	-0.43	-0.46
825.40	-0.48	-0.15	-0.03	0.43	0.22	0.34
825.60	-0.48	-0.12	-0.05	0.48	-0.16	-0.21
825.80	-0.53	-0.01	-0.03	0.48	0.14	-0.13
826.00	-0.55	0.05	-0.03	0.41	-0.01	0.09
826.20	-0.60	-0.13	-0.03	0.46	0.04	0.04
826.40	-0.54	-0.08	-0.03	0.26	-1.24	-0.75
826.60	-0.60	-0.06	-0.01	0.47	-0.07	-0.11
826.80	-0.45	-0.06	-0.03	0.33	-1.16	-0.64
827.00	-0.48	0.05	-0.04	0.43	0.40	-0.26
827.20	-0.57	0.02	-0.03	0.56	0.07	-0.10
827.40	-0.61	0.11	0.00	0.52	-0.24	0.05
827.60	-0.64	0.01	-0.02	0.40	0.24	0.02
827.80	-0.62	-0.11	-0.02	0.55	-0.73	-0.41
828.00	-0.46	-0.23	-0.05	0.50	0.03	0.02
828.20	-0.57	0.04	-0.02	0.42	-0.14	-0.36
828.40	-0.62	0.00	-0.01	0.57	0.07	-0.10
828.60	-0.47	-0.05	-0.02	0.45	-0.22	0.04
828.80	-0.55	-0.05	0.00	0.49	-0.19	-0.13

829.00	-0.55	0.01	-0.03	0.61	0.07	-0.29
829.20	-0.65	0.02	0.00	0.42	0.18	0.34
829.40	-0.54	-0.13	-0.03	0.49	0.38	0.00
829.60	-0.59	-0.03	0.00	0.66	-0.24	0.31
829.80	-0.54	-0.02	-0.02	0.58	0.23	-0.18
830.00	-0.52	-0.01	-0.01	0.41	-0.01	0.45
830.20	-0.62	-0.02	-0.02	0.53	-0.72	0.51
830.40	-0.56	-0.09	-0.02	0.61	0.22	-0.22
830.60	-0.51	0.01	0.01	0.59	-0.38	0.00
830.80	-0.62	0.05	-0.02	0.69	0.45	-0.28
831.00	-0.51	-0.10	-0.02	0.56	-0.18	0.15
831.20	-0.73	0.00	-0.01	0.67	-0.43	-0.16
831.40	-0.59	-0.02	0.00	0.64	-0.31	0.11
831.60	-0.55	-0.05	-0.02	0.63	0.10	-0.05
831.80	-0.59	-0.06	-0.02	0.66	0.39	0.08
832.00	-0.61	-0.10	-0.04	0.66	-0.31	-0.11
832.20	-0.59	-0.07	0.00	0.71	0.05	-0.27
832.40	-0.65	-0.01	-0.02	0.90	-0.36	-0.23
832.60	-0.56	-0.02	0.00	0.49	0.11	0.19
832.80	-0.66	0.06	-0.01	0.78	-0.97	0.45
833.00	-0.72	0.14	-0.02	0.60	0.29	-0.05
833.20	-0.63	0.01	-0.01	0.70	-0.08	-0.09
833.40	-0.67	-0.04	-0.03	0.75	0.46	0.22
833.60	-0.60	0.03	0.00	0.73	-0.97	-0.23
833.80	-0.54	0.04	-0.01	0.80	-0.16	-0.10
834.00	-0.56	-0.17	-0.02	0.78	-0.16	0.25
834.20	-0.64	-0.02	-0.02	0.72	-0.16	0.29
834.40	-0.61	-0.04	0.00	0.77	-0.18	-0.11
834.60	-0.57	-0.09	0.01	0.82	0.47	-0.32
834.80	-0.60	-0.08	-0.03	0.64	0.15	-0.14
835.00	-0.63	0.05	-0.02	0.73	-0.19	0.02
835.20	-0.66	0.05	-0.02	0.63	0.53	0.59
835.40	-0.57	0.00	-0.01	0.69	0.42	-0.28
835.60	-0.70	-0.12	-0.03	0.70	0.32	-0.89
835.80	-0.61	0.02	0.01	0.64	0.07	0.06
836.00	-0.68	-0.05	0.02	0.69	0.01	0.22
836.20	-0.76	-0.11	-0.01	0.69	-0.16	0.21
836.40	-0.68	0.03	0.01	0.69	-0.21	-0.01
836.60	-0.79	-0.04	-0.01	0.75	-0.10	0.10
836.80	-0.82	0.16	-0.01	0.77	-0.06	0.02
837.00	-0.76	-0.04	-0.02	0.75	0.06	0.00
837.20	-0.79	-0.07	-0.01	0.68	0.24	-0.09
837.40	-0.70	-0.12	0.00	0.72	-0.06	0.01
837.60	-0.76	-0.10	0.01	0.69	0.04	-0.06
837.80	-0.66	-0.03	0.00	0.70	-0.35	0.02
838.00	-0.69	-0.02	-0.02	0.70	0.01	0.10
838.20	-0.86	-0.05	0.00	0.87	-0.23	-0.47
838.40	-0.71	-0.12	-0.01	0.77	0.43	-0.41
838.60	-0.72	-0.02	-0.03	0.75	0.26	0.03
838.80	-0.76	-0.01	-0.02	0.73	0.43	-0.79

839.00	-0.81	-0.02	-0.01	0.75	-0.47	0.32
839.20	-0.77	-0.08	-0.02	0.78	0.56	-0.07
839.40	-0.77	0.04	-0.01	0.77	-0.02	-0.01
839.60	-0.82	0.02	-0.03	0.77	-0.02	-0.20
839.80	-0.70	-0.05	-0.04	0.75	0.26	-0.19
840.00	-0.81	0.02	-0.02	0.79	0.29	-0.38
840.20	-0.67	0.01	-0.02	0.75	0.14	-0.26
840.40	-0.68	-0.03	-0.03	0.70	0.06	-0.02
840.60	-0.80	-0.07	-0.03	0.60	-0.70	0.18
840.80	-0.79	-0.02	-0.02	0.58	-0.95	-0.71
841.00	-0.83	0.14	-0.03	0.81	-0.22	0.25
841.20	-0.77	0.01	-0.03	0.84	-0.33	-0.02
841.40	-0.88	-0.07	-0.03	0.51	-1.42	-1.77
841.60	-0.84	0.02	-0.03	0.55	0.64	0.35
841.80	-1.00	0.04	-0.05	0.74	0.64	-0.89
842.00	-0.77	0.02	-0.02	0.89	-0.36	-0.52
842.20	-0.80	0.00	-0.02	0.88	0.23	-0.66
842.40	-0.86	0.03	-0.03	0.77	1.34	-0.60
842.60	-0.77	-0.02	-0.04	0.82	0.04	-0.32
842.80	-0.98	-0.03	-0.02	0.83	-0.71	-0.64
843.00	-0.84	-0.10	-0.03	0.81	0.55	-0.58
843.20	-0.88	-0.13	-0.02	0.78	-0.09	0.04
843.40	-0.86	0.05	-0.03	0.72	0.00	-0.23
843.60	-0.76	-0.09	-0.04	0.65	0.12	-0.35
843.80	-0.89	-0.06	-0.02	0.61	-0.74	1.15
844.00	-0.81	-0.08	-0.02	0.63	1.73	-0.85
844.20	-0.90	0.08	-0.02	0.71	0.47	-0.58
844.40	-0.87	-0.08	-0.04	0.86	-1.05	-1.30
844.60	-0.98	0.07	-0.02	0.70	1.38	-1.32
844.80	-0.85	-0.04	-0.03	0.70	0.67	0.37
845.00	-0.91	-0.09	-0.04	0.88	-0.11	-0.20
845.20	-0.97	-0.04	-0.04	0.76	0.86	-0.69
845.40	-0.79	-0.04	-0.01	0.73	0.41	0.01
845.60	-0.98	-0.11	-0.01	0.84	-0.50	-0.04
845.80	-0.85	-0.06	-0.04	0.78	0.24	0.03
846.00	-0.89	-0.06	-0.05	0.69	-0.46	0.07
846.20	-0.81	0.06	-0.02	0.67	2.33	-1.97
846.40	-0.83	-0.01	-0.04	0.70	0.74	-0.57
846.60	-0.87	-0.06	-0.04	0.85	0.22	-0.54
846.80	-0.81	-0.01	-0.04	0.78	0.50	-0.12
847.00	-0.78	-0.04	0.00	0.73	-0.03	0.13
847.20	-0.92	-0.15	-0.02	0.66	-0.12	0.16
847.40	-0.81	-0.03	-0.03	0.64	-0.30	-0.35
847.60	-0.84	0.02	-0.03	0.51	-0.43	0.32
847.80	-0.79	-0.04	-0.03	0.83	-2.69	0.23
848.00	-0.85	-0.12	-0.03	0.65	0.22	0.22
848.20	-0.84	-0.04	-0.02	0.90	0.13	-0.55
848.40	-0.84	-0.04	-0.03	0.84	-0.17	-0.28
848.60	-0.82	-0.05	-0.02	0.85	0.50	0.31
848.80	-0.80	-0.08	-0.03	0.68	0.27	-0.46

849.00	-0.83	-0.14	0.00	0.57	0.37	1.33
849.20	-0.83	-0.10	-0.02	0.74	-0.69	-0.01
849.40	-0.80	-0.11	-0.01	0.75	0.01	-0.01
849.60	-0.93	-0.13	-0.06	0.89	-0.06	-0.24
849.80	-0.89	0.05	-0.03	0.82	-0.37	0.14
850.00	-0.82	-0.03	-0.03	0.77	0.10	0.20
850.20	-0.90	-0.17	-0.02	0.84	-0.08	0.04
850.40	-0.88	-0.10	-0.01	0.84	-0.08	0.15
850.60	-0.86	-0.02	-0.03	0.85	0.18	0.11
850.80	-0.79	-0.02	-0.04	0.83	0.26	0.12
851.00	-0.81	-0.01	-0.02	0.89	0.07	-0.08
851.20	-0.86	0.02	-0.02	0.75	0.36	0.00
851.40	-0.87	-0.02	-0.03	0.79	-0.40	0.09
851.60	-0.84	-0.02	-0.05	0.87	-0.50	-0.02
851.80	-0.80	-0.03	-0.01	0.82	-0.04	0.16
852.00	-0.72	-0.01	-0.03	0.95	0.15	-0.44
852.20	-0.76	-0.03	-0.01	0.75	-0.19	0.07
852.40	-0.78	-0.03	-0.02	0.85	0.30	-0.18
852.60	-0.78	-0.11	-0.02	0.84	0.44	-0.03
852.80	-0.75	-0.01	-0.03	0.60	2.33	-0.26
853.00	-0.86	0.04	-0.03	0.80	-0.23	-1.01
853.20	-0.75	0.08	-0.01	0.56	0.59	1.51
853.40	-0.78	-0.10	-0.02	0.70	-0.11	0.41
853.60	-0.66	-0.10	-0.01	0.46	0.88	0.53
853.80	-0.73	-0.06	-0.02	0.85	-0.28	-0.40
854.00	-0.76	-0.06	0.01	0.76	-1.54	-0.26
854.20	-0.75	0.05	0.00	0.77	-1.15	-1.06
854.40	-0.79	0.03	-0.01	0.74	0.01	0.54
854.60	-0.78	0.00	0.00	1.19	-0.66	-1.35
854.80	-0.70	-0.04	-0.02	1.24	-0.01	-0.90
855.00	-0.80	-0.13	-0.02	0.86	0.07	0.20
855.20	-0.75	-0.16	-0.02	0.82	-0.04	-0.12
855.40	-0.77	0.04	-0.05	1.13	0.06	-1.16
855.60	-0.83	0.02	-0.03	0.89	0.75	-0.40
855.80	-0.81	-0.06	-0.03	1.02	-0.44	-0.25
856.00	-0.72	-0.08	-0.03	0.86	-0.54	-0.14
856.20	-0.69	-0.06	-0.02	0.94	1.36	-0.96
856.40	-0.88	-0.16	-0.02	0.76	2.37	-1.57
856.60	-0.71	-0.07	-0.04	0.91	-0.22	-0.48
856.80	-0.79	-0.02	-0.02	0.80	0.15	-0.22
857.00	-0.83	-0.01	-0.02	0.70	-0.53	0.24
857.20	-0.91	-0.09	-0.02	0.82	0.89	0.38
857.40	-0.71	-0.02	-0.01	0.80	0.63	-1.20
857.60	-0.84	-0.08	0.00	0.94	-0.17	-0.07
857.80	-0.77	-0.06	-0.03	0.89	-0.17	0.19
858.00	-0.95	0.04	-0.01	0.89	-0.06	0.11
858.20	-0.92	-0.02	-0.02	0.91	0.01	-0.01
858.40	-0.69	-0.07	0.00	0.90	-0.16	-0.25
858.60	-0.70	0.06	-0.03	0.73	-0.10	0.39
858.80	-0.81	-0.02	0.00	0.91	-0.34	0.24

859.00	-0.80	-0.16	-0.03	0.83	-0.32	-0.09
859.20	-0.88	-0.02	0.01	0.84	-0.25	-0.01
859.40	-0.77	-0.05	-0.02	0.80	0.74	-0.24
859.60	-0.77	-0.03	-0.01	0.75	0.35	-0.72
859.80	-0.76	0.05	-0.02	0.87	-1.43	-0.93
860.00	-0.72	-0.04	-0.01	0.73	-0.80	0.05
860.20	-0.75	0.02	0.00	0.88	0.35	0.01
860.40	-0.74	0.00	-0.01	0.78	-0.65	-0.44
860.60	-0.86	0.07	0.01	0.70	-1.33	-0.46
860.80	-0.75	-0.03	-0.02	0.77	0.29	-0.10
861.00	-0.76	-0.07	-0.01	0.75	-0.31	0.16
861.20	-0.80	0.03	0.00	0.83	0.27	-0.34
861.40	-0.87	0.06	0.01	0.74	1.40	-0.89
861.60	-0.75	-0.02	0.01	0.76	0.00	-0.39
861.80	-0.87	-0.05	-0.01	0.67	0.35	0.36
862.00	-0.87	-0.08	0.01	0.63	1.20	-0.12
862.20	-0.89	0.03	-0.01	0.69	0.00	0.67
862.40	-0.82	-0.09	0.01	0.69	0.02	-0.49
862.60	-0.79	-0.01	0.02	0.23	-1.56	0.07
862.80	-0.79	-0.09	0.00	0.81	0.19	-0.25
863.00	-0.82	0.03	0.02	0.39	-0.23	0.65
863.20	-0.83	0.07	0.02	1.12	-1.38	-2.12
863.40	-0.80	-0.04	0.01	0.53	-0.95	2.25
863.60	-0.88	0.06	0.01	0.74	1.08	0.58
863.80	-0.71	-0.04	-0.01	0.68	-0.61	0.12
864.00	-0.76	-0.01	-0.02	0.61	0.35	-0.11
864.20	-0.84	-0.17	0.00	0.62	0.79	-0.24
864.40	-0.75	-0.10	0.00	0.14	1.65	1.07
864.60	-0.78	0.03	0.00	0.66	-0.72	-0.02
864.80	-0.85	0.02	0.01	0.00	1.72	2.36
865.00	-0.61	-0.24	0.00	0.78	1.94	1.81
865.20	-0.80	-0.01	0.00	0.47	1.01	-1.07
865.40	-0.79	-0.05	-0.01	0.72	0.95	0.40
865.60	-0.75	-0.02	0.01	0.65	-0.08	-0.04
865.80	-0.76	-0.07	0.01	0.54	0.10	1.04
866.00	-0.68	0.01	0.02	0.54	-0.11	-0.12
866.20	-0.67	-0.04	0.00	0.58	-0.30	0.17
866.40	-0.64	0.03	-0.02	0.24	-0.44	1.66
866.60	-0.63	-0.04	-0.02	0.72	0.05	-1.13
866.80	-0.54	-0.16	-0.02	0.77	-0.38	-0.67
867.00	-0.56	0.01	-0.02	0.72	-1.11	-1.08
867.20	-0.60	-0.02	0.00	0.28	-1.21	1.36
867.40	-0.69	0.04	-0.02	0.11	-0.07	1.59
867.60	-0.65	-0.03	-0.02	0.53	-0.78	0.38
867.80	-0.61	0.04	-0.02	0.41	0.38	-0.37
868.00	-0.62	-0.06	-0.01	0.68	0.04	-1.10
868.20	-0.62	0.04	0.01	0.57	0.33	-0.36
868.40	-0.68	0.02	0.00	0.64	0.66	-0.28
868.60	-0.59	-0.11	0.00	0.44	0.23	0.20
868.80	-0.56	-0.09	0.00	0.49	-0.17	-0.51

869.00	-0.67	0.00	0.01	0.44	0.13	-0.23
869.20	-0.54	0.03	0.00	0.56	0.01	-0.22
869.40	-0.48	-0.07	-0.02	0.52	-0.46	0.00
869.60	-0.52	-0.04	0.01	0.38	0.26	0.33
869.80	-0.50	-0.11	-0.02	0.49	-0.05	0.08
870.00	-0.47	-0.05	-0.02	0.43	0.07	0.21
870.20	-0.47	-0.10	-0.02	0.51	0.19	-0.36
870.40	-0.47	-0.07	0.00	0.48	0.61	0.07
870.60	-0.50	-0.02	-0.01	0.42	-0.11	0.37
870.80	-0.47	-0.02	0.00	0.39	-0.36	0.10
871.00	-0.43	0.00	0.00	0.48	-0.86	-0.78
871.20	-0.51	0.01	0.00	0.33	0.63	-0.69
871.40	-0.42	-0.10	-0.01	0.42	1.06	-1.32
871.60	-0.36	-0.09	-0.03	0.75	0.02	-0.98
871.80	-0.42	-0.03	-0.01	0.18	-0.42	0.78
872.00	-0.31	-0.05	-0.01	0.37	0.40	0.47
872.20	-0.38	-0.04	-0.04	0.32	0.29	0.45
872.40	-0.30	0.03	-0.03	0.42	-0.22	-0.18
872.60	-0.39	-0.04	-0.02	0.33	0.49	-0.36
872.80	-0.30	-0.12	-0.02	0.27	0.75	-0.41
873.00	-0.34	-0.02	-0.02	0.36	-1.82	0.85
873.20	-0.37	-0.12	-0.02	0.33	2.57	-1.67
873.40	-0.24	0.00	-0.03	0.07	0.82	-0.05
873.60	-0.25	-0.03	-0.03	0.02	-0.67	1.50
873.80	-0.26	-0.03	-0.02	0.35	0.06	0.12
874.00	-0.27	0.00	-0.04	0.36	0.29	-0.15
874.20	-0.30	0.00	-0.02	0.35	0.28	-0.60
874.40	-0.35	0.04	-0.01	0.34	0.32	-0.42
874.60	-0.28	0.01	-0.02	0.24	0.37	0.06
874.80	-0.17	-0.09	-0.05	0.34	1.02	-0.54
875.00	-0.14	0.14	-0.04	0.37	-0.03	-0.02
875.20	-0.09	-0.13	-0.03	0.33	0.04	0.14
875.40	-0.26	0.07	-0.04	0.33	0.30	-0.37
875.60	-0.27	-0.11	-0.03	0.35	-0.14	0.18
875.80	-0.15	-0.05	-0.02	0.42	-0.18	-0.91
876.00	-0.20	0.00	-0.05	0.12	-0.26	0.44
876.20	-0.18	-0.10	-0.02	0.31	-0.18	-0.04
876.40	-0.16	0.00	-0.05	0.25	-0.07	0.30
876.60	-0.20	-0.08	-0.06	0.33	0.14	0.06
876.80	-0.14	-0.08	-0.04	0.17	-0.29	0.29
877.00	-0.18	0.06	-0.03	0.14	-0.87	0.41
877.20	-0.20	-0.05	-0.04	0.17	0.23	-0.03
877.40	-0.24	0.05	-0.05	0.30	-0.05	-0.16
877.60	-0.21	0.03	-0.04	0.14	0.05	-0.23
877.80	-0.28	0.08	-0.03	0.22	0.09	-0.04
878.00	-0.14	-0.03	-0.06	0.14	-0.02	0.13
878.20	-0.07	-0.05	-0.06	0.17	0.14	-0.02
878.40	-0.16	-0.06	-0.05	0.16	-0.33	0.13
878.60	-0.20	0.06	-0.06	0.04	0.00	0.46
878.80	-0.18	-0.01	-0.07	0.08	-0.13	0.10

879.00	-0.08	-0.10	-0.05	0.06	-0.24	-0.19
879.20	-0.11	0.06	-0.04	0.14	0.12	-0.20
879.40	-0.14	0.01	-0.06	0.08	-0.23	0.30
879.60	-0.02	-0.12	-0.06	0.17	-0.24	-0.46
879.80	-0.16	-0.09	-0.06	0.16	0.39	-0.25
880.00	-0.05	-0.06	-0.07	-0.04	-0.63	-0.04
880.20	-0.19	0.16	-0.05	-0.02	0.17	0.52
880.40	-0.07	0.00	-0.07	0.02	-0.06	0.26
880.60	-0.05	-0.02	-0.08	0.15	0.06	-0.24
880.80	-0.07	-0.07	-0.07	0.01	-0.07	0.25
881.00	-0.09	-0.09	-0.08	0.03	0.03	0.24
881.20	-0.02	-0.01	-0.09	0.03	0.25	0.16
881.40	-0.11	-0.05	-0.07	-0.06	-0.14	0.31
881.60	-0.01	0.03	-0.06	-0.09	-0.41	0.47
881.80	-0.13	0.07	-0.08	-0.08	-0.25	0.45
882.00	-0.09	-0.02	-0.07	-0.01	0.06	0.20
882.20	-0.14	0.05	-0.08	-0.05	-0.26	0.24
882.40	-0.09	-0.09	-0.07	-0.13	-0.01	0.21
882.60	-0.10	-0.04	-0.09	-0.02	-0.15	0.19
882.80	-0.10	0.00	-0.08	0.01	-0.21	-0.29
883.00	-0.07	-0.05	-0.10	-0.11	-0.12	0.48
883.20	-0.06	0.04	-0.10	0.06	-0.34	-0.45
883.40	-0.05	-0.04	-0.09	-0.07	0.11	0.12
883.60	-0.18	0.02	-0.07	-0.15	0.26	0.20
883.80	-0.01	-0.03	-0.09	-0.12	-0.15	0.09
884.00	-0.14	0.02	-0.08	-0.08	-0.06	-0.04
884.20	-0.07	0.02	-0.10	-0.13	-0.16	-0.02
884.40	0.02	-0.03	-0.07	-0.16	0.05	-0.06
884.60	-0.11	-0.03	-0.09	-0.12	-0.01	0.07
884.80	-0.02	-0.05	-0.09	-0.37	-0.18	0.88
885.00	0.04	-0.02	-0.08	-0.62	0.21	1.30
885.20	-0.16	-0.14	-0.07	-0.20	-0.43	0.37
885.40	-0.01	0.09	-0.06	-0.17	-0.18	0.21
885.60	-0.04	-0.16	-0.09	-0.28	-0.43	0.52
885.80	-0.07	-0.14	-0.06	-0.06	-0.28	-0.14
886.00	-0.05	-0.03	-0.08	-0.49	-0.11	0.85
886.20	0.04	-0.03	-0.07	-0.12	-0.39	-0.05
886.40	-0.08	-0.03	-0.09	-0.09	3.85	1.30
886.60	-0.15	0.11	-0.06	-0.21	0.92	0.19
886.80	0.03	-0.06	-0.10	-0.70	1.20	0.48
887.00	0.01	0.06	-0.07	-0.19	2.48	0.64
887.20	-0.08	0.02	-0.09	-0.20	0.97	0.19
887.40	-0.13	0.00	-0.09	-0.15	-2.03	0.22
887.60	0.01	-0.07	-0.10	-0.10	-0.75	0.74
887.80	0.00	0.02	-0.09	0.18	-0.23	-1.17
888.00	-0.11	0.04	-0.06	-0.51	0.00	0.68
888.20	-0.05	0.02	-0.07	-0.38	0.65	0.44
888.40	-0.04	-0.09	-0.07	0.32	1.67	-3.36
888.60	-0.06	0.05	-0.07	-0.19	-3.15	1.93
888.80	-0.02	-0.06	-0.06	0.16	0.87	-1.57

889.00	-0.05	0.08	-0.06	-0.39	-0.22	1.22
889.20	-0.01	-0.08	-0.08	-0.22	0.58	0.35
889.40	-0.05	0.06	-0.05	-0.51	-0.16	1.36
889.60	-0.08	-0.03	-0.07	0.05	-1.55	-0.72
889.80	-0.10	-0.10	-0.08	0.71	-0.18	-2.38
890.00	-0.20	0.04	-0.07	-0.91	0.86	0.89
890.20	0.02	0.11	-0.08	0.12	-2.41	-0.28
890.40	-0.11	0.08	-0.06	-0.21	-1.32	0.54
890.60	0.02	0.00	-0.07	-0.21	0.04	0.36
890.80	0.00	0.00	-0.08	-0.03	-0.06	-0.01
891.00	-0.09	0.13	-0.05	-0.40	-0.16	0.64
891.20	-0.13	-0.01	-0.07	-0.26	0.95	-0.02
891.40	-0.10	-0.05	-0.06	-0.24	-1.29	-0.88
891.60	0.03	-0.05	-0.09	-0.30	-0.42	-0.10
891.80	-0.08	0.02	-0.05	-0.25	-0.65	0.38
892.00	-0.09	0.04	-0.05	-0.36	0.57	0.33
892.20	-0.10	-0.01	-0.06	-0.07	-1.88	1.84
892.40	-0.01	0.02	-0.06	-0.20	-0.10	0.22
892.60	-0.07	0.07	-0.06	-0.16	-0.35	0.32
892.80	0.00	-0.01	-0.06	-0.11	1.55	-0.17
893.00	0.14	0.01	-0.06	-0.08	-1.23	0.48
893.20	0.03	0.03	-0.04	-0.28	0.66	-0.28
893.40	-0.08	0.10	-0.01	-0.33	0.58	-0.14
893.60	0.13	-0.10	-0.05	-0.21	-0.70	0.16
893.80	0.02	0.06	-0.03	-0.15	0.09	0.07
894.00	-0.06	-0.04	-0.05	-0.24	-0.41	0.17
894.20	0.11	-0.01	-0.06	-0.06	0.39	-0.35
894.40	0.11	0.06	-0.04	-0.20	-0.12	-0.21
894.60	0.05	0.02	-0.03	-0.13	0.19	-0.48
894.80	0.10	-0.04	-0.04	-0.06	0.63	-0.46
895.00	0.14	0.06	-0.04	-0.11	1.99	0.81
895.20	0.10	0.00	-0.04	0.08	-0.37	-1.20
895.40	0.11	0.07	-0.02	0.27	0.17	-2.15
895.60	0.04	0.11	-0.02	-0.30	0.11	0.32
895.80	-0.06	-0.03	0.01	-0.14	-0.42	-0.20
896.00	0.07	-0.05	-0.01	-0.10	-0.15	-0.20
896.20	0.07	0.06	-0.01	-0.47	1.02	1.02
896.40	0.14	0.07	-0.02	-0.23	-0.55	0.84
896.60	0.10	-0.05	0.01	-0.20	0.16	-0.29
896.80	0.13	0.09	0.02	-0.08	0.07	-0.44
897.00	0.01	-0.05	0.01	-0.17	0.36	-0.35
897.20	-0.03	-0.01	-0.01	-0.22	0.12	0.18
897.40	0.18	-0.04	0.01	-0.16	0.04	-0.08
897.60	0.09	-0.04	0.02	-0.21	-0.14	0.08
897.80	0.01	0.08	0.00	-0.21	-0.08	0.12
898.00	0.11	0.00	0.01	-0.12	0.02	-0.19
898.20	-0.06	0.00	0.01	-0.23	-0.22	0.09
898.40	0.07	-0.04	0.00	-0.30	0.01	0.42
898.60	0.02	0.05	0.02	-0.25	-0.29	0.28
898.80	0.03	0.14	-0.01	-0.25	-0.08	0.19

899.00	0.05	0.22	0.01	-0.15	0.22	-0.04
899.20	0.19	0.05	-0.02	0.07	-1.35	-0.07
899.40	0.03	0.05	0.00	-0.39	-0.55	1.13
899.60	0.14	-0.05	0.01	-0.21	0.25	0.39
899.80	0.11	-0.05	0.00	0.10	0.22	-1.09
900.00	0.11	-0.03	0.01	0.42	0.08	-1.93
900.20	0.13	0.03	0.01	-0.55	-0.32	1.59
900.40	0.12	0.00	0.00	-0.20	-0.79	-0.09
900.60	0.13	0.05	0.00	-0.13	0.23	-0.33
900.80	0.23	0.03	-0.01	0.49	0.41	-2.26
901.00	0.05	0.09	0.02	-0.10	-1.70	-0.34
901.20	0.00	0.13	0.01	-0.13	-0.17	0.98
901.40	0.25	0.01	0.01	-0.27	0.32	-0.62
901.60	0.19	0.12	0.00	-0.77	0.45	2.04
901.80	0.07	-0.03	0.00	-0.13	-0.01	0.18
902.00	0.08	0.14	-0.04	-0.60	1.60	-0.25
902.20	0.15	-0.03	-0.03	-0.49	-0.45	0.36
902.40	0.04	-0.05	-0.02	-0.20	-1.28	-1.23
902.60	0.18	0.04	-0.02	0.07	1.04	-0.45
902.80	0.12	-0.05	-0.01	-0.25	-2.79	0.23
903.00	0.15	0.04	-0.03	-0.19	1.52	0.07
903.20	0.24	0.00	-0.03	-0.26	-0.98	1.27
903.40	0.22	0.00	-0.03	-0.26	-0.29	-0.34
903.60	0.17	0.06	-0.02	-0.25	-0.03	-0.35
903.80	0.20	-0.01	-0.03	0.12	-0.99	-1.34
904.00	0.27	-0.07	-0.06	-0.41	0.07	0.45
904.20	0.13	0.02	-0.04	-0.36	-0.35	-0.29
904.40	0.15	-0.06	-0.03	-0.03	0.01	-0.34
904.60	0.21	0.15	-0.02	-0.33	1.37	0.28
904.80	0.13	-0.03	-0.04	-0.41	1.59	-0.93
905.00	0.19	-0.01	-0.05	-0.44	-0.04	-0.17
905.20	0.16	0.06	-0.05	-0.22	0.61	-1.07
905.40	0.28	-0.04	-0.05	-0.35	-1.60	-0.30
905.60	0.22	-0.01	-0.06	-0.52	-0.24	1.10
905.80	0.23	0.00	-0.04	-0.12	0.67	-0.88
906.00	0.22	0.04	-0.02	-0.24	-0.18	0.49
906.20	0.19	-0.02	-0.04	-0.43	-1.11	-0.24
906.40	0.29	-0.09	-0.04	-0.36	2.52	0.19
906.60	0.32	-0.03	-0.05	-0.13	-0.45	-0.84
906.80	0.21	0.08	-0.03	-0.13	-0.02	-0.34
907.00	0.24	-0.04	-0.05	-0.46	-1.92	-0.21
907.20	0.28	-0.07	-0.05	-0.21	-1.10	0.62
907.40	0.17	0.02	-0.05	-0.14	0.11	-0.16
907.60	0.28	0.01	-0.05	-0.07	-0.39	-0.81
907.80	0.23	-0.03	-0.03	-0.29	0.09	-0.63
908.00	0.26	-0.06	-0.03	-0.32	-0.54	-0.04
908.20	0.26	0.01	-0.03	-0.40	-0.04	0.29
908.40	0.26	-0.04	-0.03	-0.34	-0.35	0.18
908.60	0.31	0.04	-0.02	-0.44	0.27	0.41
908.80	0.34	0.02	-0.05	-0.28	-0.27	-0.42

909.00	0.31	-0.07	-0.04	-0.44	0.15	0.56
909.20	0.27	-0.07	-0.02	-0.43	0.03	0.36
909.40	0.25	0.08	-0.03	-0.39	0.06	0.03
909.60	0.32	0.00	-0.06	-0.36	0.28	-0.01
909.80	0.28	0.06	-0.03	-0.36	-0.37	-0.24
910.00	0.33	-0.05	-0.04	-0.41	0.10	0.30
910.20	0.21	-0.01	-0.03	-0.38	0.12	0.18
910.40	0.26	-0.02	-0.07	-0.37	0.11	-0.29
910.60	0.28	-0.02	-0.04	-0.31	0.00	0.08
910.80	0.16	-0.02	-0.04	-0.41	-0.11	0.23
911.00	0.15	-0.02	-0.05	-0.42	-0.25	0.48
911.20	0.14	-0.02	-0.05	-0.45	0.29	0.07
911.40	0.38	0.11	-0.05	-0.45	-0.08	0.28
911.60	0.31	-0.01	-0.07	-0.35	0.52	0.27
911.80	0.24	0.06	-0.04	-0.34	0.01	0.16
912.00	0.31	-0.02	-0.05	-0.51	-0.30	-0.09
912.20	0.26	0.01	-0.05	-0.43	-0.58	0.09
912.40	0.32	0.06	-0.05	-0.45	0.34	-0.30
912.60	0.30	-0.08	-0.06	-0.43	-0.52	-0.03
912.80	0.38	-0.01	-0.03	-0.29	0.27	-0.62
913.00	0.37	0.06	-0.04	-0.50	0.46	-0.02
913.20	0.23	0.07	-0.06	-0.49	-0.71	-0.05
913.40	0.36	0.02	-0.03	-0.45	0.03	0.17
913.60	0.37	-0.08	-0.03	-0.43	-0.33	0.89
913.80	0.32	0.03	-0.04	-0.35	-0.87	0.05
914.00	0.26	-0.02	-0.02	-0.43	-0.15	0.07
914.20	0.32	-0.01	-0.03	-0.47	0.64	-0.63
914.40	0.34	-0.04	-0.04	-0.35	-0.36	0.25
914.60	0.26	0.04	-0.02	-0.38	0.76	0.34
914.80	0.24	-0.06	-0.04	-0.43	-0.16	-0.14
915.00	0.40	0.04	-0.03	-0.53	0.65	-0.30
915.20	0.30	0.00	-0.02	-0.52	-0.11	0.24
915.40	0.24	0.05	-0.03	-0.42	0.22	-0.16
915.60	0.34	0.11	-0.01	-0.31	-0.72	0.07
915.80	0.36	-0.08	-0.03	-0.52	-0.44	0.57
916.00	0.28	0.05	-0.02	-0.79	-0.18	1.31
916.20	0.30	0.00	0.00	-0.02	-2.81	1.38
916.40	0.28	-0.07	-0.02	-0.26	0.56	0.15
916.60	0.26	0.00	-0.01	-0.25	0.50	0.72
916.80	0.37	0.03	0.00	-0.38	-1.88	-0.52
917.00	0.45	-0.03	0.00	-0.33	-0.34	0.34
917.20	0.42	0.06	0.01	-0.42	0.32	-0.09
917.40	0.42	0.13	0.00	-0.33	-0.17	-0.31
917.60	0.32	0.13	0.00	-0.40	-0.20	-0.06
917.80	0.32	-0.12	-0.03	-0.47	-0.35	0.07
918.00	0.34	-0.08	-0.02	-0.52	0.28	0.42
918.20	0.31	-0.01	0.02	-0.49	-1.05	-0.88
918.40	0.25	-0.03	0.00	-0.37	0.19	-0.15
918.60	0.41	-0.06	0.00	-0.45	-3.22	-0.55
918.80	0.28	-0.03	-0.02	-0.51	-1.69	-0.18

919.00	0.28	0.01	-0.01	-0.44	0.11	-0.39
919.20	0.42	-0.09	-0.01	-0.41	0.45	-0.55
919.40	0.21	0.08	-0.01	-0.43	0.18	-0.05
919.60	0.28	-0.03	-0.03	-0.41	0.40	0.29
919.80	0.32	0.03	-0.02	-0.48	0.81	0.10
920.00	0.36	-0.10	-0.01	-0.39	1.00	-0.28
920.20	0.36	-0.05	0.00	-0.36	-1.00	0.71
920.40	0.43	0.05	0.01	-0.25	0.30	-0.53
920.60	0.35	0.02	-0.01	-0.69	0.68	1.45
920.80	0.40	0.03	0.00	-0.41	-1.15	0.57
921.00	0.29	0.02	0.00	-0.26	0.56	-0.85
921.20	0.34	0.05	-0.02	-0.52	0.87	-0.01
921.40	0.44	0.01	-0.03	-0.30	-0.26	-0.48
921.60	0.38	0.05	0.00	-0.43	0.33	-0.11
921.80	0.42	0.07	-0.02	-0.38	0.31	0.37
922.00	0.38	-0.20	0.00	-0.31	-0.57	0.23
922.20	0.44	-0.12	0.00	-0.38	-2.05	0.90
922.40	0.39	0.03	-0.03	-0.25	0.76	-0.35
922.60	0.34	0.06	0.00	-0.38	-0.86	-0.88
922.80	0.39	0.00	0.00	-0.36	0.60	-0.60
923.00	0.42	0.05	0.00	-0.49	-0.11	0.55
923.20	0.39	-0.06	0.00	-0.45	-0.11	0.43
923.40	0.49	0.00	-0.02	-0.37	0.44	0.08
923.60	0.45	0.00	-0.01	-0.34	-0.14	0.21
923.80	0.51	-0.08	-0.02	-0.52	-0.42	0.95
924.00	0.38	0.08	0.00	-0.32	0.21	-0.15
924.20	0.36	0.04	-0.03	-0.38	-0.08	-0.85
924.40	0.32	0.02	-0.02	-0.08	-0.80	-0.41
924.60	0.47	-0.08	-0.02	-0.43	1.09	-0.44
924.80	0.43	-0.09	-0.02	-0.48	-0.44	0.24
925.00	0.44	-0.05	0.01	-0.36	0.12	-0.03
925.20	0.40	0.02	0.00	-0.39	-0.04	0.14
925.40	0.42	0.03	-0.01	-0.39	-0.27	0.21
925.60	0.31	0.12	-0.02	-0.36	-0.06	0.08
925.80	0.42	-0.05	-0.01	-0.42	0.12	0.25
926.00	0.41	-0.01	0.00	-0.36	-0.11	0.20
926.20	0.45	0.04	0.00	-0.33	-0.07	0.06
926.40	0.43	-0.07	-0.01	-0.40	-0.41	0.31
926.60	0.45	-0.04	-0.01	-0.44	0.14	0.47
926.80	0.43	0.07	-0.01	-0.38	-0.29	0.25
927.00	0.43	0.01	-0.02	-0.32	0.42	0.32
927.20	0.51	0.09	-0.02	-0.46	0.54	0.81
927.40	0.46	-0.03	-0.02	-0.53	0.78	0.05
927.60	0.46	0.00	-0.01	-0.31	-0.28	0.23
927.80	0.52	0.01	-0.01	-0.46	0.13	-0.14
928.00	0.50	0.02	-0.01	-0.31	-0.35	-0.04
928.20	0.53	-0.03	-0.02	-0.44	-0.27	0.58
928.40	0.41	-0.05	-0.02	-0.46	-1.03	1.37
928.60	0.56	-0.04	-0.02	-0.32	-0.46	-0.62
928.80	0.52	0.00	-0.02	-0.38	-0.21	-0.14

929.00	0.48	-0.02	-0.03	-0.45	-0.08	0.49
929.20	0.48	0.04	-0.02	-0.55	-2.89	0.40
929.40	0.51	0.09	-0.03	-0.11	0.55	-0.53
929.60	0.51	0.09	-0.03	-0.27	-0.25	0.82
929.80	0.42	0.01	-0.02	0.02	-1.06	-1.52
930.00	0.49	0.00	-0.02	-0.53	0.32	0.57
930.20	0.43	0.13	-0.02	-0.41	-1.08	0.32
930.40	0.47	0.01	-0.03	-0.21	0.36	-0.53
930.60	0.52	-0.05	-0.02	-0.52	0.01	0.55
930.80	0.49	0.06	-0.04	-0.23	-0.29	-0.06
931.00	0.51	0.05	-0.05	-0.34	0.56	0.07
931.20	0.54	0.09	-0.02	-0.33	0.32	-0.29
931.40	0.54	0.10	-0.02	-0.35	-0.01	0.03
931.60	0.54	0.04	-0.04	-0.43	0.05	0.12
931.80	0.53	0.06	-0.02	-0.39	0.38	-0.11
932.00	0.57	-0.05	-0.02	-0.44	-0.24	0.89
932.20	0.51	0.00	-0.03	-0.33	-0.68	0.10
932.40	0.51	0.06	-0.02	-0.36	-1.01	0.64
932.60	0.53	-0.09	-0.03	-0.75	-0.80	0.69
932.80	0.58	-0.04	-0.04	-0.46	2.22	-0.64
933.00	0.50	-0.01	-0.04	-0.62	0.12	0.77
933.20	0.65	0.00	-0.06	-0.50	-0.69	-0.61
933.40	0.49	0.04	-0.02	-0.26	0.01	-0.13
933.60	0.45	0.15	-0.02	-0.41	-0.16	0.12
933.80	0.53	0.09	-0.02	-0.51	0.91	-0.22
934.00	0.61	-0.05	-0.03	-0.35	0.23	-0.47
934.20	0.65	0.08	-0.03	-0.53	-0.13	0.32
934.40	0.58	-0.03	-0.03	-0.54	0.47	0.48
934.60	0.60	0.08	-0.02	-0.41	-0.41	0.22
934.80	0.67	-0.10	-0.03	-0.55	0.91	-0.30
935.00	0.57	0.09	-0.04	-0.39	0.00	-0.19
935.20	0.62	0.10	-0.05	-0.32	0.29	-0.15
935.40	0.63	0.08	-0.02	-0.73	1.23	0.04
935.60	0.53	0.00	-0.05	-0.42	-0.71	0.07
935.80	0.58	0.12	-0.05	-0.33	0.64	-0.77
936.00	0.44	-0.02	-0.02	-0.47	0.70	-0.69
936.20	0.46	-0.06	-0.01	-0.10	0.07	-0.49
936.40	0.53	0.04	-0.02	-0.65	-0.02	0.88
936.60	0.60	0.05	-0.02	0.04	-1.03	-1.12
936.80	0.60	0.12	-0.03	-0.47	-1.24	-1.18
937.00	0.57	0.02	-0.03	-0.20	0.01	-0.58
937.20	0.53	0.01	-0.02	-0.35	-0.44	0.74
937.40	0.67	-0.01	-0.01	-0.34	-0.10	-0.44
937.60	0.47	0.18	-0.03	-0.28	-1.25	0.29
937.80	0.52	0.02	-0.01	-0.33	1.29	0.34
938.00	0.50	-0.07	-0.05	-0.35	0.00	-0.90
938.20	0.62	-0.10	-0.03	-0.32	0.20	-0.41
938.40	0.49	0.03	-0.01	-0.71	0.32	0.50
938.60	0.55	0.00	-0.03	-0.44	-0.50	0.07
938.80	0.49	0.07	-0.04	-0.54	0.38	0.39

939.00	0.49	-0.02	-0.01	-0.34	0.21	-0.45
939.20	0.59	-0.08	-0.01	-0.44	0.28	-0.11
939.40	0.57	-0.01	-0.02	-0.25	-0.18	-0.44
939.60	0.54	0.05	-0.02	-0.34	-0.07	-0.06
939.80	0.55	-0.07	-0.04	-0.67	0.53	0.76
940.00	0.56	-0.02	-0.03	-0.22	-0.18	-0.77
940.20	0.51	0.05	0.00	-0.38	0.06	0.18
940.40	0.59	0.07	-0.02	-0.48	-1.35	-0.71
940.60	0.53	0.12	-0.01	-0.53	-0.16	0.41
940.80	0.56	0.02	-0.02	-0.60	0.29	0.22
941.00	0.61	0.05	-0.01	-0.43	1.19	1.08
941.20	0.55	-0.09	-0.04	-0.54	-0.99	-0.02
941.40	0.53	0.01	-0.01	-0.33	-0.24	0.31
941.60	0.58	0.02	0.00	-0.21	0.64	0.96
941.80	0.68	-0.05	0.00	-0.55	-0.26	0.35
942.00	0.57	0.03	-0.02	-0.23	0.32	-0.21
942.20	0.56	0.13	-0.01	-0.29	0.04	0.28
942.40	0.57	-0.02	-0.01	-0.35	-0.05	0.23
942.60	0.48	0.07	-0.02	-0.43	-0.97	-0.09
942.80	0.67	0.01	-0.01	-0.50	0.00	0.32
943.00	0.57	0.04	-0.04	-0.38	0.64	0.48
943.20	0.50	0.04	-0.03	-0.24	0.12	-0.46
943.40	0.58	0.01	0.00	-0.17	2.39	1.55
943.60	0.53	0.11	0.00	-0.32	0.27	0.20
943.80	0.52	0.00	0.00	-0.43	-0.86	0.18
944.00	0.47	0.06	-0.01	-0.34	-0.27	-0.01
944.20	0.50	-0.10	-0.02	-0.35	-0.73	-0.88
944.40	0.58	-0.11	0.00	-0.44	0.18	0.02
944.60	0.61	0.07	-0.03	-0.39	-0.13	0.14
944.80	0.60	0.00	-0.02	-0.34	0.34	-0.12
945.00	0.60	0.00	0.00	-0.31	0.05	-0.01
945.20	0.60	0.09	-0.02	-0.34	0.26	-0.07
945.40	0.46	0.05	-0.02	-0.32	-0.57	0.47
945.60	0.55	0.04	0.01	-0.33	0.62	0.42
945.80	0.57	0.02	-0.01	-0.54	0.17	2.76
946.00	0.57	0.12	-0.02	-0.55	0.49	-0.38
946.20	0.44	0.06	-0.02	-0.55	-0.06	0.75
946.40	0.51	0.00	-0.02	-1.13	0.01	2.71
946.60	0.56	-0.02	-0.03	0.03	-0.01	-0.59
946.80	0.65	0.12	0.00	0.09	-0.60	-0.16
947.00	0.57	-0.02	-0.01	0.00	-0.62	-1.08
947.20	0.64	-0.01	0.00	0.03	-0.25	-0.54
947.40	0.55	0.05	-0.03	-0.23	-2.38	0.23
947.60	0.50	0.10	-0.02	-0.24	1.13	-0.40
947.80	0.63	0.03	-0.01	-0.33	0.10	-0.07
948.00	0.63	-0.07	-0.02	-0.19	-0.10	0.71
948.20	0.59	0.02	0.00	-0.35	1.94	-0.86
948.40	0.61	-0.01	-0.02	-0.32	-0.76	0.07
948.60	0.58	0.08	-0.02	-0.24	0.37	-0.21
948.80	0.63	0.11	0.00	-0.47	0.93	0.10

949.00	0.59	0.02	-0.03	-0.12	1.52	0.09
949.20	0.50	0.04	-0.01	-0.32	-2.45	0.20
949.40	0.69	-0.07	-0.03	-0.31	-0.75	0.63
949.60	0.69	0.13	-0.01	-0.13	0.08	0.02
949.80	0.69	0.10	-0.03	0.00	0.92	0.42
950.00	0.61	0.00	-0.03	-0.09	-1.38	0.70
950.20	0.68	0.05	0.00	0.27	-1.01	-1.81
950.40	0.63	-0.09	-0.01	-0.25	-1.58	-0.60
950.60	0.74	0.02	-0.03	-0.06	0.07	-0.43
950.80	0.70	0.12	-0.03	-0.04	0.02	-0.45
951.00	0.63	-0.01	-0.01	-0.37	1.00	0.57
951.20	0.66	0.03	-0.01	-0.14	1.08	-1.05
951.40	0.64	-0.02	-0.01	-0.37	-0.90	-0.89
951.60	0.60	-0.01	-0.03	-0.29	-0.69	0.16
951.80	0.60	-0.01	-0.03	-0.35	-0.14	1.05
952.00	0.62	0.00	-0.01	-0.49	-0.30	0.77
952.20	0.76	0.02	-0.02	-0.22	0.29	-0.04
952.40	0.62	0.07	0.00	-0.23	-0.09	-0.23
952.60	0.62	-0.02	-0.03	-0.32	0.49	-0.22
952.80	0.56	0.03	-0.03	-0.18	-0.07	-0.44
953.00	0.66	-0.03	-0.02	-0.24	0.00	-0.33
953.20	0.60	0.04	-0.02	-0.25	-0.05	0.11
953.40	0.60	-0.11	-0.04	-0.29	-0.54	0.55
953.60	0.56	0.00	-0.03	-0.36	0.19	-0.11
953.80	0.82	0.04	-0.03	-0.18	-0.12	-0.83
954.00	0.57	0.01	-0.03	-0.22	0.04	-0.04
954.20	0.56	0.06	-0.03	-0.14	-0.27	-0.54
954.40	0.60	0.13	-0.02	-0.20	0.01	-0.01
954.60	0.66	0.05	0.00	-0.18	0.17	-0.35
954.80	0.65	0.07	-0.03	-0.35	0.12	0.54
955.00	0.61	0.01	-0.02	-0.25	-0.11	0.18
955.20	0.65	-0.05	-0.03	-0.26	0.70	-0.53
955.40	0.64	0.12	-0.04	-0.30	-0.56	0.58
955.60	0.67	0.05	-0.03	-0.12	0.22	-0.08
955.80	0.59	0.06	-0.03	-0.24	-1.80	0.65
956.00	0.68	-0.03	-0.03	-0.21	-0.33	-0.47
956.20	0.67	0.01	-0.03	-0.38	0.65	-0.40
956.40	0.61	0.00	-0.03	-0.56	-0.22	1.09
956.60	0.59	0.10	-0.03	-0.39	0.06	0.24
956.80	0.62	-0.02	-0.05	-0.63	-0.41	0.70
957.00	0.46	0.03	-0.03	-0.21	-0.18	-0.07
957.20	0.72	0.10	-0.02	-0.32	0.01	0.29
957.40	0.56	-0.08	-0.03	-0.20	0.00	0.12
957.60	0.62	0.02	-0.02	-0.83	0.44	2.00
957.80	0.58	-0.02	-0.04	-0.30	0.94	0.25
958.00	0.61	0.05	-0.03	-0.37	0.59	-0.18
958.20	0.55	0.02	-0.03	-0.35	-0.50	0.33
958.40	0.58	-0.02	-0.03	-0.49	-0.56	1.09
958.60	0.55	0.00	-0.03	-0.35	-0.36	0.31
958.80	0.52	0.06	-0.04	-0.04	-0.59	0.11

959.00	0.64	-0.06	-0.02	-0.45	-0.33	0.03
959.20	0.55	0.05	-0.03	-0.39	0.75	0.28
959.40	0.44	0.02	-0.02	-0.42	0.16	-0.81
959.60	0.55	0.00	-0.04	-0.52	-0.41	0.32
959.80	0.56	0.06	-0.02	-0.28	0.29	-0.25
960.00	0.53	0.01	-0.06	-0.27	-0.28	-0.60
960.20	0.44	0.05	-0.05	-0.31	-0.32	-0.20
960.40	0.59	0.03	-0.02	-0.15	1.18	-0.29
960.60	0.50	0.03	-0.02	-0.26	-0.02	-0.45
960.80	0.71	-0.02	-0.01	-0.28	0.40	0.17
961.00	0.59	0.05	-0.02	-0.31	-0.55	0.40
961.20	0.53	0.00	-0.01	-0.28	0.11	0.08
961.40	0.58	0.03	-0.02	-0.28	-0.35	-0.01
961.60	0.38	-0.14	-0.02	-0.20	-0.03	-0.27
961.80	0.51	-0.04	-0.03	-0.33	0.07	-0.12
962.00	0.49	-0.06	-0.04	-0.30	0.20	-0.08
962.20	0.53	-0.07	-0.05	-0.38	0.03	0.13
962.40	0.48	0.03	-0.04	-0.29	0.15	-0.05
962.60	0.38	-0.13	-0.04	-0.40	-0.05	0.25
962.80	0.59	0.00	-0.03	-0.24	0.07	0.05
963.00	0.42	0.02	-0.03	-0.22	-0.01	0.09
963.20	0.38	-0.03	-0.05	-0.23	0.38	-0.02
963.40	0.53	-0.02	-0.03	-0.24	-0.19	0.24
963.60	0.39	-0.06	-0.03	-0.29	-0.06	-0.12
963.80	0.55	-0.07	-0.04	-0.28	0.32	0.26
964.00	0.46	-0.12	-0.03	-0.19	-0.29	-0.32
964.20	0.38	0.05	-0.02	-0.18	-0.16	0.03
964.40	0.39	-0.07	-0.02	-0.10	-1.07	0.60
964.60	0.37	0.04	-0.02	-0.29	-0.85	0.07
964.80	0.42	-0.03	-0.03	-0.29	0.98	-0.04
965.00	0.44	0.02	-0.03	-0.31	-0.22	0.19
965.20	0.39	0.11	-0.01	-0.17	0.10	-0.25
965.40	0.37	0.05	-0.01	-0.41	-0.28	0.42
965.60	0.40	0.08	-0.02	-0.22	0.38	-0.11
965.80	0.40	0.08	-0.03	-0.50	-1.14	0.31
966.00	0.35	-0.10	-0.02	-0.22	-0.70	-1.43
966.20	0.46	0.20	-0.03	-0.32	-0.35	-0.01
966.40	0.42	-0.02	-0.01	-0.26	-0.88	2.19
966.60	0.38	0.09	-0.01	0.19	3.56	-1.61
966.80	0.28	-0.03	-0.02	-0.15	1.45	0.63
967.00	0.35	-0.01	0.00	-0.29	0.19	0.47
967.20	0.38	-0.01	-0.04	-0.20	-0.07	-0.49
967.40	0.43	0.06	-0.01	-0.18	0.22	0.11
967.60	0.34	-0.06	-0.04	-0.27	-0.65	0.31
967.80	0.32	0.05	-0.02	0.51	0.26	-1.49
968.00	0.39	0.01	-0.02	-0.12	0.25	0.03
968.20	0.46	-0.02	-0.01	-0.11	-0.68	0.30
968.40	0.27	0.02	0.00	-0.17	-0.43	0.46
968.60	0.21	-0.02	0.00	-0.18	0.49	0.08
968.80	0.38	0.15	-0.01	-0.22	0.15	0.05

969.00	0.34	-0.02	-0.02	-0.12	-0.22	0.26
969.20	0.46	0.09	-0.01	-0.19	0.60	-0.55
969.40	0.39	-0.03	-0.01	-0.15	-0.75	0.64
969.60	0.38	-0.06	-0.02	-0.10	0.59	0.03
969.80	0.24	0.13	0.00	0.08	-0.03	-0.25
970.00	0.33	0.04	-0.02	-0.04	0.10	0.67
970.20	0.32	-0.02	0.00	0.20	0.18	-0.38
970.40	0.26	0.13	-0.02	-0.17	-0.36	0.56
970.60	0.37	0.17	0.00	-0.10	0.42	0.34
970.80	0.29	0.14	0.01	-0.41	-1.51	0.64
971.00	0.31	0.04	0.00	-0.36	-2.15	-0.17
971.20	0.25	0.05	-0.01	0.16	-1.33	-0.95
971.40	0.30	0.02	-0.03	0.08	-0.40	-0.14
971.60	0.29	-0.04	-0.01	0.07	0.20	0.36
971.80	0.23	0.06	-0.01	0.17	-0.95	0.44
972.00	0.23	0.02	0.00	0.10	0.83	-0.36
972.20	0.32	0.05	-0.03	0.09	-0.34	0.11
972.40	0.25	0.00	-0.01	0.12	0.50	-0.11
972.60	0.25	-0.03	-0.01	0.07	0.15	0.05
972.80	0.26	0.06	-0.02	0.05	0.31	0.05
973.00	0.24	0.00	-0.02	0.19	0.67	-0.11
973.20	0.17	0.03	-0.01	0.09	0.35	-0.10
973.40	0.15	0.06	-0.01	0.05	-0.02	-0.68
973.60	0.25	0.14	-0.03	0.47	0.69	-0.29
973.80	0.26	-0.12	-0.03	0.27	-0.34	0.41
974.00	0.17	-0.03	0.00	0.14	-0.40	0.91
974.20	0.13	-0.02	-0.03	0.28	-0.09	-0.72
974.40	0.17	0.05	-0.03	0.16	2.51	1.54
974.60	0.10	0.00	0.00	0.13	-0.04	0.60
974.80	0.14	0.02	0.01	0.21	-0.22	-0.12
975.00	0.26	-0.04	-0.02	0.29	0.09	-0.67
975.20	0.20	0.10	-0.02	0.14	0.21	-0.20
975.40	0.13	0.06	-0.02	0.07	0.13	0.34
975.60	0.23	-0.08	-0.05	0.14	0.10	-0.37
975.80	0.18	0.06	-0.03	0.24	0.33	-0.05
976.00	0.09	-0.03	-0.01	0.46	-0.68	-0.64
976.20	0.15	-0.05	-0.03	0.02	-0.36	0.64
976.40	0.13	-0.03	-0.03	0.16	-0.64	0.06
976.60	0.18	0.01	-0.03	0.26	-0.44	-0.12
976.80	0.18	0.02	-0.01	0.29	-0.23	0.04
977.00	0.09	-0.04	-0.02	0.22	0.34	0.03
977.20	0.12	-0.04	-0.02	0.37	-0.13	-0.34
977.40	0.04	-0.03	-0.04	0.28	-0.19	-0.16
977.60	0.16	0.06	-0.04	0.19	-0.61	-0.17
977.80	0.12	0.00	-0.03	0.31	-0.34	-0.32
978.00	0.06	-0.04	-0.05	0.12	-0.15	0.12
978.20	0.08	-0.03	-0.02	0.19	-0.14	0.21
978.40	0.03	-0.04	-0.04	0.17	-0.43	-0.70
978.60	0.21	0.09	-0.02	0.24	0.70	0.35
978.80	0.09	-0.07	-0.04	0.24	0.18	0.11

979.00	-0.02	0.05	-0.05	0.30	-0.11	0.48
979.20	-0.01	0.02	-0.05	0.28	0.57	-0.28
979.40	0.00	-0.03	-0.04	0.15	0.38	-0.13
979.60	-0.16	0.06	-0.02	0.24	0.37	-0.32
979.80	-0.02	-0.03	-0.03	0.25	0.98	-0.83
980.00	-0.01	0.04	-0.03	0.21	0.11	0.40
980.20	-0.12	0.01	-0.05	0.31	-0.62	-0.83
980.40	-0.06	-0.01	-0.04	-0.10	-1.36	1.95
980.60	-0.04	-0.04	-0.05	-0.15	1.19	0.28
980.80	-0.12	0.08	-0.05	0.29	-0.84	0.10
981.00	-0.03	0.14	-0.06	0.06	-2.68	0.68
981.20	0.00	-0.01	-0.05	0.24	0.18	-0.01
981.40	-0.02	0.01	-0.04	0.33	1.05	-0.88
981.60	0.09	-0.13	-0.04	0.42	-0.52	-0.22
981.80	-0.03	0.01	-0.04	0.23	0.22	-0.17
982.00	0.00	-0.01	-0.03	0.20	-0.36	0.22
982.20	-0.08	0.13	-0.05	0.40	0.54	-0.69
982.40	-0.08	0.00	-0.06	0.33	-0.87	0.57
982.60	-0.06	0.02	-0.04	0.25	1.50	-1.27
982.80	-0.09	-0.05	-0.04	0.35	0.21	-0.09
983.00	0.11	-0.05	-0.04	0.23	-0.84	0.00
983.20	-0.09	-0.03	-0.06	0.30	-0.12	0.14
983.40	-0.17	-0.03	-0.05	0.27	-0.03	0.39
983.60	-0.18	-0.15	-0.04	0.30	-0.87	0.11
983.80	-0.11	0.07	-0.04	0.29	-0.65	0.10
984.00	-0.03	0.00	-0.03	0.32	-0.09	-0.21
984.20	-0.07	-0.05	-0.05	0.28	0.21	0.05
984.40	-0.08	-0.07	-0.04	0.12	-0.18	0.29
984.60	-0.18	0.01	-0.05	0.11	0.24	0.63
984.80	-0.05	0.09	-0.04	-0.08	0.64	0.90
985.00	-0.15	0.01	-0.05	0.35	0.12	-0.65
985.20	-0.05	0.05	-0.04	0.21	0.50	-0.03
985.40	-0.16	0.05	-0.05	0.31	-0.16	0.22
985.60	-0.13	0.09	-0.04	0.32	-0.35	0.23
985.80	-0.06	0.02	-0.03	0.31	-0.47	-0.19
986.00	-0.08	0.06	-0.06	0.32	0.12	0.60
986.20	-0.02	-0.03	-0.05	0.40	0.01	-0.10
986.40	-0.02	-0.04	-0.04	0.30	-0.08	0.30
986.60	0.00	-0.11	-0.04	0.32	-0.42	0.15
986.80	-0.08	-0.04	-0.04	0.25	0.16	0.05
987.00	-0.09	0.07	-0.05	0.39	-0.37	-0.33
987.20	-0.15	0.03	-0.02	0.21	-0.14	0.27
987.40	-0.23	0.03	-0.05	0.48	-0.13	-0.63
987.60	-0.06	-0.15	-0.01	0.79	-0.15	-1.06
987.80	-0.02	0.06	-0.02	0.56	-0.89	-0.64
988.00	-0.12	0.01	-0.02	0.37	-0.79	0.32
988.20	0.00	0.00	-0.05	0.37	-0.66	0.16
988.40	-0.20	-0.02	-0.03	0.45	-0.23	0.00
988.60	-0.12	0.04	-0.04	0.18	-0.37	0.93
988.80	-0.14	0.02	-0.02	0.48	-1.73	0.59

989.00	-0.17	0.04	-0.06	0.28	-1.16	0.72
989.20	-0.08	0.00	-0.03	0.20	0.17	0.47
989.40	-0.14	0.12	-0.04	0.39	0.62	-1.00
989.60	-0.05	-0.01	-0.05	0.08	-0.82	0.93
989.80	-0.09	-0.11	-0.05	0.32	-0.30	-0.33
990.00	-0.06	-0.03	-0.04	0.29	-0.07	-0.49
990.20	0.02	0.01	-0.06	0.34	-1.28	0.75
990.40	-0.15	-0.03	-0.04	0.34	0.72	-0.95
990.60	-0.09	0.08	-0.07	0.36	2.06	0.80
990.80	-0.09	0.00	-0.06	0.26	-0.78	0.53
991.00	-0.25	0.12	-0.04	0.24	0.74	-0.92
991.20	-0.09	-0.07	-0.06	0.31	-1.23	0.37
991.40	-0.10	0.00	-0.05	0.20	0.38	-1.15
991.60	-0.15	0.01	-0.05	0.36	-0.13	-0.51
991.80	-0.22	0.10	-0.04	0.18	0.94	-0.60
992.00	-0.19	0.06	-0.05	0.38	-0.29	-0.02
992.20	0.00	0.01	-0.04	-0.19	0.10	0.87
992.40	-0.04	-0.10	-0.06	-0.03	0.47	0.20
992.60	-0.23	-0.05	-0.05	0.26	1.03	-1.06
992.80	-0.17	0.04	-0.06	0.16	-1.41	1.14
993.00	-0.12	-0.06	-0.06	0.05	0.38	0.04
993.20	-0.05	0.12	-0.05	0.06	-0.60	1.25
993.40	-0.10	0.07	-0.05	0.26	1.14	-0.60
993.60	-0.10	0.02	-0.05	0.18	-0.76	0.52
993.80	-0.07	-0.16	-0.05	0.22	-0.34	-0.06
994.00	-0.05	0.03	-0.03	0.22	-0.24	-0.35
994.20	-0.13	-0.06	-0.05	0.28	-0.14	0.01
994.40	-0.14	0.16	-0.04	0.26	-0.39	0.12
994.60	-0.13	0.06	-0.06	0.14	0.81	0.11
994.80	-0.17	-0.01	-0.06	0.16	-1.14	-0.60
995.00	-0.26	0.05	-0.05	0.73	-0.61	-1.95
995.20	-0.16	0.07	-0.05	-0.16	-0.47	1.08
995.40	-0.15	-0.02	-0.06	0.25	-0.16	-0.04
995.60	-0.01	0.00	-0.06	0.36	1.03	0.17
995.80	-0.17	0.06	-0.04	0.22	-0.19	2.22
996.00	-0.20	0.02	-0.06	0.23	-0.13	0.32
996.20	-0.25	-0.05	-0.06	0.04	0.66	0.33
996.40	-0.26	0.03	-0.06	0.39	-0.90	0.51
996.60	-0.08	-0.09	-0.06	0.36	-0.22	-0.27
996.80	-0.16	0.02	-0.06	0.26	0.51	-0.25
997.00	-0.09	-0.17	-0.07	0.08	-0.19	0.89
997.20	-0.15	-0.09	-0.06	0.27	1.38	-0.73
997.40	-0.17	-0.01	-0.07	0.16	0.84	-0.42
997.60	-0.07	-0.01	-0.07	0.22	-0.16	0.25
997.80	-0.14	-0.02	-0.07	0.21	-0.41	-0.10
998.00	-0.11	-0.04	-0.07	0.25	-0.45	0.05
998.20	-0.27	-0.03	-0.06	0.43	0.60	-0.15
998.40	-0.23	0.08	-0.06	0.29	-0.74	-0.71
998.60	-0.20	0.17	-0.02	0.46	0.22	-0.23
998.80	-0.07	-0.10	-0.05	0.36	0.55	0.07

999.00	-0.15	-0.01	-0.04	0.31	0.50	-0.01
999.20	-0.13	-0.12	-0.03	0.28	0.37	-0.31
999.40	-0.11	0.02	-0.06	0.39	-0.42	-0.47
999.60	-0.21	0.03	-0.05	0.17	2.35	-0.24
999.80	-0.22	0.04	-0.08	0.31	-0.88	0.94
1000.00	-0.14	0.07	-0.04	0.22	-0.56	1.05
1000.20	-0.27	0.01	-0.03	0.35	-0.17	0.10
1000.40	-0.02	-0.20	-0.05	0.42	0.55	-0.29
1000.60	-0.23	0.14	-0.04	0.11	0.47	-0.12
1000.80	-0.10	-0.06	-0.03	0.25	-0.06	-0.33
1001.00	-0.33	-0.17	-0.02	0.33	-0.47	-0.09
1001.20	-0.28	0.08	-0.01	0.19	0.01	0.14
1001.40	-0.26	-0.15	-0.01	0.53	-0.92	-0.19
1001.60	-0.14	0.05	-0.05	0.27	-0.32	0.09
1001.80	-0.17	0.01	-0.04	0.45	-0.36	-0.40
1002.00	-0.13	-0.04	-0.03	0.32	-0.66	-0.34
1002.20	-0.19	0.17	-0.02	0.37	-0.38	-0.72
1002.40	-0.21	0.11	-0.04	0.51	-0.22	-0.28
1002.60	-0.23	-0.10	-0.04	0.33	-0.48	0.29
1002.80	-0.25	-0.12	-0.02	0.28	-0.59	0.14
1003.00	-0.17	-0.13	-0.03	0.54	1.51	-0.01
1003.20	-0.23	-0.06	-0.03	0.19	-0.27	0.15
1003.40	-0.22	0.13	-0.04	0.25	-0.59	-0.14
1003.60	-0.26	0.15	-0.02	0.23	-0.96	-0.54
1003.80	-0.28	-0.01	-0.02	0.53	0.19	-0.25
1004.00	-0.16	0.02	-0.03	0.37	0.24	-0.25
1004.20	-0.10	-0.05	-0.03	0.36	-0.29	1.38
1004.40	-0.16	-0.14	-0.06	0.35	-0.44	-0.25
1004.60	-0.32	-0.04	-0.01	0.30	-0.27	0.17
1004.80	-0.35	-0.03	-0.02	0.39	0.18	0.01
1005.00	-0.23	-0.04	-0.03	0.50	0.06	-0.10
1005.20	-0.17	-0.04	-0.05	0.44	-0.02	0.20
1005.40	-0.24	0.00	-0.01	0.44	0.03	0.24
1005.60	-0.28	-0.11	0.01	0.45	0.03	0.31
1005.80	-0.25	-0.11	-0.01	0.43	-0.21	0.30
1006.00	-0.34	-0.12	-0.04	0.38	-0.01	0.28
1006.20	-0.26	0.02	-0.02	0.42	0.21	0.03
1006.40	-0.37	-0.10	-0.02	0.44	0.33	-0.17
1006.60	-0.28	0.09	-0.03	0.47	-0.06	0.22
1006.80	-0.34	-0.01	-0.03	0.33	-1.29	-0.79
1007.00	-0.37	-0.05	-0.03	0.39	0.09	-0.06
1007.20	-0.28	-0.01	-0.02	0.44	-0.44	0.02
1007.40	-0.37	0.01	0.01	0.48	-0.21	0.14
1007.60	-0.40	0.04	0.00	0.44	-0.26	0.28
1007.80	-0.17	0.00	-0.02	0.36	0.11	-0.21
1008.00	-0.31	-0.02	-0.04	0.36	0.10	0.18
1008.20	-0.33	-0.09	0.00	0.37	-0.23	0.24
1008.40	-0.24	0.00	-0.02	0.54	0.40	-0.12
1008.60	-0.34	-0.07	-0.01	0.47	-0.23	-0.41
1008.80	-0.41	-0.13	-0.03	0.36	-0.36	0.10

1009.00	-0.29	0.01	-0.01	0.02	-0.21	1.00
1009.20	-0.33	0.08	0.00	0.48	-0.84	0.71
1009.40	-0.35	-0.08	-0.03	0.44	2.40	-1.17
1009.60	-0.30	-0.10	-0.02	0.24	-1.29	-0.11
1009.80	-0.38	-0.11	0.00	0.13	0.66	-0.20
1010.00	-0.22	-0.08	-0.03	0.65	2.53	-0.21
1010.20	-0.41	-0.01	-0.01	0.18	1.38	0.22
1010.40	-0.24	-0.07	-0.03	0.11	-1.83	-1.22
1010.60	-0.44	0.10	-0.02	0.33	1.01	-0.26
1010.80	-0.30	-0.06	-0.01	0.36	1.03	-0.85
1011.00	-0.31	0.05	-0.02	0.41	0.22	-0.73
1011.20	-0.39	0.01	-0.02	0.43	-0.78	0.15
1011.40	-0.25	-0.13	-0.04	0.53	0.07	-0.03
1011.60	-0.33	-0.10	-0.01	0.39	-0.17	0.25
1011.80	-0.22	-0.07	-0.03	0.24	-0.30	0.79
1012.00	-0.48	0.01	0.00	0.39	0.02	-0.24
1012.20	-0.37	0.01	-0.04	0.42	-0.25	0.08
1012.40	-0.36	0.06	-0.03	0.32	0.06	0.58
1012.60	-0.29	-0.07	-0.02	0.35	0.08	0.38
1012.80	-0.30	-0.15	-0.05	0.50	0.44	-0.83
1013.00	-0.31	0.07	-0.01	0.41	0.41	0.00
1013.20	-0.33	-0.15	-0.04	0.17	0.28	0.17
1013.40	-0.33	-0.06	-0.02	0.27	0.21	-0.98
1013.60	-0.36	-0.11	-0.01	0.37	-0.27	-0.27
1013.80	-0.27	-0.03	-0.04	0.21	-0.65	-0.19
1014.00	-0.34	-0.06	-0.02	0.43	0.15	-0.27
1014.20	-0.41	0.06	-0.02	0.79	0.12	-1.27
1014.40	-0.32	-0.06	-0.05	0.48	-0.08	-0.31
1014.60	-0.39	0.02	-0.03	0.41	-0.35	0.26
1014.80	-0.45	0.08	-0.02	0.39	-0.22	-0.17
1015.00	-0.32	-0.13	-0.04	0.34	1.37	-1.29
1015.20	-0.45	0.07	-0.02	0.65	1.35	-1.34
1015.40	-0.53	0.21	0.00	0.39	0.99	-1.94
1015.60	-0.37	-0.03	-0.03	0.63	0.30	0.11
1015.80	-0.36	-0.06	-0.04	0.31	0.88	-0.87
1016.00	-0.41	0.00	-0.05	0.41	-0.35	0.40
1016.20	-0.30	-0.07	-0.05	0.40	-0.08	-0.40
1016.40	-0.40	-0.04	-0.03	0.44	0.00	0.09
1016.60	-0.40	-0.06	-0.03	0.41	0.71	-0.43
1016.80	-0.23	-0.11	-0.05	0.45	-0.40	-0.06
1017.00	-0.44	-0.01	0.00	0.38	-0.18	-0.11
1017.20	-0.41	-0.03	-0.02	0.32	-0.26	0.12
1017.40	-0.45	-0.03	-0.03	0.36	-0.02	-0.10
1017.60	-0.52	-0.05	-0.04	0.36	-0.31	0.00
1017.80	-0.48	0.14	-0.01	0.38	0.14	-0.02
1018.00	-0.35	0.02	-0.04	0.40	0.33	-0.09
1018.20	-0.35	-0.11	-0.05	0.37	0.53	0.06
1018.40	-0.41	-0.02	-0.04	0.34	-0.11	0.31
1018.60	-0.36	0.16	-0.04	0.23	-0.40	0.57
1018.80	-0.61	-0.04	-0.04	0.19	-0.20	0.52

1019.00	-0.42	-0.05	-0.05	0.23	0.02	0.47
1019.20	-0.36	-0.01	-0.03	0.50	-0.22	-0.43
1019.40	-0.44	-0.08	-0.02	0.26	-0.37	0.14
1019.60	-0.43	0.02	-0.04	0.32	0.44	0.20
1019.80	-0.43	-0.04	-0.03	0.22	-0.34	0.40
1020.00	-0.44	-0.03	-0.05	0.19	0.06	0.55
1020.20	-0.50	-0.03	-0.04	0.51	-0.98	0.42
1020.40	-0.48	-0.01	-0.04	0.26	0.31	-0.06
1020.60	-0.45	-0.02	-0.05	0.20	-0.88	-0.35
1020.80	-0.51	-0.02	-0.04	0.28	0.96	-0.28
1021.00	-0.42	-0.04	-0.02	0.75	-0.33	-0.30
1021.20	-0.43	-0.10	-0.05	0.31	0.02	0.03
1021.40	-0.49	-0.07	-0.04	0.41	0.20	-0.73
1021.60	-0.42	-0.03	-0.06	0.29	-0.29	0.25
1021.80	-0.49	0.08	-0.02	0.19	0.06	0.41
1022.00	-0.50	0.00	-0.02	0.35	-1.06	-0.32
1022.20	-0.33	-0.09	-0.03	-0.19	0.51	1.06
1022.40	-0.27	-0.05	-0.06	0.37	-0.07	-0.29
1022.60	-0.34	0.02	-0.03	0.43	0.50	0.69
1022.80	-0.46	0.08	-0.04	0.45	0.20	-0.36
1023.00	-0.47	-0.14	-0.04	0.38	-0.18	-0.42
1023.20	-0.45	-0.06	-0.05	0.38	-0.18	0.29
1023.40	-0.47	-0.02	-0.03	0.47	-0.25	-0.16
1023.60	-0.40	-0.09	-0.04	0.33	-0.14	0.40
1023.80	-0.41	0.03	-0.03	0.44	0.85	0.28
1024.00	-0.44	0.01	-0.04	0.39	-0.42	0.32
1024.20	-0.47	-0.21	-0.04	0.39	0.29	0.29
1024.40	-0.49	-0.02	-0.02	0.34	-0.01	-0.24
1024.60	-0.38	-0.02	-0.04	0.33	-0.30	-0.01
1024.80	-0.46	-0.08	-0.04	0.42	0.42	-0.16
1025.00	-0.38	0.01	-0.01	0.42	-0.21	0.03
1025.20	-0.53	-0.09	-0.03	0.26	-0.87	0.26
1025.40	-0.42	0.01	-0.02	0.35	-0.64	-0.63
1025.60	-0.38	0.05	-0.02	0.53	-0.24	-0.08
1025.80	-0.41	-0.06	-0.03	0.30	0.21	0.14
1026.00	-0.58	0.07	-0.04	0.39	-0.23	-0.48
1026.20	-0.50	-0.02	-0.04	0.33	-0.07	0.25
1026.40	-0.40	-0.06	-0.03	0.34	-0.07	0.07
1026.60	-0.50	-0.16	-0.03	0.47	0.03	-0.19
1026.80	-0.39	0.06	-0.02	0.49	0.03	-0.23
1027.00	-0.45	-0.07	-0.01	0.43	0.11	-0.02
1027.20	-0.44	-0.05	-0.04	0.53	0.06	-0.12
1027.40	-0.60	-0.14	-0.03	0.44	0.03	-0.35
1027.60	-0.46	0.09	-0.01	0.29	0.14	0.32
1027.80	-0.55	0.11	0.01	0.39	-0.13	0.27
1028.00	-0.48	-0.09	-0.01	0.51	-0.11	-0.92
1028.20	-0.42	0.04	-0.01	0.40	0.05	0.19
1028.40	-0.41	-0.10	-0.01	0.38	0.00	0.11
1028.60	-0.46	0.01	-0.02	0.26	0.57	0.96
1028.80	-0.59	0.08	-0.03	0.36	-0.71	0.60

1029.00	-0.55	-0.09	-0.04	0.45	-0.18	-0.03
1029.20	-0.44	-0.03	-0.02	0.49	-0.04	-0.32
1029.40	-0.50	-0.08	-0.01	0.38	-0.01	0.00
1029.60	-0.65	0.17	0.00	0.43	0.33	-0.31
1029.80	-0.45	-0.09	-0.05	0.39	0.13	0.22
1030.00	-0.43	-0.01	-0.01	0.63	0.50	-0.43
1030.20	-0.46	-0.10	-0.02	0.40	-0.11	0.63
1030.40	-0.47	-0.17	-0.03	0.41	-0.13	0.30
1030.60	-0.54	-0.07	-0.03	0.33	0.15	0.50
1030.80	-0.43	-0.15	-0.01	0.41	0.02	-0.12
1031.00	-0.45	-0.20	0.01	0.29	-0.29	0.83
1031.20	-0.44	-0.16	-0.03	0.30	-0.21	0.52
1031.40	-0.50	0.04	-0.01	0.67	0.25	-0.49
1031.60	-0.51	-0.03	-0.03	0.44	-0.21	-0.97
1031.80	-0.43	-0.05	0.01	0.47	0.08	-0.11
1032.00	-0.55	-0.02	-0.02	0.59	-0.25	0.02
1032.20	-0.43	0.06	-0.04	0.59	-0.13	-0.45
1032.40	-0.43	-0.11	-0.03	0.35	-0.66	0.18
1032.60	-0.63	-0.03	-0.01	0.62	-0.06	-0.13
1032.80	-0.49	-0.17	-0.02	0.50	-0.83	1.04
1033.00	-0.59	0.01	-0.03	0.29	2.87	-0.86
1033.20	-0.47	-0.02	-0.02	0.33	-1.24	-1.30
1033.40	-0.43	-0.01	-0.03	1.03	-0.36	-2.12
1033.60	-0.46	0.06	-0.01	0.42	0.29	-0.32
1033.80	-0.58	-0.04	-0.04	0.50	0.24	-0.27
1034.00	-0.50	-0.08	-0.02	0.43	1.73	-1.06
1034.20	-0.50	0.02	-0.03	0.49	0.20	-0.22
1034.40	-0.46	-0.06	-0.01	0.44	-0.19	-0.47
1034.60	-0.42	-0.10	-0.03	0.47	0.08	-0.02
1034.80	-0.65	-0.05	0.00	0.41	-0.10	0.05
1035.00	-0.50	0.04	-0.01	0.47	0.05	-0.83
1035.20	-0.64	0.03	-0.02	0.41	-0.08	0.46
1035.40	-0.64	0.01	-0.05	0.45	-0.46	0.93
1035.60	-0.63	-0.04	-0.02	0.42	1.51	-1.03
1035.80	-0.48	0.02	-0.02	0.43	1.08	-1.47
1036.00	-0.44	0.02	-0.03	0.56	-0.08	0.03
1036.20	-0.51	0.03	-0.01	0.32	0.18	-0.22
1036.40	-0.53	0.09	-0.01	0.49	-0.08	0.29
1036.60	-0.51	-0.07	-0.02	0.66	0.16	-0.38
1036.80	-0.71	-0.05	-0.04	0.41	0.20	0.35
1037.00	-0.53	-0.09	-0.03	0.44	0.05	0.28
1037.20	-0.54	-0.04	-0.02	0.49	-0.40	0.22
1037.40	-0.51	0.00	-0.02	0.46	-0.11	0.25
1037.60	-0.56	-0.02	-0.04	0.50	-0.29	-0.37
1037.80	-0.59	0.01	-0.03	-0.20	-0.23	1.65
1038.00	-0.49	0.02	-0.03	0.42	-0.15	0.42
1038.20	-0.60	0.01	-0.02	0.55	0.28	-0.99
1038.40	-0.56	0.07	-0.03	0.31	0.62	-0.77
1038.60	-0.56	-0.08	-0.02	0.32	-0.52	0.43
1038.80	-0.50	-0.15	-0.04	0.50	-0.04	0.89

1039.00	-0.63	0.06	-0.02	0.12	0.23	0.60
1039.20	-0.48	-0.07	-0.03	-0.22	-0.57	1.82
1039.40	-0.54	0.04	-0.03	0.43	1.59	-1.31
1039.60	-0.57	-0.02	-0.04	0.37	0.01	0.18
1039.80	-0.65	0.00	0.00	0.43	0.10	-0.74
1040.00	-0.62	0.01	-0.02	0.48	-0.12	-0.38
1040.20	-0.50	0.03	-0.02	0.46	0.12	-0.09
1040.40	-0.54	-0.10	-0.03	0.37	-0.03	0.36
1040.60	-0.55	-0.07	-0.01	0.44	-0.09	0.27
1040.80	-0.60	-0.01	-0.02	0.32	-0.21	0.33
1041.00	-0.62	0.05	-0.02	0.43	0.02	0.11
1041.20	-0.53	0.11	-0.03	0.46	-0.49	-0.06
1041.40	-0.45	0.04	-0.03	0.41	-0.29	-0.17
1041.60	-0.59	-0.01	-0.03	0.47	0.87	-0.39
1041.80	-0.59	-0.04	-0.04	0.46	-0.45	0.69
1042.00	-0.59	0.07	-0.02	0.28	-0.26	0.83
1042.20	-0.64	0.05	0.00	0.48	-0.01	-0.42
1042.40	-0.55	-0.08	-0.03	0.56	-0.17	-0.79
1042.60	-0.62	-0.14	-0.05	0.42	1.04	-1.02
1042.80	-0.56	-0.06	-0.03	0.47	1.23	-1.01
1043.00	-0.53	-0.03	-0.02	0.38	-0.10	0.05
1043.20	-0.57	-0.03	-0.02	0.45	-0.23	-0.01
1043.40	-0.59	-0.04	-0.03	0.53	-0.58	-0.32
1043.60	-0.46	-0.07	-0.05	0.46	-0.16	-0.13
1043.80	-0.50	0.08	-0.02	0.49	-0.13	-0.01
1044.00	-0.54	0.00	-0.03	0.47	0.00	-0.16
1044.20	-0.56	-0.07	-0.02	0.42	0.11	0.22
1044.40	-0.54	-0.01	-0.02	0.44	-0.32	-0.31
1044.60	-0.64	-0.06	-0.03	0.42	0.43	-0.41
1044.80	-0.60	-0.07	-0.04	0.47	0.36	-0.49
1045.00	-0.52	-0.02	-0.05	0.89	1.17	-2.34
1045.20	-0.62	-0.06	-0.03	0.34	0.96	-0.84
1045.40	-0.68	-0.01	-0.02	0.08	-0.04	1.06
1045.60	-0.63	0.05	-0.02	0.32	-0.55	-0.25
1045.80	-0.72	-0.01	-0.02	0.24	0.41	-0.32
1046.00	-0.52	-0.07	-0.02	0.52	-0.03	-0.28
1046.20	-0.72	-0.02	-0.01	0.32	-0.01	1.07
1046.40	-0.56	-0.11	-0.03	0.32	-0.66	0.34
1046.60	-0.61	-0.24	-0.02	0.30	-0.08	0.48
1046.80	-0.58	0.02	-0.03	0.36	0.00	0.25
1047.00	-0.63	-0.04	-0.02	0.54	-1.23	0.35
1047.20	-0.67	0.13	-0.01	0.39	-0.15	0.26
1047.40	-0.51	-0.18	-0.03	0.47	0.40	-0.13
1047.60	-0.53	-0.11	-0.03	0.43	0.45	0.10
1047.80	-0.55	-0.08	-0.04	0.44	0.52	-0.21
1048.00	-0.60	0.02	-0.02	0.37	0.29	0.27
1048.20	-0.59	-0.02	-0.01	0.58	0.17	0.07
1048.40	-0.48	-0.03	-0.01	0.46	-0.19	0.34
1048.60	-0.45	-0.05	-0.04	0.53	-0.35	0.25
1048.80	-0.52	-0.05	-0.01	0.52	0.02	0.02

1049.00	-0.44	0.00	-0.03	0.47	-0.24	0.29
1049.20	-0.52	-0.02	0.01	0.42	0.17	-0.06
1049.40	-0.53	-0.12	-0.05	0.49	0.38	0.27
1049.60	-0.59	0.13	-0.02	0.47	0.10	0.02
1049.80	-0.52	0.04	-0.03	0.49	0.00	-0.39
1050.00	-0.35	0.14	0.01	0.30	0.68	-0.22
1050.20	-0.42	0.09	0.00	0.42	0.30	0.09
1050.40	-0.50	-0.11	-0.02	0.54	0.21	-0.53
1050.60	-0.40	-0.08	-0.03	0.54	-0.28	0.24
1050.80	-0.53	0.00	-0.01	0.32	1.78	-0.79
1051.00	-0.44	0.00	0.01	0.37	0.50	-1.41
1051.20	-0.40	-0.10	-0.02	-0.14	-2.26	0.27
1051.40	-0.39	-0.04	-0.01	0.76	2.27	-1.09
1051.60	-0.56	0.04	-0.02	0.28	-1.76	1.50
1051.80	-0.49	0.02	-0.02	0.15	0.05	0.67
1052.00	-0.43	-0.05	-0.03	0.70	0.42	0.01
1052.20	-0.45	-0.01	-0.01	0.52	0.37	0.80
1052.40	-0.49	-0.15	-0.01	0.56	1.38	-1.21
1052.60	-0.44	-0.06	-0.02	0.64	0.41	-0.61
1052.80	-0.60	0.02	-0.02	0.54	-1.39	0.60
1053.00	-0.36	-0.05	-0.01	0.53	-0.10	0.10
1053.20	-0.56	-0.02	-0.03	0.57	-0.54	0.31
1053.40	-0.56	0.00	-0.02	0.48	0.96	0.00
1053.60	-0.53	-0.06	-0.03	0.39	0.47	-0.17
1053.80	-0.42	0.00	-0.01	0.20	2.55	-1.56
1054.00	-0.45	0.09	0.02	0.20	0.54	0.65
1054.20	-0.45	0.11	0.01	0.42	0.43	-0.58
1054.40	-0.46	-0.16	-0.01	0.51	-0.37	-0.45
1054.60	-0.54	0.03	0.00	1.00	0.31	-1.92
1054.80	-0.53	-0.07	-0.01	0.42	0.92	0.04
1055.00	-0.43	0.00	-0.01	0.46	-0.77	0.22
1055.20	-0.51	0.10	-0.02	0.48	0.85	0.32
1055.40	-0.44	0.01	-0.02	-0.01	0.54	1.98
1055.60	-0.53	-0.06	-0.02	0.64	-0.93	-0.57
1055.80	-0.37	-0.10	-0.03	0.52	0.87	-0.49
1056.00	-0.47	-0.02	-0.01	0.40	-0.22	0.29
1056.20	-0.40	0.08	-0.01	0.41	0.25	0.07
1056.40	-0.44	-0.06	0.01	0.62	0.02	0.40
1056.60	-0.40	-0.06	-0.03	0.49	-0.81	-0.10
1056.80	-0.38	-0.06	-0.01	0.40	0.14	-0.45
1057.00	-0.42	-0.06	-0.03	0.50	0.17	-0.02
1057.20	-0.37	0.05	-0.01	0.40	0.40	-0.42
1057.40	-0.37	0.08	-0.02	0.43	-0.05	0.21
1057.60	-0.45	-0.08	-0.02	0.51	-0.72	0.32
1057.80	-0.42	-0.04	-0.03	0.44	0.54	-0.38
1058.00	-0.48	-0.05	-0.03	0.13	-0.17	0.90
1058.20	-0.43	-0.02	-0.02	0.38	-0.24	0.44
1058.40	-0.45	-0.02	0.00	0.27	-0.01	-0.11
1058.60	-0.45	0.01	-0.01	0.83	-0.82	-1.14
1058.80	-0.52	-0.10	-0.02	0.46	1.59	0.52

1059.00	-0.47	-0.13	-0.01	0.54	2.24	1.24
1059.20	-0.39	-0.17	-0.01	0.44	0.79	-0.18
1059.40	-0.35	0.01	-0.02	0.46	0.78	-1.32
1059.60	-0.54	0.02	-0.01	0.17	-0.98	0.60
1059.80	-0.44	0.02	0.01	0.48	2.28	-0.52
1060.00	-0.40	-0.06	-0.02	0.17	-0.11	0.41
1060.20	-0.44	-0.04	-0.02	0.29	0.15	0.21
1060.40	-0.33	-0.10	-0.01	0.45	-0.03	-1.09
1060.60	-0.35	-0.10	0.00	0.23	2.43	-1.68
1060.80	-0.33	-0.01	-0.02	0.31	-0.26	-0.09
1061.00	-0.37	-0.05	-0.03	0.39	0.06	-0.11
1061.20	-0.34	-0.08	-0.01	0.33	0.10	0.25
1061.40	-0.34	0.05	-0.02	0.28	0.48	0.03
1061.60	-0.33	-0.09	-0.02	0.46	1.20	-0.11
1061.80	-0.41	0.03	-0.05	0.21	1.04	-0.33
1062.00	-0.34	0.03	-0.02	0.26	-0.41	0.19
1062.20	-0.37	0.02	-0.02	0.38	0.29	0.06
1062.40	-0.23	-0.02	-0.01	0.45	-0.12	-0.43
1062.60	-0.41	0.09	0.00	0.18	0.13	0.39
1062.80	-0.40	0.07	-0.01	-0.02	0.21	1.23
1063.00	-0.32	-0.05	-0.03	0.24	0.17	-0.12
1063.20	-0.26	-0.14	0.01	0.26	0.05	0.05
1063.40	-0.35	0.15	-0.02	0.29	0.10	0.01
1063.60	-0.31	0.10	-0.01	0.45	-0.22	-0.63
1063.80	-0.29	-0.12	0.02	0.31	0.11	0.37
1064.00	-0.23	0.01	-0.03	0.41	0.16	-0.30
1064.20	-0.28	-0.05	-0.02	0.36	-0.09	-0.26
1064.40	-0.15	0.06	-0.04	0.14	-0.05	0.53
1064.60	-0.24	0.06	-0.05	0.15	0.06	0.39
1064.80	-0.23	0.00	-0.05	0.26	0.67	-0.80
1065.00	-0.29	-0.23	-0.02	0.36	-0.16	-0.33
1065.20	-0.35	-0.15	-0.02	0.37	-0.22	-0.28
1065.40	-0.29	-0.07	-0.02	0.32	-0.46	0.23
1065.60	-0.29	-0.10	-0.03	-0.04	-0.33	0.80
1065.80	-0.22	-0.01	-0.02	0.23	-0.64	0.32
1066.00	-0.31	-0.01	-0.02	0.06	-0.65	-0.25
1066.20	-0.25	-0.09	-0.02	0.05	-0.15	1.08
1066.40	-0.18	0.01	-0.01	0.28	0.70	-0.35
1066.60	-0.26	-0.09	-0.03	-0.12	-0.80	2.03
1066.80	-0.25	-0.13	-0.05	0.09	0.82	-0.23
1067.00	-0.32	-0.10	-0.03	0.19	-0.63	0.72
1067.20	-0.25	-0.04	-0.05	-0.15	-0.16	1.20
1067.40	-0.23	-0.09	-0.02	0.07	0.46	-0.24
1067.60	-0.20	0.02	-0.01	0.28	-0.17	-0.38
1067.80	-0.24	-0.05	-0.06	0.18	0.48	-0.95
1068.00	-0.18	-0.02	-0.03	0.25	0.40	1.37
1068.20	-0.13	0.12	-0.04	-0.08	-0.58	-2.49
1068.40	-0.08	-0.06	-0.03	0.19	2.21	0.54
1068.60	-0.11	0.06	-0.05	0.25	0.72	-0.02
1068.80	-0.06	-0.10	-0.05	0.78	1.07	-1.87

1069.00	-0.04	-0.09	-0.06	-0.53	-2.75	0.20
1069.20	-0.14	0.05	-0.05	-0.93	-0.24	3.74
1069.40	-0.17	-0.02	-0.03	-0.81	-2.46	0.16
1069.60	-0.24	0.02	-0.06	0.08	1.81	-1.18
1069.80	-0.15	-0.05	-0.05	0.08	1.71	0.08
1070.00	-0.19	-0.14	-0.06	0.17	3.24	0.22
1070.20	-0.14	-0.02	-0.07	0.43	-1.28	-3.80
1070.40	-0.14	-0.11	-0.06	-0.39	1.01	2.22
1070.60	-0.08	-0.02	-0.07	0.01	1.73	-0.72
1070.80	-0.07	-0.01	-0.06	0.50	0.19	-1.53
1071.00	-0.03	-0.05	-0.05	0.10	0.28	-0.41
1071.20	-0.06	-0.07	-0.05	0.08	0.78	-0.03
1071.40	-0.06	-0.23	-0.04	0.15	0.53	-0.18
1071.60	0.02	0.08	-0.05	-0.03	1.19	-1.12
1071.80	-0.10	-0.04	-0.04	0.13	-0.40	0.06
1072.00	-0.07	-0.03	-0.06	0.18	0.52	-0.55
1072.20	-0.05	-0.02	-0.05	0.10	1.13	-0.80
1072.40	-0.11	-0.12	-0.07	-0.42	0.14	1.26
1072.60	-0.18	0.01	-0.07	-0.76	0.03	2.97
1072.80	-0.15	-0.08	-0.07	0.11	0.78	-0.60
1073.00	-0.10	0.04	-0.06	0.30	-0.09	-0.15
1073.20	-0.07	-0.01	-0.05	0.18	-0.49	-0.33
1073.40	-0.12	0.02	-0.08	0.04	0.83	-0.48
1073.60	-0.14	0.04	-0.05	-0.05	0.36	-0.17
1073.80	-0.03	0.06	-0.06	-0.24	-0.36	0.61
1074.00	0.03	-0.14	-0.08	0.03	-0.13	0.83
1074.20	-0.03	-0.06	-0.07	-0.21	1.03	-0.16
1074.40	-0.09	-0.03	-0.06	0.06	0.04	-0.13
1074.60	-0.07	0.09	-0.05	-0.08	0.18	0.04
1074.80	-0.04	-0.03	-0.06	-0.10	0.13	-0.17
1075.00	-0.01	0.00	-0.07	0.11	0.31	-0.58
1075.20	-0.07	0.00	-0.07	-0.09	-0.09	0.13
1075.40	-0.11	0.05	-0.07	-0.17	-0.09	0.40
1075.60	0.00	-0.04	-0.07	0.12	-0.39	-0.09
1075.80	-0.18	0.02	-0.09	0.15	-0.56	-0.05
1076.00	0.01	-0.07	-0.08	0.03	-0.31	0.60
1076.20	-0.11	0.06	-0.09	0.01	-0.12	0.46
1076.40	-0.19	-0.03	-0.06	-0.11	-0.28	0.14
1076.60	-0.03	-0.06	-0.10	-0.04	1.11	-0.83
1076.80	0.08	-0.06	-0.09	-0.03	-0.19	0.00
1077.00	0.02	-0.08	-0.07	0.03	-0.12	0.46
1077.20	0.00	0.09	-0.06	0.33	-0.20	-0.36
1077.40	0.03	-0.02	-0.07	0.21	1.16	-1.28
1077.60	-0.07	-0.05	-0.06	0.24	1.94	-0.93
1077.80	-0.05	-0.02	-0.07	-0.04	-1.92	0.00
1078.00	-0.13	0.21	-0.06	-0.08	-1.90	1.56
1078.20	0.05	-0.09	-0.07	-0.45	-1.05	2.04
1078.40	0.01	0.00	-0.06	0.11	0.39	-0.35
1078.60	0.00	-0.05	-0.05	0.35	-0.97	0.05
1078.80	0.01	0.24	-0.07	0.23	0.94	-0.69

1079.00	0.02	-0.08	-0.06	-0.97	-0.87	2.41
1079.20	0.02	0.08	-0.05	0.01	-2.32	1.48
1079.40	-0.13	0.06	-0.07	0.25	-2.53	0.65
1079.60	-0.02	0.09	-0.06	0.18	1.29	-1.63
1079.80	-0.10	-0.02	-0.06	0.30	-0.83	-2.32
1080.00	0.01	-0.07	-0.05	0.26	0.78	0.08
1080.20	-0.06	-0.03	-0.07	-0.57	3.24	1.55
1080.40	0.00	-0.07	-0.06	-0.22	-0.57	0.84
1080.60	-0.05	-0.14	-0.07	0.02	1.01	-0.12
1080.80	-0.15	0.00	-0.06	-0.03	0.56	-0.46
1081.00	-0.07	0.08	-0.04	0.25	-0.08	-0.88
1081.20	-0.07	-0.03	-0.07	-0.07	0.97	0.54
1081.40	-0.07	-0.07	-0.05	0.24	1.33	0.62
1081.60	0.11	-0.02	-0.06	0.17	-2.83	-1.87
1081.80	0.02	0.09	-0.05	-0.51	-1.40	1.57
1082.00	-0.09	-0.08	-0.05	0.00	-0.11	0.11
1082.20	-0.02	0.00	-0.07	-0.23	-1.75	-0.81
1082.40	-0.11	0.06	-0.03	-0.08	1.80	-0.67
1082.60	0.06	0.08	-0.05	-0.07	1.32	0.09
1082.80	0.04	-0.09	-0.05	-0.09	-1.21	-0.30
1083.00	0.00	-0.02	-0.05	0.11	-1.47	0.19
1083.20	-0.01	-0.03	-0.04	0.10	-0.56	-0.30
1083.40	0.00	-0.09	-0.05	-0.17	-1.40	1.02
1083.60	-0.13	0.02	-0.04	-0.22	0.89	-0.63
1083.80	-0.04	0.08	-0.05	-0.09	-2.42	1.01
1084.00	0.00	-0.01	-0.04	0.06	0.90	0.50
1084.20	-0.18	0.15	-0.03	-0.22	-2.08	-0.56
1084.40	0.03	-0.08	-0.06	-0.15	-0.16	0.81
1084.60	-0.07	0.23	-0.01	0.02	-0.51	0.00
1084.80	-0.04	-0.04	-0.03	-0.10	-0.79	0.24
1085.00	-0.10	0.11	-0.03	-0.12	-0.21	-0.03
1085.20	0.02	-0.09	-0.03	-0.03	0.11	0.20
1085.40	-0.01	0.04	-0.04	-0.16	0.52	0.03
1085.60	0.03	0.02	-0.02	-0.17	0.40	0.29
1085.80	-0.04	-0.07	-0.05	-0.10	-0.20	0.07
1086.00	-0.03	0.08	-0.03	-0.16	0.33	0.41
1086.20	-0.04	-0.10	-0.01	-0.17	-1.28	-0.48
1086.40	0.08	-0.03	-0.03	-0.18	0.24	0.12
1086.60	-0.10	0.10	-0.03	-0.20	0.49	0.12
1086.80	0.10	0.10	-0.03	-0.08	-0.40	0.04
1087.00	0.02	0.01	-0.02	-0.15	0.18	-0.17
1087.20	0.11	0.02	0.00	-0.12	-0.03	0.17
1087.40	-0.05	0.19	-0.01	-0.12	-0.20	0.03
1087.60	0.09	-0.06	-0.02	-0.16	0.20	-0.17
1087.80	-0.10	0.02	-0.02	-0.12	-0.36	0.49
1088.00	0.15	0.02	0.00	-0.15	0.25	0.01
1088.20	-0.02	0.01	-0.02	-0.21	-0.06	0.05
1088.40	-0.11	0.15	0.01	-0.19	0.05	0.15
1088.60	-0.05	0.00	-0.01	-0.16	0.20	0.02
1088.80	0.07	0.23	0.00	-0.19	-0.11	-0.04

1089.00	-0.02	-0.07	-0.01	-0.12	0.16	-0.03
1089.20	0.05	0.07	-0.02	-0.16	-0.22	0.18
1089.40	0.20	-0.05	-0.03	-0.11	-0.17	-0.06
1089.60	0.02	-0.05	0.00	-0.19	0.08	0.01
1089.80	0.04	-0.09	-0.01	-0.15	0.01	0.24
1090.00	0.20	-0.02	-0.02	-0.18	-0.27	0.27
1090.20	0.05	0.09	0.00	-0.17	-0.22	0.11
1090.40	-0.01	0.03	0.00	-0.11	-0.44	0.34
1090.60	0.14	-0.26	0.00	-0.22	0.26	-0.08
1090.80	0.05	0.07	-0.01	-0.07	0.28	-0.50
1091.00	0.12	0.02	-0.04	-0.14	-0.19	0.02
1091.20	0.00	0.01	0.00	-0.27	0.01	0.43
1091.40	0.13	0.06	0.01	-0.10	1.46	1.46
1091.60	0.11	-0.03	0.00	-0.23	1.67	0.52
1091.80	-0.06	0.05	0.00	-0.07	-1.33	0.88
1092.00	0.10	0.07	-0.01	-0.14	-0.91	0.21
1092.20	0.05	-0.02	0.00	-0.01	-0.31	-0.13
1092.40	0.20	-0.10	-0.01	-0.86	-0.61	1.43
1092.60	0.12	0.06	-0.01	-0.33	-0.56	0.86
1092.80	0.06	-0.12	0.01	-0.28	2.16	0.60
1093.00	0.10	-0.02	-0.01	-0.44	-0.57	-0.59
1093.20	0.15	0.03	0.00	-0.07	1.55	-1.31
1093.40	0.17	0.01	0.00	-0.06	-0.92	-1.15
1093.60	0.13	0.00	-0.02	0.14	-0.42	-0.72
1093.80	0.09	-0.04	-0.02	-0.27	0.62	0.28
1094.00	0.13	0.01	-0.01	0.22	-0.06	-1.08
1094.20	0.16	0.02	0.00	-0.04	0.39	-0.71
1094.40	0.13	0.07	0.00	-0.30	0.19	0.74
1094.60	0.17	0.01	-0.03	-0.21	0.32	-0.45
1094.80	0.11	0.03	-0.01	-0.26	0.11	0.14
1095.00	0.16	0.05	-0.03	0.08	1.31	-2.38
1095.20	0.19	-0.04	-0.02	0.03	0.05	-0.80
1095.40	0.15	0.06	-0.01	0.01	0.69	-0.43
1095.60	0.04	0.00	-0.02	-0.11	0.40	0.29
1095.80	0.10	0.01	-0.01	-0.21	0.04	0.24
1096.00	0.08	-0.05	-0.01	-0.13	0.29	-0.36
1096.20	0.19	-0.04	-0.05	0.09	-0.83	-0.38
1096.40	0.17	-0.06	-0.05	-0.01	-1.34	1.07
1096.60	0.16	0.07	-0.02	-0.14	0.63	-0.73
1096.80	0.11	0.12	-0.03	-0.35	1.06	0.45
1097.00	0.19	0.01	-0.01	-0.21	0.76	-1.30
1097.20	0.17	0.02	0.00	0.03	1.47	-1.82
1097.40	0.01	0.02	-0.03	-0.42	0.29	0.64
1097.60	0.13	0.04	-0.05	-0.10	0.28	-0.39
1097.80	0.17	0.02	-0.01	0.49	-1.29	-2.60
1098.00	0.10	-0.04	-0.04	-0.02	-0.51	-0.05
1098.20	0.06	0.04	-0.04	-0.24	-0.68	-0.01
1098.40	0.23	-0.07	-0.01	-0.17	0.17	-0.11
1098.60	0.09	0.04	-0.02	0.10	0.40	-0.55
1098.80	0.13	0.04	-0.02	-0.45	-0.56	0.85

1099.00	0.27	-0.16	-0.04	-0.42	0.35	0.83
1099.20	0.13	-0.06	-0.05	-0.31	-0.32	1.86
1099.40	0.14	0.07	-0.05	-0.31	1.07	-0.62
1099.60	0.15	-0.01	-0.02	0.09	0.48	-1.05
1099.80	0.23	0.02	-0.02	0.09	-0.17	-1.28
1100.00	0.14	0.01	-0.05	-0.31	1.39	-0.77
1100.20	0.17	0.06	-0.04	-0.03	0.64	-1.63
1100.40	0.21	0.06	-0.03	-0.26	0.16	0.03
1100.60	0.10	-0.07	-0.03	-0.39	0.02	-0.51
1100.80	0.33	-0.01	-0.04	-0.08	-1.04	0.02
1101.00	0.19	-0.03	-0.04	-0.21	-0.87	-0.46
1101.20	0.21	-0.13	-0.03	-0.36	0.78	-0.86
1101.40	0.06	0.03	-0.04	-0.24	-0.68	0.26
1101.60	0.17	-0.01	-0.05	-0.33	-0.02	0.34
1101.80	0.16	0.03	-0.05	-0.11	0.34	0.88
1102.00	0.13	0.03	-0.03	-0.19	2.17	-1.73
1102.20	0.14	0.06	-0.02	-0.27	2.41	-1.84
1102.40	0.18	0.00	-0.03	-0.27	-2.76	2.47
1102.60	0.13	-0.04	-0.04	-0.31	-0.52	0.53
1102.80	0.16	0.03	-0.04	-0.35	-1.03	-0.55
1103.00	0.15	0.02	-0.04	-0.07	-0.19	-0.14
1103.20	0.19	0.01	-0.06	-0.07	0.14	-1.12
1103.40	0.16	-0.01	-0.04	-0.21	-0.80	0.52
1103.60	0.12	-0.08	-0.09	-0.22	-0.38	-0.04
1103.80	0.24	0.00	-0.06	-0.20	-0.47	0.25
1104.00	0.16	0.07	-0.04	-0.30	-0.02	-0.05
1104.20	0.28	0.00	-0.02	-0.30	-0.29	0.19
1104.40	0.16	0.03	-0.06	-0.30	-0.05	-0.06
1104.60	0.17	-0.10	-0.07	-0.34	0.17	0.03
1104.80	0.12	-0.09	-0.03	-0.30	-0.67	0.31
1105.00	0.31	-0.06	-0.03	-0.28	-0.45	0.17
1105.20	0.16	0.01	-0.05	-0.19	-0.08	-0.15
1105.40	0.19	0.06	-0.04	-0.28	-0.11	-0.28
1105.60	0.22	0.10	-0.05	-0.18	0.12	-0.36
1105.80	0.19	0.09	-0.03	-0.29	-0.57	0.05
1106.00	0.24	0.01	-0.03	-0.11	-0.64	0.26
1106.20	0.31	0.02	-0.04	-0.58	-0.01	0.92
1106.40	0.24	0.01	-0.05	0.17	-1.39	0.04
1106.60	0.11	-0.02	-0.02	-0.26	-0.91	-0.35
1106.80	0.21	0.09	-0.05	-0.15	-1.96	0.95
1107.00	0.22	0.09	-0.04	-0.24	2.54	2.37
1107.20	0.23	0.06	-0.04	-0.30	0.98	-1.10
1107.40	0.34	-0.07	-0.03	0.26	-0.86	-1.15
1107.60	0.18	0.03	-0.03	-0.44	-0.19	0.88
1107.80	0.19	0.08	-0.04	-0.12	-0.87	-0.91
1108.00	0.21	0.02	-0.03	-0.40	1.02	0.58
1108.20	0.21	0.02	-0.06	-0.42	0.12	0.37
1108.40	0.19	0.02	-0.05	-0.22	-0.40	-0.26
1108.60	0.24	0.08	-0.03	-0.35	1.10	-0.49
1108.80	0.27	0.06	-0.04	-0.15	0.01	-0.27

1109.00	0.30	-0.01	-0.02	-0.18	-0.49	0.11
1109.20	0.24	-0.04	-0.06	-0.24	0.13	-0.23
1109.40	0.32	-0.08	-0.05	-0.40	-0.16	-0.07
1109.60	0.21	-0.02	-0.04	-0.29	-0.49	-0.40
1109.80	0.34	-0.03	-0.03	0.22	1.26	-0.90
1110.00	0.24	0.06	-0.04	0.29	0.14	-1.07
1110.20	0.21	-0.01	-0.04	-0.19	-0.18	0.26
1110.40	0.27	0.05	-0.03	-0.35	-0.43	0.28
1110.60	0.25	-0.05	-0.05	-0.25	-0.02	0.02
1110.80	0.22	0.12	-0.05	0.00	0.08	-1.84
1111.00	0.21	-0.01	-0.03	-0.23	0.66	-0.22
1111.20	0.26	0.02	-0.05	0.02	1.70	-1.18
1111.40	0.27	-0.02	-0.03	-0.35	-2.30	0.44
1111.60	0.24	0.03	-0.03	-0.22	-0.70	0.45
1111.80	0.19	0.01	-0.03	-0.32	1.50	0.38
1112.00	0.16	0.10	-0.01	-0.19	1.10	-0.66
1112.20	0.14	0.03	-0.05	-0.28	0.00	0.05
1112.40	0.27	0.07	-0.02	-0.29	-0.10	0.19
1112.60	0.28	0.04	-0.03	-0.24	-0.16	0.16
1112.80	0.24	0.01	-0.03	-0.30	-0.04	0.28
1113.00	0.19	-0.04	-0.05	-0.33	0.32	-0.39
1113.20	0.29	-0.01	-0.03	0.02	-0.30	-0.99
1113.40	0.24	-0.02	-0.03	-0.11	-0.55	-0.17
1113.60	0.32	-0.13	-0.04	-0.15	-0.43	-0.60
1113.80	0.24	0.06	-0.01	-0.35	0.04	0.28
1114.00	0.21	0.02	-0.03	-0.25	0.16	-0.12
1114.20	0.15	0.02	-0.03	-0.17	-0.15	0.01
1114.40	0.10	0.01	-0.02	-0.34	-0.35	0.27
1114.60	0.28	-0.05	-0.02	-0.31	0.41	-0.51
1114.80	0.27	0.04	-0.03	-0.13	0.15	-0.23
1115.00	0.20	0.01	-0.02	-0.21	-0.25	-0.47
1115.20	0.21	0.03	-0.02	-0.09	-1.72	0.23
1115.40	0.29	0.00	-0.04	-0.33	-0.47	-0.01
1115.60	0.12	0.12	-0.02	0.05	-2.04	-2.78
1115.80	0.21	0.11	-0.03	-0.67	-0.46	1.63
1116.00	0.33	0.01	-0.02	0.52	-0.15	-2.50
1116.20	0.32	0.00	-0.01	-0.28	0.57	0.31
1116.40	0.30	0.07	0.00	-0.47	-0.01	0.63
1116.60	0.30	0.12	-0.03	-0.36	0.26	-0.03
1116.80	0.26	-0.10	-0.01	-0.35	0.34	0.16
1117.00	0.27	0.02	-0.02	-0.37	-0.08	0.14
1117.20	0.26	0.01	-0.01	-0.29	0.50	-0.14
1117.40	0.34	0.07	-0.01	-0.12	0.31	-0.82
1117.60	0.28	0.05	-0.02	-0.27	0.09	0.65
1117.80	0.29	-0.04	-0.02	-0.39	-0.51	0.20
1118.00	0.28	-0.04	-0.03	-0.27	0.12	0.32
1118.20	0.28	-0.04	-0.01	-0.36	0.04	0.18
1118.40	0.30	-0.06	-0.02	-0.21	-0.53	-0.20
1118.60	0.40	0.10	-0.02	0.09	0.26	-1.70
1118.80	0.35	-0.04	-0.02	-0.27	1.30	-0.39

1119.00	0.38	0.04	0.00	-0.23	-0.13	-0.15
1119.20	0.34	0.02	-0.03	-0.33	-0.31	0.53
1119.40	0.30	0.06	-0.02	0.23	-0.72	-1.65
1119.60	0.32	-0.05	0.00	-0.23	-0.06	-0.23
1119.80	0.30	0.03	-0.02	0.16	-0.12	0.18
1120.00	0.33	0.04	-0.03	-0.31	1.14	0.87
1120.20	0.33	0.04	-0.03	-0.39	0.27	0.55
1120.40	0.35	-0.01	-0.01	-0.28	-0.15	-0.02
1120.60	0.49	0.01	-0.01	-0.23	-0.30	-0.24
1120.80	0.38	-0.06	-0.03	-0.28	-0.17	-0.06
1121.00	0.33	0.02	-0.03	-0.40	0.39	-0.10
1121.20	0.37	-0.05	-0.03	-0.38	0.17	-0.06
1121.40	0.26	0.03	-0.03	-0.41	-0.05	0.01
1121.60	0.21	0.12	-0.01	-0.39	0.10	0.13
1121.80	0.41	-0.05	0.00	-0.39	-0.12	0.38
1122.00	0.27	0.01	-0.01	-0.32	0.28	-0.10
1122.20	0.37	0.05	-0.03	-0.31	-0.11	0.05
1122.40	0.31	0.02	-0.02	-0.18	2.14	0.83
1122.60	0.28	-0.01	-0.05	-0.27	0.03	-0.21
1122.80	0.29	0.10	-0.02	-0.34	-0.18	0.31
1123.00	0.23	-0.17	0.00	-0.41	-0.04	0.18
1123.20	0.40	-0.05	-0.02	-0.37	-0.02	0.06
1123.40	0.38	-0.02	-0.03	-0.42	0.13	0.26
1123.60	0.28	-0.10	-0.02	-0.25	-0.44	-0.44
1123.80	0.44	0.05	0.01	-0.54	0.27	0.74
1124.00	0.31	0.00	-0.02	-0.39	1.08	-0.23
1124.20	0.36	-0.05	-0.03	-0.27	-1.06	0.02
1124.40	0.20	0.05	-0.03	-0.33	-0.20	0.55
1124.60	0.28	-0.02	-0.02	-0.30	-0.72	-0.33
1124.80	0.36	0.01	-0.01	-0.47	-0.29	0.86
1125.00	0.39	-0.01	-0.04	-0.25	-0.43	-0.16
1125.20	0.32	0.01	-0.02	-0.36	-0.05	0.17
1125.40	0.31	-0.01	-0.01	-0.32	-0.08	-0.62
1125.60	0.35	0.02	-0.02	-0.42	0.26	0.47
1125.80	0.43	-0.03	-0.01	-0.35	-0.25	0.37
1126.00	0.29	-0.05	0.00	-0.19	-0.73	-0.07
1126.20	0.13	0.05	-0.02	-0.23	0.94	0.16
1126.40	0.51	0.03	-0.02	-0.22	0.75	-0.53
1126.60	0.41	0.06	-0.01	0.43	3.61	-2.29
1126.80	0.31	0.09	-0.03	-0.38	0.35	0.03
1127.00	0.35	0.01	-0.03	-0.78	0.27	0.29
1127.20	0.38	-0.03	-0.02	-0.46	0.90	-0.81
1127.40	0.39	0.01	-0.03	-0.47	0.92	-0.43
1127.60	0.38	0.01	-0.01	-0.41	0.76	0.34
1127.80	0.38	0.05	-0.03	-0.34	-1.41	0.14
1128.00	0.45	-0.07	-0.04	-0.54	-0.94	0.86
1128.20	0.28	0.14	-0.04	-0.57	0.62	-0.36
1128.40	0.37	-0.05	-0.04	-0.39	0.83	-0.26
1128.60	0.28	-0.14	-0.04	-0.26	-0.60	0.38
1128.80	0.30	0.07	-0.03	-0.24	-1.56	1.44

1129.00	0.42	-0.01	-0.04	-0.35	1.34	0.91
1129.20	0.38	-0.03	-0.04	-0.10	0.50	-0.60
1129.40	0.32	-0.03	-0.04	-0.65	-0.19	0.91
1129.60	0.44	0.04	0.00	-0.43	-0.18	0.35
1129.80	0.35	0.04	-0.04	-0.17	-0.13	-0.42
1130.00	0.41	0.03	-0.04	-0.34	0.06	-0.01
1130.20	0.40	-0.02	-0.03	-0.42	0.37	0.00
1130.40	0.35	-0.05	-0.04	-0.33	-0.33	0.40
1130.60	0.28	0.05	-0.03	-0.30	0.07	0.03
1130.80	0.42	-0.04	-0.02	-0.34	0.09	-0.28
1131.00	0.44	-0.07	-0.03	-0.28	-0.21	-0.21
1131.20	0.51	0.10	-0.03	-0.43	-0.03	0.43
1131.40	0.38	0.01	-0.02	-0.37	0.09	0.17
1131.60	0.31	0.03	0.00	-0.38	0.27	0.06
1131.80	0.44	0.01	-0.01	-0.53	-0.34	1.11
1132.00	0.42	0.12	-0.03	-0.46	0.74	-0.56
1132.20	0.28	0.05	0.00	-0.40	0.37	0.16
1132.40	0.42	0.07	-0.02	-0.49	-0.71	0.26
1132.60	0.30	0.05	-0.03	-0.49	-0.28	0.09
1132.80	0.36	-0.05	-0.03	-0.30	0.24	0.04
1133.00	0.39	0.06	-0.02	-0.34	-0.36	-0.05
1133.20	0.51	0.02	-0.04	-0.41	-0.09	0.42
1133.40	0.22	0.05	-0.03	-0.60	0.00	1.15
1133.60	0.44	0.02	-0.02	-0.25	-1.83	0.98
1133.80	0.37	-0.02	-0.03	-0.44	-1.67	0.62
1134.00	0.36	0.05	-0.03	-0.36	0.02	-0.67
1134.20	0.39	0.08	-0.05	-0.23	-0.36	0.29
1134.40	0.46	-0.05	-0.04	-0.48	1.39	-0.48
1134.60	0.38	0.09	-0.01	-0.32	0.47	-1.00
1134.80	0.37	0.04	-0.04	-0.44	-0.46	0.45
1135.00	0.40	-0.02	-0.04	-0.35	-0.77	0.06
1135.20	0.42	0.01	-0.03	-0.41	0.17	0.27
1135.40	0.28	0.01	-0.04	-0.34	0.94	-0.66
1135.60	0.32	0.08	-0.03	-0.48	-0.07	0.70
1135.80	0.49	0.00	-0.02	-0.28	-0.81	0.40
1136.00	0.33	-0.01	-0.03	-0.33	0.30	-0.13
1136.20	0.38	0.03	-0.02	-0.32	-0.85	0.25
1136.40	0.30	0.04	-0.02	-0.42	0.47	0.84
1136.60	0.36	0.05	-0.03	-0.42	-0.77	0.36
1136.80	0.28	-0.08	-0.01	-0.02	-0.68	-1.16
1137.00	0.43	-0.05	-0.01	-0.31	-0.48	-0.10
1137.20	0.37	-0.09	-0.03	-0.40	0.07	0.12
1137.40	0.44	0.07	-0.04	-0.01	0.38	-0.58
1137.60	0.41	0.04	-0.02	0.07	-0.19	-1.04
1137.80	0.40	0.04	-0.04	-0.34	0.68	0.20
1138.00	0.39	-0.06	-0.04	-0.42	-0.47	-0.32
1138.20	0.32	0.21	-0.02	-0.33	-0.13	0.14
1138.40	0.27	0.13	-0.04	-0.42	0.15	0.16
1138.60	0.44	0.09	-0.03	-0.29	-0.06	-0.16
1138.80	0.39	0.12	-0.02	-0.37	0.22	0.28

1139.00	0.32	0.04	-0.03	-0.45	0.17	0.50
1139.20	0.42	0.07	-0.02	-0.38	0.01	0.32
1139.40	0.39	0.00	-0.02	-0.35	-0.26	0.19
1139.60	0.30	0.08	-0.03	-0.39	-0.03	0.31
1139.80	0.42	-0.03	-0.03	-0.27	0.04	-0.07
1140.00	0.36	-0.03	-0.03	-0.38	-0.24	0.20
1140.20	0.30	0.00	-0.01	-0.44	0.34	0.53
1140.40	0.30	0.02	-0.01	0.16	0.71	-1.67
1140.60	0.35	0.02	-0.03	0.06	-0.90	1.06
1140.80	0.30	0.19	0.00	-0.79	0.08	1.37
1141.00	0.32	0.05	-0.02	-0.15	0.05	-0.25
1141.20	0.42	0.07	-0.02	-0.28	0.15	0.29
1141.40	0.22	0.21	-0.04	-0.34	0.00	0.15
1141.60	0.32	-0.05	-0.02	-0.33	0.02	0.11
1141.80	0.28	-0.03	-0.02	-0.34	-0.04	0.40
1142.00	0.32	-0.12	-0.03	-0.26	-0.02	0.00
1142.20	0.34	-0.02	0.00	-0.31	0.17	0.20
1142.40	0.39	-0.09	-0.03	-0.20	0.24	-0.26
1142.60	0.43	0.06	-0.01	-0.33	0.33	0.24
1142.80	0.29	0.18	0.00	-0.28	-0.02	0.15
1143.00	0.35	0.07	-0.03	-0.30	0.29	0.11
1143.20	0.40	-0.05	-0.03	-0.33	0.19	0.15
1143.40	0.36	-0.04	-0.01	-0.31	0.24	0.08
1143.60	0.38	0.01	-0.03	-0.34	0.13	0.50
1143.80	0.32	0.11	-0.02	-0.27	-0.03	0.48
1144.00	0.37	0.05	-0.02	-0.31	0.11	0.20
1144.20	0.36	-0.03	-0.03	-0.27	-0.49	0.07
1144.40	0.33	0.05	0.00	-0.17	-0.05	-0.06
1144.60	0.41	0.00	-0.02	-0.15	-0.51	0.76
1144.80	0.25	0.06	-0.04	-0.07	0.33	0.71
1145.00	0.33	0.03	-0.02	-0.30	1.33	0.35
1145.20	0.30	0.01	-0.03	0.12	-0.96	-0.79
1145.40	0.42	0.10	-0.02	-0.30	-0.30	0.13
1145.60	0.40	0.05	0.00	0.08	0.54	-0.36
1145.80	0.30	0.00	-0.01	-0.39	-0.61	-1.09
1146.00	0.51	0.07	-0.02	0.30	-1.32	0.79
1146.20	0.40	0.01	0.00	0.21	-0.92	-0.40
1146.40	0.34	-0.15	0.00	0.09	1.73	-0.18
1146.60	0.38	-0.04	-0.03	-0.39	-0.48	-0.07
1146.80	0.39	-0.04	-0.03	-0.31	-0.11	0.94
1147.00	0.34	0.13	-0.02	-0.27	-0.71	1.13
1147.20	0.22	0.08	-0.02	-0.27	2.11	1.21
1147.40	0.40	0.09	-0.02	-0.61	1.45	2.06
1147.60	0.50	-0.03	-0.02	-0.25	2.21	0.51
1147.80	0.31	0.03	-0.02	-0.33	0.94	0.88
1148.00	0.33	0.00	-0.03	-0.27	0.01	0.24
1148.20	0.42	0.08	-0.02	-0.36	0.05	0.37
1148.40	0.36	0.01	-0.03	-0.16	-0.10	-0.32
1148.60	0.40	-0.02	-0.04	-0.22	-0.32	0.55
1148.80	0.40	0.04	-0.03	-0.27	0.09	0.20

1149.00	0.36	-0.09	-0.02	-0.13	1.10	0.50
1149.20	0.42	0.00	-0.02	-0.13	-0.04	-0.02
1149.40	0.25	0.06	-0.01	-0.46	-0.30	0.63
1149.60	0.35	-0.01	-0.02	-0.40	0.13	0.61
1149.80	0.45	-0.01	-0.02	-0.75	0.62	1.54
1150.00	0.45	0.00	-0.03	-0.61	0.27	1.06
1150.20	0.38	0.08	-0.02	0.01	0.41	-0.56
1150.40	0.37	0.07	-0.03	0.07	-0.01	-0.85
1150.60	0.40	0.01	-0.03	0.24	-0.48	-1.64
1150.80	0.36	-0.05	-0.03	-0.14	1.72	-0.62
1151.00	0.39	-0.02	-0.03	-0.19	-0.71	0.16
1151.20	0.37	0.03	-0.03	-0.30	0.36	0.31
1151.40	0.30	0.09	-0.04	-0.21	0.44	0.09
1151.60	0.30	0.11	-0.03	-0.28	0.02	0.36
1151.80	0.32	0.07	-0.05	-0.36	0.88	0.75
1152.00	0.33	0.02	-0.04	-0.17	0.73	0.17
1152.20	0.32	0.00	-0.01	-0.18	-0.48	-0.10
1152.40	0.39	-0.11	-0.03	-0.50	-0.90	0.08
1152.60	0.32	0.05	-0.04	-0.31	-0.59	-0.34
1152.80	0.34	-0.01	-0.02	-0.22	-0.22	-0.01
1153.00	0.42	0.10	-0.03	-0.26	0.37	0.07
1153.20	0.34	0.00	-0.03	-0.25	-0.13	0.26
1153.40	0.17	-0.06	-0.03	-0.34	-1.33	0.10
1153.60	0.33	0.04	-0.04	-0.34	-0.10	0.97
1153.80	0.34	-0.06	-0.01	-0.32	-0.72	1.00
1154.00	0.29	0.09	-0.02	-0.37	-0.35	0.64
1154.20	0.37	0.09	-0.05	-0.04	0.47	-1.05
1154.40	0.34	0.04	-0.04	-0.13	-1.79	0.93
1154.60	0.26	0.00	-0.03	-0.51	-0.66	1.65
1154.80	0.33	0.00	-0.03	-0.17	1.20	1.63
1155.00	0.32	0.15	-0.05	-0.07	2.35	-1.29
1155.20	0.38	-0.03	-0.03	-0.10	-1.49	0.23
1155.40	0.27	0.04	-0.02	0.12	-2.66	-1.47
1155.60	0.25	0.00	-0.03	-0.22	1.32	-0.31
1155.80	0.33	0.04	0.00	-0.69	0.38	1.00
1156.00	0.33	0.01	-0.06	-0.04	1.06	-1.61
1156.20	0.13	-0.03	-0.02	0.04	-0.73	-0.30
1156.40	0.27	0.00	-0.04	-0.18	0.39	-0.06
1156.60	0.21	0.04	-0.02	-0.22	-0.78	-0.04
1156.80	0.16	0.22	-0.02	0.25	-0.92	-0.66
1157.00	0.22	-0.06	-0.03	-0.11	-0.28	0.02
1157.20	0.19	0.03	-0.05	-0.39	1.10	-0.27
1157.40	0.38	0.06	-0.05	-0.23	0.72	1.19
1157.60	0.30	-0.02	-0.02	0.01	-0.17	-0.33
1157.80	0.28	0.05	-0.04	-0.31	0.03	0.35
1158.00	0.18	0.09	-0.03	-0.10	-0.23	-0.16
1158.20	0.25	-0.05	-0.04	-0.10	-1.19	0.48
1158.40	0.18	-0.07	-0.01	-0.25	-0.07	0.22
1158.60	0.20	0.06	-0.02	-0.27	-0.04	-0.04
1158.80	0.28	-0.01	-0.04	-0.15	-0.82	-0.02

1159.00	0.18	0.08	-0.03	-0.24	-0.24	0.19
1159.20	0.17	0.08	-0.02	-0.06	-1.25	0.68
1159.40	0.21	-0.02	0.02	0.05	0.53	0.66
1159.60	0.30	-0.14	-0.03	-0.11	-0.23	0.81
1159.80	0.17	-0.04	-0.02	-0.38	1.65	-0.72
1160.00	0.27	0.00	-0.03	-0.16	-1.26	0.83
1160.20	0.16	0.05	-0.03	-0.10	-1.09	-0.09
1160.40	0.13	-0.01	-0.01	-0.02	1.01	-0.65
1160.60	0.12	0.01	0.00	-0.10	-1.51	0.33
1160.80	0.23	-0.05	-0.03	-0.26	2.77	-2.01
1161.00	0.33	0.04	-0.02	-0.13	0.74	0.44
1161.20	0.17	-0.08	-0.02	-0.27	0.12	-0.35
1161.40	0.28	0.01	-0.02	0.03	1.02	1.21
1161.60	0.07	-0.02	-0.02	-0.19	-0.68	0.65
1161.80	0.09	0.05	-0.04	-0.11	-0.23	0.52
1162.00	0.25	-0.06	-0.05	-0.14	-1.03	-0.09
1162.20	0.21	0.02	-0.02	-0.04	-0.37	-1.20
1162.40	0.11	-0.02	-0.03	-0.32	-0.45	0.83
1162.60	0.10	0.04	-0.04	0.43	0.68	-0.56
1162.80	0.12	0.07	-0.02	0.17	2.34	0.07
1163.00	0.07	0.06	-0.02	-0.28	2.92	0.50
1163.20	0.20	0.03	-0.06	-0.01	-0.50	-0.44
1163.40	0.20	0.09	-0.02	0.45	0.18	-2.74
1163.60	0.08	0.03	-0.05	0.26	-1.39	-0.41
1163.80	0.04	0.06	-0.03	0.06	-1.53	1.04
1164.00	-0.05	0.13	-0.03	-0.71	3.44	0.97
1164.20	0.13	0.07	-0.04	-0.08	-0.56	-0.09
1164.40	0.06	0.00	-0.03	0.60	-0.66	-1.33
1164.60	0.13	0.00	-0.01	0.04	-0.60	-0.08
1164.80	0.08	0.06	-0.02	0.04	0.37	-1.18
1165.00	0.24	-0.03	0.00	-0.07	-1.64	-0.64
1165.20	0.09	-0.03	-0.02	-0.31	-0.76	0.86
1165.40	0.04	0.02	-0.04	0.05	-0.40	2.21
1165.60	0.14	-0.03	-0.03	-0.07	1.69	-0.58
1165.80	0.10	-0.02	-0.03	0.06	-1.85	0.95
1166.00	0.20	0.05	0.00	0.43	-1.23	3.50
1166.20	0.17	0.00	-0.04	-0.56	0.44	1.21
1166.40	0.16	0.02	-0.03	0.24	1.62	-1.99
1166.60	0.14	0.00	-0.03	-0.73	-0.48	1.82
1166.80	0.08	0.01	-0.05	0.63	-0.83	-0.80
1167.00	0.04	0.03	-0.04	-0.05	0.94	-0.47
1167.20	0.20	0.08	-0.03	-0.04	2.17	4.11
1167.40	0.01	0.05	-0.03	0.11	-0.13	1.70
1167.60	0.05	0.16	-0.02	-0.07	-1.25	-1.76
1167.80	0.08	-0.10	-0.04	-0.23	-0.81	1.51
1168.00	0.12	-0.04	-0.03	-0.38	0.22	1.09
1168.20	-0.04	0.00	-0.04	-0.14	-0.60	-0.41
1168.40	0.05	-0.10	-0.05	0.35	-0.25	-0.08
1168.60	0.20	-0.02	-0.03	-0.07	-0.63	0.53
1168.80	0.10	0.05	-0.04	-0.21	0.31	-0.23

1169.00	0.21	0.00	-0.05	0.36	-0.72	-0.15
1169.20	0.11	0.04	-0.02	0.28	-0.19	-2.32
1169.40	0.04	0.05	-0.03	0.02	-0.98	-1.75
1169.60	0.17	-0.06	-0.04	0.11	-1.55	-1.16
1169.80	0.04	0.03	-0.05	-0.14	2.43	2.49
1170.00	-0.04	0.01	-0.05	0.16	0.65	-0.58
1170.20	0.08	-0.09	-0.04	-0.14	-0.57	1.19
1170.40	-0.03	0.09	-0.04	0.08	0.06	0.05
1170.60	0.10	0.03	-0.04	-0.13	-0.63	1.36
1170.80	0.13	0.08	-0.03	0.10	-0.58	0.82
1171.00	0.00	0.17	-0.03	0.03	-0.03	-0.05
1171.20	-0.03	0.05	-0.04	0.37	-1.31	-2.32
1171.40	-0.03	0.12	-0.06	-0.74	2.28	1.40
1171.60	-0.03	-0.03	-0.06	0.41	-0.25	-0.98
1171.80	0.03	0.01	-0.03	-0.06	-3.23	0.35
1172.00	0.02	-0.12	-0.04	0.11	-0.07	0.63
1172.20	0.08	0.00	-0.03	-0.03	0.84	-1.27
1172.40	0.01	0.09	-0.03	-0.09	1.49	-0.58
1172.60	0.02	0.05	-0.06	-0.08	0.46	0.02
1172.80	-0.04	-0.03	-0.05	-0.01	-0.33	0.41
1173.00	-0.06	0.12	-0.05	0.10	0.52	0.32
1173.20	0.02	0.12	-0.04	0.13	-1.64	0.30
1173.40	0.09	0.10	-0.04	0.10	-0.52	0.53
1173.60	-0.13	0.02	-0.06	-0.01	0.13	-0.73
1173.80	-0.01	-0.19	-0.04	0.00	0.97	-0.79
1174.00	-0.07	-0.16	-0.06	0.03	0.21	-0.80
1174.20	-0.08	0.16	-0.07	0.17	-1.21	1.52
1174.40	-0.10	0.13	-0.03	0.09	0.05	-0.22
1174.60	-0.10	-0.03	-0.06	0.44	-0.13	-1.49
1174.80	0.08	-0.05	-0.06	0.05	0.05	0.71
1175.00	-0.14	0.04	-0.04	0.09	-0.42	0.27
1175.20	0.03	-0.03	-0.05	-0.07	-1.56	-1.29
1175.40	-0.03	0.04	-0.06	0.12	-0.42	-0.16
1175.60	-0.05	0.06	-0.06	0.08	0.31	0.32
1175.80	-0.09	-0.13	-0.07	0.04	-0.03	-0.03
1176.00	0.04	0.07	-0.03	0.01	0.68	-0.25
1176.20	-0.05	-0.03	-0.04	0.06	0.31	0.36
1176.40	-0.16	-0.11	-0.05	0.07	0.80	-0.55
1176.60	-0.05	0.09	-0.06	0.01	-0.13	-0.18
1176.80	0.00	0.08	-0.05	-0.05	0.45	0.69
1177.00	-0.01	0.07	-0.04	-0.05	-2.23	-0.43
1177.20	0.08	0.09	-0.06	0.01	-0.07	0.29
1177.40	-0.04	0.03	-0.05	0.04	-0.08	0.28
1177.60	-0.08	-0.06	-0.05	0.08	-0.03	0.28
1177.80	0.00	0.04	-0.08	-0.23	0.04	1.06
1178.00	-0.13	-0.03	-0.06	0.07	2.34	-0.87
1178.20	-0.07	0.02	-0.06	0.14	0.93	0.41
1178.40	-0.09	-0.02	-0.04	0.02	0.00	-0.55
1178.60	-0.10	0.12	-0.03	-0.01	0.70	-0.06
1178.80	-0.01	0.17	-0.02	0.02	-0.43	-0.13

1179.00	0.03	0.12	-0.05	0.08	1.99	-0.12
1179.20	-0.15	-0.04	-0.05	0.00	-0.24	0.13
1179.40	-0.09	-0.02	-0.03	0.06	0.31	-0.71
1179.60	-0.13	-0.13	-0.02	0.03	0.38	0.14
1179.80	-0.01	0.03	-0.03	0.06	0.78	-0.20
1180.00	0.03	0.00	-0.02	0.05	0.09	-0.15
1180.20	0.00	0.06	-0.03	-0.05	0.02	-0.16
1180.40	-0.07	-0.01	-0.02	-0.01	-0.09	-0.16
1180.60	-0.13	-0.01	-0.04	0.03	0.15	0.17
1180.80	-0.17	0.07	-0.01	0.05	0.22	0.05
1181.00	0.03	-0.07	-0.02	0.02	0.81	-0.01
1181.20	-0.05	-0.05	-0.05	0.03	-0.24	0.45
1181.40	-0.13	-0.09	-0.03	0.15	-0.67	0.00
1181.60	-0.10	0.02	-0.02	0.17	-0.44	-0.20
1181.80	-0.12	0.00	-0.03	0.09	1.08	-0.46
1182.00	-0.10	-0.04	-0.02	0.14	0.13	-0.29
1182.20	-0.07	0.02	-0.05	0.27	-0.35	0.44
1182.40	-0.03	0.08	-0.03	0.32	-0.49	0.12
1182.60	-0.02	-0.01	-0.03	0.11	-0.26	0.03
1182.80	-0.08	-0.05	-0.03	0.32	0.21	-1.07
1183.00	-0.18	-0.10	-0.05	0.09	-0.20	0.18
1183.20	-0.19	-0.06	-0.06	0.24	0.18	-0.08
1183.40	-0.05	-0.07	-0.02	0.26	-0.57	-0.84
1183.60	-0.12	0.03	-0.04	0.20	0.55	-0.02
1183.80	-0.09	-0.01	-0.06	0.08	0.28	0.01
1184.00	-0.06	-0.03	0.00	0.14	-0.43	0.30
1184.20	-0.13	0.01	-0.04	0.16	-0.37	-0.66
1184.40	-0.09	0.07	-0.05	-0.01	-0.93	-1.11
1184.60	-0.09	-0.08	-0.04	0.05	-0.43	-0.43
1184.80	-0.02	-0.07	-0.04	0.46	0.07	-1.83
1185.00	-0.10	0.04	-0.03	0.09	-0.60	0.12
1185.20	-0.10	-0.14	-0.03	0.46	0.00	-1.01
1185.40	-0.19	0.00	-0.02	0.34	-0.71	-1.23
1185.60	-0.05	0.05	-0.02	0.44	0.92	-0.72
1185.80	-0.07	-0.05	-0.03	0.01	2.03	0.98
1186.00	-0.10	0.08	-0.03	0.56	-0.51	-1.46
1186.20	-0.08	-0.03	-0.02	0.38	-0.88	-0.66
1186.40	-0.17	-0.18	-0.05	0.00	0.64	0.20
1186.60	-0.16	-0.08	-0.04	0.14	1.32	0.86
1186.80	-0.12	0.04	-0.01	0.22	-0.68	0.08
1187.00	-0.22	0.08	-0.01	-0.27	-1.28	0.89
1187.20	-0.11	-0.06	-0.03	0.65	-1.19	-2.15
1187.40	-0.16	-0.03	-0.04	0.48	0.20	-0.02
1187.60	-0.18	-0.02	-0.04	-0.12	-1.34	1.21
1187.80	-0.06	-0.01	-0.04	0.11	-1.97	0.54
1188.00	-0.15	-0.08	-0.03	0.38	-1.34	-1.38
1188.20	-0.02	-0.05	-0.05	-0.36	-1.09	0.49
1188.40	-0.18	0.08	-0.04	0.11	-2.13	0.15
1188.60	-0.23	-0.07	-0.03	0.68	-0.34	-1.88
1188.80	-0.09	-0.08	-0.05	0.12	-2.69	1.50

1189.00	-0.17	0.01	-0.05	-0.67	0.33	1.89
1189.20	-0.07	0.01	-0.05	0.51	-1.39	-0.55
1189.40	-0.19	0.02	-0.03	0.01	0.22	-1.40
1189.60	-0.19	0.12	-0.02	0.21	-1.89	-0.76
1189.80	-0.26	0.02	-0.03	0.15	-0.70	0.16
1190.00	-0.17	-0.07	-0.06	0.16	-0.12	-0.36
1190.20	-0.13	-0.02	-0.06	0.22	0.05	-0.36
1190.40	-0.12	0.04	-0.06	0.18	0.63	-0.41
1190.60	-0.17	0.06	-0.05	0.27	-0.66	0.61
1190.80	-0.08	0.00	-0.03	0.15	-0.42	0.80
1191.00	-0.07	0.01	-0.05	0.35	-0.45	-0.38
1191.20	-0.19	0.00	-0.04	0.01	-1.81	-0.33
1191.40	-0.25	0.00	-0.07	0.12	0.71	1.10
1191.60	-0.11	0.02	-0.04	0.28	-0.62	0.03
1191.80	-0.13	-0.01	-0.06	0.16	1.25	0.47
1192.00	-0.10	-0.03	-0.06	0.16	-0.07	0.39
1192.20	-0.21	0.03	-0.08	0.06	0.32	-0.57
1192.40	-0.14	-0.01	-0.07	0.09	0.56	-0.50
1192.60	-0.08	0.03	-0.04	0.46	-0.75	-0.69
1192.80	-0.05	-0.07	-0.06	0.63	-0.15	-2.19
1193.00	-0.18	0.02	-0.07	-0.02	-0.04	0.64
1193.20	-0.16	0.03	-0.06	0.22	0.24	0.22
1193.40	-0.16	0.05	-0.07	0.20	-0.31	0.25
1193.60	-0.09	0.05	-0.06	0.12	-0.52	0.08
1193.80	-0.21	0.09	-0.07	0.24	-0.21	-0.08
1194.00	-0.07	-0.01	-0.07	0.26	0.21	0.20
1194.20	-0.25	-0.06	-0.05	0.28	-0.43	0.22
1194.40	-0.08	-0.14	-0.05	0.27	-0.04	0.14
1194.60	-0.10	-0.11	-0.06	0.29	-0.27	0.01
1194.80	-0.08	-0.10	-0.03	0.32	-1.36	0.61
1195.00	-0.05	0.02	-0.05	0.27	-0.10	0.09
1195.20	-0.09	0.03	-0.06	0.32	-0.32	-0.04
1195.40	-0.14	-0.09	-0.06	0.21	-0.62	-0.29
1195.60	-0.21	0.02	-0.06	0.21	-0.67	-0.18
1195.80	-0.06	-0.05	-0.07	0.25	-0.34	0.08
1196.00	-0.05	-0.02	-0.03	-0.01	-3.18	-0.81
1196.20	-0.23	-0.10	-0.05	0.10	0.04	-0.73
1196.40	-0.21	-0.14	-0.06	0.36	-1.82	-0.58
1196.60	-0.17	0.03	-0.06	0.26	0.97	0.24
1196.80	-0.12	-0.03	-0.07	0.41	-0.20	-0.55
1197.00	-0.17	-0.02	-0.04	0.50	-0.01	-0.01
1197.20	-0.12	-0.06	-0.09	-0.01	-1.05	-0.60
1197.40	-0.18	0.03	-0.07	0.00	-0.95	1.35
1197.60	-0.18	0.07	-0.05	0.46	0.99	-1.10
1197.80	-0.11	-0.01	-0.03	0.77	-0.23	-1.18
1198.00	-0.14	0.08	-0.07	0.13	0.15	0.19
1198.20	-0.23	-0.02	-0.04	0.17	0.06	0.47
1198.40	-0.09	-0.08	-0.03	0.15	-0.26	1.02
1198.60	-0.13	-0.13	-0.04	0.16	0.48	-0.18
1198.80	-0.12	-0.11	-0.04	0.51	-0.69	-0.33

1199.00	-0.18	-0.15	-0.04	0.26	-0.60	-0.40
1199.20	-0.09	0.00	-0.07	0.49	-0.53	-1.02
1199.40	-0.30	-0.04	-0.06	-0.10	0.87	0.32
1199.60	-0.17	-0.09	-0.06	0.51	-0.16	-0.39
1199.80	-0.07	-0.05	-0.03	0.41	2.35	-1.70
1200.00	-0.23	-0.06	-0.03	0.26	-0.30	0.59
1200.20	-0.19	0.02	-0.05	0.10	1.65	-0.61
1200.40	-0.22	0.08	-0.04	-0.29	0.52	1.65
1200.60	-0.21	-0.13	-0.06	0.66	-0.95	1.06
1200.80	-0.18	-0.10	-0.01	0.46	0.95	-0.95
1201.00	-0.14	0.01	-0.02	0.51	0.59	-1.57
1201.20	-0.17	-0.02	-0.03	0.32	0.40	-0.09
1201.40	-0.22	0.00	-0.04	-0.09	-1.67	2.54
1201.60	-0.14	-0.20	-0.02	0.02	2.39	-0.40
1201.80	-0.28	0.04	-0.03	0.15	-0.84	-0.64
1202.00	-0.28	0.02	-0.02	0.17	0.74	-0.14
1202.20	-0.12	-0.04	-0.03	0.21	-1.43	1.65
1202.40	-0.21	0.02	-0.05	0.53	-0.86	0.34
1202.60	-0.05	0.08	-0.04	0.14	1.74	-0.49
1202.80	-0.19	-0.08	-0.04	0.23	-0.33	0.42
1203.00	-0.34	0.06	-0.02	0.30	-0.17	0.24
1203.20	-0.18	-0.11	-0.02	0.23	0.29	0.16
1203.40	-0.19	-0.03	-0.02	0.35	0.19	-0.50
1203.60	-0.21	0.01	-0.01	0.24	2.68	-1.96
1203.80	-0.23	0.07	-0.03	0.41	1.04	-0.88
1204.00	-0.13	-0.04	-0.03	0.51	-0.64	0.60
1204.20	-0.25	-0.02	-0.03	0.01	3.21	-1.22
1204.40	-0.24	0.18	-0.06	0.47	0.54	-1.34
1204.60	-0.18	-0.12	-0.04	0.30	3.29	-0.08
1204.80	-0.31	-0.02	-0.04	0.39	1.58	0.60
1205.00	-0.37	0.25	-0.06	-0.75	0.10	2.51
1205.20	-0.18	-0.12	-0.02	-0.24	0.01	2.56
1205.40	-0.31	0.00	-0.05	0.19	1.03	-1.24
1205.60	-0.23	0.09	-0.03	-0.46	-1.16	2.61
1205.80	-0.23	-0.11	-0.04	0.20	-0.12	0.19
1206.00	-0.32	0.09	-0.05	0.32	1.31	-0.46
1206.20	-0.30	0.20	-0.03	0.52	-0.03	-0.64
1206.40	-0.21	0.07	-0.01	0.26	-0.17	0.44
1206.60	-0.27	-0.04	-0.03	0.75	0.01	-1.82
1206.80	-0.28	-0.11	-0.04	-0.07	2.08	-0.13
1207.00	-0.25	-0.01	-0.03	0.18	0.17	-0.05
1207.20	-0.36	-0.16	0.01	0.19	-0.56	-0.13
1207.40	-0.17	-0.16	-0.02	0.49	0.96	-0.29
1207.60	-0.34	-0.13	-0.02	-0.06	0.17	0.62
1207.80	-0.21	0.15	-0.04	0.52	-0.31	-1.09
1208.00	-0.31	-0.03	-0.03	0.10	-2.03	-0.99
1208.20	-0.16	0.25	-0.06	0.30	0.33	-1.74
1208.40	-0.29	0.00	-0.04	0.33	1.74	-1.46
1208.60	-0.27	-0.03	-0.06	0.24	-0.42	0.23
1208.80	-0.38	-0.01	-0.03	-0.01	-0.48	1.41

1209.00	-0.31	-0.08	0.00	0.20	-0.78	0.84
1209.20	-0.27	0.07	-0.03	0.34	0.91	-0.29
1209.40	-0.33	0.00	-0.04	0.28	0.42	0.04
1209.60	-0.35	-0.01	-0.02	0.20	-1.29	-0.74
1209.80	-0.22	0.02	-0.02	0.23	0.03	-0.15
1210.00	-0.25	-0.05	-0.01	0.57	-0.46	-0.61
1210.20	-0.24	-0.16	-0.05	0.31	-0.30	-0.40
1210.40	-0.38	-0.04	-0.01	0.31	-0.12	0.11
1210.60	-0.26	-0.12	-0.02	0.29	0.21	-0.15
1210.80	-0.28	0.02	-0.03	0.25	0.11	0.28
1211.00	-0.30	-0.16	-0.08	0.32	-0.20	-0.59
1211.20	-0.27	-0.11	-0.02	0.16	-1.48	1.64
1211.40	-0.42	0.10	-0.02	0.36	-0.81	0.64
1211.60	-0.30	-0.06	-0.03	0.19	0.01	0.38
1211.80	-0.28	0.05	-0.02	0.25	-0.22	0.24
1212.00	-0.24	0.01	-0.03	0.25	0.34	-0.14
1212.20	-0.27	0.05	-0.04	0.15	-0.03	0.31
1212.40	-0.34	0.02	-0.03	0.20	-0.20	-0.01
1212.60	-0.26	-0.09	-0.05	0.17	-0.22	-0.95
1212.80	-0.30	-0.03	-0.04	0.25	-2.40	0.04
1213.00	-0.25	0.06	-0.02	0.30	-0.89	-0.90
1213.20	-0.22	-0.04	-0.03	0.24	-1.90	-0.80
1213.40	-0.31	-0.09	-0.04	0.12	0.58	1.10
1213.60	-0.27	0.05	-0.04	0.06	-0.57	0.47
1213.80	-0.14	-0.04	-0.03	0.16	0.84	-0.93
1214.00	-0.36	-0.09	-0.03	0.26	0.73	0.90
1214.20	-0.28	0.07	-0.02	0.07	0.35	-1.37
1214.40	-0.29	-0.03	-0.03	0.07	-2.60	0.39
1214.60	-0.11	-0.08	-0.04	0.09	3.45	-1.35
1214.80	-0.16	-0.01	-0.04	0.09	1.55	-0.27
1215.00	-0.26	-0.05	-0.02	0.19	-0.49	0.44
1215.20	-0.30	0.07	-0.04	0.37	1.50	-1.03
1215.40	-0.34	-0.04	-0.04	0.21	1.19	-0.74
1215.60	-0.53	-0.14	-0.02	0.27	0.08	0.28
1215.80	-0.23	-0.07	-0.03	0.27	-0.25	-0.16
1216.00	-0.27	0.05	-0.02	0.17	-0.32	0.22
1216.20	-0.27	-0.04	-0.05	0.33	0.04	-0.03
1216.40	-0.38	0.05	-0.05	0.32	0.00	0.06
1216.60	-0.28	-0.05	-0.06	0.35	0.20	-0.11
1216.80	-0.37	0.00	-0.03	0.06	-0.48	0.68
1217.00	-0.25	0.03	-0.03	0.03	0.13	0.41
1217.20	-0.37	-0.02	-0.05	0.12	1.06	1.33
1217.40	-0.26	0.07	-0.05	0.33	-0.74	-0.77
1217.60	-0.30	-0.11	-0.02	0.16	-1.00	1.38
1217.80	-0.32	0.03	-0.04	0.05	0.63	-0.49
1218.00	-0.30	0.11	-0.05	0.45	-0.44	-0.62
1218.20	-0.26	-0.02	-0.04	0.18	1.00	0.35
1218.40	-0.22	-0.06	-0.06	0.33	0.02	-0.42
1218.60	-0.30	0.00	-0.02	-0.03	2.85	0.60
1218.80	-0.38	0.00	-0.01	0.32	-0.08	-0.05

1219.00	-0.37	0.03	-0.03	0.29	-0.45	0.70
1219.20	-0.44	-0.01	-0.05	0.14	0.87	-0.56
1219.40	-0.19	-0.10	-0.05	0.14	-0.45	0.51
1219.60	-0.39	-0.07	-0.04	0.24	-0.02	0.38
1219.80	-0.30	-0.16	-0.02	0.27	-0.07	-0.02
1220.00	-0.39	-0.11	-0.05	0.32	-0.09	-0.02
1220.20	-0.18	0.04	-0.04	0.25	-0.30	0.12
1220.40	-0.32	0.08	-0.04	0.29	-0.13	0.07
1220.60	-0.20	0.01	-0.03	0.33	-0.27	0.07
1220.80	-0.12	-0.01	-0.05	0.21	0.05	0.23
1221.00	-0.35	-0.10	-0.02	0.22	-0.29	0.42
1221.20	-0.31	0.08	-0.05	0.25	0.13	0.19
1221.40	-0.24	-0.05	0.00	0.28	0.24	-0.12
1221.60	-0.38	0.01	-0.03	0.24	-1.51	1.00
1221.80	-0.38	0.07	-0.02	0.15	0.97	-0.57
1222.00	-0.43	0.03	-0.05	0.10	0.39	0.46
1222.20	-0.42	0.04	-0.02	0.37	-0.62	0.30
1222.40	-0.39	-0.10	-0.02	0.36	-0.42	0.12
1222.60	-0.36	0.00	-0.03	0.27	0.14	0.16
1222.80	-0.31	0.02	-0.04	0.25	-0.04	0.28
1223.00	-0.30	-0.06	-0.03	0.34	-0.25	-0.24
1223.20	-0.39	0.00	-0.02	0.12	-0.09	0.28
1223.40	-0.36	-0.01	-0.03	0.38	-0.10	-0.29
1223.60	-0.38	-0.06	-0.03	0.35	0.02	0.11
1223.80	-0.33	-0.09	-0.05	0.32	0.14	-0.28
1224.00	-0.33	-0.03	-0.01	0.35	-0.13	-0.13
1224.20	-0.20	-0.11	-0.02	0.38	-0.08	-0.03
1224.40	-0.44	0.02	-0.02	0.32	-0.41	-0.06
1224.60	-0.36	0.01	-0.02	0.32	-0.13	0.12
1224.80	-0.26	-0.21	-0.01	0.31	-0.25	-0.08
1225.00	-0.29	0.01	0.01	0.32	-0.02	0.09
1225.20	-0.45	-0.02	-0.04	0.29	0.33	0.30
1225.40	-0.34	0.02	-0.02	0.24	-0.42	-0.46
1225.60	-0.32	-0.01	-0.03	0.35	-0.26	-0.42
1225.80	-0.38	-0.06	-0.04	0.25	-0.21	0.25
1226.00	-0.31	0.04	-0.04	0.34	-0.57	0.16
1226.20	-0.33	0.04	-0.05	0.36	-0.58	0.39
1226.40	-0.31	-0.02	-0.03	0.42	0.43	-0.36
1226.60	-0.46	0.06	-0.01	0.29	0.37	-0.09
1226.80	-0.21	0.07	-0.03	0.30	0.66	-0.34
1227.00	-0.43	0.06	-0.03	0.30	-0.28	0.06
1227.20	-0.30	-0.10	-0.02	0.53	0.33	0.91
1227.40	-0.44	0.02	-0.02	-0.08	-0.57	0.80
1227.60	-0.29	-0.14	-0.01	0.53	-0.29	-0.56
1227.80	-0.33	0.00	-0.01	0.18	-0.50	0.69
1228.00	-0.40	-0.10	0.00	0.36	-0.27	-0.51
1228.20	-0.35	-0.02	-0.04	0.15	-0.33	-0.18
1228.40	-0.47	0.03	-0.01	-0.10	0.24	0.60
1228.60	-0.45	0.02	-0.03	0.01	-0.05	0.06
1228.80	-0.36	0.10	-0.04	0.17	1.17	-2.30

1229.00	-0.35	-0.03	-0.02	-0.70	2.27	2.10
1229.20	-0.42	0.11	-0.01	0.22	1.36	1.39
1229.40	-0.46	-0.02	-0.01	0.65	2.88	1.53
1229.60	-0.44	-0.06	-0.01	0.39	-0.03	-0.14
1229.80	-0.27	-0.07	0.00	0.32	1.32	-0.58
1230.00	-0.36	0.08	-0.01	0.43	-1.19	0.15
1230.20	-0.33	0.00	-0.01	0.53	0.64	-0.99
1230.40	-0.38	-0.04	-0.03	0.10	0.92	0.85
1230.60	-0.26	0.13	-0.02	0.36	0.11	-0.04
1230.80	-0.34	0.01	-0.01	0.35	0.33	-0.62
1231.00	-0.32	-0.06	-0.02	0.30	1.19	-0.94
1231.20	-0.22	-0.01	-0.03	0.20	0.64	-0.55
1231.40	-0.29	-0.11	-0.01	0.37	0.75	-1.06
1231.60	-0.40	-0.01	-0.03	-0.02	-0.21	1.87
1231.80	-0.37	0.02	-0.01	0.39	0.26	0.81
1232.00	-0.34	0.04	-0.02	0.45	0.86	0.22
1232.20	-0.35	-0.08	-0.01	0.53	-1.17	-1.93
1232.40	-0.41	-0.07	0.00	0.62	-1.12	-0.63
1232.60	-0.41	-0.02	-0.04	0.21	0.57	0.81
1232.80	-0.38	-0.03	-0.04	0.89	0.86	-2.77
1233.00	-0.43	0.15	-0.01	0.26	-2.67	-0.47
1233.20	-0.45	0.12	-0.03	0.21	-0.52	1.10
1233.40	-0.23	-0.05	-0.01	0.18	1.61	-2.00
1233.60	-0.53	0.15	-0.01	-0.07	-2.69	0.23
1233.80	-0.39	-0.14	-0.01	0.37	-0.91	0.74
1234.00	-0.42	0.07	-0.02	0.29	0.25	1.06
1234.20	-0.44	-0.05	-0.02	0.42	0.67	0.71
1234.40	-0.33	-0.19	0.00	0.37	0.28	0.23
1234.60	-0.35	0.07	-0.04	0.31	0.24	0.35
1234.80	-0.43	0.03	-0.02	0.35	0.10	0.74
1235.00	-0.35	-0.07	-0.03	0.36	-0.16	-2.33
1235.20	-0.48	0.08	-0.02	0.54	3.79	2.41
1235.40	-0.40	0.05	0.00	0.31	0.52	-0.46
1235.60	-0.28	-0.03	-0.04	0.34	0.16	0.08
1235.80	-0.44	0.12	0.00	0.72	-1.73	-0.12
1236.00	-0.33	-0.16	-0.03	-0.09	2.56	-0.13
1236.20	-0.42	-0.05	-0.03	-0.13	1.19	1.07
1236.40	-0.47	-0.14	-0.03	0.48	0.24	-0.09
1236.60	-0.48	-0.02	-0.02	-0.08	0.12	0.95
1236.80	-0.34	0.02	-0.05	0.15	-0.20	1.25
1237.00	-0.42	0.00	-0.04	-0.08	-0.01	0.98
1237.20	-0.41	0.07	-0.02	0.17	0.78	0.41
1237.40	-0.35	-0.10	-0.02	0.24	-1.94	-0.76
1237.60	-0.43	-0.28	-0.06	0.25	0.71	-0.33
1237.80	-0.27	-0.05	0.00	0.23	0.98	-1.41
1238.00	-0.39	0.00	-0.02	0.24	0.08	0.36
1238.20	-0.33	-0.07	-0.02	0.15	1.20	-0.90
1238.40	-0.37	0.05	-0.04	0.21	1.04	-0.90
1238.60	-0.39	-0.14	-0.04	0.51	-1.23	0.48
1238.80	-0.41	0.05	-0.03	0.26	-1.86	-0.49

1239.00	-0.37	-0.03	-0.03	0.28	-2.28	-1.16
1239.20	-0.33	-0.04	-0.01	0.26	-2.19	-0.13
1239.40	-0.22	-0.10	-0.05	0.25	2.30	-0.11
1239.60	-0.45	-0.06	-0.03	0.50	0.28	1.68
1239.80	-0.39	-0.06	0.00	-0.16	0.59	2.47
1240.00	-0.38	0.01	-0.03	0.01	-1.08	-0.08
1240.20	-0.35	-0.01	-0.05	0.06	-0.03	0.69
1240.40	-0.22	-0.11	-0.02	0.01	-0.91	0.43
1240.60	-0.37	0.04	-0.02	0.38	0.51	-0.20
1240.80	-0.32	-0.08	-0.01	0.16	0.73	0.22
1241.00	-0.50	0.15	-0.03	-0.04	0.05	1.02
1241.20	-0.34	0.02	0.00	0.50	-0.10	-0.67
1241.40	-0.40	-0.02	-0.01	0.25	-0.06	0.22
1241.60	-0.63	0.06	0.00	0.35	0.21	-0.02
1241.80	-0.50	0.05	-0.02	0.39	0.10	-0.13
1242.00	-0.33	-0.05	-0.03	0.34	-0.23	0.00
1242.20	-0.42	0.00	-0.04	0.38	-0.20	-0.17
1242.40	-0.36	0.00	-0.03	0.31	-0.01	0.02
1242.60	-0.25	-0.24	-0.06	0.25	-0.11	0.36
1242.80	-0.36	0.10	-0.03	0.33	0.12	-0.16
1243.00	-0.33	-0.11	-0.03	0.13	0.61	-0.42
1243.20	-0.40	-0.01	-0.05	0.32	-0.47	-0.37
1243.40	-0.26	0.06	0.00	0.30	-0.66	0.69
1243.60	-0.40	0.00	-0.03	0.25	0.17	0.49
1243.80	-0.31	0.02	-0.03	0.23	0.59	0.00
1244.00	-0.48	0.00	-0.04	0.23	0.33	0.31
1244.20	-0.40	-0.10	-0.02	0.34	3.58	-0.18
1244.40	-0.33	-0.08	-0.02	0.12	-2.55	0.73
1244.60	-0.35	0.03	-0.03	0.30	3.64	0.96
1244.80	-0.22	0.02	-0.04	-0.05	0.23	0.02
1245.00	-0.42	-0.04	-0.01	0.27	1.15	-1.86
1245.20	-0.31	-0.04	-0.03	-0.10	0.92	0.31
1245.40	-0.20	-0.09	-0.05	0.46	-0.97	-0.37
1245.60	-0.25	0.01	-0.05	-0.14	1.08	0.23
1245.80	-0.35	0.02	-0.02	0.23	0.58	0.00
1246.00	-0.43	0.18	-0.02	0.20	-0.24	-0.09
1246.20	-0.28	0.00	-0.03	0.09	-1.14	-0.13
1246.40	-0.42	-0.06	-0.04	0.15	1.80	-1.04
1246.60	-0.32	-0.09	-0.03	-0.15	2.22	-0.79
1246.80	-0.32	-0.05	-0.03	0.23	0.17	1.52
1247.00	-0.30	0.02	-0.03	0.13	-0.20	-1.05
1247.20	-0.27	-0.14	-0.04	0.33	-1.24	-1.60
1247.40	-0.30	0.05	-0.02	0.14	-1.60	-0.13
1247.60	-0.33	0.06	-0.02	0.85	-1.83	-1.01
1247.80	-0.34	-0.06	-0.03	0.22	-1.26	1.56
1248.00	-0.28	0.04	-0.02	0.24	1.52	-0.70
1248.20	-0.22	-0.11	-0.04	0.26	0.68	-0.37
1248.40	-0.24	0.01	-0.01	0.39	-2.89	0.11
1248.60	-0.19	-0.09	-0.02	0.27	1.81	-0.40
1248.80	-0.35	-0.10	-0.03	0.13	-0.11	0.25

1249.00	-0.25	0.08	0.00	0.53	-0.85	-1.12
1249.20	-0.31	0.01	-0.03	0.11	-0.02	-0.84
1249.40	-0.27	-0.01	0.00	0.15	0.72	0.21
1249.60	-0.30	-0.10	-0.03	0.31	0.27	0.44
1249.80	-0.42	0.00	-0.04	0.34	0.71	0.21
1250.00	-0.15	-0.03	-0.02	0.36	-0.32	0.02
1250.20	-0.22	-0.03	-0.03	0.36	0.04	-0.39
1250.40	-0.27	0.05	-0.02	0.41	-1.46	0.87
1250.60	-0.28	0.00	-0.06	0.22	-0.32	0.13
1250.80	-0.33	0.00	-0.02	0.25	0.05	0.30
1251.00	-0.30	-0.10	-0.01	0.19	0.01	0.81
1251.20	-0.27	0.12	-0.02	0.00	-0.38	0.63
1251.40	-0.27	-0.06	0.00	0.30	0.18	0.06
1251.60	-0.39	-0.09	-0.03	0.23	0.07	0.21
1251.80	-0.17	-0.03	-0.03	0.23	-0.02	0.33
1252.00	-0.23	-0.05	-0.02	0.34	0.58	-0.41
1252.20	-0.21	-0.07	-0.03	0.36	0.28	-0.22
1252.40	-0.17	0.01	-0.03	0.31	0.57	-0.11
1252.60	-0.26	-0.07	-0.03	0.31	-0.29	0.00
1252.80	-0.20	-0.08	-0.04	0.29	-0.14	-0.04
1253.00	-0.26	0.04	-0.04	0.28	-0.04	0.08
1253.20	-0.21	-0.07	-0.03	0.24	0.24	-0.16
1253.40	-0.28	-0.08	-0.03	0.28	-0.31	-0.03
1253.60	-0.17	-0.03	-0.03	0.25	0.00	0.08
1253.80	-0.27	0.14	-0.01	0.16	0.05	0.17
1254.00	-0.10	0.03	-0.03	0.12	0.14	0.38
1254.20	-0.25	0.01	-0.02	0.23	0.56	0.00
1254.40	-0.18	-0.07	-0.04	0.20	-0.03	0.38
1254.60	-0.22	-0.07	-0.05	0.15	-0.20	-0.03
1254.80	-0.06	-0.07	-0.03	0.26	-1.20	0.57
1255.00	-0.27	0.03	-0.05	0.25	0.00	-0.14
1255.20	-0.18	-0.03	-0.02	0.14	-0.50	0.42
1255.40	-0.22	0.02	-0.03	0.20	0.16	-0.03
1255.60	-0.17	-0.04	-0.03	0.28	-0.89	0.98
1255.80	-0.06	-0.14	-0.03	0.25	-1.21	0.70
1256.00	-0.11	0.00	-0.02	0.07	0.06	-0.04
1256.20	-0.19	-0.11	-0.02	-0.04	-0.43	0.78
1256.40	-0.23	0.04	-0.03	0.13	-1.73	0.05
1256.60	-0.13	-0.08	-0.05	0.28	0.59	1.65
1256.80	-0.24	0.06	-0.02	-0.05	2.36	-0.17
1257.00	-0.09	0.09	-0.02	0.02	-1.62	0.15
1257.20	-0.05	0.03	-0.01	0.17	-0.28	-0.78
1257.40	-0.09	0.11	-0.03	-0.07	-0.93	2.68
1257.60	-0.21	-0.07	-0.02	0.10	1.29	-0.94
1257.80	-0.13	-0.06	-0.04	-0.27	0.80	1.10
1258.00	-0.16	0.05	-0.01	0.48	-1.47	-0.87
1258.20	-0.07	0.02	-0.04	0.53	1.00	-0.32
1258.40	-0.16	-0.01	-0.03	-0.07	-0.36	0.19
1258.60	-0.18	0.05	-0.05	0.04	-0.76	-0.20
1258.80	-0.03	0.03	-0.02	0.44	-0.32	-1.01

1259.00	-0.26	0.11	-0.02	-0.03	-1.46	-0.27
1259.20	-0.07	0.01	-0.05	0.15	3.19	2.42
1259.40	-0.14	-0.03	-0.03	-0.02	-0.64	1.19
1259.60	-0.06	-0.01	-0.06	0.08	0.57	-0.68
1259.80	-0.15	0.03	-0.06	-0.10	-0.22	0.25
1260.00	-0.16	-0.04	-0.06	0.46	-3.24	0.43
1260.20	-0.16	0.02	-0.05	0.65	-0.70	-0.29
1260.40	-0.14	-0.06	-0.05	0.18	-1.44	0.41
1260.60	-0.26	0.05	-0.07	0.08	-0.30	0.50
1260.80	-0.11	0.05	-0.06	0.04	-0.37	-0.21
1261.00	-0.09	0.01	-0.05	0.15	0.66	-0.59
1261.20	-0.12	0.09	-0.05	0.05	0.68	-0.49
1261.40	-0.08	0.03	-0.04	0.01	0.32	0.49
1261.60	-0.04	0.04	-0.06	-0.07	-0.33	0.90
1261.80	-0.07	-0.05	-0.04	-0.20	-0.17	0.79
1262.00	-0.10	-0.04	-0.05	-0.56	-0.09	2.16
1262.20	-0.10	-0.07	-0.05	-0.14	0.08	0.95
1262.40	-0.04	0.03	-0.03	0.13	0.18	-0.18
1262.60	0.02	0.00	-0.06	-0.06	0.43	-0.17
1262.80	-0.02	0.06	-0.06	0.09	0.71	-0.21
1263.00	-0.11	-0.12	-0.06	0.30	0.22	-0.80
1263.20	-0.20	-0.08	-0.05	-0.36	-0.04	1.59
1263.40	-0.06	0.00	-0.03	0.06	0.62	0.04
1263.60	-0.03	0.05	-0.06	0.37	0.09	-1.37
1263.80	0.01	-0.02	-0.06	0.17	-0.74	0.23
1264.00	-0.05	0.05	-0.03	0.08	-0.77	0.02
1264.20	-0.01	0.03	-0.03	0.17	1.21	-0.97
1264.40	-0.09	0.06	-0.05	-0.38	-0.65	0.89
1264.60	-0.10	0.01	-0.05	0.00	-0.97	0.36
1264.80	0.02	-0.06	-0.06	0.14	0.99	2.31
1265.00	-0.03	0.04	-0.07	-0.18	-1.23	0.99
1265.20	-0.02	-0.10	-0.08	0.08	2.20	1.14
1265.40	-0.15	-0.08	-0.05	0.02	1.18	-0.16
1265.60	-0.07	-0.05	-0.08	-0.13	0.24	0.31
1265.80	-0.13	0.05	-0.07	0.72	-0.31	-2.08
1266.00	-0.09	-0.01	-0.08	0.20	-0.74	-1.10
1266.20	-0.05	0.04	-0.08	-0.06	-0.68	-0.36
1266.40	0.09	-0.02	-0.04	0.08	0.26	-0.81
1266.60	-0.12	-0.05	-0.09	-0.01	0.90	-0.50
1266.80	-0.07	-0.02	-0.08	0.03	0.56	-0.49
1267.00	-0.11	-0.06	-0.07	-0.06	0.91	0.51
1267.20	-0.11	-0.01	-0.06	0.17	0.05	0.47
1267.40	0.05	-0.04	-0.05	0.13	0.64	-0.02
1267.60	-0.11	0.10	-0.06	-0.03	0.77	-0.59
1267.80	-0.03	0.12	-0.07	0.12	0.67	-0.01
1268.00	-0.06	-0.08	-0.06	-0.16	2.67	-1.07
1268.20	0.17	-0.04	-0.04	-0.05	1.90	0.03
1268.40	-0.09	-0.04	-0.08	0.24	1.25	0.68
1268.60	0.06	-0.06	-0.08	-0.02	-1.02	-0.14
1268.80	0.04	0.00	-0.09	-0.05	0.11	0.06

1269.00	0.02	-0.07	-0.07	0.19	4.09	1.11
1269.20	-0.11	0.07	-0.06	0.03	-0.02	-0.66
1269.40	-0.12	0.01	-0.05	-0.08	-3.12	-0.73
1269.60	-0.05	0.12	-0.08	0.20	-0.78	-1.51
1269.80	-0.04	0.10	-0.06	0.14	0.27	-0.44
1270.00	-0.15	0.01	-0.08	-0.03	1.70	-0.93
1270.20	-0.05	-0.03	-0.06	-0.06	2.58	-0.92
1270.40	-0.04	0.05	-0.05	0.00	3.71	-0.98
1270.60	-0.06	0.02	-0.10	0.59	1.69	1.92
1270.80	0.00	0.08	-0.08	0.02	1.31	-1.86
1271.00	-0.05	0.03	-0.05	-0.08	0.39	-0.79
1271.20	-0.01	0.06	-0.04	0.10	-0.57	0.59
1271.40	-0.02	0.10	-0.07	0.11	-0.01	0.28
1271.60	-0.03	-0.07	-0.08	-0.30	2.16	-1.84
1271.80	0.19	0.04	-0.06	-0.27	0.07	0.85
1272.00	-0.06	-0.08	-0.06	-0.04	0.21	-0.13
1272.20	-0.07	-0.08	-0.06	-0.18	0.98	-0.86
1272.40	0.06	0.06	-0.08	0.33	1.25	-0.30
1272.60	0.00	0.05	-0.08	0.11	1.22	-0.15
1272.80	-0.14	-0.01	-0.05	0.01	1.02	0.26
1273.00	0.01	0.00	-0.04	0.05	0.66	-1.57
1273.20	0.13	0.02	-0.06	0.05	-4.42	0.99
1273.40	-0.01	-0.08	-0.05	-0.19	-1.98	-0.10
1273.60	0.02	-0.05	-0.05	-0.17	0.42	-0.44
1273.80	-0.13	0.05	-0.06	-0.21	1.40	-1.76
1274.00	0.01	-0.03	-0.05	0.01	-1.79	-0.38
1274.20	-0.14	0.02	-0.05	-0.25	0.72	-1.40
1274.40	0.13	0.01	-0.04	0.04	-0.52	0.50
1274.60	-0.02	0.15	-0.06	0.09	-3.36	1.14
1274.80	0.00	-0.01	-0.05	-0.15	1.85	-0.50
1275.00	0.01	0.03	-0.06	-0.02	1.81	-0.48
1275.20	0.03	0.05	-0.03	0.18	1.01	0.80
1275.40	-0.14	0.06	-0.04	0.06	1.90	0.00
1275.60	-0.07	0.08	-0.05	-0.08	0.09	0.07
1275.80	-0.03	0.00	-0.06	-0.09	0.60	-0.92
1276.00	-0.08	0.03	-0.05	-0.19	0.50	-1.09
1276.20	-0.01	-0.06	-0.03	-0.02	3.01	-0.03
1276.40	-0.13	0.06	-0.06	-0.09	0.78	-0.48
1276.60	0.04	0.00	-0.02	-0.12	-0.22	-0.47
1276.80	-0.02	0.05	-0.05	-0.12	-1.24	-0.03
1277.00	0.03	0.05	-0.02	-0.02	0.62	-0.03
1277.20	-0.06	0.00	-0.02	-0.03	-0.99	-0.06
1277.40	-0.01	0.05	-0.02	-0.06	0.19	0.15
1277.60	0.02	0.01	-0.03	-0.07	0.30	0.25
1277.80	0.14	0.06	-0.02	0.16	-0.33	-0.01
1278.00	0.05	0.17	-0.05	0.33	-1.69	-2.16
1278.20	0.02	-0.04	-0.02	0.05	3.03	1.28
1278.40	0.04	-0.06	-0.02	-0.09	-1.43	0.21
1278.60	0.00	-0.17	-0.02	-0.20	-0.73	-1.43
1278.80	0.03	0.02	-0.03	0.35	0.24	-0.19

1279.00	-0.01	-0.02	-0.02	0.23	-1.49	0.53
1279.20	0.01	-0.02	-0.03	0.02	0.70	1.23
1279.40	0.02	0.03	-0.01	-0.18	0.81	-0.09
1279.60	0.05	-0.11	-0.02	0.02	0.24	0.17
1279.80	0.12	-0.03	-0.03	-0.07	-0.16	0.30
1280.00	-0.05	-0.03	-0.02	0.23	1.03	0.52
1280.20	-0.05	-0.02	-0.01	-0.15	-0.75	1.37
1280.40	0.03	0.01	0.00	-0.20	0.11	0.59
1280.60	0.10	-0.04	-0.01	0.03	0.05	-0.05
1280.80	0.05	0.13	-0.02	-0.13	-3.30	1.93
1281.00	0.05	-0.08	0.01	-0.35	0.03	-0.77
1281.20	0.02	0.02	-0.03	0.23	2.47	-2.36
1281.40	-0.05	0.13	-0.01	0.02	-0.35	0.60
1281.60	-0.03	-0.02	0.00	-0.35	0.84	-1.02
1281.80	-0.07	-0.03	-0.03	-0.01	0.08	-0.90
1282.00	0.03	0.03	0.02	0.09	2.63	1.11
1282.20	0.12	-0.01	-0.01	0.25	3.95	1.79
1282.40	0.04	-0.04	-0.01	0.10	1.40	0.52
1282.60	0.04	0.03	-0.02	0.05	1.41	-0.06
1282.80	0.15	0.14	0.01	0.03	2.01	1.06
1283.00	-0.01	0.02	0.01	-0.05	1.39	0.20
1283.20	0.01	-0.04	-0.01	-0.14	0.46	-0.24
1283.40	0.08	0.23	0.04	-0.12	-0.21	0.19
1283.60	-0.05	0.07	-0.02	-0.13	0.03	0.43
1283.80	0.04	0.01	-0.01	-0.15	-0.92	0.22
1284.00	-0.03	-0.09	-0.02	-0.10	0.80	-0.64
1284.20	0.04	0.01	0.01	-0.04	-0.62	0.73
1284.40	-0.02	0.01	-0.01	-0.09	-2.71	1.32
1284.60	0.02	0.06	-0.03	0.01	2.08	1.49
1284.80	0.02	0.11	0.01	-0.08	0.11	0.82
1285.00	0.15	-0.03	-0.01	0.09	0.40	1.55
1285.20	0.13	0.00	-0.02	-0.09	-0.42	-0.26
1285.40	0.16	-0.02	-0.02	-0.06	0.16	-0.11
1285.60	0.03	-0.02	-0.02	-0.15	0.25	-0.30
1285.80	0.01	0.03	-0.02	-0.11	0.62	-1.13
1286.00	0.05	-0.03	0.00	-0.23	1.39	-1.07
1286.20	0.06	0.03	-0.02	-0.16	-0.20	0.17
1286.40	0.12	-0.03	0.00	-0.22	0.67	-0.14
1286.60	0.10	0.03	-0.03	-0.10	-0.36	-0.17
1286.80	0.06	-0.03	-0.05	-0.06	-1.43	-0.73
1287.00	0.07	-0.06	-0.03	-0.23	-1.52	-1.10
1287.20	0.00	-0.10	-0.04	-0.06	-0.72	-0.37
1287.40	0.08	-0.01	-0.02	-0.11	0.20	0.05
1287.60	-0.01	0.05	-0.04	-0.18	-0.41	0.25
1287.80	0.04	-0.07	-0.04	-0.16	0.69	0.00
1288.00	0.01	-0.02	-0.04	-0.07	0.21	0.15
1288.20	0.11	0.08	-0.03	-0.10	-0.29	0.00
1288.40	0.02	-0.03	-0.02	-0.12	0.02	0.11
1288.60	0.04	-0.12	-0.06	-0.04	0.08	0.01
1288.80	0.03	0.04	-0.02	-0.11	0.00	-0.01

1289.00	0.02	-0.05	-0.04	-0.17	0.08	0.07
1289.20	0.10	-0.05	-0.03	-0.14	0.17	-0.13
1289.40	0.07	-0.02	-0.04	-0.15	-0.18	0.06
1289.60	0.10	0.08	-0.06	-0.09	-0.09	0.04
1289.80	0.08	0.03	-0.03	-0.14	0.07	-0.23
1290.00	0.03	-0.03	-0.06	-0.17	-0.07	0.26
1290.20	0.12	0.07	-0.03	-0.10	0.38	0.07
1290.40	0.07	-0.01	-0.04	-0.25	0.05	0.40
1290.60	0.10	0.04	-0.02	-0.24	0.36	0.28
1290.80	0.11	0.01	-0.03	-0.13	0.23	-0.22
1291.00	0.02	0.12	-0.03	-0.10	-0.02	-0.22
1291.20	0.11	0.07	-0.03	-0.16	-0.39	0.51
1291.40	-0.04	-0.06	-0.03	-0.23	-0.25	0.76
1291.60	-0.02	0.13	-0.06	-0.13	0.28	0.03
1291.80	0.09	-0.02	-0.01	-0.25	0.89	-0.42
1292.00	0.12	0.06	-0.02	-0.19	-0.52	0.16
1292.20	0.08	0.23	-0.04	-0.06	-0.96	0.08
1292.40	0.04	-0.07	-0.06	-0.27	-2.45	0.31
1292.60	0.12	-0.01	-0.06	0.11	-1.91	0.37
1292.80	0.15	0.10	-0.05	-0.20	0.63	-0.67
1293.00	0.06	0.09	-0.06	-0.20	-0.17	-0.56
1293.20	0.08	-0.06	-0.07	-0.20	1.71	0.16
1293.40	0.11	0.01	-0.02	-0.17	0.18	0.37
1293.60	0.14	0.02	-0.04	-0.42	1.83	-1.03
1293.80	0.06	0.06	-0.05	0.06	1.37	0.25
1294.00	0.16	-0.02	-0.07	-0.24	0.04	0.84
1294.20	0.12	0.01	-0.03	-0.13	-0.36	0.40
1294.40	0.14	0.06	-0.05	-0.17	0.88	0.31
1294.60	0.00	0.01	-0.04	-0.10	-0.73	0.58
1294.80	0.05	-0.03	-0.05	-0.20	0.36	-0.35
1295.00	0.16	0.03	-0.03	-0.03	0.66	-1.96
1295.20	0.06	0.02	-0.04	-0.07	-0.10	1.10
1295.40	0.10	0.06	-0.06	-0.03	0.11	0.20
1295.60	0.09	0.06	-0.09	0.13	0.89	-0.81
1295.80	0.11	-0.02	-0.06	0.09	0.88	-1.92
1296.00	0.17	-0.06	-0.07	-0.17	2.22	0.85
1296.20	0.09	0.07	-0.06	0.18	0.11	-1.78
1296.40	0.09	0.00	-0.05	-0.48	1.97	1.74
1296.60	0.09	0.10	-0.03	-0.18	-0.27	0.13
1296.80	0.09	0.05	-0.08	-0.19	-0.04	-0.01
1297.00	0.11	-0.05	-0.05	0.09	-1.23	-0.44
1297.20	0.17	-0.04	-0.03	0.00	1.29	-0.74
1297.40	0.07	-0.11	-0.03	-0.04	-0.08	1.10
1297.60	0.04	-0.09	-0.05	-0.43	1.06	1.58
1297.80	0.06	0.10	-0.05	-0.43	-2.89	-1.21
1298.00	0.02	0.05	-0.03	-0.05	0.16	0.34
1298.20	0.11	-0.08	-0.05	-0.22	-0.50	0.22
1298.40	0.15	0.00	-0.06	-0.37	0.07	0.97
1298.60	0.17	0.01	-0.05	-0.20	0.09	0.13
1298.80	0.10	0.03	-0.05	0.17	-0.85	-2.02

1299.00	0.12	0.04	-0.02	-0.19	0.13	-0.65
1299.20	0.18	-0.05	-0.05	-0.17	0.18	0.21
1299.40	0.21	-0.03	-0.02	-0.45	-0.20	-0.40
1299.60	0.21	0.11	0.00	0.22	-0.70	-0.78
1299.80	0.15	0.02	-0.03	0.15	0.69	0.17
1300.00	0.20	0.07	-0.05	-0.19	-0.79	1.82
1300.20	0.22	0.01	-0.03	-0.12	2.32	0.33
1300.40	0.31	0.12	-0.04	-0.20	-0.55	0.27
1300.60	0.08	-0.03	-0.05	-0.37	0.63	-0.36
1300.80	0.13	-0.05	-0.03	-0.11	-1.33	1.20
1301.00	0.21	0.11	-0.02	-0.23	-1.90	0.44
1301.20	0.18	-0.06	-0.04	-0.36	0.13	-1.05
1301.40	0.17	0.06	-0.02	-0.27	2.11	-1.01
1301.60	0.06	0.03	-0.06	0.00	1.74	0.29
1301.80	0.13	-0.03	-0.03	0.33	2.10	0.06
1302.00	0.26	-0.05	-0.02	-1.10	0.48	2.94
1302.20	0.21	0.05	-0.03	-0.41	0.33	2.11
1302.40	0.15	0.09	-0.06	-0.11	-0.59	-1.65
1302.60	0.20	0.02	-0.02	-0.18	1.24	0.14
1302.80	0.16	0.01	-0.01	0.44	-0.21	-2.15
1303.00	0.10	0.07	0.00	-0.17	-0.63	-0.74
1303.20	0.05	-0.05	-0.05	-0.19	2.20	-0.36
1303.40	0.25	-0.06	-0.02	-0.13	2.08	-0.01
1303.60	0.06	0.05	-0.03	-0.64	1.49	-1.30
1303.80	0.16	0.08	-0.07	-0.13	-0.54	-0.09
1304.00	0.27	0.00	-0.04	-0.56	0.10	0.79
1304.20	0.14	0.09	-0.02	-0.08	1.43	0.43
1304.40	0.24	-0.06	-0.04	-0.17	0.97	1.08
1304.60	0.33	0.00	-0.05	-0.24	0.33	-0.51
1304.80	0.14	0.05	-0.04	-0.28	-0.09	-0.74
1305.00	0.23	0.02	-0.04	-0.08	-2.31	1.57
1305.20	0.12	0.13	-0.04	0.09	-0.71	-0.72
1305.40	0.12	0.02	-0.04	-0.32	1.33	-0.71
1305.60	0.16	-0.03	-0.04	-0.22	-0.69	0.50
1305.80	0.14	0.00	-0.05	-0.16	0.31	-1.05
1306.00	0.13	0.00	-0.03	-0.16	0.04	-0.50
1306.20	0.24	0.09	-0.03	-0.20	-0.83	0.81
1306.40	0.16	0.00	-0.04	-0.14	-1.04	0.59
1306.60	0.19	-0.04	-0.02	-0.24	1.42	-0.11
1306.80	0.02	0.06	-0.04	-0.31	0.48	-0.56
1307.00	0.03	0.07	-0.04	-0.29	-0.06	0.64
1307.20	0.24	0.08	-0.04	-0.16	0.07	0.77
1307.40	0.09	-0.07	-0.03	0.82	-1.56	-3.51
1307.60	0.08	0.07	-0.03	0.00	0.03	0.03
1307.80	0.16	0.00	0.00	0.08	0.07	1.11
1308.00	0.22	0.06	-0.02	-0.41	-2.13	0.36
1308.20	0.25	0.02	-0.04	-0.20	-0.51	0.42
1308.40	0.14	-0.05	-0.03	-0.18	0.15	-0.38
1308.60	0.08	-0.02	-0.01	-0.22	0.20	-0.12
1308.80	0.14	-0.04	-0.02	0.12	-0.10	-1.13

1309.00	0.30	-0.05	-0.05	-0.14	-0.08	-0.19
1309.20	0.16	0.04	-0.04	-0.27	-0.29	0.08
1309.40	0.29	-0.07	-0.02	-0.15	-0.14	-0.41
1309.60	0.23	0.03	-0.04	-0.32	-0.03	0.42
1309.80	0.23	0.02	-0.03	-0.33	0.08	0.41
1310.00	0.22	-0.09	-0.05	-0.28	0.52	0.33
1310.20	0.10	0.00	-0.02	-0.64	0.01	1.74
1310.40	0.16	-0.01	-0.04	-0.15	1.77	-1.31
1310.60	0.20	0.01	-0.02	-0.17	-1.70	0.51
1310.80	0.32	-0.06	-0.05	0.47	-0.44	-1.61
1311.00	0.11	0.00	-0.04	0.27	3.89	-0.20
1311.20	0.21	0.02	-0.02	-0.43	2.15	-1.42
1311.40	0.15	-0.07	0.00	-0.56	-1.44	1.05
1311.60	0.20	0.02	-0.02	0.15	-0.04	-1.37
1311.80	0.30	0.04	-0.03	-0.05	1.57	-0.47
1312.00	0.10	-0.10	-0.04	-0.01	1.35	1.01
1312.20	0.29	0.09	-0.01	-0.18	-1.86	1.26
1312.40	0.20	0.12	-0.01	-0.23	0.30	-1.04
1312.60	0.11	0.02	-0.02	-0.20	1.46	-2.48
1312.80	0.02	0.00	-0.04	-0.38	1.53	0.57
1313.00	0.15	-0.01	-0.03	-0.21	-0.53	1.85
1313.20	0.15	-0.02	-0.04	-0.30	-0.56	3.81
1313.40	0.21	-0.08	-0.02	-0.18	-0.90	-0.03
1313.60	0.19	-0.01	-0.02	0.03	-1.02	0.55
1313.80	0.21	-0.07	-0.04	-0.29	-0.05	1.12
1314.00	0.10	0.11	-0.01	-0.30	0.38	0.37
1314.20	0.09	-0.04	-0.04	-0.36	1.24	-0.72
1314.40	0.23	0.02	-0.06	-0.36	-0.26	0.97
1314.60	0.24	-0.09	-0.01	-0.28	-0.38	0.58
1314.80	0.19	0.05	-0.01	-0.24	-3.04	1.81
1315.00	0.19	0.17	-0.02	-0.63	0.03	1.26
1315.20	0.20	-0.02	-0.03	0.07	-2.46	-0.25
1315.40	0.25	0.10	-0.04	-0.42	2.00	-0.20
1315.60	0.36	-0.01	-0.03	-0.03	-0.41	-0.51
1315.80	0.19	0.08	-0.04	0.02	-0.50	-0.65
1316.00	0.21	0.08	-0.02	-0.38	-0.04	0.41
1316.20	0.20	-0.17	-0.06	0.42	-0.41	-1.86
1316.40	0.15	-0.05	-0.05	-0.58	-0.39	1.45
1316.60	0.35	0.04	-0.03	-0.06	0.04	-0.67
1316.80	0.16	-0.01	-0.03	-0.30	-0.16	0.20
1317.00	0.27	-0.07	-0.03	-0.26	0.05	0.01
1317.20	0.12	0.13	-0.02	-0.31	0.06	0.18
1317.40	0.23	0.05	-0.03	-0.24	-0.28	0.09
1317.60	0.27	0.05	-0.03	-0.25	0.04	-0.03
1317.80	0.22	-0.01	-0.04	-0.25	-0.02	0.24
1318.00	0.18	0.00	-0.03	-0.24	0.13	0.11
1318.20	0.19	-0.05	-0.05	-0.25	0.09	-0.09
1318.40	0.22	0.08	-0.06	-0.17	0.20	-0.32
1318.60	0.27	0.00	-0.04	-0.21	0.03	-0.14
1318.80	0.17	0.00	-0.02	-0.27	-0.13	-0.06

1319.00	0.28	-0.01	-0.02	-0.06	-0.36	0.11
1319.20	0.29	0.00	-0.04	-0.77	-3.34	1.26
1319.40	0.26	-0.05	-0.04	0.00	1.43	0.03
1319.60	0.22	-0.06	-0.04	-0.18	-0.05	0.33
1319.80	0.33	0.06	-0.02	-0.02	-2.52	0.26
1320.00	0.36	0.02	-0.04	0.25	-1.80	-1.96
1320.20	0.27	-0.04	-0.04	-0.35	-0.06	0.47
1320.40	0.25	0.06	-0.03	-0.12	1.10	0.46
1320.60	0.24	0.04	-0.03	-0.02	1.52	1.06
1320.80	0.32	-0.03	-0.02	-0.37	-0.59	-0.01
1321.00	0.23	0.11	-0.03	-0.04	-0.43	0.20
1321.20	0.33	0.01	-0.02	-0.20	-0.22	0.12
1321.40	0.10	0.06	-0.01	-0.22	-0.06	0.10
1321.60	0.28	-0.07	-0.03	-0.21	-0.49	0.41
1321.80	0.25	0.05	-0.04	-0.32	-0.15	0.29
1322.00	0.36	0.03	-0.03	-0.23	-0.19	0.09
1322.20	0.20	-0.12	-0.03	-0.23	-1.81	1.02
1322.40	0.22	0.10	-0.03	-0.32	-0.39	0.21
1322.60	0.25	0.10	-0.03	-0.35	-0.19	0.05
1322.80	0.19	0.04	-0.01	-0.23	-0.06	0.22
1323.00	0.24	0.03	-0.03	-0.21	-0.35	-0.63
1323.20	0.12	0.12	-0.03	-0.66	0.10	1.42
1323.40	0.18	0.03	-0.04	-0.16	2.09	0.19
1323.60	0.18	0.01	-0.03	-0.37	-0.65	-0.01
1323.80	0.16	0.06	-0.04	-0.23	-1.75	0.32
1324.00	0.33	-0.04	-0.03	0.26	0.50	-0.92
1324.20	0.15	0.03	-0.05	-0.11	0.46	0.63
1324.40	0.06	-0.14	-0.02	-0.20	0.06	0.33
1324.60	0.12	-0.11	-0.02	-0.29	0.17	0.37
1324.80	0.35	0.10	-0.04	-0.25	-0.99	0.11
1325.00	0.21	0.04	-0.04	-0.21	0.13	0.05
1325.20	0.32	0.11	-0.03	-0.30	0.14	0.28
1325.40	0.20	0.01	-0.04	-0.22	-0.19	-0.15
1325.60	0.19	0.07	-0.05	-0.28	-0.02	0.40
1325.80	0.33	0.10	-0.01	-0.26	0.05	0.03
1326.00	0.14	0.05	-0.04	-0.33	-0.13	0.21
1326.20	0.35	-0.10	-0.04	-0.25	0.35	0.26
1326.40	0.16	0.00	-0.04	-0.21	0.12	0.18
1326.60	0.28	0.09	-0.01	-0.24	0.05	0.00
1326.80	0.21	-0.10	-0.03	-0.23	0.00	0.11
1327.00	0.31	0.08	-0.03	-0.30	0.09	-0.01
1327.20	0.20	0.05	-0.04	-0.28	0.03	0.08
1327.40	0.21	-0.10	-0.04	-0.27	0.19	0.08
1327.60	0.18	-0.02	-0.02	-0.27	0.19	0.07
1327.80	0.35	-0.04	-0.04	-0.26	-0.14	0.09
1328.00	0.22	0.06	-0.05	-0.26	-0.18	0.02
1328.20	0.28	-0.01	-0.03	-0.42	0.06	1.01
1328.40	0.20	-0.08	-0.01	-0.21	-1.36	1.10
1328.60	0.27	0.03	-0.04	-0.24	0.26	-0.15
1328.80	0.17	-0.04	-0.02	-0.32	0.65	0.70

1329.00	0.29	0.06	-0.03	-0.62	-1.38	-0.41
1329.20	0.30	0.02	-0.01	-0.13	-0.97	3.01
1329.40	0.23	0.03	-0.02	0.24	0.47	-1.05
1329.60	0.25	-0.05	-0.03	0.06	-1.28	-1.84
1329.80	0.19	-0.01	-0.04	-0.23	-1.38	-0.59
1330.00	0.23	0.04	-0.01	-0.31	0.15	0.88
1330.20	0.18	0.02	-0.03	-0.25	-0.43	-0.15
1330.40	0.24	-0.06	-0.03	0.05	-0.50	-1.33
1330.60	0.31	0.04	-0.04	-0.55	0.47	0.93
1330.80	0.33	-0.10	-0.03	-0.42	-0.49	0.92
1331.00	0.30	-0.03	-0.04	-0.39	-2.02	-0.20
1331.20	0.31	0.06	-0.02	-0.32	-1.59	0.60
1331.40	0.21	-0.03	-0.07	-0.11	1.66	0.11
1331.60	0.24	0.03	-0.03	-0.63	0.19	0.13
1331.80	0.13	0.06	-0.03	-0.29	-0.35	0.25
1332.00	0.26	0.05	-0.04	-0.24	-2.21	2.10
1332.20	0.21	0.03	-0.03	-0.22	1.13	-0.92
1332.40	0.31	0.13	-0.04	-0.34	1.90	-0.67
1332.60	0.25	0.06	-0.02	0.43	-0.69	-2.24
1332.80	0.24	0.05	-0.01	-0.03	-0.52	1.07
1333.00	0.21	-0.11	-0.04	-0.11	0.54	1.20
1333.20	0.23	0.05	-0.05	0.10	1.68	-1.93
1333.40	0.24	-0.10	-0.03	0.58	-0.78	-1.78
1333.60	0.24	0.09	-0.03	-0.09	1.74	-0.30
1333.80	0.26	-0.01	-0.02	-0.09	0.45	0.64
1334.00	0.20	0.02	-0.01	-0.54	1.56	-0.67
1334.20	0.34	0.00	-0.01	-0.31	-0.88	0.02
1334.40	0.04	0.01	-0.03	-0.24	-1.67	0.00
1334.60	0.17	-0.01	-0.04	-0.18	-0.74	0.28
1334.80	0.07	-0.11	0.00	-0.15	-0.06	0.19
1335.00	0.31	0.02	-0.01	-0.30	-0.76	1.07
1335.20	0.20	0.10	-0.03	-0.24	-0.67	0.29
1335.40	0.19	0.13	0.00	-0.32	-1.32	0.58
1335.60	0.18	0.02	-0.02	-0.16	-2.02	1.22
1335.80	0.30	0.07	-0.01	-0.44	-0.07	0.76
1336.00	0.20	-0.13	-0.04	-0.12	-0.33	0.27
1336.20	0.23	0.02	-0.03	-0.23	1.15	-0.76
1336.40	0.36	-0.09	-0.03	-0.13	0.45	-0.43
1336.60	0.34	0.03	-0.03	-0.21	1.87	0.23
1336.80	0.21	0.06	-0.02	0.17	0.65	-0.37
1337.00	0.18	0.12	-0.04	-0.46	1.85	-0.97
1337.20	0.24	-0.04	-0.05	-0.09	-0.96	-0.15
1337.40	0.27	0.02	-0.04	-0.15	-0.72	-0.34
1337.60	0.22	-0.07	-0.02	-0.16	0.30	-0.19
1337.80	0.40	0.09	-0.03	-0.15	-0.42	0.45
1338.00	0.32	0.08	-0.04	-0.38	0.87	0.07
1338.20	0.17	-0.05	-0.02	-0.33	-0.96	-0.62
1338.40	0.23	0.01	-0.02	-0.18	-2.86	-0.80
1338.60	0.15	0.07	-0.03	-0.20	-0.61	0.27
1338.80	0.24	0.07	-0.04	-0.39	-0.41	0.65

1339.00	0.41	-0.03	-0.04	-0.02	-0.23	-0.30
1339.20	0.34	-0.11	-0.03	-0.20	-0.05	0.10
1339.40	0.26	0.09	-0.04	-0.27	-0.14	0.44
1339.60	0.19	0.05	-0.03	-0.14	0.21	-0.22
1339.80	0.29	0.09	0.00	-0.10	0.20	-0.02
1340.00	0.07	-0.02	-0.01	-0.09	0.01	-0.57
1340.20	0.24	-0.17	-0.03	-0.18	0.43	0.02
1340.40	0.19	0.06	-0.03	-0.12	0.00	-0.01
1340.60	0.21	0.14	-0.03	-0.22	-0.05	0.33
1340.80	0.20	0.04	-0.02	-0.17	-0.34	-0.02
1341.00	0.12	0.00	-0.01	-0.20	-0.09	0.29
1341.20	0.32	0.07	-0.02	-0.09	-0.02	-0.04
1341.40	0.19	0.05	-0.02	-0.11	0.03	-0.14
1341.60	0.12	0.01	-0.01	-0.15	-0.05	-0.21
1341.80	0.21	0.06	-0.04	-0.14	-0.16	-0.04
1342.00	0.31	0.04	-0.03	-0.11	-0.28	-0.29
1342.20	0.30	0.02	-0.01	-0.13	-0.11	-0.12
1342.40	0.12	0.03	-0.01	-0.19	-0.02	0.19
1342.60	0.29	-0.11	-0.03	-0.18	-0.20	-0.16
1342.80	0.14	0.02	-0.02	-0.16	0.07	-0.14
1343.00	0.07	-0.01	-0.03	-0.15	-0.08	0.07
1343.20	0.25	-0.02	-0.05	-0.16	-0.12	-0.22
1343.40	0.38	-0.10	-0.03	-0.10	0.27	-0.06
1343.60	0.14	0.01	-0.04	-0.07	-0.05	-0.44
1343.80	0.19	-0.05	-0.02	-0.06	-0.25	-0.33
1344.00	0.28	0.03	-0.02	-0.10	-0.57	-0.19
1344.20	0.22	-0.05	-0.03	-0.16	0.00	-0.30
1344.40	0.12	0.03	-0.02	-0.03	0.13	-0.26
1344.60	0.37	0.11	-0.04	0.18	-1.65	0.27
1344.80	0.24	0.11	-0.03	-0.02	-1.31	1.04
1345.00	0.19	0.05	-0.04	0.04	-0.15	0.01
1345.20	0.20	0.08	-0.02	-0.59	0.30	2.39
1345.40	0.30	0.01	-0.01	0.30	1.01	1.25
1345.60	0.27	0.01	-0.01	0.54	-0.05	-0.26
1345.80	0.25	0.02	-0.01	0.24	1.35	-2.00
1346.00	0.20	0.08	-0.03	-0.06	0.51	-0.41
1346.20	0.23	-0.02	-0.04	0.22	-1.70	-1.92
1346.40	0.25	0.07	-0.03	-0.19	0.08	-1.65
1346.60	0.26	-0.03	-0.04	0.07	-0.65	0.66
1346.80	0.10	0.14	-0.03	-0.17	-2.22	-0.13
1347.00	0.16	0.00	-0.02	-0.21	1.71	0.67
1347.20	0.19	0.02	-0.04	-0.13	2.48	0.26
1347.40	0.23	0.05	-0.03	-0.36	-1.80	-0.34
1347.60	0.26	-0.06	-0.02	0.08	-2.01	-0.03
1347.80	0.24	0.03	-0.01	0.12	1.87	-0.56
1348.00	0.09	-0.08	-0.04	-0.56	0.85	1.47
1348.20	0.28	0.02	-0.03	-0.09	1.57	-0.97
1348.40	0.30	0.02	-0.05	-0.51	-0.16	0.99
1348.60	0.11	0.00	-0.02	-0.51	-0.68	0.96
1348.80	0.16	0.07	-0.02	-0.27	-1.03	-0.04

1349.00	0.12	0.10	-0.04	-0.16	-0.99	1.38
1349.20	0.12	-0.06	-0.04	0.04	0.45	-1.52
1349.40	0.19	0.01	-0.03	0.21	0.83	-1.40
1349.60	0.13	-0.06	-0.02	-0.71	1.60	1.30
1349.80	0.13	0.03	-0.03	0.18	-0.27	-0.21
1350.00	0.21	-0.10	-0.04	0.06	0.21	0.46
1350.20	0.10	0.08	-0.02	0.18	0.62	-0.75
1350.40	0.09	0.13	-0.04	0.01	1.32	-0.16
1350.60	0.17	0.13	-0.02	-0.04	1.06	1.81
1350.80	0.17	0.08	-0.02	-0.24	2.00	1.25
1351.00	0.21	-0.14	-0.04	0.00	0.31	0.00
1351.20	0.18	0.02	-0.06	-0.06	-1.24	0.50
1351.40	0.08	0.02	-0.02	-0.14	-0.95	-0.16
1351.60	0.28	0.01	-0.03	0.01	-0.38	0.35
1351.80	0.22	-0.02	-0.05	-0.08	0.31	-1.11
1352.00	0.12	0.11	-0.04	0.12	-1.66	0.82
1352.20	0.24	-0.16	-0.05	-0.08	0.34	-0.31
1352.40	0.10	0.09	0.01	-0.12	0.42	-0.54
1352.60	0.24	-0.05	-0.05	0.02	-0.87	-0.09
1352.80	0.16	0.06	-0.03	-0.05	-0.21	-0.51
1353.00	0.07	0.00	-0.02	-0.16	0.02	0.78
1353.20	0.13	0.01	-0.04	-0.14	-0.23	-0.10
1353.40	0.04	0.02	-0.05	-0.20	0.40	0.02
1353.60	0.13	0.03	-0.02	-0.15	0.27	0.38
1353.80	0.01	-0.03	-0.02	-0.02	0.02	0.04
1354.00	0.13	0.03	-0.05	-0.02	0.03	0.30
1354.20	0.12	-0.08	-0.05	-0.04	-0.32	0.59
1354.40	0.12	-0.17	-0.05	-0.08	-0.27	0.80
1354.60	0.13	-0.04	-0.05	-0.05	-0.21	0.17
1354.80	-0.10	0.03	-0.07	-0.07	-0.35	0.54
1355.00	0.17	0.06	-0.07	0.05	0.32	-0.17
1355.20	0.10	0.02	-0.03	-0.02	0.07	0.04
1355.40	0.12	-0.01	-0.05	-0.16	-0.17	-0.04
1355.60	0.10	-0.02	-0.05	-0.13	0.17	0.96
1355.80	0.15	0.05	-0.06	-0.10	-0.58	-0.10
1356.00	-0.01	0.11	-0.02	0.19	0.05	-0.25
1356.20	-0.04	0.00	-0.06	-0.22	-0.39	0.02
1356.40	0.07	0.04	-0.08	0.58	0.58	-0.65
1356.60	0.09	0.03	-0.06	-0.34	-0.05	1.52
1356.80	0.09	-0.06	-0.04	0.05	-1.50	-0.44
1357.00	0.03	0.04	-0.03	0.44	2.53	0.00
1357.20	0.02	0.09	-0.06	-0.08	-1.68	1.25
1357.40	0.06	0.07	-0.05	-0.41	-0.21	1.34
1357.60	-0.07	0.09	-0.06	0.03	-1.06	-0.25
1357.80	-0.04	0.08	-0.03	-0.10	-0.68	-0.01
1358.00	-0.01	0.07	-0.04	-0.33	-0.14	0.70
1358.20	0.03	-0.06	-0.05	-0.22	-0.14	0.90
1358.40	0.12	0.02	-0.04	-0.09	-0.24	0.59
1358.60	0.13	0.05	-0.04	-0.10	1.34	2.31
1358.80	0.11	0.09	-0.02	-0.50	-2.28	1.57

1359.00	0.06	0.01	-0.04	-0.22	-0.05	1.25
1359.20	0.07	-0.06	-0.05	0.21	-0.53	-0.37
1359.40	0.00	0.08	-0.06	-0.10	1.31	2.23
1359.60	0.27	-0.03	-0.03	0.14	-2.35	0.24
1359.80	-0.11	-0.06	-0.04	-0.15	1.18	0.65
1360.00	0.06	0.13	-0.04	-0.13	-0.53	1.11
1360.20	-0.09	-0.04	-0.05	-0.65	-0.07	2.72
1360.40	0.07	-0.08	-0.05	-0.16	-0.52	-0.01
1360.60	0.09	-0.03	-0.03	0.07	0.44	-0.38
1360.80	-0.07	-0.02	-0.03	-0.19	0.50	0.76
1361.00	0.05	0.04	-0.06	-0.08	0.57	0.18
1361.20	0.04	0.10	-0.03	0.30	0.07	-0.42
1361.40	0.03	-0.09	-0.02	0.75	0.60	-2.10
1361.60	0.03	-0.02	-0.03	-0.03	-0.47	0.27
1361.80	0.02	-0.01	-0.04	-0.04	-0.22	0.10
1362.00	0.00	0.07	-0.05	-0.35	-0.11	0.73
1362.20	-0.04	-0.05	-0.04	0.04	0.89	-1.12
1362.40	0.06	-0.03	-0.04	-0.08	-0.74	1.48
1362.60	0.01	0.13	-0.06	-0.09	0.61	0.07
1362.80	0.04	0.19	-0.04	0.01	0.33	-0.41
1363.00	0.00	0.01	-0.04	0.02	0.97	-0.05
1363.20	0.01	0.06	-0.05	-0.01	0.39	-0.36
1363.40	0.00	0.19	-0.06	-0.57	1.73	0.78
1363.60	0.05	0.06	-0.04	-0.39	0.53	1.02
1363.80	0.00	-0.04	-0.08	0.40	-1.34	-0.05
1364.00	-0.09	0.12	-0.05	0.72	-0.21	-2.36
1364.20	-0.02	0.00	-0.07	0.42	0.71	-2.01
1364.40	-0.03	0.12	-0.05	-0.65	1.40	2.08
1364.60	0.04	0.00	-0.04	0.49	-0.81	-0.62
1364.80	0.01	-0.05	-0.05	0.05	-0.46	0.62
1365.00	-0.01	-0.04	-0.07	-0.45	2.17	-0.37
1365.20	-0.08	-0.09	-0.05	0.39	0.61	0.11
1365.40	-0.13	0.01	-0.07	0.05	-0.02	0.10
1365.60	0.06	0.08	-0.04	-0.40	0.57	1.51
1365.80	-0.04	-0.06	-0.06	0.04	-0.24	-0.04
1366.00	-0.16	-0.03	-0.05	-0.19	1.41	1.68
1366.20	-0.02	-0.07	-0.06	0.15	1.62	0.77
1366.40	0.00	0.08	-0.06	0.20	-0.07	0.52
1366.60	0.02	-0.02	-0.08	-0.04	-0.43	1.44
1366.80	-0.04	-0.04	-0.05	-0.65	3.39	-0.33
1367.00	-0.05	0.02	-0.06	-0.33	0.39	1.18
1367.20	-0.03	-0.06	-0.06	0.06	0.93	-0.63
1367.40	-0.01	0.15	-0.04	0.12	-1.19	-1.67
1367.60	-0.06	0.00	-0.04	-0.06	-0.57	-2.50
1367.80	0.00	-0.04	-0.05	0.25	-2.51	-0.48
1368.00	0.02	0.08	-0.05	-0.52	0.33	0.36
1368.20	0.00	-0.10	-0.06	0.58	-0.08	-1.57
1368.40	-0.03	-0.06	-0.06	-0.07	-3.05	0.06
1368.60	0.00	0.02	-0.05	0.00	-0.44	-1.57
1368.80	-0.07	0.04	-0.05	0.17	-0.17	-0.03

1369.00	-0.05	-0.13	-0.04	0.13	2.76	0.10
1369.20	-0.03	-0.04	-0.05	0.06	1.16	0.44
1369.40	-0.13	0.05	-0.06	0.06	0.15	-0.68
1369.60	-0.07	-0.04	-0.05	-0.05	-0.26	-0.03
1369.80	-0.07	0.01	-0.05	0.14	0.02	-0.09
1370.00	-0.15	0.00	-0.06	0.25	-0.28	1.14
1370.20	-0.06	0.03	-0.04	-0.26	-0.77	0.04
1370.40	-0.15	0.06	-0.03	0.17	1.99	0.39
1370.60	-0.05	0.00	-0.04	0.09	-0.54	0.30
1370.80	-0.03	-0.06	-0.04	-0.02	-1.29	1.65
1371.00	0.02	-0.15	-0.07	0.04	1.04	0.30
1371.20	-0.05	0.05	-0.04	0.45	-0.15	-0.29
1371.40	-0.14	0.04	-0.05	0.12	0.69	0.14
1371.60	0.01	-0.01	-0.04	0.31	0.84	1.13
1371.80	-0.08	-0.10	-0.05	0.04	1.19	-0.17
1372.00	-0.09	0.02	-0.04	0.25	-1.41	0.04
1372.20	-0.09	-0.07	-0.04	0.18	0.93	1.06
1372.40	-0.13	-0.01	-0.05	0.05	-0.04	0.27
1372.60	-0.04	-0.03	-0.03	0.50	-2.88	1.13
1372.80	0.06	0.01	-0.02	-0.36	3.58	1.73
1373.00	0.01	0.04	-0.05	-0.08	-0.94	0.90
1373.20	-0.01	0.17	-0.03	0.07	2.80	-0.52
1373.40	0.02	0.14	-0.02	0.10	3.78	2.16
1373.60	-0.02	-0.11	-0.03	0.86	-0.04	-0.79
1373.80	-0.07	-0.07	-0.03	0.20	2.86	-2.47
1374.00	-0.02	0.03	-0.02	-0.36	0.19	-0.31
1374.20	-0.04	-0.02	-0.01	-0.05	3.14	-1.91
1374.40	-0.06	-0.23	-0.02	0.46	-2.21	0.22
1374.60	-0.12	-0.09	-0.02	0.15	0.21	-0.38
1374.80	-0.03	0.04	-0.02	0.15	0.27	-0.54
1375.00	0.09	-0.05	-0.03	0.19	-0.58	0.31
1375.20	-0.16	-0.10	-0.02	0.00	-0.09	-0.19
1375.40	-0.06	-0.08	-0.01	0.09	0.14	-0.12
1375.60	-0.06	0.01	-0.03	0.13	0.14	0.00
1375.80	-0.12	0.12	-0.01	0.14	0.07	-0.05
1376.00	-0.11	0.05	-0.01	0.09	0.17	-0.18
1376.20	0.05	0.04	-0.03	0.07	0.04	0.04
1376.40	-0.08	0.18	-0.02	0.14	0.07	0.03
1376.60	-0.03	-0.05	-0.02	0.16	0.07	-0.34
1376.80	-0.17	-0.02	-0.02	0.10	0.07	0.27
1377.00	-0.10	0.01	-0.02	-0.04	-0.06	0.10
1377.20	-0.05	-0.17	0.00	0.20	0.94	-0.81
1377.40	-0.22	0.07	-0.01	0.08	-0.09	0.09
1377.60	-0.09	0.05	-0.02	-0.03	-0.25	0.21
1377.80	-0.18	-0.04	0.00	-0.02	0.05	0.38
1378.00	-0.11	0.05	-0.01	0.06	-0.09	-0.13
1378.20	0.07	0.01	-0.01	0.07	0.30	-0.04
1378.40	-0.11	0.14	0.01	0.00	0.00	0.35
1378.60	-0.15	0.00	0.00	0.23	0.32	-0.76
1378.80	-0.24	0.19	0.02	-0.02	0.01	0.44

1379.00	-0.08	0.07	0.01	-0.07	-0.10	0.02
1379.20	-0.17	0.09	-0.01	0.14	0.75	-0.41
1379.40	-0.13	0.07	-0.01	0.07	-0.15	0.52
1379.60	-0.08	0.01	-0.04	0.05	0.50	-0.25
1379.80	-0.13	0.00	-0.03	-0.49	0.28	1.34
1380.00	-0.08	-0.10	-0.05	0.10	0.53	-0.50
1380.20	-0.15	0.01	0.00	-0.09	1.16	0.73
1380.40	0.06	0.06	0.00	0.18	0.63	-0.67
1380.60	-0.05	0.02	-0.03	0.06	-0.52	0.67
1380.80	-0.17	-0.02	0.00	0.58	0.02	-0.82
1381.00	-0.16	-0.06	-0.05	-0.01	-0.82	0.22
1381.20	0.06	-0.01	-0.05	0.17	-0.59	0.44
1381.40	-0.03	-0.06	-0.03	0.02	-0.31	0.03
1381.60	0.04	-0.08	-0.03	-0.09	-1.09	-2.12
1381.80	-0.21	0.05	-0.01	0.20	-0.89	0.22
1382.00	-0.03	0.04	-0.02	0.20	-1.04	-0.04
1382.20	-0.23	0.21	-0.04	0.07	-0.07	0.69
1382.40	-0.16	0.03	-0.04	0.22	-1.51	0.52
1382.60	-0.11	-0.05	-0.04	0.62	3.77	-0.65
1382.80	-0.11	-0.04	-0.05	0.37	1.08	-0.72
1383.00	-0.06	-0.03	-0.04	-0.03	-3.45	-0.05
1383.20	-0.21	-0.01	-0.03	0.37	1.22	1.27
1383.40	-0.16	0.06	-0.06	0.08	0.88	-2.75
1383.60	-0.07	0.06	-0.06	0.36	-0.01	1.49
1383.80	-0.14	0.05	-0.05	-0.22	0.10	0.66
1384.00	-0.03	0.03	-0.06	0.20	-0.67	-1.22
1384.20	-0.17	0.02	-0.05	-0.01	0.12	-0.36
1384.40	0.03	0.01	-0.05	0.26	-2.48	0.82
1384.60	-0.26	0.17	-0.05	-0.08	1.93	-0.35
1384.80	-0.12	0.09	-0.05	-0.06	-0.50	-1.90
1385.00	-0.16	-0.04	-0.06	0.15	3.05	-0.30
1385.20	0.04	0.05	-0.06	-0.04	-0.89	-1.42
1385.40	-0.15	0.04	-0.04	0.01	1.03	0.07
1385.60	-0.09	-0.01	-0.06	-0.07	0.85	0.07
1385.80	-0.14	0.06	-0.06	0.20	0.78	-0.29
1386.00	-0.14	0.12	-0.05	0.15	-0.64	0.66
1386.20	-0.15	-0.02	-0.05	0.07	2.63	-1.64
1386.40	-0.09	0.00	-0.05	0.09	0.08	-0.09
1386.60	-0.07	-0.05	-0.06	0.27	-0.09	-0.07
1386.80	-0.13	-0.10	-0.06	0.23	-0.05	0.02
1387.00	-0.15	0.14	-0.04	0.22	0.41	-0.04
1387.20	-0.10	-0.01	-0.03	0.23	-0.35	0.42
1387.40	-0.09	0.04	-0.04	0.31	-0.07	-0.11
1387.60	-0.18	0.01	-0.06	0.11	-0.99	-0.99
1387.80	-0.11	0.02	-0.04	0.13	-0.29	-0.70
1388.00	-0.14	-0.02	-0.06	0.35	0.51	0.27
1388.20	-0.07	-0.02	-0.08	-0.02	0.89	-0.54
1388.40	-0.07	0.04	-0.06	0.20	-0.33	-0.09
1388.60	-0.17	-0.11	-0.05	0.09	-0.40	0.53
1388.80	-0.19	0.07	-0.06	-0.01	-1.24	-0.77

1389.00	-0.16	0.00	-0.05	0.22	0.57	0.25
1389.20	-0.09	0.06	-0.05	0.42	0.23	0.21
1389.40	-0.06	0.01	-0.05	0.44	-0.97	-0.88
1389.60	-0.17	-0.05	-0.06	0.02	0.32	1.54
1389.80	-0.16	0.04	-0.08	-0.27	-2.22	0.76
1390.00	-0.16	-0.04	-0.05	0.17	2.03	-0.71
1390.20	-0.10	0.02	-0.05	-0.50	-0.48	2.09
1390.40	-0.16	-0.01	-0.04	0.21	2.06	-0.48
1390.60	-0.10	-0.07	-0.07	0.06	0.28	-0.08
1390.80	-0.17	0.07	-0.08	0.14	-0.99	-0.68
1391.00	-0.22	0.04	-0.05	0.21	0.62	0.04
1391.20	-0.14	0.06	-0.07	0.00	2.18	-1.13
1391.40	-0.24	-0.09	-0.07	0.11	1.12	-0.85
1391.60	-0.08	0.00	-0.07	0.04	0.19	0.35
1391.80	-0.07	-0.10	-0.06	0.13	-0.33	-0.40
1392.00	-0.11	0.04	-0.08	0.13	1.98	-1.10
1392.20	-0.09	0.04	-0.05	0.07	-0.69	0.23
1392.40	-0.27	0.08	-0.07	-0.10	1.09	0.15
1392.60	-0.11	0.02	-0.03	0.87	0.00	-2.63
1392.80	-0.09	-0.03	-0.06	-0.14	-1.71	1.66
1393.00	-0.03	-0.07	-0.05	0.77	0.16	-2.90
1393.20	-0.07	-0.11	-0.03	-0.04	-0.48	0.43
1393.40	-0.10	-0.03	-0.04	0.31	1.44	-1.45
1393.60	-0.29	-0.05	-0.05	0.13	-2.15	0.76
1393.80	-0.04	-0.14	-0.06	0.29	1.28	1.34
1394.00	-0.21	0.04	-0.05	0.07	-2.70	0.05
1394.20	-0.23	0.12	-0.07	0.22	0.75	-0.15
1394.40	-0.20	0.02	-0.08	0.17	-0.28	-1.17
1394.60	-0.19	0.07	-0.07	0.28	0.10	-0.04
1394.80	0.01	0.03	-0.04	0.23	-0.25	-0.31
1395.00	-0.07	-0.07	-0.05	0.12	0.01	-0.15
1395.20	-0.11	-0.07	-0.05	0.06	-0.72	-0.43
1395.40	-0.20	0.01	-0.03	0.15	0.85	0.79
1395.60	-0.25	-0.03	-0.04	0.21	1.80	1.20
1395.80	-0.12	-0.03	-0.05	0.15	-0.24	0.04
1396.00	-0.14	0.05	-0.05	0.17	0.03	-0.24
1396.20	-0.13	-0.10	-0.03	0.25	-0.99	-0.74
1396.40	-0.15	-0.08	-0.03	0.13	0.48	0.15
1396.60	-0.09	-0.16	-0.06	0.28	0.33	-0.33
1396.80	-0.13	0.08	-0.02	0.24	-0.11	-0.26
1397.00	-0.24	-0.13	-0.05	0.36	0.34	-0.57
1397.20	-0.18	-0.01	-0.06	0.02	0.43	0.57
1397.40	-0.18	0.00	-0.04	0.55	0.30	-0.95
1397.60	-0.05	0.02	-0.04	0.23	0.95	-0.23
1397.80	-0.13	-0.03	-0.06	0.20	-2.52	0.17
1398.00	-0.22	0.03	-0.03	0.22	-0.40	-1.10
1398.20	-0.21	-0.06	-0.05	0.16	-0.38	-0.77
1398.40	-0.12	-0.02	-0.05	0.16	1.00	0.13
1398.60	-0.12	-0.13	-0.05	0.37	0.70	-0.39
1398.80	-0.07	-0.05	-0.06	-0.01	-0.84	0.44

1399.00	-0.17	-0.05	-0.04	0.41	-0.27	-0.24
1399.20	-0.22	-0.03	-0.05	0.03	2.44	-0.93
1399.40	-0.11	-0.01	-0.03	0.16	0.37	-0.26
1399.60	-0.16	-0.04	-0.03	0.16	0.34	0.89
1399.80	-0.10	-0.06	-0.04	0.37	0.22	-0.63
1400.00	-0.05	-0.01	-0.06	0.19	0.02	0.22
1400.20	-0.20	0.02	-0.02	0.19	-0.35	0.05
1400.40	-0.17	0.03	-0.04	0.31	0.18	-0.14
1400.60	-0.20	-0.03	-0.04	0.16	0.43	0.05
1400.80	-0.17	-0.05	-0.05	0.15	-0.23	0.11
1401.00	-0.23	0.04	-0.05	0.14	1.19	-0.62
1401.20	-0.21	-0.11	-0.02	0.20	0.52	0.40
1401.40	-0.19	0.03	-0.05	0.00	1.65	-1.44
1401.60	-0.26	0.00	-0.03	0.05	1.48	-1.16
1401.80	-0.18	-0.07	-0.02	0.24	0.83	-0.39
1402.00	-0.21	-0.09	-0.04	0.19	0.54	-0.42
1402.20	-0.14	-0.02	-0.05	0.21	0.69	-0.60
1402.40	-0.15	0.14	-0.03	0.34	0.39	-0.62
1402.60	-0.11	0.02	-0.06	0.12	0.54	-0.22
1402.80	-0.13	-0.09	-0.04	0.18	-0.47	0.39
1403.00	-0.21	-0.12	-0.04	0.10	-0.55	-1.08
1403.20	0.01	0.02	-0.03	0.24	0.33	-0.51
1403.40	-0.19	-0.03	-0.02	-0.16	5.22	-0.38
1403.60	-0.27	-0.13	-0.05	-0.29	3.89	2.02
1403.80	-0.18	0.01	-0.04	-0.29	1.23	2.86
1404.00	-0.16	-0.03	-0.04	-0.61	3.20	-0.95
1404.20	-0.34	-0.10	-0.01	0.34	0.39	-1.61
1404.40	-0.25	-0.03	-0.02	-0.01	-0.49	-0.48
1404.60	-0.30	0.07	-0.04	0.05	1.60	0.81
1404.80	-0.11	0.02	-0.03	0.23	-1.58	-1.35
1405.00	-0.05	-0.06	-0.05	0.09	0.52	-0.15
1405.20	-0.22	-0.09	-0.03	0.11	-1.20	0.49
1405.40	-0.31	0.08	-0.02	0.12	0.14	-0.47
1405.60	-0.24	0.01	-0.02	0.22	0.03	-0.29
1405.80	-0.21	-0.01	-0.05	0.20	-0.66	0.54
1406.00	-0.31	0.06	-0.03	0.23	-1.24	-0.24
1406.20	-0.17	0.03	-0.02	0.21	-0.15	0.40
1406.40	-0.09	0.01	-0.04	0.25	0.12	0.27
1406.60	-0.15	-0.18	-0.04	0.09	-0.18	1.35
1406.80	-0.13	-0.05	-0.03	0.21	1.28	-0.76
1407.00	-0.17	0.02	-0.04	0.15	-0.07	0.14
1407.20	-0.26	-0.08	-0.02	0.20	-0.09	0.33
1407.40	-0.14	-0.08	-0.02	0.30	-0.01	-0.47
1407.60	-0.26	-0.01	-0.05	0.11	0.24	0.31
1407.80	-0.23	0.06	-0.05	0.07	0.42	0.22
1408.00	-0.02	0.13	-0.07	0.15	-0.41	0.74
1408.20	-0.24	-0.08	-0.04	0.06	0.08	-0.47
1408.40	-0.13	0.12	-0.05	0.13	-0.83	0.39
1408.60	-0.28	0.04	-0.08	0.17	-0.52	-0.11
1408.80	-0.16	-0.07	-0.06	0.26	0.34	0.07

1409.00	-0.23	0.01	-0.05	0.14	0.13	0.17
1409.20	-0.13	0.04	-0.05	0.04	-0.40	0.28
1409.40	-0.21	-0.24	-0.04	0.24	0.37	-0.09
1409.60	-0.23	0.01	-0.05	0.15	0.38	0.46
1409.80	-0.21	0.05	-0.03	0.29	0.11	-0.33
1410.00	-0.32	0.04	-0.04	0.11	0.99	-0.91
1410.20	-0.11	-0.08	-0.04	0.22	-0.43	-0.44
1410.40	-0.17	-0.05	-0.05	0.14	-0.42	0.06
1410.60	-0.29	-0.01	-0.03	0.07	-0.06	0.29
1410.80	-0.38	-0.10	-0.07	0.20	-0.67	0.45
1411.00	-0.20	0.04	-0.03	0.20	0.10	-0.34
1411.20	-0.20	0.11	-0.04	0.09	-0.49	0.01
1411.40	-0.26	0.17	-0.03	0.17	-0.31	-0.24
1411.60	-0.15	-0.05	-0.04	0.14	0.05	-0.08
1411.80	-0.22	-0.08	-0.05	0.25	-1.21	-0.27
1412.00	-0.20	-0.07	-0.05	0.17	-0.04	0.00
1412.20	-0.26	0.05	-0.04	0.16	0.09	0.06
1412.40	-0.24	-0.19	-0.07	0.22	-0.28	0.06
1412.60	-0.21	0.05	-0.01	0.16	-0.92	0.49
1412.80	-0.13	0.07	-0.04	0.22	0.49	-0.27
1413.00	-0.28	0.02	-0.03	0.18	-0.44	0.45
1413.20	-0.19	-0.03	-0.06	0.03	2.06	-1.47
1413.40	-0.30	0.02	-0.05	0.25	-1.39	0.97
1413.60	-0.25	-0.03	-0.06	0.10	0.58	-0.21
1413.80	-0.26	-0.04	-0.03	0.56	0.24	-1.12
1414.00	-0.30	0.08	-0.02	0.12	-0.54	-0.07
1414.20	-0.15	0.04	-0.05	0.11	0.12	0.16
1414.40	-0.18	0.10	-0.06	0.36	-0.67	0.70
1414.60	-0.33	-0.07	-0.05	0.26	-0.08	-0.11
1414.80	-0.16	0.08	-0.03	0.00	1.22	0.88
1415.00	-0.24	-0.04	-0.01	0.05	-0.23	-0.21
1415.20	-0.22	-0.04	-0.04	0.23	0.08	-0.11
1415.40	-0.26	0.06	-0.05	0.31	-0.86	0.15
1415.60	-0.26	-0.15	-0.03	0.14	0.76	0.55
1415.80	-0.25	-0.12	-0.02	0.12	1.08	-0.25
1416.00	-0.21	0.07	-0.04	0.21	-0.61	-0.01
1416.20	-0.25	-0.02	-0.04	0.11	0.46	-0.11
1416.40	-0.28	0.03	-0.05	0.14	-0.06	0.37
1416.60	-0.19	0.02	-0.05	0.23	0.09	0.23
1416.80	-0.20	-0.11	-0.06	0.12	0.44	0.05
1417.00	-0.15	0.10	-0.04	0.30	0.09	-0.01
1417.20	-0.22	-0.05	-0.05	0.25	0.31	0.20
1417.40	-0.24	-0.06	-0.05	0.20	-0.42	0.28
1417.60	-0.13	0.01	-0.03	0.26	0.33	-0.42
1417.80	-0.31	-0.13	-0.03	0.18	0.51	0.29
1418.00	-0.21	0.02	-0.04	0.06	-0.26	0.35
1418.20	-0.25	-0.10	-0.04	0.17	-0.08	0.18
1418.40	-0.17	0.02	-0.05	0.26	1.03	0.05
1418.60	-0.24	0.00	-0.05	0.02	0.05	-0.27
1418.80	-0.23	-0.03	-0.02	0.02	-1.71	-0.45

1419.00	-0.24	-0.03	-0.10	0.18	0.15	-0.03
1419.20	-0.19	0.13	0.00	0.16	0.28	0.01
1419.40	-0.14	0.09	-0.04	0.22	-0.23	-0.32
1419.60	-0.20	0.03	-0.05	0.22	-0.77	0.02
1419.80	-0.20	-0.06	-0.06	0.18	-0.06	-0.08
1420.00	-0.17	-0.11	-0.04	0.02	0.19	0.61
1420.20	-0.24	-0.11	-0.05	-0.01	0.30	0.00
1420.40	-0.17	-0.20	-0.06	0.12	0.00	-0.43
1420.60	-0.38	0.04	-0.03	-0.04	0.41	1.87
1420.80	-0.13	-0.08	-0.05	0.29	-2.08	-1.26
1421.00	-0.29	0.01	-0.05	-0.10	-1.69	0.37
1421.20	-0.42	-0.05	-0.02	0.14	1.17	-0.42
1421.40	-0.14	0.05	-0.02	0.62	0.30	-1.63
1421.60	-0.21	0.06	-0.05	-0.07	-0.29	0.63
1421.80	-0.38	-0.41	0.01	-0.46	0.98	0.69
1422.00	-0.35	-0.03	-0.02	0.31	-0.10	0.02
1422.20	-0.18	0.02	-0.04	0.39	1.34	-1.29
1422.40	-0.21	-0.07	-0.04	0.00	1.35	0.78
1422.60	-0.16	-0.10	-0.05	0.13	0.92	-1.42
1422.80	-0.42	-0.02	0.00	0.08	2.71	0.04
1423.00	-0.09	0.00	-0.03	-0.26	-2.02	-0.40
1423.20	-0.28	-0.13	-0.03	0.10	-0.82	-0.07
1423.40	-0.22	-0.05	-0.02	-0.10	1.04	1.79
1423.60	-0.22	-0.07	-0.03	-0.02	-0.13	-1.26
1423.80	-0.25	-0.01	0.00	0.20	-1.80	0.51
1424.00	-0.40	-0.04	-0.04	0.30	0.31	0.41
1424.20	-0.34	0.07	-0.03	0.60	2.61	0.81
1424.40	-0.25	-0.14	-0.03	0.15	-0.84	1.26
1424.60	-0.19	0.05	-0.04	0.27	-1.28	-0.03
1424.80	-0.32	0.14	-0.03	0.06	-0.88	-1.55
1425.00	-0.20	-0.06	-0.03	-0.06	5.32	-0.30
1425.20	-0.24	-0.05	-0.03	-0.05	-0.08	0.64
1425.40	-0.26	-0.04	-0.04	-0.27	2.07	-0.19
1425.60	-0.18	0.03	-0.03	-0.27	-1.92	-1.82
1425.80	-0.30	0.05	-0.03	0.25	-1.36	-0.66
1426.00	-0.22	-0.07	-0.03	0.57	2.45	1.95
1426.20	-0.31	-0.04	-0.02	-0.10	0.03	-0.49
1426.40	-0.15	-0.08	-0.04	0.32	4.45	0.28
1426.60	-0.20	-0.13	-0.04	0.48	1.05	0.68
1426.80	-0.28	0.06	-0.03	-0.07	-3.25	0.43
1427.00	-0.23	-0.05	-0.03	0.03	5.86	2.44
1427.20	-0.29	-0.10	-0.04	-0.21	-1.90	1.16
1427.40	-0.29	-0.07	-0.03	0.02	0.32	1.20
1427.60	-0.23	0.02	-0.04	-0.29	4.51	0.74
1427.80	-0.32	0.06	-0.02	0.11	-0.56	-0.73
1428.00	-0.23	0.08	-0.04	0.23	0.20	0.23
1428.20	-0.23	0.00	-0.03	0.14	0.00	0.51
1428.40	-0.25	0.01	-0.02	0.36	-2.05	1.31
1428.60	-0.22	-0.04	-0.04	0.24	0.16	-0.33
1428.80	-0.25	0.04	-0.03	0.15	0.56	-1.11

1429.00	-0.18	-0.16	-0.03	0.23	0.05	1.02
1429.20	-0.17	-0.10	-0.02	0.19	0.30	0.48
1429.40	-0.25	0.07	-0.02	0.26	-0.17	0.20
1429.60	-0.20	-0.07	-0.02	0.23	0.21	-0.15
1429.80	-0.26	0.01	-0.04	0.21	-0.17	-0.77
1430.00	-0.18	0.11	-0.01	0.15	2.14	-1.09
1430.20	-0.27	0.06	-0.05	0.25	-0.20	-0.11
1430.40	-0.06	-0.18	-0.04	0.18	-0.41	0.03
1430.60	-0.26	0.07	-0.03	0.40	-0.37	1.34
1430.80	-0.24	-0.02	-0.04	0.17	0.12	0.34
1431.00	-0.12	-0.07	-0.03	0.14	-0.51	0.08
1431.20	-0.29	0.12	-0.05	-0.04	0.20	0.66
1431.40	-0.25	0.17	-0.04	0.10	0.72	0.02
1431.60	-0.30	0.00	-0.01	0.05	-0.65	0.31
1431.80	-0.13	-0.15	-0.05	0.20	-1.13	0.99
1432.00	-0.27	0.00	0.00	0.15	-0.53	-0.02
1432.20	-0.25	-0.08	-0.01	0.48	-0.39	-1.57
1432.40	-0.26	0.09	-0.03	-0.11	0.14	0.73
1432.60	-0.17	-0.07	-0.02	-0.24	1.45	0.41
1432.80	-0.19	-0.02	-0.03	0.05	-0.62	0.08
1433.00	-0.09	0.10	-0.02	0.09	-2.26	0.02
1433.20	-0.26	-0.16	-0.02	0.28	0.76	0.02
1433.40	-0.20	-0.02	-0.03	0.32	2.10	-3.01
1433.60	-0.32	0.00	-0.05	0.09	-0.93	-0.01
1433.80	-0.20	0.01	-0.03	-0.17	-4.99	1.33
1434.00	-0.25	-0.07	-0.01	0.65	-1.27	-1.15
1434.20	-0.22	0.02	-0.04	-0.08	2.83	-0.40
1434.40	-0.18	0.05	-0.04	0.79	-0.01	-1.80
1434.60	-0.13	0.07	0.00	-0.18	-1.64	1.82
1434.80	-0.35	0.14	-0.05	0.10	0.25	-0.61
1435.00	-0.01	0.06	-0.07	-0.56	-3.44	0.50
1435.20	-0.25	-0.15	-0.06	-0.19	0.32	0.09
1435.40	-0.20	0.16	-0.03	-0.17	1.01	-0.69
1435.60	-0.18	-0.03	-0.04	0.22	0.99	-0.25
1435.80	-0.24	-0.19	-0.03	-0.29	1.90	-1.16
1436.00	-0.14	0.07	-0.06	-0.66	2.97	2.44
1436.20	-0.20	-0.02	-0.03	0.46	-0.87	-0.91
1436.40	-0.14	0.00	-0.05	-0.04	2.37	0.97
1436.60	-0.13	0.07	-0.06	0.34	-1.85	-1.17
1436.80	-0.36	-0.09	-0.03	0.52	0.21	0.03
1437.00	-0.20	-0.08	-0.03	0.22	0.84	0.01
1437.20	-0.25	-0.04	-0.01	0.12	-0.98	0.11
1437.40	-0.20	0.00	-0.04	0.11	0.05	0.27
1437.60	-0.14	-0.21	-0.04	0.55	-0.05	-0.86
1437.80	-0.16	-0.17	-0.01	-0.38	1.47	0.93
1438.00	-0.23	0.02	-0.04	0.32	0.29	-0.49
1438.20	-0.10	-0.09	-0.03	0.11	-2.02	1.77
1438.40	-0.12	0.02	-0.04	0.59	-0.66	-0.58
1438.60	-0.22	-0.04	-0.01	0.15	-0.14	0.02
1438.80	-0.15	-0.12	-0.05	0.53	0.32	-0.83

1439.00	-0.21	-0.03	-0.05	-0.07	0.97	0.82
1439.20	-0.16	-0.15	-0.03	0.18	0.61	-0.39
1439.40	-0.15	0.02	-0.04	0.19	-1.65	-0.96
1439.60	-0.29	0.01	0.01	0.43	-0.46	-1.65
1439.80	-0.14	-0.07	-0.05	0.22	-0.19	0.06
1440.00	-0.20	0.07	-0.02	-0.01	2.19	-0.94
1440.20	-0.18	-0.08	-0.05	0.04	2.35	-0.94
1440.40	-0.21	-0.02	-0.05	0.36	0.19	-1.09
1440.60	-0.22	-0.17	-0.02	0.59	-2.67	-1.83
1440.80	-0.26	0.05	-0.02	0.16	-0.61	-0.52
1441.00	-0.30	0.00	-0.06	-0.08	0.01	1.50
1441.20	-0.16	0.00	-0.04	0.08	-1.94	-0.69
1441.40	-0.16	-0.11	-0.04	-0.06	-1.37	0.54
1441.60	-0.20	-0.03	-0.03	0.26	-0.33	-1.02
1441.80	-0.16	0.02	-0.05	0.27	0.63	-0.57
1442.00	-0.16	0.03	-0.04	0.41	0.58	0.11
1442.20	-0.17	0.08	-0.06	0.50	-0.38	-2.10
1442.40	-0.16	-0.01	-0.05	0.32	0.35	-0.38
1442.60	-0.11	0.00	-0.05	0.26	-2.64	-2.17
1442.80	-0.19	0.05	-0.05	0.20	0.51	0.65
1443.00	-0.15	-0.17	-0.05	-0.19	0.01	-0.93
1443.20	-0.13	0.05	-0.04	-0.47	-1.23	-0.53
1443.40	-0.07	-0.05	-0.04	0.09	-0.36	0.30
1443.60	-0.06	0.00	-0.04	-0.24	0.05	1.10
1443.80	-0.16	0.12	-0.05	0.43	-1.50	0.75
1444.00	-0.02	-0.05	-0.03	0.03	0.41	-0.47
1444.20	-0.10	-0.07	-0.04	-0.14	0.25	-0.34
1444.40	-0.15	-0.07	-0.04	-1.23	2.34	3.01
1444.60	-0.10	0.07	-0.05	0.07	-0.39	0.91
1444.80	-0.15	-0.02	-0.03	-0.04	-2.54	0.91
1445.00	-0.09	0.02	-0.03	0.12	-0.71	-2.57
1445.20	-0.14	-0.10	-0.02	0.08	0.34	-0.35
1445.40	-0.14	-0.17	-0.03	0.14	0.35	-0.71
1445.60	-0.23	0.07	-0.05	-0.04	0.50	-0.48
1445.80	-0.09	-0.04	0.00	0.18	0.74	-0.15
1446.00	-0.02	0.03	-0.01	0.13	-0.69	0.92
1446.20	-0.21	-0.01	-0.02	0.06	-0.14	0.21
1446.40	-0.09	-0.04	-0.03	0.14	-0.80	-0.01
1446.60	-0.13	-0.02	-0.06	-0.45	1.11	2.51
1446.80	-0.05	0.05	-0.02	0.49	1.76	-3.75
1447.00	-0.18	0.02	-0.03	-0.12	1.21	0.77
1447.20	-0.12	-0.07	-0.04	0.31	-1.14	-0.47
1447.40	-0.11	-0.02	-0.05	-0.71	0.08	2.55
1447.60	-0.28	-0.03	-0.02	1.17	-0.85	-1.72
1447.80	-0.14	0.00	-0.06	0.52	0.63	-1.64
1448.00	-0.12	0.05	-0.04	-0.27	1.49	-0.15
1448.20	-0.21	-0.04	-0.04	-0.07	-0.79	0.74
1448.40	-0.13	-0.09	-0.06	0.26	0.14	-0.12
1448.60	-0.20	0.12	-0.03	-0.05	1.36	-1.00
1448.80	-0.08	-0.07	-0.06	0.14	-1.34	0.64

1449.00	-0.16	0.04	-0.02	0.04	0.51	0.52
1449.20	0.01	0.03	-0.05	0.02	-0.55	0.21
1449.40	-0.13	0.06	-0.08	0.35	-0.38	-1.02
1449.60	-0.07	-0.09	-0.04	-0.11	-1.40	1.39
1449.80	-0.15	0.00	-0.06	-0.05	2.40	-1.63
1450.00	-0.01	-0.07	-0.04	0.04	-1.13	0.70
1450.20	-0.10	0.10	-0.05	0.13	0.74	-0.38
1450.40	-0.04	-0.09	-0.03	-0.01	0.26	-0.51
1450.60	-0.04	-0.19	-0.05	0.04	0.37	-1.03
1450.80	-0.07	-0.11	-0.05	0.20	-1.37	1.14
1451.00	-0.18	0.00	-0.05	0.11	-0.07	0.06
1451.20	-0.09	-0.02	-0.05	0.23	-0.12	-0.73
1451.40	0.00	-0.05	-0.04	0.04	-0.32	-0.62
1451.60	-0.16	0.00	-0.06	0.12	-0.25	0.20
1451.80	-0.18	-0.04	-0.05	0.03	0.15	0.19
1452.00	-0.19	-0.07	-0.06	0.16	0.22	-0.32
1452.20	-0.14	-0.07	-0.06	0.06	0.70	-0.39
1452.40	-0.11	0.03	-0.06	0.04	1.45	-0.81
1452.60	-0.13	0.00	-0.06	0.12	-0.41	0.33
1452.80	-0.19	-0.03	-0.05	0.07	0.55	-0.26
1453.00	-0.13	-0.01	-0.06	0.03	-0.18	0.45
1453.20	-0.17	0.16	-0.03	0.06	0.24	-0.33
1453.40	0.06	0.01	-0.06	0.01	1.44	-0.53
1453.60	-0.03	-0.10	-0.06	0.12	-1.70	0.69
1453.80	-0.07	0.03	-0.05	0.22	-0.16	-0.23
1454.00	-0.14	-0.06	-0.06	0.04	1.04	1.02
1454.20	-0.04	-0.04	-0.07	0.38	0.78	0.20
1454.40	-0.17	-0.04	-0.07	0.69	-0.45	-2.52
1454.60	-0.04	0.01	-0.05	-0.05	-1.21	-0.45
1454.80	-0.04	0.08	-0.07	0.03	-0.70	-0.67
1455.00	-0.08	0.14	-0.08	-0.04	0.30	0.22
1455.20	-0.13	0.13	-0.08	0.11	-0.29	-0.20
1455.40	-0.12	-0.16	-0.07	-0.11	0.15	-0.10
1455.60	0.01	0.08	-0.09	-0.01	0.87	-0.44
1455.80	-0.14	-0.08	-0.05	-0.13	-1.08	0.91
1456.00	-0.14	0.00	-0.08	0.34	-1.17	-1.82
1456.20	-0.16	0.02	-0.06	-0.22	-0.02	0.50
1456.40	-0.07	-0.05	-0.07	-0.04	-0.23	-0.42
1456.60	-0.12	0.08	-0.07	0.20	0.34	-0.55
1456.80	-0.13	0.07	-0.05	0.47	0.34	-1.25
1457.00	-0.15	0.08	-0.05	0.11	1.16	0.28
1457.20	-0.08	-0.11	-0.07	0.03	-1.60	-1.25
1457.40	-0.08	-0.01	-0.06	0.06	0.65	-0.12
1457.60	-0.10	-0.17	-0.07	-0.07	-2.13	-0.87
1457.80	-0.01	0.08	-0.07	0.08	-0.13	-0.50
1458.00	-0.11	0.03	-0.06	0.13	-0.04	1.41
1458.20	-0.07	-0.02	-0.07	-0.07	0.17	0.32
1458.40	0.00	-0.06	-0.07	0.01	0.29	0.49
1458.60	0.05	0.09	-0.07	-0.07	-3.58	-0.63
1458.80	-0.01	-0.09	-0.08	0.21	0.91	0.36

1459.00	-0.07	-0.13	-0.08	-0.10	-0.87	-0.80
1459.20	-0.05	-0.07	-0.10	0.49	-1.39	-0.34
1459.40	-0.01	0.04	-0.07	-0.42	-0.53	0.60
1459.60	-0.10	0.10	-0.09	0.00	-0.21	0.45
1459.80	-0.10	0.02	-0.08	0.12	1.85	1.31
1460.00	-0.05	0.08	-0.08	-0.13	-0.85	0.95
1460.20	0.01	0.02	-0.07	0.00	0.71	-0.35
1460.40	-0.03	-0.06	-0.06	0.28	-0.33	-0.73
1460.60	-0.16	0.14	-0.06	-0.03	-0.36	0.24
1460.80	-0.10	-0.07	-0.05	0.12	1.37	0.04
1461.00	-0.01	-0.02	-0.08	-0.21	-1.19	0.10
1461.20	-0.02	0.03	-0.05	-0.87	-1.87	1.78
1461.40	0.01	0.12	-0.07	0.36	-0.84	-1.68
1461.60	-0.05	0.06	-0.06	0.34	0.97	-0.98
1461.80	-0.05	-0.05	-0.05	-0.21	0.00	-0.82
1462.00	-0.03	0.04	-0.07	-0.18	1.71	0.85
1462.20	-0.09	-0.07	-0.05	-0.04	-0.49	0.44
1462.40	-0.03	0.03	-0.07	-0.40	-0.34	1.64
1462.60	-0.06	0.01	-0.05	-0.11	0.85	0.75
1462.80	-0.12	-0.03	-0.07	-0.57	-0.18	1.40
1463.00	-0.06	0.10	-0.06	0.08	0.71	-0.61
1463.20	-0.09	0.16	-0.07	-0.21	1.48	0.85
1463.40	0.02	0.10	-0.08	0.51	-0.22	-1.84

25% Constriction Time in seconds; velocity in cm/s

	Saltwater			Freshwater		
"Time"	"vel_u_SW"	"vel_v_SW"	"vel_w_SW"	"vel_u_FW"	"vel_v_FW"	"vel_w_FW"
0.00	-0.07	-0.37	-0.13	-0.32	1.78	0.53
0.20	-0.12	0.08	-0.06	-0.08	1.14	0.37
0.40	0.09	-0.47	-0.02	-0.16	1.01	-0.24
0.60	-0.12	-0.02	-0.03	0.01	-0.05	0.52
0.80	-0.13	-0.06	0.01	0.02	3.06	2.00
1.00	0.19	-0.02	-0.13	0.48	1.07	0.64
1.20	-0.02	-0.37	-0.11	0.23	-0.19	-0.34
1.40	-0.34	0.05	0.05	0.15	-0.67	1.08
1.60	-0.46	-0.39	-0.03	0.56	0.78	0.28
1.80	-1.17	-0.08	0.15	0.20	0.90	0.89
2.00	-0.49	-0.06	0.02	0.34	-2.76	0.03
2.20	-0.63	-0.04	0.10	0.26	0.65	0.06
2.40	-0.18	-0.59	0.03	-0.39	0.44	-1.05
2.60	-0.54	-0.08	0.10	0.58	-0.08	1.11
2.80	-0.61	-0.10	0.13	-0.55	-0.03	-0.54
3.00	-0.71	-0.08	0.19	0.48	-0.46	-0.48
3.20	-0.61	-0.25	0.19	0.47	0.37	-0.16
3.40	-0.35	-0.20	0.19	-0.26	0.12	0.38
3.60	-0.59	-0.42	0.26	-0.19	-0.22	-0.01
3.80	-0.66	-0.68	0.35	0.03	-0.12	1.30
4.00	0.27	-0.17	0.46	0.50	-0.16	0.95
4.20	-0.31	-0.42	0.73	-0.24	1.22	-1.47
4.40	-0.29	-0.31	0.83	0.46	2.23	1.46
4.60	-0.80	-0.61	1.01	-0.10	0.20	-0.25
4.80	-1.06	-0.11	1.31	-0.29	-1.88	-2.20
5.00	0.07	-0.30	1.80	1.11	-0.04	1.35
5.20	-0.68	-0.13	2.13	-0.46	1.34	-2.80
5.40	-1.89	-0.29	2.03	-0.35	1.00	-1.03
5.60	-3.21	0.22	1.12	-0.13	-0.12	0.70
5.80	-4.30	0.12	-0.18	0.00	-0.98	-1.10
6.00	-4.83	0.52	-0.61	-0.50	1.26	-3.09
6.20	-4.33	0.00	-0.78	-0.44	-0.80	-0.22
6.40	-3.82	-0.64	-0.05	0.32	0.40	-0.03
6.60	-4.62	-0.50	0.87	-0.07	1.54	-0.21
6.80	-4.25	-0.64	0.48	-0.99	0.05	0.14
7.00	-4.86	0.40	0.30	0.46	-1.33	0.03
7.20	-4.84	-0.45	0.18	-0.62	1.16	-3.09
7.40	-5.09	-0.39	0.06	0.01	-2.04	1.42
7.60	-4.95	-0.47	-0.12	-0.58	-2.03	-1.91
7.80	-4.71	0.32	0.32	-0.12	-0.21	0.88
8.00	-3.87	0.13	0.16	0.55	2.73	1.81
8.20	-4.28	-0.41	-0.19	0.95	-1.44	1.12
8.40	-4.00	-0.33	-0.20	0.26	-1.28	1.05
8.60	-3.37	-0.25	-0.02	0.07	0.05	-0.12
8.80	-3.44	-0.47	0.29	0.60	-0.28	-0.03
9.00	-3.52	-0.32	0.60	0.93	0.00	1.58

9.20	-3.80	-0.54	0.68	0.28	0.12	0.21
9.40	-3.99	-0.35	0.20	0.11	-0.61	0.33
9.60	-3.94	-0.44	0.30	0.34	0.32	0.51
9.80	-4.89	-0.16	0.36	0.35	-0.13	0.04
10.00	-5.17	-0.57	-0.01	0.15	-0.70	-0.59
10.20	-4.71	-1.18	0.30	0.42	0.99	-1.44
10.40	-4.62	-1.03	0.75	0.46	2.88	0.62
10.60	-4.62	-1.08	0.97	0.54	-0.37	0.20
10.80	-3.27	-0.53	0.99	0.97	0.87	0.00
11.00	-3.17	0.40	0.89	0.66	0.16	-0.10
11.20	-3.55	0.31	1.23	0.72	0.99	0.63
11.40	-3.96	1.37	-0.22	0.96	-0.80	-0.32
11.60	-3.03	0.63	0.37	1.95	-0.84	0.44
11.80	-2.15	-0.20	-0.58	1.34	-0.18	-0.09
12.00	-1.95	-1.52	-0.33	1.93	0.15	1.13
12.20	-3.21	-0.56	0.24	0.89	-0.23	0.59
12.40	-3.41	-1.09	0.07	1.62	1.65	-0.01
12.60	-1.94	-1.34	1.02	1.95	0.65	0.61
12.80	-2.41	-1.60	0.86	2.09	0.29	0.42
13.00	-1.72	-1.89	-0.25	1.94	0.23	0.16
13.20	-2.01	-1.58	-0.41	2.28	0.09	0.08
13.40	-2.44	-0.65	-1.47	2.46	0.14	1.32
13.60	-1.61	-0.88	-1.77	2.73	0.14	1.35
13.80	-2.83	-0.83	0.23	2.70	0.62	2.09
14.00	-3.03	-0.73	0.84	2.84	0.63	0.35
14.20	-3.35	-0.48	0.97	2.35	0.63	-1.47
14.40	-4.09	-1.04	0.92	2.78	-1.00	0.11
14.60	-4.74	-0.92	1.02	3.04	1.42	2.37
14.80	-4.46	-1.40	0.88	4.09	-0.57	0.80
15.00	-4.71	-1.29	0.82	3.96	1.13	0.84
15.20	-5.14	-0.84	0.50	3.34	2.67	0.73
15.40	-4.93	-0.27	0.18	4.47	0.58	0.61
15.60	-5.11	-0.34	0.14	4.09	-0.02	0.40
15.80	-5.64	-0.79	0.01	4.13	1.49	1.53
16.00	-6.12	-0.88	-0.07	4.30	1.46	0.85
16.20	-5.84	-0.94	-0.18	3.84	0.20	0.36
16.40	-5.33	-0.86	-0.18	3.50	-0.15	0.40
16.60	-5.06	-0.70	-0.11	3.94	0.60	0.49
16.80	-5.31	-0.85	0.08	2.62	-1.97	-1.36
17.00	-5.61	-0.75	-0.05	3.00	-0.43	-1.23
17.20	-5.35	-0.64	-0.17	3.43	-1.11	1.51
17.40	-4.84	-0.97	-0.35	3.39	-0.04	0.40
17.60	-4.90	-0.86	-0.36	2.13	0.98	-0.40
17.80	-4.86	-0.89	-0.27	1.57	-0.43	-2.78
18.00	-4.53	-0.97	-0.24	1.92	-0.83	-0.34
18.20	-4.58	-0.54	-0.23	1.98	-0.40	-0.05
18.40	-4.62	-0.56	-0.19	1.66	-0.24	0.84
18.60	-4.53	-0.62	-0.11	2.17	0.15	0.71
18.80	-5.13	-0.51	-0.14	2.01	0.43	-0.46
19.00	-4.96	-0.53	-0.28	2.07	-1.11	1.58

19.20	-5.07	-0.56	-0.25	2.65	-1.08	1.26
19.40	-4.91	-0.78	-0.34	1.92	-0.27	0.38
19.60	-5.16	-0.80	-0.36	1.40	-0.08	-0.13
19.80	-4.93	-0.71	-0.24	0.72	-0.19	-1.14
20.00	-5.12	-0.60	-0.27	0.56	5.34	-0.90
20.20	-5.44	-0.61	-0.32	0.72	-0.18	-1.17
20.40	-4.87	-0.35	-0.37	1.27	-0.65	0.56
20.60	-4.93	-0.41	-0.23	1.42	0.13	-0.43
20.80	-5.30	-0.64	-0.27	1.78	-0.21	-0.13
21.00	-5.03	-0.59	-0.28	1.45	-2.52	-0.59
21.20	-5.08	-0.19	-0.21	1.16	0.47	-0.28
21.40	-5.05	-0.22	-0.28	1.31	1.14	0.17
21.60	-4.80	-0.75	-0.30	1.63	0.45	0.30
21.80	-4.69	-0.57	-0.26	1.71	1.10	-0.13
22.00	-4.76	-0.48	-0.24	1.55	-1.29	-0.31
22.20	-4.70	-0.28	-0.15	1.39	0.38	-1.21
22.40	-4.43	-0.25	-0.23	1.77	0.03	1.58
22.60	-4.99	-0.45	-0.15	1.64	0.84	-0.03
22.80	-4.74	-0.25	-0.21	1.77	-0.05	-0.61
23.00	-5.15	-0.66	-0.23	1.73	-1.77	-0.59
23.20	-5.07	-0.43	-0.24	2.11	-0.43	-0.19
23.40	-5.06	-0.25	-0.24	1.70	0.52	0.39
23.60	-5.03	-0.43	-0.36	1.82	1.33	0.39
23.80	-4.66	-0.56	-0.32	1.95	0.53	0.47
24.00	-4.13	-0.80	-0.20	1.56	-0.68	0.29
24.20	-4.44	-0.22	-0.21	1.71	0.82	-0.23
24.40	-4.79	-0.61	-0.36	1.38	0.71	-1.58
24.60	-4.61	-0.26	-0.39	1.78	0.74	1.97
24.80	-4.49	-0.26	-0.42	1.98	0.25	0.52
25.00	-4.35	-0.30	-0.36	2.00	0.45	0.50
25.20	-4.28	-0.37	-0.35	1.74	-1.42	-0.89
25.40	-4.19	-0.33	-0.36	1.33	0.79	-2.46
25.60	-4.31	-0.17	-0.27	1.66	0.72	-0.48
25.80	-4.43	-0.70	-0.31	2.65	0.86	1.98
26.00	-4.60	-0.51	-0.40	2.85	0.05	0.95
26.20	-4.79	0.08	-0.26	1.99	0.74	0.13
26.40	-4.43	-0.28	-0.27	2.39	-0.92	1.71
26.60	-4.99	-0.44	-0.37	1.27	2.31	1.08
26.80	-4.80	-0.27	-0.25	1.11	-1.95	0.19
27.00	-4.39	-0.19	-0.32	1.78	0.38	-0.79
27.20	-4.55	-0.58	-0.35	1.91	0.42	-0.39
27.40	-4.90	-0.12	-0.39	1.83	-1.32	1.15
27.60	-4.97	-0.34	-0.34	2.24	-1.14	-0.81
27.80	-4.42	-0.40	-0.39	2.41	-0.38	0.25
28.00	-4.42	-0.37	-0.41	2.70	-0.63	0.48
28.20	-4.52	-0.26	-0.30	2.24	0.18	1.12
28.40	-4.89	-0.39	-0.39	2.21	0.53	0.83
28.60	-4.90	-0.28	-0.49	1.69	1.53	0.70
28.80	-4.60	-0.20	-0.32	1.99	-0.40	-0.84
29.00	-4.57	-0.34	-0.36	2.03	2.09	1.08

29.20	-4.46	-0.35	-0.30	2.32	-0.95	1.08
29.40	-4.58	-0.38	-0.35	1.90	-0.03	-0.99
29.60	-4.82	-0.35	-0.18	1.61	1.11	1.61
29.80	-5.08	-0.39	-0.27	1.95	-1.76	0.45
30.00	-5.02	-0.27	-0.27	1.43	-0.85	-0.51
30.20	-4.87	-0.28	-0.23	1.28	0.09	0.18
30.40	-4.99	-0.30	-0.16	1.90	0.02	1.64
30.60	-4.95	-0.17	-0.28	0.70	0.77	0.05
30.80	-4.49	-0.24	-0.41	1.44	0.00	-1.77
31.00	-4.39	-0.27	-0.45	1.30	-2.66	-1.03
31.20	-4.11	-0.42	-0.39	0.94	0.79	2.22
31.40	-4.44	-0.36	-0.36	1.90	0.18	1.22
31.60	-4.43	-0.58	-0.32	1.89	0.40	0.74
31.80	-4.61	-0.39	-0.33	2.02	-0.62	0.72
32.00	-4.29	-0.24	-0.33	2.22	-0.25	0.63
32.20	-4.29	-0.23	-0.38	1.34	0.03	-2.24
32.40	-4.42	-0.54	-0.30	1.79	-0.78	0.77
32.60	-4.46	-0.14	-0.38	1.32	0.28	-0.14
32.80	-3.96	-0.10	-0.30	1.59	-0.10	-0.44
33.00	-4.46	-0.44	-0.36	2.22	0.15	0.18
33.20	-5.00	-0.41	-0.39	1.77	0.21	0.51
33.40	-4.62	-0.50	-0.43	1.86	-0.85	-0.29
33.60	-4.44	-0.26	-0.45	1.93	-0.62	0.45
33.80	-4.54	-0.41	-0.40	2.32	-0.12	-0.25
34.00	-4.10	-0.70	-0.39	2.07	-0.40	0.75
34.20	-4.81	-0.34	-0.45	1.33	0.76	-0.86
34.40	-4.65	-0.34	-0.48	1.60	-0.55	0.71
34.60	-4.15	-0.27	-0.45	1.65	-1.10	-0.84
34.80	-4.54	-0.36	-0.38	2.20	-1.35	-0.46
35.00	-4.62	-0.49	-0.51	2.24	-1.65	0.52
35.20	-4.63	-0.13	-0.47	2.45	-0.03	0.66
35.40	-4.53	-0.35	-0.41	2.28	-0.31	0.34
35.60	-4.76	-0.14	-0.46	1.99	-1.06	0.07
35.80	-4.14	-0.40	-0.49	1.85	-0.10	-1.43
36.00	-4.55	-0.24	-0.49	2.23	1.45	2.64
36.20	-4.65	-0.59	-0.47	1.67	-0.60	-0.37
36.40	-4.54	-0.91	-0.42	2.49	0.13	-0.55
36.60	-4.42	-0.35	-0.43	2.27	-1.00	0.00
36.80	-4.65	-0.42	-0.42	1.13	2.04	0.02
37.00	-4.91	-0.16	-0.34	1.96	1.41	0.76
37.20	-4.97	-0.29	-0.39	1.56	0.53	0.53
37.40	-4.47	-0.35	-0.30	0.87	-1.27	-3.21
37.60	-4.69	-0.51	-0.23	1.71	-1.57	0.48
37.80	-4.51	-0.25	-0.28	1.17	-0.23	-0.78
38.00	-4.19	-0.16	-0.29	1.15	0.55	-1.93
38.20	-4.46	-0.37	-0.21	1.41	0.72	0.78
38.40	-4.31	-0.27	-0.28	1.76	-1.19	1.33
38.60	-4.21	-0.54	-0.35	2.05	0.33	-0.42
38.80	-4.30	-0.33	-0.40	1.84	-2.52	2.05
39.00	-4.36	-0.39	-0.38	2.00	-3.92	1.31

39.20	-4.25	-0.46	-0.42	2.01	0.49	0.92
39.40	-4.15	-0.36	-0.41	2.36	-1.97	-0.24
39.60	-4.35	-0.42	-0.35	2.11	2.54	2.53
39.80	-4.40	-0.05	-0.38	1.31	-1.04	-1.55
40.00	-4.42	-0.43	-0.34	1.53	-0.49	-0.54
40.20	-4.91	-0.35	-0.41	2.07	0.09	0.44
40.40	-4.60	-0.72	-0.41	1.89	-0.02	0.21
40.60	-4.65	-0.48	-0.40	1.85	1.34	0.65
40.80	-4.66	-0.59	-0.44	2.10	-0.01	0.80
41.00	-4.71	-0.23	-0.43	0.71	-1.09	-0.79
41.20	-4.23	-0.20	-0.38	0.72	-1.75	-1.08
41.40	-4.47	-0.63	-0.49	1.60	3.71	-0.36
41.60	-4.70	-0.31	-0.47	1.06	0.03	-2.56
41.80	-4.42	-0.54	-0.52	2.37	0.05	-0.26
42.00	-4.38	-0.34	-0.48	1.94	-1.25	0.40
42.20	-4.48	-0.42	-0.56	1.98	0.56	-0.08
42.40	-4.50	-0.11	-0.40	2.62	-0.86	0.63
42.60	-4.49	-0.22	-0.42	0.96	2.49	-0.06
42.80	-4.37	-0.06	-0.58	1.22	-1.35	0.29
43.00	-4.54	-0.06	-0.47	1.52	-0.11	-0.38
43.20	-4.68	-0.13	-0.47	2.28	0.33	-0.08
43.40	-4.23	-0.28	-0.46	2.47	0.15	1.98
43.60	-4.72	-0.14	-0.34	2.45	0.10	0.57
43.80	-4.83	-0.26	-0.30	2.65	-2.84	0.10
44.00	-4.53	-0.58	-0.40	2.71	-0.46	-0.35
44.20	-4.77	-0.19	-0.28	2.09	0.31	0.10
44.40	-4.64	-0.11	-0.24	1.23	0.41	-1.25
44.60	-4.80	-0.26	-0.19	1.92	-0.41	1.06
44.80	-4.56	-0.41	-0.25	1.76	-3.20	2.87
45.00	-4.09	-0.39	-0.21	1.73	-1.18	1.92
45.20	-3.88	-0.64	-0.21	1.82	-1.67	0.52
45.40	-4.34	-0.13	-0.21	2.02	-0.33	0.57
45.60	-4.03	-0.24	-0.20	1.21	-1.28	-1.78
45.80	-4.27	-0.38	-0.25	2.23	1.88	0.75
46.00	-4.26	-0.43	-0.17	1.41	-1.37	0.92
46.20	-4.34	-0.42	-0.25	1.64	0.43	1.35
46.40	-4.09	-0.43	-0.28	2.03	-0.51	1.94
46.60	-4.30	-0.56	-0.37	1.62	-0.20	0.51
46.80	-4.17	-0.57	-0.27	0.97	0.41	-0.94
47.00	-4.45	-0.31	-0.29	1.71	-1.16	-0.98
47.20	-4.32	-0.66	-0.37	1.91	-0.12	-0.92
47.40	-4.39	-0.39	-0.33	1.85	-0.03	0.03
47.60	-4.73	-0.57	-0.41	1.90	0.07	-0.71
47.80	-4.67	-0.30	-0.39	1.69	-1.50	-1.53
48.00	-4.50	-0.25	-0.40	2.17	-1.77	-0.36
48.20	-4.24	-0.24	-0.41	1.95	-0.64	-0.03
48.40	-3.97	-0.38	-0.41	2.15	0.93	0.46
48.60	-4.48	-0.50	-0.44	2.54	0.20	0.44
48.80	-4.47	-0.54	-0.45	2.86	-0.98	-0.25
49.00	-4.35	-0.33	-0.41	2.56	-1.14	-0.41

49.20	-4.50	-0.32	-0.42	2.47	0.56	1.85
49.40	-4.54	-0.48	-0.44	1.73	0.08	-0.78
49.60	-4.48	-0.31	-0.32	1.95	-0.22	0.56
49.80	-4.78	-0.60	-0.41	1.85	-1.55	-0.34
50.00	-4.47	-0.31	-0.39	1.52	0.25	0.40
50.20	-4.36	-0.29	-0.29	2.05	-0.21	-0.04
50.40	-4.58	-0.28	-0.38	2.93	0.69	0.60
50.60	-4.46	-0.20	-0.39	2.34	0.36	-0.43
50.80	-4.50	-0.26	-0.29	2.13	-0.20	0.43
51.00	-4.50	-0.18	-0.30	1.36	-0.37	-0.44
51.20	-4.60	-0.37	-0.31	1.85	0.63	0.70
51.40	-4.28	-0.37	-0.29	1.80	-0.17	1.13
51.60	-4.20	-0.31	-0.34	1.68	-0.21	-0.10
51.80	-4.13	-0.29	-0.28	1.68	-0.88	-1.02
52.00	-3.65	-0.30	-0.20	2.20	0.06	-0.02
52.20	-4.03	-0.38	-0.25	1.73	-0.11	-0.39
52.40	-3.92	-0.48	-0.24	1.65	0.34	0.38
52.60	-4.31	-0.32	-0.23	2.07	-1.46	-0.38
52.80	-4.25	-0.23	-0.23	2.50	-1.40	-0.09
53.00	-4.11	-0.42	-0.27	2.11	-1.56	-0.99
53.20	-4.27	-0.47	-0.20	1.18	-0.08	-2.20
53.40	-4.31	-0.31	-0.34	1.68	2.33	1.10
53.60	-4.07	-0.29	-0.35	2.03	1.16	1.26
53.80	-3.96	-0.20	-0.29	1.71	-0.78	-0.16
54.00	-4.44	-0.27	-0.40	1.19	-0.52	-1.86
54.20	-4.26	-0.34	-0.39	1.84	-0.68	-0.10
54.40	-4.63	-0.60	-0.35	1.92	-0.18	-0.29
54.60	-4.49	-0.03	-0.38	1.91	0.07	0.12
54.80	-4.26	-0.25	-0.37	2.04	0.00	0.66
55.00	-4.31	-0.41	-0.41	2.86	-0.83	0.80
55.20	-4.55	-0.07	-0.42	2.70	-0.27	0.24
55.40	-4.08	-0.23	-0.36	2.48	-0.40	0.56
55.60	-4.08	-0.47	-0.36	2.39	0.13	0.26
55.80	-4.38	-0.03	-0.40	2.94	0.35	0.65
56.00	-4.43	-0.05	-0.36	2.24	-0.63	-1.10
56.20	-4.50	-0.30	-0.45	2.23	0.16	0.02
56.40	-4.43	-0.30	-0.41	2.13	-0.26	-0.24
56.60	-4.41	-0.48	-0.42	1.78	-1.07	0.17
56.80	-4.23	-0.18	-0.32	1.92	0.31	0.20
57.00	-4.29	-0.31	-0.46	1.75	0.03	-0.33
57.20	-4.32	0.13	-0.40	2.25	-0.92	0.46
57.40	-4.52	-0.21	-0.34	2.18	-0.80	0.80
57.60	-4.63	-0.19	-0.45	2.91	-0.48	0.92
57.80	-4.50	-0.32	-0.38	2.80	0.87	0.36
58.00	-4.41	-0.11	-0.28	2.40	0.31	-0.01
58.20	-4.50	-0.35	-0.31	2.56	-1.18	0.02
58.40	-4.26	-0.27	-0.28	1.99	0.25	0.37
58.60	-4.12	-0.30	-0.31	1.74	-0.62	-0.13
58.80	-4.32	-0.24	-0.26	2.02	-0.39	-0.37
59.00	-4.15	-0.47	-0.35	1.98	0.49	0.55

59.20	-4.14	-0.48	-0.30	2.07	-0.60	1.56
59.40	-3.82	-0.33	-0.26	2.25	-1.93	1.25
59.60	-3.95	-0.19	-0.24	1.94	-0.49	0.86
59.80	-4.27	-0.47	-0.36	2.08	-0.06	0.91
60.00	-4.31	-0.52	-0.36	1.23	3.14	1.23
60.20	-4.21	-0.68	-0.28	1.72	0.48	0.18
60.40	-4.43	-0.12	-0.31	1.54	-2.82	-0.32
60.60	-4.32	-0.29	-0.36	1.64	-0.33	-0.47
60.80	-4.39	-0.67	-0.33	1.88	-0.46	-0.09
61.00	-4.24	-0.42	-0.30	1.63	-0.16	-0.60
61.20	-4.39	-0.45	-0.29	1.95	0.30	-0.57
61.40	-4.68	-0.15	-0.36	1.53	-0.14	-0.17
61.60	-4.33	-0.33	-0.17	1.66	-1.56	-0.33
61.80	-4.99	-0.35	-0.35	2.16	0.59	0.18
62.00	-4.60	-0.23	-0.32	1.70	0.15	-1.14
62.20	-4.02	-0.32	-0.32	0.93	-1.41	-1.79
62.40	-4.35	-0.20	-0.35	2.25	-1.21	0.17
62.60	-4.14	0.02	-0.38	2.80	-1.19	-0.28
62.80	-4.68	-0.14	-0.37	2.07	-1.20	1.19
63.00	-4.55	-0.29	-0.35	1.99	-1.10	-0.10
63.20	-4.72	0.01	-0.27	2.12	0.07	0.77
63.40	-4.69	0.01	-0.35	2.74	-1.44	0.13
63.60	-4.44	-0.03	-0.27	2.79	-0.37	0.26
63.80	-4.30	-0.28	-0.25	2.04	-0.78	0.91
64.00	-4.57	-0.25	-0.26	2.25	1.42	2.17
64.20	-4.35	-0.18	-0.30	2.44	-0.54	1.35
64.40	-4.37	-0.27	-0.27	2.49	-1.70	0.60
64.60	-4.31	-0.22	-0.24	2.13	-1.34	-0.79
64.80	-4.59	-0.13	-0.30	1.10	0.08	-0.42
65.00	-4.19	-0.37	-0.24	2.07	1.08	0.37
65.20	-4.23	-0.38	-0.21	2.25	0.79	0.55
65.40	-4.17	-0.55	-0.27	2.25	-0.48	1.04
65.60	-3.82	-0.49	-0.30	1.94	-0.13	0.74
65.80	-4.12	-0.27	-0.23	1.64	-1.73	-0.80
66.00	-4.07	-0.50	-0.23	1.72	0.38	-0.93
66.20	-3.78	-0.44	-0.25	1.90	0.16	-0.15
66.40	-4.09	-0.46	-0.16	2.67	1.45	0.14
66.60	-3.93	-0.46	-0.24	1.88	-0.36	1.55
66.80	-4.23	-0.43	-0.26	2.54	1.80	2.60
67.00	-4.11	-0.26	-0.24	2.23	-1.14	-0.61
67.20	-4.24	-0.31	-0.24	2.11	-0.58	-0.12
67.40	-4.09	-0.59	-0.28	1.91	-0.47	0.23
67.60	-4.05	-0.50	-0.23	2.19	0.13	1.47
67.80	-4.22	-0.44	-0.25	1.65	-3.03	1.07
68.00	-4.53	-0.43	-0.17	1.61	-0.42	-1.16
68.20	-4.46	0.02	-0.18	2.32	-0.98	0.26
68.40	-4.44	-0.09	-0.26	2.08	0.83	0.27
68.60	-4.52	-0.21	-0.28	2.02	0.65	0.45
68.80	-4.97	-0.62	-0.30	1.93	0.22	1.17
69.00	-4.41	-0.31	-0.17	2.21	-0.03	-0.30

69.20	-4.09	-0.09	-0.26	1.56	-1.94	1.68
69.40	-4.32	-0.05	-0.26	2.31	-0.48	-0.27
69.60	-4.35	-0.56	-0.29	2.53	0.62	0.31
69.80	-4.34	-0.27	-0.29	2.18	0.16	-0.05
70.00	-4.40	-0.09	-0.26	1.79	0.15	-0.48
70.20	-3.96	-0.30	-0.17	1.14	-3.08	-2.67
70.40	-4.56	-0.29	-0.25	1.79	0.54	-0.14
70.60	-4.69	-0.38	-0.27	1.58	0.50	-1.58
70.80	-4.45	-0.18	-0.19	1.66	-1.96	-0.06
71.00	-4.08	-0.09	-0.19	1.83	-1.34	-0.14
71.20	-4.23	-0.30	-0.17	1.82	0.86	0.60
71.40	-4.24	-0.52	-0.21	2.30	1.60	0.41
71.60	-4.20	-0.32	-0.12	2.28	0.51	0.51
71.80	-4.10	-0.51	-0.21	2.01	0.05	0.20
72.00	-4.13	-0.25	-0.16	1.62	0.00	0.05
72.20	-4.17	-0.47	-0.08	1.27	-0.08	0.46
72.40	-3.92	-0.67	-0.14	1.08	0.51	0.27
72.60	-3.84	-0.25	-0.04	1.24	0.31	-0.26
72.80	-3.95	-0.41	-0.09	1.33	-0.44	0.48
73.00	-3.63	-0.41	-0.09	1.65	0.10	0.57
73.20	-3.64	-0.50	-0.04	1.96	0.23	0.11
73.40	-3.80	-0.56	-0.05	1.81	-0.04	0.58
73.60	-3.88	-0.81	-0.06	1.39	0.75	-0.50
73.80	-4.00	-0.95	-0.01	1.83	0.47	-1.08
74.00	-3.77	-0.77	0.01	2.16	-0.23	-0.55
74.20	-3.98	-0.61	0.04	1.99	0.31	0.87
74.40	-4.14	-0.87	-0.04	1.61	-0.14	0.39
74.60	-4.12	-0.67	0.02	1.13	0.63	-1.41
74.80	-3.79	-0.92	0.00	1.29	2.04	-0.94
75.00	-3.66	-0.85	0.02	1.66	2.76	0.82
75.20	-3.70	-0.98	0.02	1.93	0.41	1.40
75.40	-3.85	-0.97	0.03	2.07	0.70	-0.02
75.60	-3.96	-0.89	-0.05	1.50	0.65	-1.90
75.80	-3.83	-1.22	0.05	1.96	-0.75	-0.40
76.00	-3.33	-0.99	0.03	2.30	-2.54	0.89
76.20	-3.53	-1.21	-0.01	1.59	-0.71	1.20
76.40	-3.52	-1.00	0.00	1.71	-1.73	0.40
76.60	-3.15	-1.22	-0.04	1.85	-0.38	-0.93
76.80	-2.87	-1.36	-0.05	2.35	0.37	0.07
77.00	-2.97	-1.03	-0.05	2.98	-1.40	0.15
77.20	-3.20	-1.38	-0.03	1.96	1.56	0.82
77.40	-2.93	-0.94	-0.09	1.72	0.25	0.01
77.60	-3.07	-1.05	-0.08	1.83	-1.07	-0.46
77.80	-2.96	-1.06	-0.02	1.75	-2.31	1.22
78.00	-3.02	-0.81	-0.08	1.60	-0.12	0.96
78.20	-2.89	-1.07	-0.16	0.98	0.38	-0.83
78.40	-2.57	-1.01	-0.11	1.52	-0.24	0.34
78.60	-2.26	-1.22	-0.11	1.78	0.77	1.24
78.80	-2.44	-0.63	-0.09	1.63	-0.16	-0.51
79.00	-2.64	-0.96	-0.17	1.93	0.63	0.12

79.20	-2.52	-0.85	-0.14	1.57	-0.63	-0.32
79.40	-2.64	-0.60	-0.11	1.59	-0.71	0.65
79.60	-2.34	-0.70	-0.17	2.21	0.14	0.76
79.80	-2.18	-1.05	-0.18	2.77	0.09	1.05
80.00	-2.08	-0.78	-0.14	2.56	-0.92	2.76
80.20	-2.15	-0.88	-0.20	2.70	0.11	1.43
80.40	-2.18	-0.75	-0.22	3.10	0.29	1.91
80.60	-1.94	-0.57	-0.19	2.95	0.90	1.63
80.80	-2.16	-0.75	-0.21	2.87	0.05	1.75
81.00	-2.52	-0.49	-0.19	3.36	-0.38	2.90
81.20	-2.27	-0.86	-0.21	3.59	-0.74	2.13
81.40	-2.32	-0.63	-0.20	3.55	0.16	2.61
81.60	-2.25	-0.63	-0.22	2.62	-1.41	1.64
81.80	-2.09	-0.82	-0.24	3.44	0.23	1.84
82.00	-2.31	-0.79	-0.14	2.93	0.03	0.83
82.20	-2.20	-0.46	-0.18	2.79	-0.16	1.37
82.40	-2.41	-0.48	-0.16	3.13	-0.48	1.19
82.60	-1.92	-0.79	-0.25	2.74	-0.33	-0.57
82.80	-2.07	-0.46	-0.19	2.59	-1.15	0.65
83.00	-2.30	-0.39	-0.20	2.81	-1.15	0.17
83.20	-2.08	-0.33	-0.27	3.02	-0.77	0.55
83.40	-2.14	-0.36	-0.20	2.81	-0.34	0.24
83.60	-2.05	-0.49	-0.18	2.67	0.06	0.98
83.80	-1.59	-0.49	-0.14	2.52	0.66	0.00
84.00	-1.88	-0.26	-0.21	2.19	0.17	-0.51
84.20	-2.23	-0.47	-0.22	2.27	-1.10	-0.65
84.40	-2.22	-0.53	-0.07	2.75	0.24	0.05
84.60	-1.88	-0.30	-0.13	2.82	-0.82	0.27
84.80	-1.93	-0.39	-0.16	2.52	-0.54	0.60
85.00	-2.05	-0.12	-0.13	2.26	0.29	0.29
85.20	-1.74	-0.06	-0.13	1.76	0.04	-0.05
85.40	-1.90	-0.27	-0.12	1.86	0.18	1.21
85.60	-1.84	-0.31	-0.11	1.65	0.20	0.99
85.80	-1.48	-0.22	-0.07	1.57	-0.11	0.96
86.00	-1.68	-0.10	-0.12	1.10	-1.90	0.60
86.20	-1.92	-0.31	-0.12	1.64	1.16	1.32
86.40	-1.52	0.06	-0.11	1.67	-0.20	0.53
86.60	-1.71	-0.14	-0.14	1.41	-0.36	0.17
86.80	-1.08	-0.33	-0.16	1.66	-0.24	0.12
87.00	-1.30	-0.30	-0.13	1.87	-0.59	0.10
87.20	-1.37	-0.07	-0.12	2.00	0.30	0.40
87.40	-1.53	0.12	-0.11	1.94	0.74	0.45
87.60	-1.24	-0.05	-0.25	1.65	1.62	-0.06
87.80	-1.75	0.14	-0.12	1.46	2.15	0.36
88.00	-1.74	-0.11	-0.15	1.78	1.37	-0.39
88.20	-1.55	-0.29	-0.12	1.61	1.46	0.48
88.40	-1.93	-0.01	-0.09	1.97	0.84	0.03
88.60	-1.98	0.20	-0.11	2.21	0.58	-0.36
88.80	-1.86	-0.31	-0.18	2.03	0.40	-0.09
89.00	-1.53	0.05	-0.04	2.07	1.47	0.83

89.20	-2.16	-0.30	-0.08	2.06	0.50	0.15
89.40	-1.66	0.11	-0.08	1.89	0.63	0.08
89.60	-1.83	0.08	-0.06	1.78	0.81	0.96
89.80	-2.22	-0.19	-0.09	1.27	1.18	0.74
90.00	-2.01	-0.08	-0.07	1.03	0.83	0.71
90.20	-1.66	-0.13	-0.20	1.20	1.36	0.20
90.40	-1.55	-0.28	-0.16	1.20	0.87	-0.11
90.60	-1.72	-0.12	-0.12	1.73	0.70	0.74
90.80	-1.58	-0.19	-0.20	1.51	1.32	-1.26
91.00	-1.41	-0.26	-0.18	1.62	-0.50	-0.15
91.20	-1.10	-0.08	-0.22	1.63	0.17	-0.40
91.40	-1.36	-0.05	-0.26	1.66	-0.21	-0.19
91.60	-1.61	-0.18	-0.25	1.48	-0.27	-0.30
91.80	-1.75	0.01	-0.30	1.36	-0.68	-0.31
92.00	-1.48	0.16	-0.28	1.67	-2.01	1.12
92.20	-1.43	0.12	-0.34	1.77	-0.52	0.18
92.40	-1.26	0.07	-0.41	1.36	-0.34	0.54
92.60	-1.34	0.15	-0.39	1.18	0.21	-0.58
92.80	-1.13	0.13	-0.35	1.64	0.37	0.18
93.00	-1.24	0.08	-0.34	1.70	-0.42	0.05
93.20	-1.42	0.09	-0.41	1.72	0.22	-0.17
93.40	-1.35	0.14	-0.43	1.72	0.38	-0.27
93.60	-1.14	-0.04	-0.42	1.74	0.31	-0.03
93.80	-1.19	0.16	-0.42	1.78	-0.13	0.10
94.00	-0.91	0.20	-0.41	1.64	-0.95	0.06
94.20	-0.49	-0.13	-0.37	1.64	-1.14	0.47
94.40	-1.00	-0.23	-0.40	1.83	0.03	0.78
94.60	-1.25	0.04	-0.41	1.85	0.34	0.42
94.80	-1.10	0.26	-0.45	1.64	-0.09	0.38
95.00	-1.15	0.05	-0.35	1.64	0.16	0.26
95.20	-1.28	-0.09	-0.45	1.66	-0.15	0.65
95.40	-1.18	0.09	-0.39	1.29	0.02	-0.30
95.60	-1.25	0.17	-0.36	1.04	-0.16	0.34
95.80	-1.13	0.04	-0.46	1.15	-0.03	0.08
96.00	-0.71	0.17	-0.46	1.39	-0.22	0.04
96.20	-1.04	0.11	-0.38	1.44	-0.37	0.07
96.40	-1.22	0.10	-0.46	1.51	0.03	0.41
96.60	-1.18	-0.03	-0.49	1.37	2.17	1.88
96.80	-0.96	-0.03	-0.52	1.49	0.54	-0.23
97.00	-0.45	-0.20	-0.52	1.60	0.73	0.07
97.20	-0.97	-0.05	-0.54	1.46	1.03	-0.05
97.40	-1.02	0.03	-0.57	2.09	1.76	-0.26
97.60	-0.70	-0.07	-0.58	1.89	1.02	-0.47
97.80	-0.44	0.12	-0.53	1.63	2.25	-0.70
98.00	-0.62	-0.34	-0.61	2.38	0.36	0.25
98.20	-0.58	-0.32	-0.68	2.47	1.66	0.43
98.40	-0.72	-0.15	-0.63	2.28	1.75	-0.35
98.60	-0.49	-0.36	-0.64	2.21	0.87	0.21
98.80	-0.65	0.13	-0.64	2.27	0.44	0.21
99.00	-0.78	0.19	-0.60	2.34	1.58	0.03

99.20	-0.84	0.20	-0.62	2.27	1.00	0.27
99.40	-0.51	0.12	-0.70	2.17	1.76	-0.11
99.60	-0.40	0.15	-0.68	2.20	1.28	0.19
99.80	-0.62	0.17	-0.66	2.26	1.41	0.02
100.00	-0.25	0.03	-0.63	2.24	1.19	-0.43
100.20	-0.42	0.19	-0.73	2.17	1.12	-0.27
100.40	-0.49	0.11	-0.75	2.26	1.60	0.51
100.60	-0.91	0.14	-0.68	2.65	0.80	-0.32
100.80	-0.33	0.15	-0.75	3.31	1.73	-0.08
101.00	-0.34	0.26	-0.76	2.51	1.05	0.61
101.20	-0.29	0.20	-0.73	2.53	0.88	1.26
101.40	-0.44	0.05	-0.77	2.54	0.95	1.08
101.60	-0.45	0.22	-0.77	3.05	1.09	1.19
101.80	-0.20	-0.01	-0.80	3.19	0.43	1.17
102.00	-0.62	-0.16	-0.71	2.87	0.65	2.02
102.20	-0.59	0.16	-0.74	2.28	0.77	0.09
102.40	-0.69	0.03	-0.74	2.37	1.06	0.39
102.60	-0.67	0.05	-0.69	2.10	0.97	-0.34
102.80	-0.54	0.08	-0.70	2.19	0.80	-0.41
103.00	-0.67	0.14	-0.70	2.46	0.67	0.71
103.20	-0.31	0.02	-0.75	2.33	0.67	-0.64
103.40	-0.47	0.25	-0.73	2.62	1.01	0.69
103.60	-0.49	0.00	-0.62	2.38	0.18	0.57
103.80	-0.65	-0.36	-0.66	2.55	0.91	1.40
104.00	-0.27	-0.07	-0.63	2.43	0.86	0.92
104.20	-0.55	-0.32	-0.64	1.74	0.25	1.11
104.40	0.12	0.01	-0.71	1.64	0.01	0.80
104.60	-0.16	-0.11	-0.63	1.80	-0.78	0.28
104.80	-0.08	-0.03	-0.63	1.78	-0.72	0.23
105.00	-0.11	-0.15	-0.63	1.65	0.24	0.83
105.20	-0.18	0.15	-0.57	1.54	0.96	0.15
105.40	-0.11	-0.46	-0.61	0.73	1.13	-2.72
105.60	-0.27	0.14	-0.54	1.51	0.59	-0.09
105.80	-0.16	-0.06	-0.56	1.46	0.23	0.62
106.00	-0.05	-0.22	-0.61	1.00	0.58	0.29
106.20	-0.20	-0.08	-0.46	0.86	0.93	0.83
106.40	0.29	0.04	-0.49	1.02	0.41	-0.02
106.60	0.57	-0.06	-0.54	0.98	0.34	-0.57
106.80	0.42	0.11	-0.55	1.07	0.61	-0.56
107.00	0.27	0.00	-0.54	0.85	0.20	-0.99
107.20	0.36	-0.21	-0.53	0.72	1.02	-1.45
107.40	0.37	-0.01	-0.51	0.81	1.48	-1.26
107.60	0.14	0.36	-0.46	1.14	0.64	-0.58
107.80	0.08	0.06	-0.38	0.93	0.49	-0.58
108.00	-0.41	0.26	-0.19	0.54	0.48	-0.71
108.20	0.30	0.07	0.01	0.52	-1.18	-1.63
108.40	1.07	0.15	0.23	0.37	-1.00	-1.70
108.60	0.62	-0.53	0.25	0.61	-0.65	-1.01
108.80	0.13	0.27	0.27	0.80	-1.02	-1.33
109.00	0.34	-0.63	0.28	0.76	-0.88	-1.18

109.20	-0.18	-0.08	0.28	0.71	-1.04	-0.89
109.40	-0.34	-0.02	0.25	0.56	-1.21	-1.65
109.60	0.14	-0.32	0.29	0.64	-2.04	-1.26
109.80	0.40	-0.49	0.19	0.53	-1.21	-1.27
110.00	0.06	-0.46	0.18	0.37	-1.77	-0.85
110.20	0.22	-0.29	0.21	0.43	-1.56	-0.68
110.40	0.71	-0.22	0.23	0.46	-1.86	-1.13
110.60	0.50	-0.70	0.24	-0.17	-1.33	-0.69
110.80	0.51	-0.25	0.29	-0.36	0.43	-1.40
111.00	0.15	-0.19	0.30	-0.12	-1.54	1.03
111.20	0.15	-0.05	0.32	-0.30	-2.35	1.63
111.40	-0.08	0.27	0.45	-1.38	-1.99	-0.45
111.60	0.29	-0.14	0.48	-1.39	-1.28	-0.25
111.80	-0.15	-0.28	0.32	-1.52	-1.44	-0.61
112.00	0.43	-0.49	0.29	-1.73	-3.37	-0.72
112.20	-0.10	-0.30	0.30	-1.17	-0.62	-0.11
112.40	0.27	-0.76	0.22	-1.78	-1.56	-1.13
112.60	0.35	-0.77	0.20	-1.27	-1.71	-0.58
112.80	0.14	-0.62	0.08	-1.39	3.05	-0.75
113.00	0.03	-0.95	0.05	-0.79	-0.41	-0.17
113.20	0.37	-0.68	0.01	-0.81	0.16	-0.70
113.40	0.09	-0.73	-0.04	-0.69	0.16	0.40
113.60	0.49	-0.76	-0.16	-0.91	0.37	0.71
113.80	0.26	-0.54	-0.26	-1.34	-0.40	0.55
114.00	0.19	-0.56	-0.20	-1.60	0.45	1.37
114.20	0.14	-0.94	-0.25	-2.13	0.17	0.51
114.40	0.20	-1.28	-0.15	-2.19	1.23	-0.16
114.60	0.39	-0.73	0.06	-1.78	2.61	-2.09
114.80	0.30	-0.60	0.13	-1.16	2.11	0.68
115.00	0.23	-0.84	0.16	-2.09	1.16	-0.31
115.20	0.33	-0.63	0.20	-2.04	0.60	-0.93
115.40	0.35	-0.48	0.20	-1.61	2.99	-1.95
115.60	-0.06	-0.31	0.05	-1.28	-0.04	-0.39
115.80	0.30	-0.56	0.19	-0.64	-0.36	0.22
116.00	0.00	-0.43	0.26	-1.12	1.65	0.08
116.20	-0.46	-0.40	0.35	-0.98	0.95	0.61
116.40	-0.18	-0.67	0.24	-1.15	1.07	0.43
116.60	0.77	-0.54	0.14	-1.49	1.07	0.28
116.80	1.02	-0.20	-0.08	-1.66	0.45	-0.18
117.00	0.85	0.14	-0.16	-1.49	0.73	0.14
117.20	1.28	-0.32	-0.22	-1.20	0.85	-0.17
117.40	1.41	-0.25	-0.04	-1.15	1.01	-0.07
117.60	1.04	-0.37	0.29	-1.10	1.07	-0.53
117.80	0.88	-0.43	0.55	-0.90	0.91	-0.03
118.00	1.14	-0.47	0.80	-0.57	0.83	-0.12
118.20	1.30	-1.30	0.89	-0.56	0.52	0.68
118.40	1.36	-1.26	0.83	-0.48	0.13	0.02
118.60	1.48	-2.24	0.29	-0.55	0.74	0.38
118.80	1.34	-1.98	0.41	-0.55	0.78	0.17
119.00	1.70	-2.11	0.52	-0.52	-0.34	1.08

119.20	1.74	-2.10	0.54	-0.20	2.10	0.80
119.40	1.62	-2.16	0.63	-0.57	0.19	0.90
119.60	2.14	-1.89	0.52	-0.48	-0.04	0.11
119.80	2.05	-1.75	0.34	-0.55	-0.41	0.05
120.00	2.21	-1.99	0.25	-0.57	1.24	-0.57
120.20	2.13	-2.02	0.20	-0.33	-0.23	0.37
120.40	2.07	-1.52	0.31	-0.46	0.38	0.37
120.60	2.17	-1.97	0.39	-0.26	-0.48	0.63
120.80	2.15	-2.35	0.31	-0.08	0.16	0.10
121.00	2.60	-2.17	0.36	-0.12	-0.53	0.37
121.20	2.44	-2.20	0.22	-0.02	-0.37	0.43
121.40	2.60	-2.09	0.27	-0.23	-1.24	0.18
121.60	2.45	-1.66	0.09	-0.22	-0.99	0.21
121.80	2.66	-1.69	0.06	-0.12	-1.24	-0.08
122.00	2.83	-1.79	0.06	-0.24	-0.97	0.07
122.20	2.67	-1.49	0.16	-0.47	-0.91	0.06
122.40	2.67	-1.41	0.25	-0.40	-0.94	0.04
122.60	2.42	-1.46	0.33	-0.53	-0.73	-0.65
122.80	2.47	-1.44	0.41	-0.35	-1.03	-0.10
123.00	2.50	-1.22	0.40	-0.34	-1.12	-0.28
123.20	1.92	-1.23	0.43	-0.50	-0.61	-0.43
123.40	2.12	-1.21	0.51	-0.40	-0.85	-1.01
123.60	2.29	-1.42	0.65	-0.41	-0.24	-0.38
123.80	2.33	-1.42	0.78	-0.59	-0.30	-0.31
124.00	2.21	-1.70	0.83	-0.67	-0.05	-0.50
124.20	2.29	-1.63	0.62	-0.69	0.16	-0.91
124.40	2.28	-1.63	0.48	-0.75	-0.12	-0.42
124.60	2.16	-1.36	0.43	-0.55	-0.14	0.30
124.80	2.07	-1.37	0.40	-0.29	1.20	-0.82
125.00	2.40	-1.69	0.34	-0.31	0.19	-0.32
125.20	2.55	-1.83	0.25	-0.28	0.54	-1.03
125.40	2.57	-1.43	0.06	-0.57	0.10	-0.81
125.60	2.88	-1.38	-0.13	-0.62	-0.23	-0.48
125.80	2.54	-1.19	-0.17	-0.80	0.06	-0.76
126.00	2.71	-1.34	-0.13	-1.04	0.15	-0.76
126.20	2.82	-1.14	-0.06	-1.38	0.26	-0.55
126.40	2.58	-1.37	-0.04	-1.40	0.20	-0.56
126.60	2.44	-1.42	0.03	-1.07	0.01	-0.26
126.80	2.33	-1.31	0.11	-1.35	-0.22	0.29
127.00	2.62	-1.60	0.01	-1.73	0.73	-0.23
127.20	2.56	-1.77	-0.06	-2.41	-2.83	-4.21
127.40	2.93	-1.25	0.08	-0.86	-0.06	0.42
127.60	3.05	-1.24	-0.12	-1.49	-0.07	-1.10
127.80	2.76	-0.97	-0.18	-1.23	0.06	-0.71
128.00	3.02	-1.34	0.01	-1.49	0.63	-0.56
128.20	3.13	-1.51	-0.13	-1.62	0.50	-0.36
128.40	3.25	-1.53	-0.35	-1.68	-0.02	-0.20
128.60	3.48	-1.73	-0.33	-1.73	-0.08	-0.10
128.80	2.71	-1.43	0.05	-2.12	0.49	-0.41
129.00	3.24	-1.77	-0.09	-1.88	0.25	-0.82

129.20	3.14	-1.80	-0.11	-1.50	0.90	0.04
129.40	2.90	-1.91	-0.11	-1.35	-0.56	-1.05
129.60	2.82	-1.26	-0.06	-1.74	-0.36	0.02
129.80	2.98	-2.07	-0.06	-1.72	1.67	0.32
130.00	2.90	-2.18	0.14	-1.56	1.14	1.56
130.20	3.10	-1.77	0.16	-2.51	0.09	-1.11
130.40	2.80	-1.80	0.15	-2.20	-0.20	1.34
130.60	2.83	-2.04	0.20	-3.07	0.17	-0.42
130.80	2.94	-1.82	0.27	-2.91	0.28	0.49
131.00	3.16	-1.85	0.26	-3.37	-0.21	-2.39
131.20	2.98	-1.61	0.09	-2.60	0.34	-0.63
131.40	3.02	-1.58	0.04	-2.38	-0.15	-0.64
131.60	2.59	-1.20	0.18	-2.34	-0.57	-1.58
131.80	2.67	-1.32	0.34	-1.88	-0.33	0.38
132.00	2.61	-1.22	0.37	-2.10	-0.10	0.81
132.20	3.01	-1.44	0.32	-2.20	-0.63	-0.11
132.40	3.13	-1.21	0.17	-2.43	-0.38	-0.52
132.60	2.89	-1.00	0.15	-2.38	1.18	-0.98
132.80	2.97	-1.31	0.24	-2.47	0.32	-1.44
133.00	2.81	-1.35	0.34	-2.99	-0.05	-0.10
133.20	3.27	-1.14	0.40	-3.02	-0.26	-1.08
133.40	3.14	-1.17	0.25	-2.84	-0.58	-0.74
133.60	3.19	-1.15	0.31	-2.93	-1.11	-0.35
133.80	3.03	-1.32	0.25	-2.85	-0.75	-0.06
134.00	3.22	-1.35	0.25	-2.54	-0.36	-1.09
134.20	3.03	-1.07	0.18	-2.44	-0.11	1.28
134.40	3.32	-1.01	-0.05	-2.57	-0.35	0.86
134.60	3.44	-1.27	-0.08	-2.86	1.06	-0.38
134.80	3.31	-1.66	-0.15	-2.63	1.46	-1.05
135.00	3.46	-1.55	-0.27	-2.89	-1.05	-2.12
135.20	3.37	-0.70	-0.10	-2.05	2.11	0.79
135.40	3.21	-0.99	-0.12	-2.25	0.59	0.53
135.60	2.71	-0.88	-0.06	-1.99	-0.59	1.49
135.80	2.87	-0.55	0.01	-2.87	-0.52	1.08
136.00	2.94	-0.35	-0.01	-3.44	-0.08	-0.45
136.20	2.72	-0.04	0.00	-2.93	0.21	0.14
136.40	2.83	-0.35	0.02	-3.10	-0.08	-0.25
136.60	2.66	-0.45	0.02	-3.17	-0.29	-0.22
136.80	2.63	-0.44	-0.05	-2.93	-0.14	0.25
137.00	2.53	-0.27	-0.23	-2.91	0.39	0.06
137.20	2.59	-0.01	-0.05	-2.64	0.50	0.27
137.40	2.67	-0.25	-0.10	-1.45	-1.27	2.26
137.60	2.34	-0.11	-0.18	-2.80	0.37	-0.27
137.80	2.75	-0.24	-0.12	-2.44	1.24	-0.03
138.00	2.70	-0.13	-0.01	-2.38	-0.02	0.28
138.20	2.92	-0.08	0.03	-2.57	-0.31	-0.04
138.40	2.98	-0.32	0.09	-2.31	2.18	-1.99
138.60	2.96	-0.24	0.09	-2.46	0.28	0.03
138.80	3.01	-0.19	0.10	-2.49	0.15	-0.10
139.00	3.00	-0.37	0.20	-2.47	1.21	-2.04

139.20	2.85	-0.07	0.25	-2.34	0.63	-0.84
139.40	2.99	-0.40	0.18	-2.31	0.02	-0.85
139.60	2.97	-0.34	0.14	-2.32	-0.78	0.51
139.80	3.15	-0.21	0.09	-2.86	0.08	-0.28
140.00	3.12	-0.36	0.29	-2.50	0.13	-0.18
140.20	2.43	0.13	0.32	-2.18	-1.56	-0.73
140.40	3.15	-0.31	0.30	-2.54	0.22	-0.57
140.60	2.74	-0.37	0.33	-2.34	-0.94	0.22
140.80	2.59	-0.16	0.30	-2.03	0.43	0.61
141.00	2.90	-0.19	0.41	-2.42	-0.35	0.66
141.20	3.13	-0.18	0.44	-2.38	-0.80	-1.56
141.40	2.91	-0.34	0.35	-2.46	-0.83	-1.04
141.60	3.04	-0.34	0.34	-2.83	-0.23	0.06
141.80	2.93	-0.25	0.32	-1.88	1.19	1.20
142.00	2.77	-0.22	0.31	-2.11	1.92	-0.16
142.20	3.27	-0.50	0.30	-2.46	-2.24	-1.64
142.40	2.87	-0.25	0.20	-1.57	-0.51	1.48
142.60	2.76	-0.30	0.17	-2.51	-0.44	-4.02
142.80	3.01	-0.21	-0.04	-2.02	-2.50	0.34
143.00	2.65	0.07	-0.12	-2.76	-0.27	-1.20
143.20	2.34	0.45	-0.03	-3.56	-0.25	-0.33
143.40	2.43	0.16	0.00	-3.25	-0.06	-0.19
143.60	2.42	0.21	0.04	-3.18	-0.33	-0.35
143.80	2.34	-0.14	0.05	-2.50	1.85	0.84
144.00	2.30	0.01	0.15	-2.97	-0.89	-0.15
144.20	2.39	-0.12	0.28	-2.59	-1.30	-0.40
144.40	2.51	0.05	0.32	-3.23	-1.77	-1.81
144.60	2.41	-0.30	0.24	-3.26	-0.17	-0.28
144.80	2.80	-0.42	0.16	-3.13	0.06	-0.29
145.00	2.70	-0.03	0.08	-1.87	-0.14	3.59
145.20	2.39	0.03	0.11	-1.23	-1.03	2.90
145.40	2.64	-0.32	0.11	-2.10	0.25	1.32
145.60	2.71	-0.39	0.17	-3.09	1.16	-1.94
145.80	2.72	-0.08	0.21	-2.28	1.41	-3.38
146.00	2.75	-0.29	0.10	-3.11	-0.21	-0.11
146.20	2.29	-0.18	0.15	-3.09	0.37	-0.21
146.40	2.40	-0.28	0.11	-2.82	-0.48	-1.24
146.60	2.31	-0.27	0.13	-2.97	-0.56	-0.86
146.80	2.57	0.22	0.15	-3.00	-0.98	-0.69
147.00	2.46	-0.16	0.13	-3.09	0.76	-0.95
147.20	2.56	0.16	0.14	-2.40	0.76	1.04
147.40	2.38	0.13	0.13	-3.16	1.58	-0.88
147.60	2.36	-0.05	0.03	-3.40	0.33	-1.58
147.80	2.51	-0.08	0.10	-3.29	0.45	-0.89
148.00	2.36	0.02	0.12	-3.30	1.01	-0.69
148.20	2.73	-0.12	0.08	-3.33	0.12	-1.21
148.40	2.80	-0.17	0.06	-3.14	0.84	-0.92
148.60	3.00	-0.01	0.00	-2.20	-1.98	1.39
148.80	2.80	0.15	-0.03	-2.20	0.80	0.72
149.00	3.11	0.08	0.01	-2.59	1.48	-0.01

149.20	2.81	0.10	0.01	-3.20	0.28	-0.10
149.40	2.60	0.53	0.03	-2.63	-1.91	-1.70
149.60	2.76	0.06	-0.06	-2.28	0.13	-0.21
149.80	2.56	0.23	0.03	-2.36	-0.92	-0.20
150.00	2.50	0.29	0.13	-3.30	-0.25	-0.15
150.20	2.57	0.21	0.19	-3.09	1.50	-0.10
150.40	2.95	0.19	0.24	-3.30	-0.03	-0.03
150.60	2.84	0.31	0.15	-2.81	-0.58	0.92
150.80	2.83	0.54	-0.04	-2.42	-0.49	-0.27
151.00	2.68	0.59	0.02	-2.89	-1.18	-0.68
151.20	3.00	0.19	0.05	-2.33	0.66	2.08
151.40	2.76	0.35	0.10	-2.86	0.98	0.07
151.60	2.89	0.11	-0.01	-3.19	-1.67	-2.23
151.80	2.83	0.08	-0.09	-2.96	-0.77	-0.39
152.00	2.58	0.14	-0.05	-3.05	-0.32	0.18
152.20	2.53	0.06	0.03	-2.29	-1.61	-0.49
152.40	2.92	0.01	0.01	-2.50	1.44	0.07
152.60	3.02	0.14	0.04	-2.92	-0.65	-0.97
152.80	3.02	0.10	0.00	-2.78	0.15	-0.25
153.00	2.51	0.10	0.13	-2.67	0.57	0.40
153.20	2.62	0.08	0.06	-2.68	-0.42	-0.57
153.40	2.66	0.03	0.04	-2.96	0.24	-0.13
153.60	2.74	0.26	-0.02	-2.70	0.35	0.78
153.80	2.54	0.10	-0.18	-3.01	2.23	-1.59
154.00	2.46	0.13	-0.23	-3.32	0.09	-1.24
154.20	2.49	0.09	-0.21	-3.51	0.47	-0.17
154.40	2.84	-0.13	-0.17	-2.64	0.77	-1.03
154.60	2.89	-0.29	-0.21	-2.84	2.55	-0.73
154.80	3.04	-0.42	-0.15	-3.36	-1.07	0.05
155.00	2.76	-0.17	-0.13	-3.43	0.33	-0.09
155.20	2.79	-0.14	-0.08	-2.79	0.07	1.84
155.40	2.99	0.01	0.03	-3.02	0.55	0.84
155.60	3.16	-0.18	0.04	-3.02	0.84	-2.54
155.80	2.94	-0.11	0.04	-2.79	1.27	-2.67
156.00	3.17	0.02	-0.01	-2.69	-1.17	-0.51
156.20	3.33	-0.02	-0.03	-2.80	-2.36	-1.61
156.40	2.82	-0.23	0.05	-3.17	-1.07	-1.22
156.60	3.04	-0.51	0.00	-3.31	0.14	-0.11
156.80	2.82	-0.39	0.03	-3.19	-0.01	-0.39
157.00	3.13	-0.25	0.01	-3.05	-0.87	0.65
157.20	2.95	-0.83	0.05	-3.30	-0.31	0.11
157.40	3.04	-0.38	0.03	-2.63	-1.98	1.12
157.60	2.84	-0.27	0.03	-3.23	-0.97	-0.25
157.80	2.90	-0.44	0.04	-1.95	-2.89	2.40
158.00	2.92	-0.50	0.01	-2.62	-1.17	-0.88
158.20	2.74	-0.25	0.05	-3.07	-0.55	-0.96
158.40	2.82	-0.32	0.02	-2.34	1.57	0.40
158.60	2.81	-0.15	-0.08	-3.43	0.27	-0.66
158.80	2.90	-0.21	0.00	-3.16	2.08	-1.85
159.00	2.76	-0.37	0.00	-3.35	0.15	-0.04

159.20	2.81	-0.24	-0.08	-3.16	0.28	-0.33
159.40	2.81	-0.01	-0.07	-2.66	-0.42	-0.94
159.60	2.68	-0.13	-0.18	-2.82	0.85	-2.33
159.80	3.02	-0.46	-0.12	-2.51	2.52	1.69
160.00	2.79	0.01	-0.03	-3.44	-0.08	-0.30
160.20	2.77	-0.14	-0.09	-3.10	-0.04	-0.93
160.40	2.69	-0.16	-0.13	-3.27	0.21	-2.24
160.60	2.80	-0.79	-0.12	-3.67	-0.26	-0.23
160.80	2.75	-0.39	-0.08	-1.21	-1.11	6.78
161.00	2.60	-0.20	-0.13	-3.07	-2.13	-1.08
161.20	3.19	-0.41	-0.12	-3.72	1.03	-1.30
161.40	2.98	-0.34	-0.03	-3.58	2.35	-2.47
161.60	2.85	-0.38	-0.03	-2.43	-0.34	3.27
161.80	3.31	-0.28	-0.05	-3.49	-0.57	-0.71
162.00	3.18	-0.16	-0.05	-3.10	0.25	1.64
162.20	2.98	-0.49	-0.10	-3.56	0.88	-1.17
162.40	3.11	-0.40	-0.01	-3.60	-0.26	-0.47
162.60	3.18	-0.36	-0.02	-3.53	0.22	-0.29
162.80	3.30	-0.37	-0.09	-3.59	0.52	-0.68
163.00	3.37	-0.17	-0.07	-2.53	-1.11	-2.10
163.20	3.19	-0.46	-0.09	-2.11	-1.44	-0.46
163.40	2.98	-0.29	-0.06	-3.33	1.22	-2.79
163.60	2.90	-0.33	-0.06	-3.34	0.42	0.30
163.80	2.76	-0.26	-0.02	-3.01	-0.69	-1.22
164.00	2.95	-0.23	0.02	-2.29	1.10	1.33
164.20	2.84	-0.15	0.02	-2.49	0.68	1.53
164.40	2.76	-0.20	-0.07	-3.14	1.82	-1.00
164.60	2.67	-0.17	-0.03	-2.99	1.39	-2.43
164.80	2.98	-0.19	0.02	-2.40	0.25	0.39
165.00	2.86	-0.41	-0.03	-2.37	-0.05	0.16
165.20	2.77	-0.31	-0.01	-2.71	1.15	0.26
165.40	3.12	-0.52	-0.03	-3.26	0.06	-0.40
165.60	3.12	-0.38	-0.06	-2.72	1.13	-0.45
165.80	2.78	-0.41	-0.09	-2.16	-2.18	-1.47
166.00	2.88	-0.53	-0.09	-2.98	0.37	-0.50
166.20	2.87	-0.55	-0.12	-2.59	-1.10	0.59
166.40	2.81	-0.50	-0.06	-3.04	-1.00	-0.47
166.60	2.94	-0.33	-0.11	-2.98	-0.13	-0.19
166.80	3.00	-0.38	-0.09	-2.26	-0.65	-1.62
167.00	2.77	-0.63	-0.07	-2.23	2.12	-0.36
167.20	2.75	-0.50	-0.06	-2.52	0.52	-0.17
167.40	2.87	-0.47	-0.06	-3.20	0.07	-0.47
167.60	2.86	-0.65	-0.06	-3.31	-0.97	-0.28
167.80	2.78	-0.49	-0.01	-3.23	-0.62	-0.80
168.00	2.84	-0.46	-0.03	-2.32	0.54	0.85
168.20	2.88	-0.57	-0.10	-3.26	-2.17	-1.23
168.40	3.11	-0.45	-0.06	-3.24	-0.25	0.25
168.60	2.86	-0.35	-0.04	-2.61	-0.88	1.97
168.80	2.97	-0.30	0.02	-2.31	0.28	-4.11
169.00	2.98	-0.36	0.05	-2.54	-2.31	-3.68

169.20	2.79	-0.25	-0.05	-3.22	-0.47	-0.73
169.40	2.51	-0.20	-0.08	-2.55	-0.22	1.98
169.60	2.79	-0.34	-0.09	-2.67	-0.30	1.11
169.80	2.80	-0.10	-0.10	-3.00	-0.43	-0.33
170.00	2.98	-0.26	-0.07	-2.06	-0.96	-0.18
170.20	2.93	-0.54	-0.11	-2.09	0.01	0.78
170.40	2.37	-0.08	-0.08	-1.50	-0.45	2.43
170.60	2.30	-0.35	-0.08	-2.90	-0.99	-0.54
170.80	2.40	-0.29	-0.08	-2.88	-0.45	0.03
171.00	2.39	-0.12	0.00	-2.43	-0.51	-1.28
171.20	1.90	-0.22	0.02	-2.32	2.55	-2.01
171.40	2.12	-0.31	0.03	-2.83	0.32	-1.10
171.60	2.43	-0.24	0.03	-2.95	0.36	-0.52
171.80	2.04	-0.14	-0.03	-1.69	0.01	-0.70
172.00	2.34	-0.01	0.05	-2.05	0.75	-2.49
172.20	1.84	-0.15	0.00	-2.42	0.86	-0.81
172.40	1.99	-0.23	-0.08	-2.17	1.07	-1.73
172.60	2.17	-0.18	0.03	-2.08	0.31	-0.42
172.80	2.18	-0.20	0.04	-2.23	-0.27	-0.02
173.00	1.85	-0.24	0.09	-2.18	-0.87	-1.77
173.20	1.99	-0.03	0.03	-2.27	-0.53	-0.81
173.40	2.17	-0.07	0.05	-1.25	-0.08	3.37
173.60	1.99	-0.19	0.02	-2.00	1.58	-1.79
173.80	2.12	-0.17	0.00	-1.98	0.42	0.41
174.00	1.85	-0.31	-0.01	-1.87	0.28	1.33
174.20	2.12	-0.18	0.13	-1.69	0.85	-0.51
174.40	2.01	-0.31	0.09	-1.80	2.11	-0.70
174.60	1.83	-0.33	0.09	-1.79	-1.53	-1.79
174.80	1.90	-0.30	0.16	-0.82	3.38	0.80
175.00	1.43	-0.04	0.14	-0.97	1.09	1.42
175.20	2.01	-0.33	0.19	-1.95	-1.74	-0.86
175.40	1.83	-0.34	0.16	-1.82	1.06	1.21
175.60	1.79	-0.06	0.15	-0.73	-1.13	2.30
175.80	1.79	-0.61	0.07	-1.14	-0.50	1.04
176.00	1.97	-0.66	-0.01	-1.50	0.90	-0.46
176.20	2.05	-0.44	0.00	-1.81	0.14	-0.47
176.40	2.02	-0.79	-0.06	-1.75	-0.46	-0.33
176.60	2.02	-0.74	-0.12	-1.55	0.40	0.16
176.80	1.77	-0.95	-0.07	-1.73	-0.17	-0.21
177.00	2.17	-0.99	-0.18	-1.23	-0.24	1.11
177.20	1.67	-0.46	-0.02	-1.74	-0.21	-0.46
177.40	2.01	-0.83	-0.06	-1.68	0.01	-0.38
177.60	1.78	-0.85	-0.06	-1.44	-0.38	-0.91
177.80	1.72	-0.83	-0.06	-1.56	-0.40	-0.64
178.00	1.48	-0.92	-0.02	-1.47	-0.53	0.11
178.20	1.51	-0.69	0.04	-1.22	-0.23	0.55
178.40	1.63	-0.70	0.00	-1.36	0.41	-0.74
178.60	1.89	-0.87	0.00	-1.41	-0.11	-0.23
178.80	1.80	-1.19	-0.07	-1.28	0.41	0.69
179.00	1.85	-0.82	0.04	-1.30	-0.28	0.25

179.20	1.70	-0.84	0.10	-1.32	0.38	-0.57
179.40	1.78	-1.05	0.10	-1.62	0.62	-1.91
179.60	1.72	-0.61	0.17	-1.20	0.14	0.42
179.80	1.58	-0.92	0.13	-1.46	0.18	-0.32
180.00	2.22	-0.81	0.19	-1.27	-0.05	0.26
180.20	2.21	-1.21	0.18	-1.12	0.05	0.59
180.40	1.82	-1.00	0.17	-1.31	-0.23	0.35
180.60	1.99	-0.80	0.17	-1.55	-0.37	0.08
180.80	1.92	-0.97	0.10	-1.45	-0.58	0.71
181.00	1.93	-0.87	0.01	-0.61	-2.22	0.49
181.20	1.51	-0.61	0.06	-1.22	0.98	-0.31
181.40	1.98	-0.89	0.11	-1.48	0.03	0.52
181.60	1.66	-0.68	0.08	-1.60	-0.20	-1.73
181.80	1.89	-0.85	0.02	-1.54	3.21	-0.88
182.00	1.74	-0.59	0.05	-1.43	-0.13	1.22
182.20	2.03	-0.48	0.04	-1.81	-0.22	0.20
182.40	2.11	-0.22	-0.03	-1.83	0.24	-0.24
182.60	2.26	-0.35	-0.03	-1.70	0.89	-0.36
182.80	2.11	-0.64	-0.10	-1.59	-0.30	-0.03
183.00	2.21	-0.96	-0.12	-1.67	0.44	0.68
183.20	2.11	-0.45	-0.13	-1.49	0.16	-0.58
183.40	2.30	-0.23	-0.01	-1.88	-1.08	-1.43
183.60	1.87	-0.17	-0.08	-1.18	-1.00	0.97
183.80	1.75	-0.35	-0.10	-1.33	0.17	-0.90
184.00	2.05	-0.23	-0.09	-1.50	-0.34	-1.70
184.20	1.67	-0.32	-0.06	-1.82	0.38	-0.54
184.40	1.89	-0.47	-0.09	-1.16	1.77	-1.82
184.60	1.69	-0.35	-0.15	-1.37	0.44	1.88
184.80	1.45	-0.17	-0.08	-1.91	0.51	0.35
185.00	1.36	-0.14	-0.12	-1.75	0.84	0.40
185.20	1.50	-0.45	-0.13	-1.85	0.12	-0.04
185.40	1.51	-0.18	-0.04	-1.64	0.89	0.18
185.60	1.52	0.03	-0.14	-1.26	-0.04	0.79
185.80	1.13	0.05	-0.03	-1.98	-0.79	-0.79
186.00	1.22	-0.27	-0.15	-1.77	0.63	-0.09
186.20	1.13	0.01	-0.11	-1.78	0.61	-0.19
186.40	1.43	-0.02	-0.11	-1.77	1.27	-0.59
186.60	1.11	0.11	-0.10	-1.36	0.03	0.72
186.80	1.36	-0.10	-0.13	-0.56	3.35	3.31
187.00	1.59	-0.03	-0.12	-0.99	1.13	-1.00
187.20	1.39	0.05	-0.13	-1.39	1.56	-3.14
187.40	1.33	0.09	-0.17	-1.52	1.57	-0.81
187.60	1.42	-0.03	-0.15	-1.39	3.46	-1.80
187.80	1.30	-0.06	-0.10	-1.29	1.73	-0.67
188.00	1.25	0.05	-0.13	-1.68	-0.84	0.12
188.20	1.11	-0.09	-0.14	-0.81	-1.26	0.64
188.40	1.04	0.11	-0.13	-1.47	4.28	2.15
188.60	1.15	-0.06	-0.14	-1.46	0.05	0.30
188.80	1.19	-0.07	-0.20	-1.49	0.02	0.33
189.00	1.09	-0.09	-0.08	-1.86	0.14	-1.55

189.20	1.01	-0.15	-0.15	-1.05	-1.20	1.40
189.40	1.18	-0.22	-0.20	-1.26	-1.83	0.69
189.60	1.20	-0.11	-0.14	-1.48	0.11	0.11
189.80	1.35	-0.21	-0.18	-0.66	-0.75	2.06
190.00	1.17	0.05	-0.16	-0.91	-0.92	1.73
190.20	0.66	-0.14	-0.11	-1.09	-3.21	0.38
190.40	1.02	-0.01	-0.01	-1.37	0.40	0.74
190.60	1.13	0.04	0.02	-1.38	-0.99	-0.06
190.80	0.96	-0.09	0.04	-1.44	-0.56	0.12
191.00	0.87	0.21	0.11	-0.66	2.78	-0.01
191.20	0.89	0.14	0.17	-1.26	-0.45	-1.46
191.40	0.95	-0.10	0.23	-1.52	-0.39	-0.21
191.60	0.98	0.00	0.25	-1.37	-0.37	-0.41
191.80	1.06	0.02	0.19	-1.30	-0.85	-0.25
192.00	1.02	-0.08	0.19	-1.32	-0.18	-0.25
192.20	0.78	0.12	0.22	-1.06	-1.48	0.63
192.40	0.75	0.29	0.21	-1.53	-1.01	-1.16
192.60	1.26	0.10	0.23	-1.12	-0.30	-0.69
192.80	1.07	-0.17	0.21	-0.47	-0.37	-1.20
193.00	1.15	0.05	0.19	-0.42	-2.12	-1.28
193.20	1.23	0.01	0.13	-0.57	-1.63	-3.03
193.40	1.13	0.12	0.14	-0.17	0.99	-0.08
193.60	1.13	0.02	0.16	0.17	-1.54	1.57
193.80	1.10	0.22	0.13	-0.61	-0.06	-0.38
194.00	0.99	0.28	0.16	-0.42	-1.33	-1.00
194.20	1.05	0.02	0.08	-0.32	-1.19	-0.58
194.40	1.34	-0.01	0.08	-0.53	-1.21	-1.12
194.60	1.03	0.08	0.03	-0.47	-0.82	-0.69
194.80	0.95	-0.18	0.03	0.01	-0.24	-0.04
195.00	1.15	-0.07	0.02	-0.90	-0.95	-1.76
195.20	0.86	0.16	-0.01	-0.26	-0.97	1.02
195.40	0.71	0.24	0.05	-0.66	-0.88	0.70
195.60	1.04	0.04	-0.03	-0.75	-1.22	0.53
195.80	0.81	0.05	-0.02	-0.79	-0.66	0.60
196.00	1.25	-0.01	-0.03	-0.55	0.26	-0.49
196.20	0.98	-0.18	-0.02	-0.52	2.16	1.31
196.40	0.84	-0.03	-0.06	-0.77	2.29	-0.57
196.60	0.97	-0.05	-0.04	-0.51	-0.16	1.26
196.80	1.04	-0.26	-0.11	-1.16	-0.74	-1.08
197.00	0.89	-0.21	-0.17	-0.91	0.13	-0.58
197.20	0.73	-0.28	-0.20	-0.71	-2.03	1.22
197.40	0.98	-0.36	-0.15	-0.89	3.05	-0.90
197.60	0.74	-0.57	-0.23	-1.04	-0.76	0.58
197.80	0.25	-0.38	-0.22	-1.14	-0.22	0.99
198.00	0.63	-0.40	-0.22	-1.07	-0.79	0.42
198.20	0.67	-0.53	-0.27	-1.58	-0.62	-0.55
198.40	0.58	-0.72	-0.18	-0.99	1.46	0.29
198.60	0.62	-0.31	-0.33	-0.97	-0.16	0.82
198.80	0.24	-0.56	-0.32	-1.00	-1.24	-0.17
199.00	-0.03	-0.47	-0.36	-1.19	-0.20	0.05

199.20	-0.04	-0.62	-0.39	-0.93	-1.42	0.11
199.40	0.20	-0.66	-0.40	-0.70	-0.41	0.59
199.60	0.24	-0.79	-0.41	-0.65	-0.58	0.36
199.80	0.09	-0.82	-0.41	-0.93	0.61	0.11
200.00	0.40	-0.75	-0.38	-1.02	0.23	0.21
200.20	0.31	-0.47	-0.37	-0.76	0.27	0.94
200.40	0.28	-0.78	-0.33	-0.65	0.41	0.92
200.60	0.11	-0.94	-0.29	-0.68	-0.72	0.36
200.80	0.07	-0.82	-0.29	-0.73	0.20	0.76
201.00	-0.01	-1.19	-0.23	-0.86	-1.06	-0.28
201.20	-0.27	-1.05	-0.21	-0.83	0.23	0.09
201.40	0.00	-1.08	-0.25	-0.71	0.50	0.40
201.60	-0.26	-1.19	-0.24	-0.12	2.78	1.41
201.80	0.30	-1.07	-0.14	-1.04	0.06	-0.02
202.00	-0.26	-1.18	-0.17	-1.02	0.63	-0.02
202.20	-0.27	-1.24	-0.19	-0.12	1.09	2.31
202.40	-0.22	-1.28	-0.16	-0.61	-1.03	-0.83
202.60	0.03	-1.34	-0.11	-0.62	0.63	-1.59
202.80	-0.34	-1.13	-0.01	-0.64	0.81	1.41
203.00	-0.24	-1.38	0.01	-0.91	-0.32	0.06
203.20	-0.30	-1.34	0.03	-0.32	0.43	2.26
203.40	-0.19	-1.26	0.08	-0.07	-0.53	-0.11
203.60	-0.45	-1.41	0.34	-0.60	0.30	0.01
203.80	-0.29	-1.43	0.36	-0.58	-0.19	0.66
204.00	-0.28	-1.68	0.08	-0.64	-0.03	0.39
204.20	-0.79	-1.68	-0.03	-0.52	0.08	0.02
204.40	-0.59	-1.94	-0.06	-0.49	-0.49	-0.49
204.60	-0.84	-1.60	-0.08	-0.62	-0.49	-0.13
204.80	-0.99	-1.61	-0.10	-0.24	0.32	0.46
205.00	-1.25	-1.27	-0.06	-0.14	-0.11	1.03
205.20	-0.97	-1.22	-0.05	-0.20	0.11	1.27
205.40	-1.22	-1.44	0.00	-0.16	-0.24	0.59
205.60	-1.08	-1.51	0.10	-0.23	0.00	0.23
205.80	-1.01	-1.40	0.20	-0.37	0.26	-0.20
206.00	-1.14	-1.52	0.25	-0.22	-0.15	0.30
206.20	-0.77	-1.64	0.26	-0.13	-0.64	0.26
206.40	-1.17	-1.13	0.23	-0.29	-0.62	-0.03
206.60	-1.13	-1.29	0.13	-0.37	-0.96	0.95
206.80	-1.10	-1.29	0.19	-0.03	-0.10	0.36
207.00	-1.18	-0.99	0.17	0.01	-0.51	-0.13
207.20	-0.99	-0.89	0.19	-0.03	1.38	-0.76
207.40	-1.06	-1.35	0.17	-0.13	0.61	-0.39
207.60	-1.12	-1.06	0.13	0.16	-0.58	0.63
207.80	-1.52	-0.94	0.17	0.27	-0.83	1.25
208.00	-0.89	-1.05	0.19	0.10	0.56	-1.27
208.20	-1.06	-0.45	0.21	-0.13	0.25	0.44
208.40	-1.34	-1.12	0.19	-0.70	-1.66	-2.04
208.60	-1.39	-0.85	0.20	0.05	1.18	0.01
208.80	-1.40	-0.88	0.16	-0.10	0.48	0.42
209.00	-1.35	-0.82	0.20	0.01	-0.14	0.46

209.20	-1.21	-0.63	0.19	-0.14	-0.12	-0.18
209.40	-1.54	-0.78	0.20	-0.19	-0.73	-0.02
209.60	-1.28	-0.72	0.22	-0.16	-0.51	0.08
209.80	-1.50	-0.35	0.35	-0.12	-0.64	-0.10
210.00	-1.35	-0.70	0.30	-0.09	-0.44	0.04
210.20	-1.08	-0.72	0.26	0.03	-0.45	-0.73
210.40	-1.11	-0.69	0.23	0.05	-0.21	-0.41
210.60	-1.02	-0.92	0.12	0.25	-0.59	0.64
210.80	-1.53	-1.03	0.09	0.07	0.54	0.22
211.00	-1.52	-0.95	0.08	0.01	-0.18	-0.62
211.20	-1.48	-1.15	-0.01	0.26	-0.97	-0.22
211.40	-1.54	-1.16	-0.11	0.19	-1.49	-0.19
211.60	-1.17	-1.62	-0.03	0.09	-0.69	-0.03
211.80	-1.23	-1.34	-0.02	0.10	-0.59	-0.84
212.00	-1.84	-1.07	-0.17	0.33	-0.49	0.17
212.20	-2.10	-0.94	-0.30	0.29	0.01	0.26
212.40	-1.35	-1.33	-0.25	0.21	-0.77	0.17
212.60	-1.73	-1.51	-0.15	0.27	-1.91	-0.32
212.80	-1.62	-1.50	-0.19	-0.46	0.16	-1.64
213.00	-1.23	-1.56	-0.10	0.45	-1.94	0.15
213.20	-1.39	-1.37	-0.08	0.57	-1.47	-0.78
213.40	-1.45	-1.45	-0.02	0.77	-1.24	0.01
213.60	-1.01	-1.27	-0.06	0.74	-1.59	-0.01
213.80	-0.82	-1.10	-0.16	0.70	-2.00	-0.11
214.00	-1.08	-1.03	-0.40	0.33	-0.11	0.81
214.20	-0.97	-0.50	-0.56	0.89	-0.57	-0.12
214.40	-1.09	-0.53	-0.69	0.82	-0.77	-0.18
214.60	-0.57	-1.13	-0.60	0.69	-1.88	-0.02
214.80	-0.87	-1.16	-0.48	1.02	-0.59	0.58
215.00	-0.82	-1.37	-0.13	0.41	-3.15	-0.28
215.20	-0.67	-1.52	-0.04	0.32	-2.82	-0.44
215.40	-1.18	-1.47	0.16	0.61	-0.41	-0.17
215.60	-1.25	-1.95	0.32	0.35	-0.45	-0.09
215.80	-1.37	-1.93	0.33	0.43	-0.48	0.57
216.00	-1.96	-1.67	0.30	0.35	-2.07	2.30
216.20	-1.90	-1.56	0.20	0.12	-1.05	0.32
216.40	-1.82	-1.70	0.14	0.29	-2.50	1.63
216.60	-1.97	-1.55	0.07	-0.64	-0.86	-1.27
216.80	-1.69	-1.55	0.00	0.00	-1.31	0.68
217.00	-1.72	-1.41	-0.07	0.05	-0.42	0.13
217.20	-1.51	-1.42	-0.34	-0.23	-1.03	-0.48
217.40	-1.23	-0.98	-0.40	-0.37	-0.59	-0.64
217.60	-1.13	-0.84	-0.38	0.02	-1.03	-0.31
217.80	-0.65	-1.08	-0.34	0.16	-1.19	-0.20
218.00	-0.79	-1.07	-0.18	0.06	2.47	0.67
218.20	-0.80	-0.89	0.15	0.44	0.85	-0.12
218.40	-0.87	-1.20	0.24	0.20	-0.69	0.15
218.60	-1.07	-1.14	0.22	0.34	0.46	0.15
218.80	-0.83	-1.26	0.32	0.12	0.55	-0.24
219.00	-1.58	-1.53	0.45	-0.08	-0.23	-0.51

219.20	-1.49	-1.45	0.29	-0.15	-0.12	-0.61
219.40	-1.40	-1.24	0.03	-0.02	1.91	-1.40
219.60	-1.84	-0.32	0.00	-0.14	0.40	-0.76
219.80	-1.58	-0.49	-0.10	0.12	-0.99	0.99
220.00	-1.55	-0.32	-0.10	-0.11	0.03	-0.60
220.20	-1.90	-0.15	-0.14	-0.10	-0.43	-1.29
220.40	-1.93	-0.40	-0.21	-0.28	-0.75	-0.74
220.60	-2.13	-0.36	-0.27	-0.25	-1.11	-0.66
220.80	-1.71	-0.44	-0.37	-0.01	-0.91	-0.15
221.00	-1.65	-0.49	-0.30	0.29	-0.18	0.99
221.20	-1.32	-0.44	-0.35	-0.14	-0.56	-0.07
221.40	-1.48	-0.32	-0.44	-0.26	0.14	-0.34
221.60	-1.19	-0.40	-0.44	-0.27	-1.08	-0.20
221.80	-1.46	-0.25	-0.32	-0.21	-0.48	-0.32
222.00	-1.68	-0.42	-0.31	-0.15	-0.10	0.46
222.20	-1.53	-1.04	-0.27	-0.41	-0.49	-0.23
222.40	-1.22	-0.82	-0.14	-0.62	-0.20	-0.93
222.60	-1.66	-0.48	0.00	-0.45	-3.22	1.14
222.80	-1.66	-0.30	0.01	-0.46	-0.36	-2.12
223.00	-1.31	-0.59	0.08	-0.27	0.74	-0.70
223.20	-1.34	-0.27	0.09	-1.01	-2.12	-2.91
223.40	-1.41	-0.45	0.00	-0.45	-0.90	-1.45
223.60	-1.44	-0.62	-0.05	-0.42	0.32	-0.03
223.80	-1.58	-0.14	0.02	-0.20	-0.22	0.45
224.00	-1.49	-0.36	-0.11	-0.35	-1.88	0.76
224.20	-1.68	-0.50	-0.15	-0.27	-0.51	1.99
224.40	-1.65	-0.28	-0.16	0.37	0.60	3.74
224.60	-1.48	-0.37	-0.20	-1.23	-0.70	-2.88
224.80	-1.73	-0.45	-0.26	0.86	1.56	3.30
225.00	-1.71	-0.21	-0.29	-0.49	-0.93	-0.92
225.20	-1.68	-0.48	-0.34	-0.11	1.30	-0.97
225.40	-1.67	-0.45	-0.38	0.02	0.66	-0.21
225.60	-1.71	-0.52	-0.39	-0.35	0.12	-0.56
225.80	-1.86	-0.31	-0.22	-0.27	0.01	-0.10
226.00	-1.94	-0.34	-0.22	-0.31	-0.53	-0.07
226.20	-2.00	-0.31	-0.12	-0.21	0.12	0.03
226.40	-1.91	-0.01	-0.09	-0.15	0.04	0.16
226.60	-2.15	-0.17	0.02	-0.24	-0.77	0.42
226.80	-2.08	0.03	0.15	-0.24	-0.90	0.10
227.00	-2.07	-0.03	0.19	-0.02	0.33	0.36
227.20	-2.21	0.02	0.26	-0.03	-0.43	0.32
227.40	-2.14	0.31	0.25	-0.12	-0.37	0.46
227.60	-2.25	0.22	0.10	-0.01	-0.35	0.36
227.80	-2.00	0.21	-0.01	-0.05	-0.06	0.46
228.00	-1.86	0.23	-0.19	-0.05	0.18	0.40
228.20	-1.92	0.45	-0.30	0.16	0.51	0.16
228.40	-1.44	0.24	-0.38	0.07	1.04	1.01
228.60	-1.46	0.07	-0.40	0.26	-0.82	0.36
228.80	-1.75	0.00	-0.34	0.42	2.44	0.07
229.00	-1.63	0.12	-0.31	-0.12	0.08	0.13

229.20	-1.75	0.19	-0.27	-0.06	0.19	-0.20
229.40	-1.67	-0.08	-0.26	0.36	0.21	1.15
229.60	-2.11	-0.10	-0.20	-0.01	0.05	0.59
229.80	-1.87	-0.09	-0.17	0.24	0.43	0.69
230.00	-1.56	-0.04	-0.13	0.18	0.29	0.36
230.20	-1.70	-0.12	-0.04	0.31	0.34	0.57
230.40	-1.76	0.04	-0.02	0.38	0.06	-0.27
230.60	-1.83	0.03	-0.02	0.18	0.60	-2.12
230.80	-2.07	0.26	-0.06	0.26	-0.14	-0.02
231.00	-1.82	0.02	-0.06	0.13	-0.14	0.78
231.20	-2.02	-0.17	-0.07	0.03	-1.47	-0.61
231.40	-2.15	-0.18	0.08	1.17	-0.23	0.74
231.60	-2.13	-0.22	0.04	0.45	2.12	-0.73
231.80	-2.19	-0.22	-0.11	0.40	1.20	-1.34
232.00	-2.27	0.01	-0.08	0.68	0.19	-0.29
232.20	-2.22	-0.55	-0.13	0.96	0.63	0.05
232.40	-2.09	-0.30	-0.04	1.03	0.13	-0.45
232.60	-2.26	0.06	0.12	0.48	0.10	-1.40
232.80	-2.37	0.00	0.18	0.93	-1.00	1.34
233.00	-2.37	-0.12	0.17	0.82	0.40	-0.29
233.20	-1.89	0.05	0.14	1.07	0.17	0.06
233.40	-2.08	0.06	0.12	1.10	0.53	0.59
233.60	-2.05	-0.13	0.12	1.10	5.21	-0.36
233.80	-1.94	0.13	0.15	1.08	-0.09	-1.08
234.00	-2.33	-0.22	0.08	0.59	1.69	-0.40
234.20	-2.06	0.19	0.15	0.99	-0.47	0.93
234.40	-2.20	-0.02	0.08	1.01	0.21	-0.74
234.60	-1.90	0.22	0.02	1.45	0.45	0.76
234.80	-1.79	-0.13	-0.01	1.24	0.12	0.07
235.00	-2.01	0.05	-0.01	1.09	0.45	0.54
235.20	-2.04	-0.19	-0.07	1.07	0.02	0.24
235.40	-2.15	-0.07	-0.13	1.18	0.45	0.16
235.60	-2.25	-0.38	-0.14	0.99	0.73	-0.13
235.80	-2.23	-0.14	-0.07	0.78	0.56	0.11
236.00	-1.96	-0.32	-0.01	0.62	0.01	0.74
236.20	-1.95	-0.17	0.08	0.89	0.65	0.26
236.40	-2.12	-0.21	0.04	0.54	0.66	0.46
236.60	-2.27	-0.32	0.10	0.47	-0.15	-0.63
236.80	-2.14	0.06	0.11	0.77	0.99	-0.86
237.00	-1.83	-0.13	0.16	1.11	1.25	0.26
237.20	-1.91	-0.18	0.15	1.13	0.53	0.16
237.40	-1.83	-0.01	0.11	0.97	1.04	-0.74
237.60	-2.07	0.29	0.17	0.95	0.57	-0.64
237.80	-1.91	0.21	0.13	1.09	0.92	-0.28
238.00	-1.48	-0.67	0.08	1.16	0.99	-0.24
238.20	-1.39	0.02	0.13	1.26	0.54	-0.55
238.40	-1.69	-0.05	0.17	1.20	1.19	0.35
238.60	-1.91	0.16	0.17	1.07	0.45	-0.97
238.80	-1.82	0.05	0.09	1.48	0.48	-0.62
239.00	-1.88	0.18	0.05	1.66	0.81	-0.18

239.20	-2.14	0.11	0.01	1.41	0.28	-0.30
239.40	-2.07	-0.18	-0.04	1.49	1.85	0.00
239.60	-1.74	0.21	-0.02	0.99	0.76	-1.70
239.80	-1.81	0.16	-0.08	1.58	0.56	-0.31
240.00	-1.92	0.27	-0.03	1.47	0.16	-0.29
240.20	-1.98	0.11	-0.09	1.43	2.16	-1.22
240.40	-2.20	0.34	-0.05	1.32	-0.21	-0.31
240.60	-1.84	-0.09	-0.08	1.21	0.58	-2.53
240.80	-2.10	0.12	-0.01	1.91	0.68	0.47
241.00	-1.92	-0.06	-0.05	1.97	0.52	0.10
241.20	-2.06	-0.10	-0.06	1.65	-0.03	0.00
241.40	-2.72	0.12	0.00	1.65	0.64	-0.24
241.60	-1.96	-0.27	0.02	1.28	-0.09	-1.13
241.80	-2.41	-0.05	-0.04	1.77	1.14	-0.20
242.00	-1.80	-0.42	-0.03	1.60	0.14	0.63
242.20	-1.98	-0.13	0.06	1.70	0.55	1.29
242.40	-2.22	-0.45	0.08	1.31	0.70	0.37
242.60	-2.23	-0.62	-0.02	1.44	-0.07	-0.44
242.80	-2.33	-0.60	-0.19	1.54	-0.20	-0.68
243.00	-2.18	0.05	-0.17	1.09	0.02	-0.04
243.20	-2.02	-0.28	-0.14	0.37	-0.23	-1.47
243.40	-1.93	-0.13	-0.12	0.35	0.74	-4.07
243.60	-2.16	-0.08	-0.04	0.82	0.49	-0.30
243.80	-2.07	-0.27	0.02	0.88	-0.21	0.18
244.00	-2.04	-0.30	0.02	0.95	0.98	0.96
244.20	-2.31	-0.05	0.06	0.95	-0.56	-0.21
244.40	-2.25	-0.20	0.04	1.13	-0.76	0.67
244.60	-2.31	-0.21	0.02	1.00	1.63	0.65
244.80	-2.00	-0.33	0.05	1.45	-0.12	-0.12
245.00	-2.44	-0.01	0.11	1.62	-1.57	-0.43
245.20	-2.37	-0.20	0.05	1.56	-0.39	0.48
245.40	-2.29	-0.22	0.07	1.27	-0.55	-0.79
245.60	-2.40	-0.22	0.04	1.69	-1.18	1.73
245.80	-2.59	-0.38	0.03	1.31	-2.02	-0.64
246.00	-2.34	-0.47	-0.03	1.07	1.37	-2.53
246.20	-2.57	-0.37	0.00	1.06	-0.46	-0.89
246.40	-2.50	-0.33	-0.01	1.08	-0.15	0.05
246.60	-1.98	-0.54	0.01	1.22	0.94	0.22
246.80	-2.49	-0.43	-0.05	1.11	0.42	0.47
247.00	-2.66	-0.28	0.00	1.07	1.12	0.33
247.20	-2.28	-0.33	-0.03	0.96	2.48	-2.69
247.40	-2.74	-0.27	0.01	1.72	-0.39	0.03
247.60	-2.33	-0.21	-0.01	1.52	-0.67	-0.07
247.80	-2.36	-0.46	0.05	0.91	0.60	-0.01
248.00	-2.05	-0.13	0.02	1.53	-0.09	0.06
248.20	-2.15	-0.34	-0.04	1.37	-0.30	-1.00
248.40	-2.21	-0.41	-0.04	1.38	-0.01	-0.15
248.60	-1.99	-0.12	-0.01	1.27	0.01	-0.23
248.80	-2.28	-0.52	-0.04	1.07	1.96	0.01
249.00	-2.08	-0.25	-0.04	1.06	0.01	0.83

249.20	-2.12	-0.48	0.02	1.08	0.56	-0.45
249.40	-1.95	-0.22	-0.02	1.03	-0.07	-0.44
249.60	-1.93	-0.18	-0.06	1.20	-0.58	-0.13
249.80	-2.24	-0.17	-0.08	1.30	-0.84	0.58
250.00	-2.07	-0.11	-0.07	1.14	-2.23	1.61
250.20	-2.21	0.03	0.00	1.24	-0.05	-0.85
250.40	-2.03	-0.06	-0.07	1.35	0.12	0.64
250.60	-1.99	-0.31	-0.02	1.15	-0.19	0.80
250.80	-1.85	-0.19	-0.05	1.14	-0.13	-0.28
251.00	-1.80	-0.06	-0.06	0.68	0.56	-1.33
251.20	-2.12	0.02	-0.05	1.21	1.76	1.13
251.40	-1.89	0.07	-0.05	1.36	-1.86	-1.14
251.60	-2.05	-0.59	-0.07	1.69	-0.60	1.25
251.80	-2.03	-0.25	-0.08	1.40	-0.68	-0.23
252.00	-1.96	-0.34	-0.10	1.29	-2.49	-0.12
252.20	-2.23	-0.10	-0.12	0.72	-0.79	-0.51
252.40	-2.00	-0.14	-0.13	1.20	-0.04	0.35
252.60	-2.01	-0.23	-0.11	1.36	0.27	0.88
252.80	-2.34	-0.42	-0.12	1.32	0.64	0.48
253.00	-2.21	-0.30	-0.12	0.80	-0.06	0.67
253.20	-2.25	-0.43	-0.13	1.13	-1.46	-0.06
253.40	-2.32	-0.35	-0.20	0.83	-0.40	-0.25
253.60	-2.26	-0.37	-0.19	0.65	-0.45	0.00
253.80	-2.42	-0.30	-0.24	0.88	0.02	0.06
254.00	-2.43	-0.20	-0.19	0.50	0.39	0.32
254.20	-2.34	-0.15	-0.10	1.01	-0.92	0.02
254.40	-2.18	-0.78	-0.14	0.89	0.46	-0.15
254.60	-2.31	-0.27	-0.16	1.17	-0.04	1.17
254.80	-2.06	-0.30	-0.08	0.54	0.73	-2.37
255.00	-2.09	-0.21	-0.16	1.64	1.04	2.27
255.20	-2.04	-0.20	-0.23	0.86	0.18	-1.22
255.40	-2.38	-0.02	-0.25	1.26	-0.25	0.29
255.60	-2.00	-0.21	-0.14	1.44	0.08	-0.03
255.80	-1.91	0.00	-0.15	1.52	-0.40	0.17
256.00	-1.90	-0.49	-0.10	1.22	0.10	-0.65
256.20	-2.07	-0.16	-0.04	0.95	-0.14	0.56
256.40	-2.11	-0.11	-0.06	0.96	0.05	-0.68
256.60	-1.87	-0.11	-0.04	1.01	0.35	-0.13
256.80	-2.23	-0.13	-0.04	1.11	0.38	0.19
257.00	-2.09	-0.14	-0.03	0.45	-2.08	-1.03
257.20	-1.94	-0.31	-0.04	1.26	-0.34	-0.24
257.40	-2.01	-0.20	-0.03	0.97	0.66	0.07
257.60	-2.11	0.06	-0.03	0.56	-3.67	0.49
257.80	-1.66	-0.15	-0.07	0.68	-1.90	-0.27
258.00	-2.18	-0.12	-0.05	1.08	-0.07	0.15
258.20	-1.80	-0.34	-0.01	-0.03	-2.88	-2.20
258.40	-1.99	-0.33	0.02	0.71	-1.97	0.59
258.60	-2.04	-0.48	0.01	0.12	0.26	-2.26
258.80	-2.00	-0.63	0.02	0.59	-0.11	-1.79
259.00	-2.16	-0.29	0.05	0.67	-0.42	-0.86

259.20	-2.21	-0.29	0.02	0.72	-0.98	1.03
259.40	-2.19	-0.39	0.00	0.72	-0.13	0.28
259.60	-2.22	-0.42	-0.05	0.82	-0.09	0.37
259.80	-2.05	-0.54	-0.09	0.96	0.61	0.65
260.00	-2.29	-0.38	-0.07	0.56	0.31	0.42
260.20	-1.58	-0.20	-0.01	0.93	-0.62	0.50
260.40	-2.23	-0.45	-0.03	0.82	0.24	0.19
260.60	-2.38	-0.10	-0.02	0.89	1.77	1.02
260.80	-2.08	-0.41	-0.10	0.74	-1.70	0.35
261.00	-2.20	-0.33	-0.10	0.53	0.54	0.10
261.20	-2.00	-0.20	-0.08	0.82	0.70	0.54
261.40	-2.34	-0.29	-0.10	0.85	-0.02	-0.53
261.60	-2.15	-0.60	-0.08	1.05	-1.16	0.11
261.80	-2.02	-0.04	-0.01	0.61	-2.88	-1.30
262.00	-1.95	-0.32	-0.04	1.20	-0.10	0.60
262.20	-1.82	0.03	0.00	1.30	-0.54	0.23
262.40	-1.82	-0.33	-0.11	1.00	0.05	0.21
262.60	-1.85	-0.51	-0.08	1.01	-0.25	0.05
262.80	-1.85	-0.44	-0.08	1.16	-0.21	0.82
263.00	-1.84	-0.41	-0.10	1.10	-0.16	0.51
263.20	-2.01	-0.31	-0.12	1.10	0.37	0.19
263.40	-1.62	-0.13	-0.05	1.03	0.17	0.10
263.60	-1.61	-0.42	-0.08	1.22	0.23	0.25
263.80	-1.52	-0.29	0.02	0.99	0.21	-0.52
264.00	-1.71	-0.27	0.06	0.52	1.21	1.23
264.20	-1.46	-0.41	0.05	0.68	1.64	0.76
264.40	-1.43	-0.48	0.07	0.82	1.36	0.39
264.60	-1.36	-0.43	0.10	0.69	-0.01	0.30
264.80	-1.15	-0.47	0.16	0.49	1.03	0.92
265.00	-1.48	-0.37	0.21	0.68	-0.32	-0.05
265.20	-1.37	-0.37	0.19	0.49	-0.48	-1.31
265.40	-1.58	-0.43	0.18	0.74	-0.19	0.00
265.60	-1.41	-0.45	0.18	0.66	-0.11	0.73
265.80	-1.40	-0.50	0.19	1.11	-0.26	0.48
266.00	-1.17	-0.80	0.22	0.16	-1.58	0.95
266.20	-1.37	-0.78	0.23	0.87	2.74	2.87
266.40	-1.43	-0.63	0.28	0.68	-1.10	-0.66
266.60	-1.55	-0.91	0.13	0.63	-0.86	0.81
266.80	-1.34	-0.28	0.25	0.25	0.07	0.89
267.00	-1.44	-0.10	0.16	0.46	0.35	0.53
267.20	-1.32	-0.62	0.20	0.63	-1.41	-0.25
267.40	-1.34	-0.71	0.16	0.95	-0.29	-0.10
267.60	-1.60	-0.52	0.19	1.18	-0.13	0.89
267.80	-1.41	-0.78	0.15	1.20	0.02	0.41
268.00	-1.24	-0.82	0.14	1.33	-0.04	0.50
268.20	-1.47	-0.91	0.14	1.02	0.50	1.69
268.40	-1.21	-0.67	0.17	0.24	-0.62	-0.16
268.60	-1.24	-0.59	0.20	0.71	0.34	-1.59
268.80	-1.21	-0.64	0.17	0.80	-1.23	-0.65
269.00	-1.12	-0.74	0.10	0.54	-3.05	-0.49

269.20	-1.06	-0.69	0.14	0.90	-1.79	-0.02
269.40	-0.86	-0.88	0.12	0.59	-0.74	-0.53
269.60	-0.96	-0.93	0.08	0.89	-3.07	3.39
269.80	-1.24	-0.76	0.12	0.76	-2.13	1.04
270.00	-0.99	-0.48	0.16	0.68	0.75	-0.06
270.20	-1.23	-0.73	0.05	0.71	-0.38	-0.02
270.40	-1.07	-0.72	0.04	0.59	0.05	0.30
270.60	-1.15	-0.65	0.01	0.83	-0.28	-0.63
270.80	-1.06	-0.48	0.04	0.52	-0.04	0.70
271.00	-1.36	-0.75	0.00	0.81	-1.53	0.70
271.20	-1.13	-0.31	0.02	0.97	0.23	0.64
271.40	-1.02	-0.33	0.04	0.82	-0.21	0.15
271.60	-0.94	-0.56	0.04	0.85	0.01	0.82
271.80	-0.95	-0.46	-0.02	0.54	-2.48	0.83
272.00	-0.57	-0.68	0.01	0.54	-1.22	1.29
272.20	-0.94	-0.70	-0.04	0.81	-0.26	0.57
272.40	-0.82	-0.65	-0.02	0.72	0.09	0.35
272.60	-0.79	-0.56	-0.03	0.85	-0.66	0.43
272.80	-1.15	-0.49	0.02	0.44	0.29	-0.74
273.00	-1.03	-0.45	0.02	0.41	0.34	-1.10
273.20	-0.65	-0.33	-0.02	0.84	0.06	1.21
273.40	-0.61	-0.21	0.01	1.10	-2.80	2.02
273.60	-0.67	-0.71	-0.08	0.19	2.18	-0.54
273.80	-0.88	-0.55	-0.07	-0.10	0.91	1.99
274.00	-1.10	-0.51	-0.04	0.61	2.23	1.54
274.20	-0.90	-0.50	-0.07	-0.08	-0.36	-0.87
274.40	-1.06	-0.35	-0.03	0.62	3.42	-2.07
274.60	-1.21	-0.26	-0.05	-0.71	-3.04	-1.62
274.80	-1.37	-0.06	0.05	0.42	-0.42	-0.60
275.00	-0.94	-0.45	-0.05	1.49	-0.29	3.29
275.20	-1.10	-0.27	-0.03	0.46	0.88	1.04
275.40	-0.98	-0.43	-0.04	0.33	1.85	0.19
275.60	-0.89	-0.36	-0.06	0.14	-0.51	-0.88
275.80	-0.96	-0.19	-0.02	-0.03	0.89	-1.10
276.00	-0.72	-0.41	-0.10	-0.32	-1.15	-2.44
276.20	-1.07	-0.39	-0.07	0.53	2.33	-1.03
276.40	-0.64	-0.55	-0.08	0.85	2.80	0.64
276.60	-0.96	-0.51	-0.13	0.43	-2.64	0.46
276.80	-0.72	-0.29	-0.07	-0.04	-1.65	1.31
277.00	-1.12	-0.07	-0.08	0.54	0.48	1.12
277.20	-1.22	-0.41	-0.08	0.45	0.00	0.44
277.40	-0.87	-0.36	-0.10	0.63	0.86	0.89
277.60	-1.13	-0.25	-0.10	0.68	0.41	0.52
277.80	-0.66	-0.41	-0.05	0.72	0.16	0.31
278.00	-1.14	-0.69	-0.15	0.63	-0.06	0.27
278.20	-0.81	-0.76	-0.17	0.77	0.26	0.37
278.40	-0.93	-0.28	-0.17	0.61	-0.84	0.08
278.60	-0.99	-0.49	-0.21	0.79	0.27	0.86
278.80	-0.91	-0.52	-0.09	0.69	-0.03	-0.05
279.00	-0.77	-0.69	-0.18	0.96	-0.27	0.32

279.20	-0.92	-0.37	-0.15	0.77	0.33	0.27
279.40	-0.79	-0.47	-0.22	0.32	0.99	-0.87
279.60	-0.72	-0.17	-0.10	0.56	-0.05	-0.91
279.80	-0.80	-0.53	-0.19	-0.04	-3.98	-2.70
280.00	-0.99	-0.77	-0.22	0.81	1.93	1.18
280.20	-0.88	-0.69	-0.21	1.03	-0.29	0.23
280.40	-1.04	-1.00	-0.19	0.93	1.47	0.92
280.60	-0.90	-0.65	-0.13	0.91	0.18	0.34
280.80	-1.05	-0.56	-0.19	0.94	0.21	0.21
281.00	-0.88	-0.76	-0.23	0.86	-0.65	0.08
281.20	-0.81	-0.67	-0.14	0.82	-0.19	-0.12
281.40	-0.69	-0.81	-0.13	1.31	0.19	1.41
281.60	-0.84	-0.89	-0.26	1.13	0.62	0.21
281.80	-0.79	-0.43	-0.12	1.17	-0.04	0.22
282.00	-0.90	-0.45	-0.13	1.12	-0.31	0.16
282.20	-0.93	-0.70	-0.16	1.05	0.50	0.05
282.40	-0.84	-0.35	-0.15	0.92	0.43	0.19
282.60	-0.87	-0.54	-0.09	0.93	-0.08	-0.14
282.80	-0.81	-0.40	-0.09	0.50	2.55	1.25
283.00	-0.86	-0.40	-0.12	0.99	0.03	-0.31
283.20	-0.72	-0.67	-0.12	0.92	-0.47	0.72
283.40	-0.74	-0.29	-0.11	0.80	-0.20	0.34
283.60	-1.03	-0.36	-0.12	0.48	0.07	-1.11
283.80	-0.69	-0.52	-0.12	0.83	-0.32	0.31
284.00	-1.02	-0.34	0.01	1.01	0.55	-0.30
284.20	-0.96	0.07	-0.08	1.00	-0.58	-0.20
284.40	-0.99	-0.51	0.02	0.53	-0.15	-1.68
284.60	-1.11	-0.38	0.13	0.84	-1.15	0.04
284.80	-1.28	-0.07	0.18	1.37	-1.07	1.12
285.00	-1.22	-0.27	0.14	1.05	-0.51	0.39
285.20	-0.96	-0.43	0.25	1.07	-0.55	-0.58
285.40	-1.09	-0.29	0.26	0.85	-0.56	-0.01
285.60	-0.84	-0.40	0.30	0.70	0.04	-0.43
285.80	-0.85	-0.38	0.27	0.54	0.06	-0.89
286.00	-0.86	-0.38	0.35	0.64	-2.21	-0.21
286.20	-0.89	-0.56	0.32	0.88	-0.55	-0.13
286.40	-1.03	-0.52	0.35	1.00	-2.70	0.99
286.60	-0.79	-0.59	0.42	1.08	-0.67	-0.01
286.80	-0.83	-0.60	0.40	0.54	-1.09	-2.17
287.00	-0.84	-0.64	0.46	1.35	2.35	2.43
287.20	-0.99	-0.59	0.48	0.80	-0.52	-1.65
287.40	-0.86	-0.60	0.49	1.05	-0.69	-0.52
287.60	-1.10	-0.80	0.46	0.93	-1.01	-0.47
287.80	-0.77	-0.62	0.49	1.10	-1.70	-1.63
288.00	-0.92	-0.59	0.53	1.17	-0.67	0.59
288.20	-0.71	-0.64	0.54	0.48	-0.70	-1.59
288.40	-0.86	-0.55	0.52	0.39	-2.25	-0.05
288.60	-0.58	-0.57	0.46	0.89	-1.15	-0.43
288.80	-1.15	-0.43	0.49	0.62	-2.79	0.81
289.00	-0.85	-0.92	0.41	0.37	-0.73	-1.72

289.20	-0.85	-0.82	0.37	1.35	-0.33	2.09
289.40	-0.62	-0.68	0.26	0.81	-1.08	0.58
289.60	-0.46	-0.76	0.25	0.77	-0.87	0.07
289.80	-0.29	-0.89	0.22	0.78	0.50	0.00
290.00	-0.31	-1.06	0.16	0.60	-0.26	-0.44
290.20	-0.21	-0.97	0.16	0.64	-0.40	-0.54
290.40	0.16	-0.96	0.10	0.87	-0.08	0.56
290.60	0.11	-1.21	-0.03	-0.05	0.36	-2.28
290.80	0.32	-1.10	-0.09	0.45	-1.52	0.13
291.00	0.53	-1.02	-0.06	0.06	0.09	-0.93
291.20	0.26	-0.81	-0.06	-0.13	-0.31	-2.38
291.40	0.34	-1.21	-0.07	-0.12	1.38	-1.19
291.60	0.26	-1.09	-0.10	-0.27	0.50	-2.20
291.80	0.55	-0.70	-0.07	0.52	0.77	-0.54
292.00	0.23	-0.59	0.03	0.52	-0.12	0.76
292.20	0.27	-0.97	0.03	0.34	-1.28	0.22
292.40	-0.07	-1.15	0.06	0.32	1.29	0.66
292.60	0.14	-0.70	-0.02	0.24	1.14	1.74
292.80	0.27	-0.50	0.02	0.36	0.13	-0.03
293.00	0.35	-0.34	0.02	-0.18	-0.98	-1.44
293.20	0.36	-0.75	0.08	0.38	0.99	0.23
293.40	0.42	-0.85	0.07	0.50	0.81	-0.28
293.60	0.23	-0.77	0.18	0.30	-3.65	-1.29
293.80	0.23	-0.34	0.21	0.88	1.05	1.28
294.00	-0.17	-0.32	0.30	0.02	-1.38	-1.35
294.20	-0.03	-0.31	0.30	0.43	-1.69	1.67
294.40	-0.01	-0.14	0.29	0.66	-0.64	0.06
294.60	-0.05	-0.23	0.32	0.50	-0.77	-0.07
294.80	-0.25	-0.07	0.30	1.03	-0.88	1.84
295.00	-0.35	-0.19	0.29	0.44	0.50	-0.46
295.20	-0.23	-0.42	0.27	0.57	0.66	-0.25
295.40	-0.18	-0.28	0.23	0.24	-1.80	0.72
295.60	-0.37	-0.10	0.22	0.32	0.96	-2.44
295.80	-0.49	-0.11	0.14	0.59	-0.14	0.24
296.00	-0.14	-0.26	0.13	0.72	-1.10	1.43
296.20	-0.33	-0.06	0.14	-0.45	0.10	-1.35
296.40	-0.35	-0.22	0.08	0.53	-0.79	0.56
296.60	-0.19	-0.19	0.03	0.51	0.18	0.16
296.80	-0.29	-0.01	0.02	0.69	0.71	0.68
297.00	-0.24	0.03	0.02	0.51	-0.11	-0.68
297.20	-0.46	-0.07	-0.04	0.63	-0.22	0.22
297.40	-0.14	-0.27	-0.10	0.27	-0.23	-0.97
297.60	-0.29	-0.06	-0.13	0.39	-0.07	-0.47
297.80	-0.34	-0.09	-0.15	0.36	1.74	-0.92
298.00	-0.46	0.09	-0.15	0.34	-0.95	-0.44
298.20	-0.62	-0.07	-0.14	0.47	2.40	-0.62
298.40	-0.54	-0.04	-0.15	0.31	0.89	0.33
298.60	-0.46	0.04	-0.14	0.30	-1.08	-0.32
298.80	-0.53	0.22	-0.12	-0.14	-0.44	-2.32
299.00	-0.42	0.17	-0.06	0.60	0.34	0.31

299.20	-0.70	0.24	-0.22	0.56	0.18	-0.59
299.40	-0.68	0.02	-0.10	0.16	-1.03	-0.38
299.60	-0.62	0.04	-0.20	0.22	-0.93	0.10
299.80	-0.81	0.32	-0.21	0.41	0.17	-0.17
300.00	-0.91	0.39	-0.21	0.51	0.20	-0.06
300.20	-0.69	0.46	-0.20	0.59	-0.02	-0.10
300.40	-0.90	0.21	-0.23	0.81	-0.51	0.29
300.60	-0.69	0.05	-0.31	0.60	-0.11	-0.57
300.80	-0.75	0.15	-0.32	0.62	-0.31	-0.30
301.00	-0.75	0.17	-0.29	0.77	0.09	-0.13
301.20	-0.81	-0.19	-0.29	0.82	-0.31	0.00
301.40	-0.47	0.18	-0.23	0.70	-0.05	-0.22
301.60	-0.42	0.31	-0.16	0.69	-0.03	0.41
301.80	-0.74	-0.16	-0.31	0.73	-0.76	-0.04
302.00	-0.74	0.06	-0.25	0.73	-0.19	0.20
302.20	-0.76	0.04	-0.25	0.63	-0.03	0.44
302.40	-0.55	-0.18	-0.25	0.63	-0.47	0.03
302.60	-0.67	0.15	-0.29	0.74	1.10	-0.18
302.80	-0.50	0.07	-0.24	1.00	-0.34	0.92
303.00	-0.72	-0.03	-0.24	0.67	0.02	0.19
303.20	-0.66	-0.04	-0.29	0.69	-0.73	0.28
303.40	-0.57	-0.30	-0.31	0.59	-0.85	0.62
303.60	-0.81	0.00	-0.30	0.59	-0.41	-0.45
303.80	-0.20	-0.05	-0.29	0.63	0.57	0.71
304.00	-0.48	-0.34	-0.35	0.74	-0.24	0.06
304.20	-0.75	-0.08	-0.32	0.69	-0.94	0.63
304.40	-0.40	-0.24	-0.35	0.66	-0.59	0.23
304.60	-0.36	-0.36	-0.37	0.61	-0.28	-0.12
304.80	-0.59	-0.52	-0.41	0.33	-0.06	-0.71
305.00	-0.39	-0.38	-0.41	0.68	-2.16	-1.57
305.20	-0.42	-0.51	-0.54	0.38	-0.15	-1.11
305.40	-0.33	-0.20	-0.54	0.45	-0.81	0.09
305.60	0.00	-0.48	-0.54	0.77	1.03	2.16
305.80	0.08	-0.63	-0.53	0.03	0.88	-0.90
306.00	-0.25	-0.25	-0.55	0.57	-0.23	0.81
306.20	-0.32	-0.09	-0.50	-0.32	-0.67	-4.18
306.40	-0.43	-0.20	-0.56	0.10	0.20	-0.26
306.60	-0.20	-0.46	-0.48	0.06	-0.65	0.08
306.80	-0.39	-0.35	-0.32	0.14	0.61	-0.97
307.00	-0.45	-0.16	-0.22	0.30	0.32	-0.53
307.20	-0.28	-0.52	-0.15	0.83	0.07	1.63
307.40	-0.12	-0.41	-0.01	0.28	-0.52	-0.33
307.60	-0.35	-0.38	0.02	0.43	0.35	-0.18
307.80	-0.34	-0.66	0.15	0.42	-1.19	-1.08
308.00	-0.55	-0.68	0.17	0.26	0.47	1.66
308.20	-0.53	-0.83	0.17	0.39	-2.17	1.05
308.40	-0.65	-0.65	0.18	0.48	0.82	1.44
308.60	-0.47	-0.88	0.10	0.30	-0.83	-0.29
308.80	-0.54	-0.96	0.12	0.14	-0.86	-1.23
309.00	-0.51	-1.14	0.10	0.24	-0.16	-0.11

309.20	-0.24	-1.23	0.14	-0.31	-0.68	-2.30
309.40	-0.31	-1.26	0.15	0.30	-0.43	-0.55
309.60	0.03	-1.36	0.11	0.18	-0.02	-0.17
309.80	0.05	-1.47	0.12	0.20	-1.26	-0.92
310.00	-0.03	-1.49	0.31	0.13	0.60	0.17
310.20	0.03	-1.43	0.33	0.61	-0.28	1.88
310.40	0.13	-1.51	0.28	0.32	-1.27	1.27
310.60	0.17	-1.47	0.26	0.12	-0.05	-0.73
310.80	0.46	-0.90	0.19	-0.46	1.07	-0.89
311.00	0.43	-1.45	0.22	0.21	-0.69	0.34
311.20	0.48	-1.71	0.13	0.21	-0.86	-0.94
311.40	0.42	-1.47	0.02	-0.05	-0.31	0.56
311.60	0.44	-1.43	-0.03	0.27	-0.33	0.54
311.80	0.31	-1.36	-0.13	0.02	0.23	-0.18
312.00	-0.12	-1.33	-0.19	-0.11	-0.36	0.02
312.20	0.43	-1.18	-0.17	-0.06	0.48	-0.13
312.40	0.45	-1.18	-0.16	-0.22	-0.17	-0.66
312.60	0.39	-1.11	-0.13	-0.20	1.57	1.34
312.80	0.14	-1.09	-0.08	-0.11	0.62	-0.07
313.00	0.28	-1.11	-0.03	0.14	0.20	1.03
313.20	0.36	-1.16	0.04	-0.12	0.01	-0.03
313.40	0.41	-0.96	0.08	0.06	1.09	1.15
313.60	0.43	-0.65	0.07	0.76	1.54	3.97
313.80	0.55	-0.95	0.03	-0.28	-0.25	1.39
314.00	-0.03	-0.81	0.07	-0.40	4.05	-0.46
314.20	0.45	-0.86	0.18	0.12	-1.35	0.78
314.40	0.24	-1.16	0.11	-0.11	2.33	0.11
314.60	0.31	-0.85	0.15	0.42	1.01	2.37
314.80	0.16	-1.18	0.12	-0.76	-2.49	-1.21
315.00	0.29	-1.10	0.17	-0.13	-1.30	-0.51
315.20	0.25	-0.78	0.18	-0.25	-3.25	-1.56
315.40	0.16	-0.71	0.29	0.00	-1.79	2.91
315.60	0.16	-0.90	0.30	0.60	4.25	2.42
315.80	0.50	-1.17	0.30	0.14	0.78	-0.39
316.00	0.26	-1.01	0.27	-0.19	1.69	-0.78
316.20	0.38	-1.20	0.29	-0.18	0.63	-1.93
316.40	0.73	-1.37	0.29	-0.35	-1.57	0.43
316.60	0.74	-1.26	0.26	-0.18	-0.54	0.90
316.80	0.86	-1.13	0.18	-0.24	0.36	-0.11
317.00	0.73	-1.20	0.14	0.36	1.06	0.88
317.20	0.63	-1.10	0.10	0.05	1.95	2.41
317.40	0.76	-1.36	0.04	-0.13	1.14	0.78
317.60	0.80	-1.14	0.08	-0.19	-1.28	-1.00
317.80	0.84	-1.35	0.07	-0.25	-0.49	-0.64
318.00	0.79	-1.27	0.09	-0.29	-1.36	-1.61
318.20	0.82	-1.21	0.09	-0.29	-1.74	-1.12
318.40	0.91	-1.16	0.18	-0.15	0.03	0.35
318.60	1.06	-1.40	0.19	-0.33	0.46	-0.28
318.80	0.73	-1.18	0.12	-0.54	0.00	0.02
319.00	0.65	-1.12	-0.02	-0.44	-0.23	-0.07

319.20	0.53	-0.87	-0.02	-0.52	-0.20	0.05
319.40	0.42	-0.56	0.00	-0.45	-1.07	0.72
319.60	1.17	-0.70	-0.05	-0.37	-0.06	-0.16
319.80	0.87	-0.92	-0.02	-0.37	-0.07	-0.05
320.00	0.76	-0.80	-0.02	-0.43	0.42	-0.25
320.20	0.96	-0.90	0.05	-0.27	0.73	-0.58
320.40	0.78	-0.96	0.08	-0.39	-1.22	0.45
320.60	0.74	-0.68	0.19	-0.29	0.80	-0.25
320.80	0.84	-0.75	0.14	-0.28	0.54	-0.09
321.00	0.77	-0.87	0.11	-0.33	0.39	-0.28
321.20	0.40	-0.60	0.17	-0.35	0.56	-0.34
321.40	0.26	-0.81	0.22	0.29	1.09	0.78
321.60	0.84	-0.61	0.20	0.73	1.98	2.04
321.80	0.71	-1.08	0.21	-0.02	2.53	-0.46
322.00	0.49	-0.68	0.31	-0.45	3.56	2.69
322.20	0.69	-1.10	0.23	-0.77	2.44	1.04
322.40	0.07	-0.60	0.31	0.23	-0.82	1.87
322.60	0.66	-0.92	0.23	-0.27	-1.85	-1.31
322.80	0.17	-0.36	0.31	0.21	-0.20	0.68
323.00	0.88	-0.73	0.24	-0.16	0.36	-0.22
323.20	0.93	-0.67	0.29	-0.16	1.26	-1.05
323.40	0.64	-0.93	0.29	-0.21	-0.27	-0.76
323.60	0.71	-0.67	0.28	-0.21	-0.20	0.01
323.80	0.62	-0.70	0.19	-0.16	0.08	-0.24
324.00	0.91	-0.75	0.17	-0.19	0.47	0.04
324.20	0.82	-0.73	0.26	-0.09	-0.74	-0.18
324.40	1.06	-0.66	0.21	-0.21	-0.29	-0.12
324.60	0.73	-0.60	0.23	-0.10	-0.72	-0.47
324.80	0.90	-0.78	0.23	-0.12	1.11	0.75
325.00	0.87	-0.39	0.27	-0.22	-0.90	0.51
325.20	0.99	-0.57	0.23	0.02	2.35	-0.78
325.40	0.74	-0.67	0.21	-0.62	-1.07	-1.10
325.60	1.00	-0.86	0.15	0.06	-1.49	0.58
325.80	0.68	-0.44	0.17	-0.31	-0.16	-0.73
326.00	0.86	-0.26	0.13	-0.13	-0.31	-0.25
326.20	0.31	-0.09	0.17	-0.16	2.10	0.58
326.40	0.69	-0.19	0.13	-0.14	0.49	0.60
326.60	0.38	-0.53	0.01	-0.26	0.67	0.25
326.80	0.84	-0.23	0.15	0.44	-2.25	-0.02
327.00	0.94	-0.38	0.12	0.02	-0.46	-0.06
327.20	1.08	-0.39	0.13	-0.21	-0.59	-1.22
327.40	1.05	-0.54	0.16	-0.21	-0.51	-0.62
327.60	0.49	-0.32	0.17	-0.02	-0.68	-0.08
327.80	0.89	-0.45	0.19	0.04	0.88	0.86
328.00	0.89	-0.38	0.17	0.02	0.04	0.15
328.20	0.82	-0.65	0.16	0.02	0.34	0.17
328.40	1.19	-0.58	0.20	0.04	-0.04	0.92
328.60	1.01	-0.56	0.16	0.06	-1.10	-0.25
328.80	0.82	-0.40	0.18	0.07	-0.63	-0.22
329.00	-0.07	0.19	0.16	0.05	0.02	-0.22

329.20	0.44	0.25	0.22	0.21	0.14	0.87
329.40	0.81	-0.16	0.17	0.06	0.23	-0.04
329.60	0.88	-0.40	0.20	0.06	0.54	0.01
329.80	1.10	-0.61	0.10	0.26	-0.25	0.18
330.00	1.32	-0.81	0.13	-0.33	0.50	0.48
330.20	0.86	-0.39	0.19	0.07	-1.13	-1.06
330.40	1.14	-0.22	0.15	-0.55	0.18	-1.73
330.60	1.09	-0.38	0.13	0.00	-0.44	-1.00
330.80	1.13	-0.28	0.11	-0.09	-0.11	-0.05
331.00	1.05	-0.37	0.08	0.36	0.04	1.29
331.20	1.16	-0.25	0.10	0.06	-0.44	0.43
331.40	1.09	-0.56	0.16	-0.08	-0.28	0.31
331.60	1.45	-0.30	0.10	-0.09	-0.32	0.12
331.80	1.22	-0.49	0.09	-0.23	-0.27	0.07
332.00	1.18	-0.41	0.10	-0.12	0.19	-0.43
332.20	1.20	-0.26	0.03	-0.47	-1.42	0.15
332.40	1.22	-0.58	0.02	-0.42	-3.40	1.18
332.60	1.38	-0.11	-0.01	-0.09	0.22	-0.55
332.80	1.17	-0.28	0.03	0.31	-0.36	0.40
333.00	1.29	0.02	0.02	-0.75	-0.35	-1.14
333.20	0.80	-0.30	0.03	0.51	-0.14	1.69
333.40	1.25	-0.13	0.07	-0.14	2.52	-0.12
333.60	1.32	-0.05	-0.01	-0.15	0.65	0.56
333.80	1.52	-0.20	0.02	-0.73	0.97	-2.22
334.00	1.29	-0.09	-0.03	-0.43	-1.68	-1.09
334.20	1.40	-0.16	-0.10	-0.33	-0.16	-0.33
334.40	1.59	-0.17	-0.15	0.21	-1.20	1.08
334.60	1.38	-0.14	-0.17	-0.15	-0.66	0.35
334.80	1.33	-0.35	-0.16	-0.10	-1.07	-0.69
335.00	1.34	-0.21	-0.19	-0.50	2.31	0.07
335.20	1.05	-0.07	-0.19	-0.63	-0.52	-1.10
335.40	1.03	-0.18	-0.21	-1.06	-0.04	-2.37
335.60	1.09	-0.21	-0.17	-0.47	-0.60	-0.08
335.80	1.01	0.07	-0.14	-0.05	-0.35	0.73
336.00	1.19	-0.11	-0.12	-0.38	-0.51	1.20
336.20	0.98	0.32	0.05	-0.41	0.17	-0.40
336.40	0.95	0.08	-0.04	-0.24	-0.17	0.49
336.60	0.98	0.09	0.02	-1.09	-4.15	0.48
336.80	0.87	0.04	0.07	-0.27	0.70	0.03
337.00	0.99	0.00	0.13	-0.15	2.85	-1.45
337.20	0.97	-0.01	0.12	-0.19	-0.40	0.58
337.40	1.07	0.32	0.18	-0.68	3.40	-0.27
337.60	1.14	0.05	0.13	-0.20	0.46	-1.56
337.80	0.94	0.17	0.20	-0.70	-0.19	-0.41
338.00	1.35	0.00	0.22	-0.61	0.30	-1.20
338.20	1.09	0.19	0.25	-0.22	-1.80	0.99
338.40	1.16	0.18	0.22	0.06	1.38	1.15
338.60	1.24	0.03	0.20	0.41	0.96	1.82
338.80	1.08	0.52	0.07	-0.18	-2.70	-0.02
339.00	1.16	0.35	0.11	-0.28	-0.14	0.63

339.20	0.82	0.63	0.10	-0.53	-0.07	-0.32
339.40	0.83	0.68	0.04	-0.48	-0.34	-0.16
339.60	0.98	0.81	0.12	-0.52	0.16	-0.05
339.80	0.89	0.56	0.09	-0.52	-0.24	-0.17
340.00	0.87	0.37	0.03	-0.53	-0.19	-0.10
340.20	1.13	0.00	-0.04	-0.42	-0.03	0.04
340.40	1.10	0.23	-0.12	-0.34	-0.33	0.20
340.60	1.09	0.11	-0.10	-0.12	0.86	1.20
340.80	1.07	0.02	-0.09	-0.40	-0.84	-0.48
341.00	0.98	0.16	-0.04	0.08	0.84	-0.15
341.20	1.05	0.11	-0.03	-0.23	0.38	0.25
341.40	1.04	0.41	0.09	-0.43	0.34	-0.64
341.60	1.07	0.18	0.10	-0.13	-0.03	0.08
341.80	1.57	-0.44	0.13	0.00	-0.68	0.88
342.00	1.64	0.43	0.17	-0.34	0.11	-0.49
342.20	1.50	-0.20	0.12	-0.07	-0.16	0.38
342.40	1.14	0.13	0.17	-0.17	-0.26	0.13
342.60	1.30	0.20	0.17	-0.20	-0.42	0.13
342.80	1.26	-0.11	0.16	-0.33	-0.43	-0.34
343.00	1.21	-0.14	0.12	-0.19	-0.01	-0.03
343.20	1.66	-0.12	0.09	-0.13	-0.02	0.37
343.40	1.61	-0.07	0.11	-0.11	0.00	0.24
343.60	1.38	0.00	0.15	-0.16	-0.26	-0.06
343.80	1.44	-0.07	0.09	-0.22	-0.38	-0.18
344.00	1.55	-0.23	0.07	-0.22	-0.03	-0.19
344.20	2.07	0.15	0.12	-0.43	0.13	-0.84
344.40	1.84	0.13	0.00	-0.27	0.04	-0.35
344.60	1.78	-0.04	0.03	-0.13	-0.41	-0.17
344.80	1.35	-0.07	0.02	-0.06	-0.08	0.25
345.00	1.38	0.17	0.03	0.11	0.41	0.93
345.20	1.70	0.03	0.06	0.03	-1.90	-1.11
345.40	1.79	0.24	0.06	-0.10	0.40	0.33
345.60	1.90	0.49	0.06	-0.12	0.42	0.08
345.80	1.95	0.32	0.10	-0.19	-1.07	-0.92
346.00	1.69	0.28	0.06	0.25	0.62	0.66
346.20	1.68	0.28	0.06	-0.14	-0.99	0.15
346.40	1.99	0.24	0.09	-0.07	0.16	0.51
346.60	1.80	0.24	0.05	0.21	-0.36	1.29
346.80	1.63	0.44	0.06	-0.19	0.47	0.45
347.00	1.66	0.19	0.04	-0.28	0.23	0.21
347.20	1.60	0.10	0.04	-0.25	0.04	-0.04
347.40	1.65	0.40	0.02	-0.34	1.21	0.55
347.60	1.68	0.13	-0.03	-0.41	-0.44	-0.57
347.80	1.92	0.12	-0.10	-0.33	0.20	-0.54
348.00	1.75	0.44	-0.06	-0.04	0.92	-0.18
348.20	1.85	-0.02	-0.07	-0.13	-1.58	-1.49
348.40	1.80	0.04	-0.11	-0.28	0.20	-0.06
348.60	1.75	0.24	-0.10	0.06	0.76	0.49
348.80	1.88	0.10	-0.12	0.08	4.29	-0.54
349.00	1.73	0.63	-0.09	0.03	2.48	0.95

349.20	1.71	-0.28	-0.21	-0.22	0.32	-0.20
349.40	1.58	-0.07	-0.14	-0.03	-0.45	0.25
349.60	1.75	-0.16	-0.14	-0.31	-0.21	-0.39
349.80	1.35	0.25	-0.09	-0.25	0.26	0.14
350.00	1.06	0.42	-0.09	-0.27	0.01	-0.02
350.20	1.46	0.04	-0.15	-0.29	-0.18	0.04
350.40	1.43	0.12	0.02	-0.34	-0.07	-0.10
350.60	1.72	0.06	0.03	-0.26	0.02	0.14
350.80	1.55	-0.07	0.07	-0.28	0.31	0.16
351.00	1.85	-0.05	0.08	-0.27	-0.13	0.27
351.20	1.50	0.06	0.10	-0.35	0.04	-0.19
351.40	1.48	0.07	0.05	-0.30	0.07	0.15
351.60	1.84	-0.24	0.04	-0.31	-0.02	-0.10
351.80	1.73	0.07	0.07	-0.27	-0.03	0.02
352.00	1.68	0.06	0.08	-0.29	0.20	-0.22
352.20	1.65	0.25	0.05	-0.29	0.16	-0.15
352.40	1.64	0.29	0.04	-0.41	-0.04	-0.39
352.60	1.58	0.31	0.06	-0.36	-0.20	-0.09
352.80	1.59	0.20	0.01	-0.18	0.31	0.34
353.00	1.54	-0.05	0.02	-0.09	-0.24	0.99
353.20	1.65	-0.14	0.01	-0.13	0.26	0.63
353.40	1.85	0.10	0.02	-0.01	0.25	0.88
353.60	1.46	0.29	0.00	0.05	0.00	1.33
353.80	1.45	0.34	-0.01	0.29	0.13	1.99
354.00	1.56	0.24	-0.07	0.01	-0.54	1.25
354.20	1.50	-0.36	-0.13	-0.21	0.44	-0.38
354.40	1.42	0.02	-0.07	-0.57	1.20	-2.00
354.60	1.56	0.02	-0.09	-0.13	-2.16	0.69
354.80	1.62	-0.03	-0.06	0.45	1.12	0.45
355.00	1.60	-0.09	-0.07	-0.02	0.01	0.42
355.20	1.42	0.16	-0.08	-0.16	-0.01	-0.75
355.40	1.44	-0.20	-0.10	0.06	-0.36	-0.26
355.60	1.81	0.10	-0.02	-0.13	0.02	0.11
355.80	1.41	0.33	0.03	-0.13	0.34	0.36
356.00	1.78	-0.24	0.14	-0.21	0.24	-0.04
356.20	1.50	-0.21	0.14	-0.22	0.17	0.03
356.40	1.74	-0.15	0.08	-0.22	-0.14	-0.06
356.60	1.06	-0.20	0.05	-0.17	0.11	-0.01
356.80	1.76	0.00	0.12	-0.37	0.14	-0.28
357.00	1.99	-0.14	0.12	-0.26	0.05	0.03
357.20	1.33	-0.36	0.03	-0.21	-0.14	0.20
357.40	1.54	-0.13	0.05	-0.32	-0.29	-0.17
357.60	1.59	-0.10	0.05	-0.18	0.00	0.17
357.80	1.61	-0.21	0.03	-0.54	0.81	-1.41
358.00	1.74	-0.32	0.07	-0.49	-0.33	1.65
358.20	1.71	-0.07	0.02	-1.02	-1.84	-2.52
358.40	1.80	-0.15	0.04	-0.17	1.61	-0.16
358.60	1.96	-0.32	0.07	-0.49	-0.58	0.11
358.80	1.51	-0.27	0.06	-0.54	-0.70	0.50
359.00	1.71	-0.08	0.06	-0.44	0.20	0.16

359.20	1.67	-0.16	0.13	-0.32	0.48	0.25
359.40	1.61	-0.41	0.07	-0.33	0.71	-0.72
359.60	1.56	-0.17	0.12	-0.09	0.28	0.66
359.80	1.54	-0.23	0.09	-1.04	-0.50	-2.53
360.00	1.95	0.17	0.14	-0.13	0.82	0.39
360.20	1.59	-0.12	0.13	-0.41	-0.82	1.02
360.40	1.70	-0.19	0.12	-0.59	-0.20	0.21
360.60	1.73	-0.19	0.19	-1.35	0.33	-2.04
360.80	1.78	-0.28	0.13	-0.67	0.42	0.19
361.00	1.76	-0.55	0.09	-0.70	0.50	-0.20
361.20	1.73	-0.23	0.15	-0.65	0.11	0.10
361.40	1.48	-0.18	0.12	-0.72	-0.22	-0.27
361.60	1.92	-0.32	0.01	-0.66	0.26	0.36
361.80	1.72	-0.50	-0.03	-0.36	0.68	0.77
362.00	1.79	-0.28	0.01	-0.81	0.49	-0.80
362.20	1.72	-0.52	-0.04	-0.20	-0.27	1.65
362.40	1.60	-0.20	-0.05	-0.03	-2.15	1.38
362.60	1.64	-0.07	-0.06	-0.39	0.63	-2.13
362.80	1.65	-0.27	-0.06	-0.68	-1.13	-0.24
363.00	1.55	-0.33	-0.09	-0.74	-0.06	-0.17
363.20	1.62	-0.46	-0.05	-0.65	-1.32	-1.29
363.40	1.69	-0.50	-0.05	-0.43	-1.81	-0.93
363.60	1.43	-0.43	-0.09	-0.80	2.75	0.45
363.80	1.31	-0.32	-0.15	-0.84	0.74	-0.07
364.00	1.70	-0.31	-0.10	-0.76	0.27	-0.38
364.20	1.13	-0.31	-0.14	-0.53	-0.88	-0.84
364.40	1.52	-0.27	-0.14	-0.73	0.14	-0.05
364.60	1.39	-0.27	-0.11	-0.89	-0.04	-0.39
364.80	1.50	-0.39	-0.13	-0.86	0.06	-0.04
365.00	1.51	-0.15	-0.04	-0.68	0.04	0.21
365.20	1.60	-0.33	-0.07	-0.81	0.08	0.01
365.40	1.77	-0.46	-0.11	-0.74	0.31	-0.01
365.60	1.64	-0.12	-0.06	-0.76	0.57	-0.03
365.80	1.50	-0.36	-0.12	-0.87	0.64	-0.06
366.00	1.63	-0.31	-0.09	-0.96	0.16	0.21
366.20	1.68	-0.22	-0.14	-1.38	0.24	-2.51
366.40	1.44	-0.16	-0.09	-0.82	-0.54	-0.77
366.60	1.42	-0.24	-0.08	-0.95	0.95	0.70
366.80	1.34	-0.33	-0.05	-1.65	-1.30	-3.11
367.00	1.35	-0.11	-0.09	-1.00	-0.48	-0.52
367.20	1.43	-0.35	-0.09	-1.35	0.80	-0.19
367.40	1.16	0.23	-0.01	-0.86	2.56	-1.30
367.60	1.18	-0.29	-0.11	-1.00	1.16	-0.71
367.80	1.57	-0.20	-0.08	-0.35	-0.78	0.34
368.00	1.01	-0.03	0.03	-0.95	2.60	-2.14
368.20	1.46	-0.48	-0.06	-1.06	0.78	1.06
368.40	1.34	-0.28	-0.01	-0.91	0.40	0.14
368.60	1.28	-0.33	0.00	-1.29	0.25	-0.87
368.80	1.25	-0.31	-0.05	-0.91	0.70	-1.75
369.00	1.41	-0.08	-0.03	-0.68	0.34	0.95

369.20	1.27	-0.32	-0.06	-1.13	0.92	-0.91
369.40	1.64	-0.38	-0.09	-0.39	-0.03	0.89
369.60	1.11	-0.24	-0.03	-1.07	-3.40	-4.61
369.80	1.43	-0.32	-0.03	-1.10	-1.08	-1.48
370.00	1.24	-0.18	-0.04	-0.82	1.96	0.89
370.20	1.14	-0.25	-0.08	-1.31	-0.34	-0.57
370.40	1.21	-0.27	-0.03	-1.49	-0.87	-3.49
370.60	1.21	-0.19	0.03	-0.32	0.22	0.35
370.80	1.00	0.03	-0.02	-0.42	-1.20	1.13
371.00	1.23	-0.36	0.00	-1.02	-1.10	-0.22
371.20	1.40	-0.23	-0.02	-0.86	-0.41	-2.33
371.40	1.24	-0.19	-0.05	-1.27	-0.51	-1.36
371.60	1.28	-0.14	-0.07	-1.27	0.27	0.12
371.80	1.04	-0.12	-0.08	-1.45	-0.57	-0.80
372.00	1.71	-0.18	0.03	-0.94	0.61	0.55
372.20	1.28	-0.23	-0.04	-1.26	-0.22	0.35
372.40	1.47	-0.06	-0.03	-1.22	2.21	-0.98
372.60	1.47	0.11	-0.01	-1.23	0.46	-0.04
372.80	1.24	0.13	-0.05	-1.47	0.18	0.39
373.00	1.21	0.11	-0.04	-0.59	-1.06	1.67
373.20	1.43	-0.03	-0.06	-1.32	-0.64	0.08
373.40	1.05	0.14	-0.03	-0.86	-0.02	-0.13
373.60	1.07	0.01	-0.02	-1.25	-0.43	-0.15
373.80	1.11	0.17	-0.05	-0.65	-2.14	0.98
374.00	1.04	-0.07	-0.05	-1.24	-0.36	0.32
374.20	1.39	0.11	-0.07	-1.46	-0.37	-0.73
374.40	1.26	0.09	-0.06	-1.39	2.00	-0.76
374.60	1.00	0.25	0.01	-1.16	0.14	1.08
374.80	1.06	0.21	-0.05	-1.34	-0.28	-0.52
375.00	1.02	0.35	-0.08	-1.35	-0.81	1.51
375.20	1.07	0.47	0.00	-0.68	-0.67	1.92
375.40	0.99	0.11	-0.06	-1.58	0.18	-0.16
375.60	1.27	-0.02	-0.07	-1.19	-0.68	-0.40
375.80	1.01	0.19	-0.06	-0.60	0.29	0.03
376.00	1.09	0.38	-0.07	-0.33	-2.85	1.81
376.20	0.89	0.32	-0.03	-0.59	2.13	0.27
376.40	1.05	0.10	-0.09	-1.60	0.93	-2.19
376.60	1.10	-0.16	-0.09	-1.52	-0.17	-1.71
376.80	0.48	0.17	-0.06	-1.41	1.26	-2.42
377.00	0.70	-0.05	-0.11	-0.86	-0.42	-2.73
377.20	0.98	0.22	-0.07	-1.34	-0.98	0.04
377.40	0.87	0.16	-0.11	-1.69	0.70	-1.54
377.60	0.64	0.28	-0.06	-0.95	0.81	0.76
377.80	1.10	0.12	-0.09	-1.18	-0.92	-0.71
378.00	0.77	0.22	-0.03	-0.97	-0.12	0.63
378.20	0.90	0.16	-0.08	-1.73	-0.53	-2.44
378.40	0.60	0.20	-0.04	-1.15	2.24	0.47
378.60	1.16	0.19	-0.03	-1.19	1.08	-0.79
378.80	0.94	-0.05	-0.08	-1.17	1.35	-0.68
379.00	1.02	0.03	-0.07	-1.19	-0.11	-0.87

379.20	0.96	0.22	-0.09	-0.27	1.79	1.43
379.40	0.92	0.23	-0.08	-0.40	0.07	2.58
379.60	1.09	0.15	-0.07	-0.66	0.07	-2.48
379.80	1.00	0.15	-0.14	-0.27	1.52	0.49
380.00	0.80	-0.20	-0.10	-0.14	0.02	3.62
380.20	0.88	0.48	-0.01	-1.21	0.00	0.02
380.40	1.13	-0.12	-0.14	-1.12	0.56	-0.85
380.60	0.76	0.10	-0.09	-1.13	-0.85	0.29
380.80	0.94	0.03	-0.13	-1.41	2.00	0.39
381.00	1.03	-0.16	-0.14	-0.93	2.94	-1.89
381.20	0.86	0.27	-0.11	-1.36	-1.56	-2.69
381.40	1.06	-0.12	-0.16	-0.50	1.13	0.85
381.60	0.94	-0.04	-0.13	-1.20	1.10	-2.17
381.80	0.97	0.25	-0.13	-0.80	2.28	0.02
382.00	1.13	-0.26	-0.12	-0.96	1.25	-0.83
382.20	1.02	-0.30	-0.12	-1.47	1.11	-2.74
382.40	1.17	-0.37	-0.15	-0.47	-2.84	1.59
382.60	0.95	-0.04	-0.05	-0.40	-2.26	-0.01
382.80	0.88	-0.13	-0.14	-0.87	-0.20	0.19
383.00	0.77	-0.28	-0.15	-0.93	-0.34	0.01
383.20	1.07	-0.42	-0.12	-0.74	0.89	1.39
383.40	0.94	-0.24	-0.13	-0.59	-3.74	0.85
383.60	0.89	-0.17	-0.17	-0.20	-0.06	1.27
383.80	1.01	-0.17	-0.12	0.08	-0.55	2.73
384.00	0.75	-0.17	-0.09	-0.60	0.18	1.01
384.20	0.80	-0.41	-0.09	-0.41	1.59	-0.23
384.40	0.94	-0.17	-0.10	-0.55	3.39	0.47
384.60	0.73	-0.51	-0.16	-0.75	-1.53	0.71
384.80	0.89	-0.24	-0.11	-0.98	-2.43	-1.76
385.00	1.14	-0.29	-0.06	-0.44	-0.69	1.44
385.20	0.83	-0.35	-0.07	-0.89	0.01	0.07
385.40	0.85	-0.30	-0.07	-0.82	-0.18	0.22
385.60	0.92	-0.38	-0.12	-0.75	0.27	0.05
385.80	0.82	-0.36	-0.09	-1.35	-0.43	-1.75
386.00	1.05	-0.34	-0.01	-0.73	-0.25	0.13
386.20	0.95	-0.72	-0.05	-0.63	1.19	-0.49
386.40	0.90	-0.20	0.04	-0.78	-1.47	-0.95
386.60	0.99	-0.39	-0.04	-0.59	2.03	-2.48
386.80	1.24	-0.53	-0.03	0.08	3.49	0.33
387.00	0.80	0.01	0.01	-0.82	1.69	-0.52
387.20	1.05	-0.37	-0.01	-0.20	-0.28	1.93
387.40	1.08	-0.12	0.04	-0.43	-0.01	0.98
387.60	0.79	-0.47	0.03	-0.60	-0.37	0.35
387.80	0.69	-0.60	0.06	-0.74	0.17	0.09
388.00	1.03	-0.35	0.07	-0.68	-1.72	-0.13
388.20	0.96	0.12	0.04	-0.82	0.16	-0.99
388.40	0.89	-0.27	0.04	-0.70	1.62	-1.56
388.60	0.68	-0.39	0.06	-0.55	-0.16	-2.01
388.80	0.70	-0.34	0.08	-0.69	2.58	1.00
389.00	1.08	-0.39	0.06	-0.67	-1.37	-0.83

389.20	0.91	-0.27	0.02	-0.71	-0.57	-0.43
389.40	0.76	-0.21	0.11	-0.66	-0.37	-0.09
389.60	0.93	-0.46	0.04	-0.76	0.56	-0.70
389.80	0.77	-0.27	0.07	-0.99	-0.65	-0.62
390.00	1.20	-0.12	0.05	-0.75	1.78	0.57
390.20	0.98	-0.32	0.04	-0.53	2.76	-2.02
390.40	0.83	-0.17	0.06	0.44	-0.07	2.33
390.60	0.85	-0.21	0.02	-0.25	-0.99	0.30
390.80	1.01	-0.30	0.05	-0.65	0.57	1.84
391.00	0.58	-0.40	0.07	-0.17	-0.23	1.27
391.20	1.06	-0.37	0.05	-1.36	0.04	-2.41
391.40	0.92	-0.37	0.05	0.05	3.63	0.47
391.60	0.86	-0.28	0.00	-0.82	-0.04	-0.37
391.80	1.02	-0.27	0.06	-0.74	0.03	0.18
392.00	0.98	-0.15	0.05	-0.76	-0.07	0.13
392.20	0.96	-0.30	0.03	-0.73	0.29	0.05
392.40	0.87	-0.21	-0.02	-0.97	-0.04	-1.35
392.60	1.10	-0.20	-0.03	0.26	-0.39	0.89
392.80	0.86	-0.02	0.03	-0.45	-1.98	-1.60
393.00	0.86	-0.07	0.03	-0.67	-1.71	1.26
393.20	0.96	-0.11	0.03	-0.58	1.01	-0.47
393.40	1.12	-0.43	0.01	-0.53	0.57	0.85
393.60	0.76	-0.63	0.02	-0.59	0.18	0.33
393.80	0.60	-0.09	0.03	-0.83	1.10	1.07
394.00	1.24	0.00	0.12	0.04	1.77	3.73
394.20	0.91	-0.27	0.00	-0.27	0.53	1.19
394.40	0.96	-0.18	0.01	-0.55	-1.68	-0.75
394.60	0.89	-0.13	0.02	-0.89	-0.21	0.24
394.80	1.04	-0.28	0.03	-0.86	0.42	-0.05
395.00	0.94	-0.04	-0.04	-0.81	0.34	0.20
395.20	0.78	0.17	0.01	-1.15	0.33	-1.37
395.40	0.75	-0.25	0.05	-0.92	0.41	-0.57
395.60	0.87	0.03	0.04	-0.58	-0.09	-0.50
395.80	0.92	-0.15	0.00	-0.55	0.98	-1.03
396.00	0.70	0.00	0.06	0.04	0.03	2.02
396.20	0.61	-0.05	0.00	-0.46	-2.05	0.36
396.40	0.70	-0.40	0.04	-0.62	0.75	-0.67
396.60	0.53	-0.16	0.02	-0.42	1.44	1.81
396.80	0.45	-0.21	0.00	-0.65	-0.60	-0.77
397.00	0.66	-0.07	0.05	-0.48	-1.07	-0.08
397.20	0.60	-0.31	0.02	-0.17	1.53	-0.09
397.40	0.65	0.04	0.00	-0.42	0.24	0.50
397.60	0.23	0.01	0.03	-0.45	-0.07	0.15
397.80	0.62	-0.14	-0.03	-0.43	-0.51	-0.58
398.00	0.67	-0.05	0.01	-0.47	0.09	0.71
398.20	0.29	-0.07	0.02	-0.51	-0.02	-0.54
398.40	0.17	-0.25	-0.03	-0.59	-0.01	-0.23
398.60	0.45	0.29	0.00	-0.53	0.64	-0.44
398.80	0.39	-0.06	-0.03	-0.57	0.07	0.43
399.00	0.45	0.02	-0.02	-0.55	-0.08	-0.05

399.20	0.40	0.06	0.01	-0.54	0.10	0.09
399.40	0.42	-0.10	-0.01	0.39	0.66	2.43
399.60	0.34	0.05	-0.04	-0.06	-1.85	-1.09
399.80	0.50	-0.05	-0.06	-0.16	0.26	1.65
400.00	0.30	-0.13	-0.08	0.58	-0.33	5.22
400.20	0.42	-0.10	-0.09	-0.05	2.00	0.61
400.40	0.15	0.17	-0.06	-0.03	-3.25	-2.65
400.60	0.50	-0.08	-0.06	-0.49	2.13	0.26
400.80	0.26	0.17	-0.11	-0.09	0.33	0.42
401.00	0.27	-0.01	-0.06	-0.11	0.32	-0.28
401.20	0.04	-0.10	-0.09	-0.64	0.90	-0.22
401.40	0.56	0.02	-0.07	0.37	-0.15	0.95
401.60	0.06	-0.16	-0.10	-0.16	-2.29	-0.60
401.80	0.17	-0.02	-0.05	0.01	2.41	0.19
402.00	0.18	0.13	-0.08	-0.13	-3.62	-2.57
402.20	0.24	-0.19	-0.11	0.13	-0.34	-0.28
402.40	0.30	-0.09	-0.07	0.38	0.50	2.35
402.60	0.21	0.05	-0.06	-0.34	-0.17	0.16
402.80	-0.01	-0.08	-0.11	-0.19	0.95	0.97
403.00	0.09	-0.18	-0.11	-0.04	-0.36	0.55
403.20	0.13	-0.20	-0.13	-0.21	-1.05	-1.28
403.40	-0.02	-0.11	-0.12	0.53	0.69	1.86
403.60	0.16	-0.06	-0.13	0.42	-0.84	0.93
403.80	-0.11	0.06	-0.14	0.28	1.72	0.08
404.00	-0.05	-0.40	-0.14	-0.48	0.21	-1.71
404.20	0.09	0.18	-0.11	-0.01	1.27	-0.79
404.40	0.23	-0.39	-0.07	-0.19	-1.01	0.31
404.60	0.04	-0.23	-0.12	0.00	0.56	-0.71
404.80	-0.02	-0.41	-0.16	0.02	-0.25	0.18
405.00	0.03	-0.05	-0.14	-0.37	-0.12	-1.23
405.20	-0.14	0.18	-0.13	0.08	-0.63	0.29
405.40	0.10	0.05	-0.10	0.07	0.26	0.38
405.60	-0.23	-0.14	-0.16	0.01	-0.24	-0.54
405.80	-0.19	0.00	-0.16	0.24	-0.28	1.31
406.00	-0.22	0.05	-0.14	-0.28	-1.26	-2.32
406.20	-0.02	-0.07	-0.15	0.01	-1.47	-0.74
406.40	-0.06	0.12	-0.12	0.03	1.00	0.39
406.60	-0.25	-0.09	-0.17	-0.02	-1.23	0.21
406.80	0.01	-0.24	-0.17	0.20	-0.45	0.59
407.00	0.03	-0.04	-0.17	0.32	-0.53	0.63
407.20	0.13	0.10	-0.15	-0.50	0.09	-1.26
407.40	-0.16	0.09	-0.19	-0.01	0.05	-0.06
407.60	0.09	-0.24	-0.21	0.78	-0.59	2.32
407.80	0.07	-0.17	-0.22	0.23	1.10	1.66
408.00	-0.59	0.40	-0.17	-0.07	0.12	-0.57
408.20	0.18	0.19	-0.09	-0.31	0.78	-2.33
408.40	0.00	0.01	-0.08	0.10	2.09	0.11
408.60	-0.20	0.01	-0.22	-0.08	0.18	-1.99
408.80	-0.22	-0.14	-0.16	-0.33	-0.23	-1.68
409.00	-0.28	-0.11	-0.13	0.14	0.39	-0.90

409.20	-0.18	-0.20	-0.15	-0.08	2.15	-0.54
409.40	-0.44	0.00	-0.18	0.05	-0.24	-0.41
409.60	-0.16	-0.14	-0.16	0.22	-4.15	-1.30
409.80	-0.03	0.13	-0.18	-0.27	-0.96	-1.19
410.00	-0.06	-0.10	-0.20	0.93	-3.16	2.63
410.20	-0.30	-0.08	-0.20	0.61	-1.79	1.41
410.40	0.24	0.19	-0.13	0.61	-1.49	-0.05
410.60	0.02	-0.09	-0.09	0.18	6.01	-1.48
410.80	0.00	-0.23	-0.05	0.22	0.65	0.11
411.00	-0.07	-0.16	-0.11	-0.34	0.93	-1.66
411.20	-0.24	0.10	-0.09	0.24	-2.51	-0.37
411.40	-0.34	-0.03	-0.08	0.30	-0.50	0.44
411.60	-0.32	0.01	-0.07	0.28	-0.75	-0.46
411.80	-0.32	-0.45	-0.05	0.19	-0.52	-0.50
412.00	-0.31	-0.11	-0.08	0.32	0.69	0.46
412.20	-0.22	-0.09	-0.07	0.22	-0.41	-0.40
412.40	-0.25	-0.24	-0.04	0.17	0.88	-0.23
412.60	-0.13	-0.03	-0.10	-0.06	0.04	-0.65
412.80	-0.28	-0.29	-0.10	0.28	1.27	0.80
413.00	-0.28	-0.06	-0.05	0.75	-0.25	1.56
413.20	-0.10	-0.26	-0.09	0.04	0.15	-0.25
413.40	-0.06	-0.39	-0.07	0.24	0.12	-0.11
413.60	-0.29	-0.24	-0.09	0.29	0.10	-0.06
413.80	0.04	-0.03	-0.05	0.05	0.15	-0.72
414.00	0.09	-0.20	-0.05	0.17	0.15	-0.20
414.20	-0.13	-0.15	-0.08	0.19	-1.14	0.42
414.40	0.12	0.12	0.00	0.24	0.01	0.04
414.60	0.28	0.12	-0.03	0.25	-0.17	0.49
414.80	0.09	-0.09	-0.02	-0.09	0.72	-1.16
415.00	-0.59	0.36	0.01	0.15	-1.17	0.93
415.20	0.13	-0.43	-0.12	-0.79	-0.24	-1.74
415.40	-0.10	-0.33	-0.03	0.41	-1.58	2.42
415.60	-0.17	-0.13	-0.03	0.53	-2.35	0.31
415.80	-0.37	-0.20	0.00	0.43	0.87	2.38
416.00	-0.24	-0.41	0.00	0.38	0.00	2.59
416.20	-0.06	-0.29	0.03	0.17	0.61	-0.74
416.40	-0.23	-0.02	-0.01	0.57	0.87	0.24
416.60	-0.29	-0.29	0.02	0.12	1.46	-1.42
416.80	-0.56	-0.12	0.05	-0.32	-2.14	0.62
417.00	-0.16	-0.42	0.05	0.65	-0.51	-0.71
417.20	-0.08	-0.18	0.02	0.34	0.98	0.44
417.40	-0.43	-0.33	-0.01	0.28	0.37	0.52
417.60	-0.29	-0.23	0.01	0.43	-0.42	0.57
417.80	-0.31	-0.11	0.04	0.22	-2.45	0.94
418.00	-0.45	-0.36	0.06	0.12	-1.59	0.74
418.20	-0.28	-0.11	0.03	0.50	-0.99	1.61
418.40	-0.27	0.17	0.06	-0.18	-1.83	-3.39
418.60	-0.39	-0.10	0.10	0.05	-2.27	-1.10
418.80	-0.29	-0.23	0.08	0.43	1.40	-2.16
419.00	-0.27	-0.13	0.09	0.24	-1.00	0.28

419.20	-0.25	-0.18	0.05	-0.67	-1.22	-2.73
419.40	-0.35	-0.32	0.10	0.59	-0.47	1.30
419.60	-0.30	-0.30	0.10	-0.37	1.43	-2.17
419.80	-0.31	-0.40	0.08	-0.40	-4.24	1.39
420.00	-0.30	-0.36	0.10	0.53	-0.22	1.02
420.20	-0.30	-0.27	0.09	0.37	-0.08	0.04
420.40	-0.32	-0.35	0.10	0.37	0.06	0.17
420.60	-0.12	-0.13	0.04	0.27	0.10	-0.07
420.80	-0.28	-0.44	0.01	0.37	-0.60	-0.28
421.00	-0.31	-0.31	0.06	0.28	1.12	-0.09
421.20	-0.15	-0.25	0.07	0.41	-0.44	-0.60
421.40	-0.79	0.11	0.13	0.35	-0.52	-0.58
421.60	-0.17	-0.54	0.08	0.49	-1.67	-0.72
421.80	-0.14	-0.45	0.08	0.18	-2.67	-1.78
422.00	-0.49	-0.23	0.11	0.06	-0.80	-0.23
422.20	-0.25	-0.19	0.11	-0.51	2.90	-2.01
422.40	-0.48	-0.38	0.07	-0.43	-0.41	-0.78
422.60	-0.49	-0.10	0.08	0.12	-2.83	0.05
422.80	-0.24	-0.18	0.09	0.55	1.34	2.19
423.00	-0.25	-0.29	0.01	0.84	-1.66	3.21
423.20	-0.06	-0.60	0.02	0.28	-0.64	0.37
423.40	-0.28	-0.38	-0.02	0.97	-0.30	3.15
423.60	-0.42	0.04	0.01	0.16	0.95	0.03
423.80	-0.19	-0.81	-0.04	0.16	-1.76	0.16
424.00	-0.09	-0.31	-0.01	0.01	0.98	0.88
424.20	-0.20	-0.59	-0.03	0.32	-1.14	-0.64
424.40	-0.75	1.27	0.25	-0.45	-0.49	-1.02
424.60	-0.13	-0.13	0.00	0.73	1.28	1.47
424.80	-0.67	-0.20	-0.03	-0.35	1.20	-0.71
425.00	0.01	-0.01	-0.07	-0.23	1.90	-1.48
425.20	-0.41	-0.46	-0.03	0.64	-1.23	1.41
425.40	-0.36	-0.20	-0.10	0.56	1.53	2.31
425.60	-0.48	-0.18	-0.13	0.38	-1.07	0.04
425.80	-0.31	-0.11	-0.11	0.52	-1.86	0.62
426.00	-0.17	-0.30	-0.12	0.26	-0.04	-0.50
426.20	-0.28	-0.06	-0.12	0.14	-0.43	0.12
426.40	-0.31	-0.17	-0.14	1.02	0.03	2.15
426.60	-0.13	-0.16	-0.16	0.30	0.06	-0.16
426.80	-0.04	-0.11	-0.10	0.72	-0.41	1.27
427.00	0.07	-0.26	-0.13	0.37	-0.05	0.23
427.20	-0.38	-0.27	-0.10	0.42	-0.03	0.30
427.40	-0.09	-0.40	-0.11	0.30	0.04	0.03
427.60	-0.26	-0.21	-0.14	0.00	0.41	-1.22
427.80	-0.22	-0.13	-0.13	-0.02	-0.99	-2.09
428.00	-0.16	-0.22	-0.13	0.13	0.97	-1.13
428.20	0.00	-0.25	-0.13	0.45	1.41	0.57
428.40	0.26	-0.20	-0.03	0.11	-1.30	0.44
428.60	-0.19	-0.17	-0.09	-0.62	-0.55	-2.29
428.80	-0.50	0.04	0.02	0.11	-0.78	-0.37
429.00	0.00	0.05	-0.04	0.35	-0.58	0.56

429.20	-0.23	-0.05	-0.03	0.39	0.23	0.47
429.40	0.06	0.12	0.02	0.26	-0.50	0.23
429.60	-0.14	0.04	-0.01	0.39	-0.44	-0.15
429.80	-0.18	0.11	0.04	0.29	-0.42	0.18
430.00	-0.12	-0.23	-0.04	0.31	0.18	0.01
430.20	-0.27	-0.26	-0.03	0.32	0.24	0.56
430.40	-0.38	-0.13	-0.07	0.40	0.51	0.01
430.60	-0.31	0.09	-0.06	0.70	-0.14	0.81
430.80	-0.23	-0.22	-0.03	0.67	-0.73	1.02
431.00	-0.12	-0.19	-0.02	0.11	-0.94	-0.42
431.20	-0.10	-0.09	0.00	0.59	-2.26	2.25
431.40	-0.23	-0.03	-0.01	0.18	0.53	-1.16
431.60	-0.31	-0.24	-0.07	0.22	-1.54	0.78
431.80	-0.09	-0.47	0.01	0.51	1.09	-0.65
432.00	-0.71	0.20	0.04	0.17	-0.18	-0.76
432.20	-0.53	-0.19	-0.01	0.37	-0.28	0.78
432.40	-0.06	0.06	0.05	0.49	0.32	1.25
432.60	-0.32	0.24	0.01	0.47	-1.31	1.11
432.80	-0.48	0.25	0.00	0.82	1.82	0.43
433.00	-0.28	0.11	-0.03	-0.08	1.23	-1.49
433.20	-0.68	-0.02	0.07	0.00	-1.16	-0.60
433.40	-0.05	-0.04	0.01	0.32	-0.49	0.55
433.60	-0.36	-0.31	0.05	0.51	0.39	0.52
433.80	-0.26	0.14	-0.04	0.41	-0.33	-0.03
434.00	-0.52	0.07	-0.01	-0.07	0.09	-1.07
434.20	-0.27	0.16	-0.03	-0.31	-2.43	-2.59
434.40	-0.36	0.38	0.02	0.70	1.34	0.15
434.60	-0.12	-0.03	-0.04	-0.06	2.68	-2.05
434.80	-0.02	0.19	-0.07	0.26	0.55	-0.59
435.00	-0.31	0.05	-0.01	0.51	-0.09	0.46
435.20	-0.16	0.28	-0.07	0.43	0.37	0.17
435.40	-0.43	0.19	0.00	0.34	-0.01	-0.24
435.60	-0.50	0.09	-0.02	0.38	-0.84	-0.04
435.80	-0.37	0.38	-0.04	0.40	0.24	-0.14
436.00	-0.49	0.24	0.00	0.42	-1.24	0.05
436.20	-0.51	0.15	-0.08	-0.02	2.13	2.08
436.40	-0.35	0.23	-0.02	0.37	0.48	0.31
436.60	-0.40	0.02	-0.05	-0.48	-0.74	-3.07
436.80	-0.22	0.31	-0.01	0.21	-1.53	-2.18
437.00	-0.72	0.22	0.04	1.48	5.12	1.11
437.20	-0.46	0.25	0.00	0.45	-0.39	1.52
437.40	-0.57	0.23	-0.02	0.97	-0.18	-0.12
437.60	-0.15	0.14	0.02	-0.11	-0.30	-2.73
437.80	-0.24	0.17	0.05	-0.41	-1.11	-0.84
438.00	-0.60	0.33	-0.02	-0.04	-0.44	0.75
438.20	-0.50	0.56	0.05	-0.93	-2.48	0.03
438.40	-0.70	0.12	0.00	0.26	-1.50	0.38
438.60	-0.42	-0.11	-0.12	0.43	-0.90	0.75
438.80	-0.66	0.20	-0.02	0.47	-0.01	0.01
439.00	-0.69	0.06	-0.03	0.35	-0.47	0.11

439.20	-0.38	0.23	-0.05	0.28	0.15	-0.13
439.40	-0.70	0.21	-0.02	0.24	0.06	-0.25
439.60	-0.47	0.23	-0.04	0.38	0.28	0.41
439.80	-0.51	0.21	-0.08	0.38	-0.25	-0.20
440.00	-0.56	0.33	-0.08	0.23	-0.41	-0.22
440.20	-0.58	0.30	-0.09	0.56	1.07	-0.21
440.40	-0.58	0.35	-0.07	0.19	1.24	-1.06
440.60	-0.56	0.33	-0.07	-0.32	-0.72	-2.14
440.80	-0.48	0.23	-0.03	0.03	-0.66	-0.32
441.00	-0.65	0.21	-0.07	0.62	-0.79	1.44
441.20	-0.53	0.34	0.01	0.42	0.22	0.20
441.40	-0.32	0.22	-0.09	0.23	1.14	-1.21
441.60	-0.50	0.38	-0.06	0.16	0.08	-0.18
441.80	-0.74	0.18	-0.02	0.47	0.50	-0.05
442.00	-0.78	0.47	-0.03	0.09	0.07	-0.41
442.20	-0.75	0.18	-0.07	0.47	-0.52	0.89
442.40	-0.71	0.03	-0.04	0.34	1.01	0.74
442.60	-0.89	0.26	-0.05	0.33	0.53	0.79
442.80	-0.73	-0.26	-0.09	0.28	-0.80	0.59
443.00	-0.45	0.05	-0.10	0.42	0.52	-0.41
443.20	-0.45	0.33	-0.03	0.27	-1.83	1.00
443.40	-1.01	0.10	0.06	0.17	-1.15	1.73
443.60	-0.60	0.05	-0.03	0.62	2.70	1.39
443.80	-0.85	0.18	-0.03	-0.06	0.96	-0.80
444.00	-0.69	0.20	-0.03	0.07	0.13	-0.66
444.20	-0.74	0.12	-0.04	0.44	0.15	0.48
444.40	-0.82	0.07	-0.03	0.33	0.03	-0.51
444.60	-0.84	0.07	-0.07	0.23	0.33	0.16
444.80	-0.55	-0.11	-0.02	0.50	0.74	0.63
445.00	-0.15	-0.39	-0.07	0.46	0.23	0.42
445.20	-0.77	0.41	0.05	0.22	-0.25	-0.88
445.40	-1.33	0.27	0.07	0.35	3.29	1.15
445.60	-0.47	-0.35	-0.02	0.28	-1.67	-1.43
445.80	-1.22	-0.01	0.02	0.48	1.47	1.19
446.00	-1.00	0.52	0.06	0.20	2.38	2.08
446.20	-1.14	0.17	-0.04	0.65	-1.98	0.00
446.40	-1.06	0.12	0.01	-0.18	-0.13	-0.52
446.60	-0.76	0.17	-0.02	0.30	-1.12	-0.27
446.80	-0.78	0.04	-0.06	0.21	1.25	0.22
447.00	-0.69	0.15	-0.06	0.43	-0.18	-0.36
447.20	-0.86	0.08	0.05	0.50	-0.39	0.37
447.40	-0.73	0.04	0.01	0.41	0.22	-0.01
447.60	-1.02	0.16	-0.01	0.20	0.41	-0.28
447.80	-1.01	0.29	0.03	0.06	-0.07	-0.69
448.00	-1.07	-0.04	-0.02	0.40	0.63	-0.43
448.20	-0.85	0.46	0.01	0.37	0.68	0.43
448.40	-0.53	-0.18	-0.01	0.47	-1.34	1.42
448.60	-0.87	0.05	-0.03	-0.33	1.52	-2.52
448.80	-0.85	-0.11	0.01	0.08	0.03	-0.88
449.00	-0.83	-0.03	0.00	0.04	-0.85	-0.62

449.20	-0.94	0.00	0.02	0.72	-0.62	-0.27
449.40	-1.01	0.02	0.00	0.95	2.73	1.81
449.60	-0.97	-0.01	-0.01	0.60	-1.41	1.59
449.80	-0.99	-0.09	-0.01	0.87	-1.75	-1.13
450.00	-1.20	0.10	0.03	0.34	-3.65	3.22
450.20	-1.05	0.31	0.03	-0.79	-0.21	-4.06
450.40	-1.10	0.11	0.01	-0.60	2.09	-1.22
450.60	-0.85	-0.18	-0.02	0.46	-0.53	-1.26
450.80	-0.85	-0.02	0.02	1.03	1.25	1.15
451.00	-1.00	-0.02	0.04	0.11	1.57	0.35
451.20	-1.02	0.05	0.06	0.32	0.53	-1.00
451.40	-0.74	-0.25	0.01	0.17	0.08	-0.64
451.60	-0.66	0.08	0.02	0.67	0.54	0.17
451.80	-0.76	-0.31	0.02	0.84	-0.42	1.09
452.00	-0.99	-0.16	0.05	0.60	-0.04	0.32
452.20	-0.88	-0.03	0.03	0.59	-0.37	0.46
452.40	-0.81	0.00	0.04	0.61	-0.18	0.25
452.60	-1.00	-0.23	0.01	0.70	-0.02	0.35
452.80	-0.93	-0.14	0.01	0.57	0.39	0.09
453.00	-1.16	-0.12	-0.01	0.51	-1.09	0.84
453.20	-1.25	0.05	0.04	0.62	-0.07	0.35
453.40	-0.93	-0.35	0.08	0.54	0.35	0.02
453.60	-0.99	0.14	0.03	0.64	0.13	0.38
453.80	-0.83	0.10	0.02	0.57	0.26	-0.01
454.00	-1.11	-0.19	0.01	0.45	0.18	-0.25
454.20	-0.57	-0.19	0.09	0.57	0.43	0.38
454.40	-0.95	0.19	0.08	0.64	0.25	0.25
454.60	-0.81	0.03	0.03	0.62	-0.06	0.29
454.80	-0.90	-0.07	0.04	0.36	-1.63	1.13
455.00	-0.85	-0.04	0.05	0.13	-0.04	-1.12
455.20	-0.67	0.01	0.07	0.55	-0.07	0.13
455.40	-1.05	-0.03	0.08	0.48	1.21	0.27
455.60	-0.93	-0.03	0.06	0.31	-4.43	-0.33
455.80	-0.72	-0.15	0.01	0.91	3.11	2.24
456.00	-1.13	0.14	0.05	0.60	0.00	-1.36
456.20	-0.91	-0.06	0.06	0.80	-1.02	0.05
456.40	-1.06	0.09	0.12	0.24	0.14	-0.57
456.60	-0.82	0.05	0.06	0.58	1.37	0.51
456.80	-0.88	0.15	0.08	0.74	-0.03	2.00
457.00	-0.99	-0.26	0.09	0.31	0.10	-0.41
457.20	-0.98	-0.02	0.08	-0.32	0.56	-3.02
457.40	-0.74	0.04	0.06	0.77	0.53	1.20
457.60	-0.87	0.02	0.05	0.62	0.17	0.39
457.80	-0.86	-0.01	0.04	0.61	-0.18	-0.19
458.00	-1.01	0.10	0.09	0.60	0.99	0.13
458.20	-0.94	-0.03	0.04	0.63	1.04	-0.90
458.40	-1.01	0.05	0.05	0.39	-0.05	0.72
458.60	-0.94	0.01	0.06	0.34	3.42	0.55
458.80	-1.51	0.06	0.02	0.11	0.16	-2.03
459.00	-0.91	-0.19	0.04	0.75	0.56	1.05

459.20	-1.02	0.19	0.04	0.46	1.13	1.91
459.40	-0.98	-0.03	0.05	0.66	-0.22	0.58
459.60	-0.75	-0.09	0.01	0.56	-0.72	-0.73
459.80	-0.89	-0.21	-0.04	0.68	-0.35	-1.01
460.00	-0.51	0.23	0.11	0.38	-1.30	0.62
460.20	-1.13	0.16	0.05	0.30	-0.89	-0.41
460.40	-1.16	-0.03	-0.04	0.43	2.03	-0.82
460.60	-1.19	-0.08	0.01	0.42	-0.53	1.42
460.80	-0.88	-0.08	0.00	0.68	-0.68	0.14
461.00	-0.98	-0.26	-0.03	0.78	0.67	0.82
461.20	-0.96	-0.35	-0.05	0.71	0.11	0.01
461.40	-1.32	0.08	-0.03	0.33	1.42	2.63
461.60	-0.90	-0.23	0.00	0.13	0.47	-0.25
461.80	-0.86	-0.08	0.03	-0.55	-0.51	-3.41
462.00	-0.75	-0.07	0.03	0.45	0.31	0.91
462.20	-1.06	-0.12	-0.01	1.01	0.73	1.75
462.40	-1.21	0.03	-0.06	0.49	-0.18	-0.53
462.60	-1.06	-0.03	-0.02	0.54	0.16	0.89
462.80	-0.94	-0.08	0.00	0.68	0.78	0.20
463.00	-0.83	-0.06	0.01	1.02	-0.93	1.13
463.20	-1.06	-0.15	0.04	0.64	2.38	0.67
463.40	-1.16	-0.07	0.04	0.51	2.44	0.16
463.60	-0.93	0.10	0.00	0.49	0.92	-1.40
463.80	-1.01	0.03	0.00	0.65	0.57	-0.17
464.00	-0.90	0.09	0.02	0.42	-0.05	-0.08
464.20	-0.82	-0.08	0.04	0.30	0.37	-1.28
464.40	-0.81	-0.04	0.02	0.30	0.57	-0.05
464.60	-0.74	-0.02	0.02	1.52	-0.15	4.77
464.80	-0.86	0.02	-0.02	0.50	-2.79	-0.30
465.00	-0.86	-0.06	0.00	0.53	0.44	-0.38
465.20	-0.77	0.00	0.03	0.68	0.33	0.18
465.40	-0.75	0.15	-0.01	0.23	-0.99	-2.24
465.60	-0.77	-0.11	0.05	0.70	1.50	0.12
465.80	-0.81	-0.13	0.02	0.88	-1.08	0.52
466.00	-0.89	-0.06	0.03	0.83	-0.35	-0.10
466.20	-0.76	-0.08	0.03	0.44	-0.06	1.89
466.40	-0.84	0.01	0.04	0.39	0.74	-1.41
466.60	-0.89	-0.08	0.00	0.40	0.54	-1.09
466.80	-0.58	-0.17	-0.02	0.34	-0.13	-0.32
467.00	-0.75	-0.24	0.00	0.55	-0.04	0.68
467.20	-0.70	-0.14	0.05	0.36	-0.50	-0.31
467.40	-0.88	0.11	0.02	0.30	-0.09	-0.79
467.60	-0.81	-0.13	-0.02	0.80	0.14	0.62
467.80	-0.56	-0.19	0.02	0.23	-1.40	0.85
468.00	-0.52	-0.21	0.00	0.11	0.23	-0.43
468.20	-0.53	-0.18	0.00	0.51	1.66	1.81
468.40	-0.52	-0.11	-0.03	0.00	-2.09	-0.71
468.60	-0.47	-0.02	-0.02	0.10	-0.84	-1.15
468.80	-0.52	-0.08	-0.02	0.52	-1.71	-0.75
469.00	-0.57	-0.14	0.00	0.04	1.02	-0.92

469.20	-0.57	0.01	-0.01	0.43	0.43	-0.26
469.40	-0.48	-0.10	-0.01	0.36	-0.16	0.58
469.60	-0.19	0.04	0.02	0.25	0.12	-0.17
469.80	-0.29	-0.26	0.03	0.31	-1.28	-0.32
470.00	-0.38	-0.17	0.04	0.29	0.25	1.09
470.20	-0.71	-0.08	-0.03	0.29	-0.50	-0.51
470.40	-0.47	-0.42	-0.05	0.07	-1.56	0.26
470.60	-0.55	0.20	-0.07	0.42	-1.02	0.90
470.80	-0.60	-0.08	-0.04	0.36	-0.19	0.22
471.00	-0.54	0.27	-0.07	0.34	-0.30	-0.01
471.20	-0.35	0.04	0.04	0.35	0.08	0.00
471.40	-0.24	-0.33	0.00	0.28	-0.08	0.02
471.60	-0.35	-0.24	0.00	0.45	-1.34	-0.71
471.80	-0.41	-0.02	-0.02	0.71	1.29	-0.74
472.00	-0.48	0.06	-0.05	0.37	-1.28	-0.81
472.20	-0.46	0.25	0.06	-0.17	-1.34	-1.07
472.40	-0.14	-0.15	-0.03	0.11	0.57	-0.82
472.60	-0.51	-0.13	0.02	0.43	1.37	1.33
472.80	-0.79	-0.37	0.05	0.46	-0.23	0.43
473.00	-0.49	-0.08	-0.04	0.20	-1.04	-0.18
473.20	-0.27	-0.47	0.03	-0.33	-0.46	-2.26
473.40	-0.55	0.06	-0.01	-0.04	0.69	-1.58
473.60	-0.48	-0.03	0.00	0.29	0.11	0.47
473.80	-0.43	-0.25	-0.02	-0.28	-0.06	-1.21
474.00	-0.64	0.06	0.02	0.50	-1.65	0.90
474.20	-0.52	0.02	0.00	-0.16	0.81	-2.40
474.40	-0.26	-0.11	-0.03	-0.04	-0.11	-1.22
474.60	-0.49	-0.24	-0.02	-0.01	0.25	-1.41
474.80	-0.43	-0.03	-0.02	0.15	0.07	-0.66
475.00	-0.19	-0.13	-0.02	0.47	-0.14	-0.13
475.20	-0.25	0.00	-0.09	0.51	1.21	0.85
475.40	-0.40	-0.17	-0.01	0.26	0.71	0.25
475.60	-0.34	-0.42	-0.02	0.46	1.93	1.21
475.80	-0.48	0.03	-0.01	1.00	-0.41	1.95
476.00	-0.59	0.22	0.01	0.11	1.02	-0.67
476.20	-0.56	-0.36	-0.04	1.00	1.84	1.30
476.40	-0.33	-0.21	-0.06	0.32	-1.36	-0.74
476.60	-0.44	0.02	-0.01	0.51	-3.94	0.42
476.80	-0.81	0.17	0.04	0.48	-0.45	0.62
477.00	-0.20	-0.55	-0.10	0.47	-0.86	-0.40
477.20	-0.33	-0.15	-0.07	0.48	1.85	0.62
477.40	-0.46	-0.06	-0.05	0.60	0.67	-0.09
477.60	-0.12	-0.18	-0.06	0.40	1.50	0.50
477.80	-0.28	-0.17	-0.09	0.73	0.10	2.16
478.00	-0.24	-0.20	-0.03	0.56	-2.60	-0.31
478.20	-0.24	-0.04	-0.01	0.77	-2.19	1.03
478.40	-0.24	-0.18	-0.09	0.46	-3.51	-1.55
478.60	-0.05	-0.13	-0.08	0.26	-1.67	0.89
478.80	-0.31	-0.27	-0.07	0.83	1.19	0.39
479.00	-0.40	-0.06	-0.04	0.00	0.03	-2.00

479.20	-0.42	-0.04	-0.01	-0.35	0.15	-1.87
479.40	-0.17	-0.26	-0.04	0.28	0.56	-1.78
479.60	-0.01	-0.44	-0.06	0.31	-0.11	-0.22
479.80	-0.39	-0.12	-0.02	0.28	-1.37	-0.26
480.00	-0.32	-0.30	-0.05	0.39	-0.25	-0.53
480.20	-0.35	-0.14	-0.06	0.76	-0.33	0.71
480.40	-0.48	0.11	-0.03	0.38	-0.81	-0.72
480.60	-0.20	-0.22	-0.04	1.15	1.27	1.32
480.80	-0.40	-0.04	-0.04	-0.17	-0.44	-0.25
481.00	-0.40	-0.14	-0.07	0.35	-2.42	0.37
481.20	-0.34	-0.30	-0.05	-1.10	0.59	-4.14
481.40	-0.55	-0.31	-0.07	0.31	-0.68	1.59
481.60	-0.27	-0.13	-0.03	1.05	-0.44	2.35
481.80	-0.57	-0.12	0.01	0.50	-0.48	1.03
482.00	-0.35	-0.28	-0.02	0.26	-0.72	-0.09
482.20	-0.51	-0.62	-0.06	0.08	0.37	-1.49
482.40	0.01	-0.71	0.02	0.42	0.52	1.92
482.60	-0.55	-0.35	-0.10	0.13	-0.58	-0.79
482.80	-0.29	-0.51	0.00	0.36	-0.23	-0.13
483.00	-0.35	-0.10	0.01	0.31	0.90	0.51
483.20	-0.42	-0.20	0.00	0.38	-0.24	0.34
483.40	-0.32	-0.30	-0.03	0.29	3.81	-1.52
483.60	-0.24	-0.37	-0.03	0.73	-0.11	0.90
483.80	-0.44	-0.28	-0.08	1.05	-1.17	-0.19
484.00	-0.32	-0.31	-0.08	0.65	0.20	2.31
484.20	-0.12	-0.10	0.04	0.40	-1.53	1.73
484.40	-0.27	-0.20	0.01	0.01	-0.37	-1.10
484.60	-0.10	-0.65	-0.08	0.71	0.04	0.69
484.80	-0.10	-0.21	-0.02	0.47	-3.02	-0.34
485.00	-0.05	-0.07	0.02	0.24	2.59	0.62
485.20	-0.46	-0.39	-0.07	0.18	1.30	-1.42
485.40	-0.32	-0.42	0.02	-0.25	-1.39	-3.66
485.60	-0.19	-0.03	-0.01	0.86	-1.28	1.15
485.80	-0.41	-0.42	-0.07	0.64	-0.12	0.78
486.00	-0.31	-0.39	-0.02	0.48	0.01	0.04
486.20	-0.54	0.03	0.02	0.39	-0.39	-0.18
486.40	-0.34	-0.17	0.02	0.45	-0.15	-0.12
486.60	-0.36	-0.13	0.00	0.48	-0.15	0.27
486.80	-0.41	-0.51	-0.02	0.44	0.23	0.12
487.00	0.23	-0.50	-0.03	0.37	0.58	0.46
487.20	-0.43	-0.03	-0.04	0.34	-0.22	-0.03
487.40	-0.26	-0.16	0.02	0.23	-0.34	-0.98
487.60	-0.14	-0.41	0.01	0.23	-0.02	-0.17
487.80	-0.36	-0.04	0.03	1.03	0.19	2.01
488.00	-0.16	-0.18	-0.02	-0.23	-0.57	-2.24
488.20	-0.33	-0.21	-0.01	0.42	-2.04	1.34
488.40	-0.22	-0.18	-0.04	0.88	2.99	0.53
488.60	-0.20	-0.22	-0.04	0.41	2.31	-0.61
488.80	-0.22	-0.15	-0.07	0.27	-0.25	0.23
489.00	-0.21	-0.17	-0.06	0.31	0.02	-0.13

489.20	-0.17	-0.20	-0.08	0.13	-0.14	-0.60
489.40	-0.05	-0.15	-0.04	0.33	0.35	0.07
489.60	-0.05	-0.33	-0.04	0.29	-0.32	-0.37
489.80	0.17	-0.17	0.00	0.25	0.37	0.16
490.00	-0.18	-0.14	0.00	0.35	-0.15	-0.34
490.20	-0.09	-0.33	0.00	0.14	0.44	-0.49
490.40	-0.34	0.02	-0.03	0.28	0.19	0.08
490.60	-0.37	-0.12	0.01	0.38	0.72	0.09
490.80	-0.23	-0.30	0.00	0.43	0.15	2.72
491.00	-0.35	0.02	0.05	0.31	1.48	-0.47
491.20	-0.21	-0.25	-0.01	0.69	2.02	1.19
491.40	-0.37	-0.24	-0.05	0.29	0.10	1.03
491.60	-0.37	-0.27	-0.06	-0.18	1.02	-1.46
491.80	-0.10	-0.23	-0.06	0.75	-0.25	-1.93
492.00	-0.26	-0.06	-0.02	0.37	-1.37	-1.15
492.20	-0.15	-0.40	0.04	-0.33	-1.78	-1.13
492.40	0.12	-0.44	-0.03	0.31	-0.42	0.14
492.60	-0.36	0.18	0.04	0.23	0.45	0.36
492.80	-0.03	-0.02	-0.01	0.58	-0.51	1.70
493.00	-0.12	-0.29	-0.08	-0.12	-0.56	0.64
493.20	-0.28	-0.25	0.00	0.26	-2.28	-2.42
493.40	-0.23	-0.12	-0.06	-0.08	-0.90	-1.36
493.60	-0.14	-0.24	-0.04	0.22	0.52	-0.69
493.80	-0.36	-0.17	-0.05	-0.61	-0.57	-3.43
494.00	-0.16	-0.20	-0.06	0.19	1.03	0.33
494.20	-0.11	-0.16	-0.07	0.81	0.31	1.66
494.40	-0.19	-0.31	-0.12	0.84	-2.17	7.62
494.60	-0.05	-0.32	-0.05	0.24	-2.17	1.34
494.80	-0.15	-0.12	-0.07	0.49	4.33	0.70
495.00	-0.07	-0.16	-0.06	-0.29	0.01	-2.46
495.20	-0.28	-0.12	-0.06	-1.23	0.47	-5.93
495.40	-0.19	-0.08	-0.09	-0.98	1.84	-3.17
495.60	-0.19	-0.29	-0.09	0.47	-0.85	1.78
495.80	-0.15	0.03	-0.12	-0.90	1.33	-4.11
496.00	0.04	-0.30	-0.15	0.68	0.10	0.73
496.20	-0.02	-0.13	-0.10	0.14	0.58	-1.08
496.40	0.07	-0.17	-0.09	0.16	-0.74	-0.12
496.60	0.09	-0.21	-0.16	0.42	-0.17	0.39
496.80	-0.33	0.09	-0.12	0.59	0.54	-0.18
497.00	0.00	-0.13	-0.12	0.41	0.53	-0.21
497.20	0.09	-0.14	-0.12	0.23	-0.05	-0.54
497.40	-0.02	-0.17	-0.16	0.23	0.97	-1.20
497.60	-0.12	-0.01	-0.14	0.39	0.31	0.27
497.80	-0.07	-0.20	-0.15	0.23	-0.40	0.15
498.00	-0.15	-0.14	-0.14	0.55	1.17	0.08
498.20	-0.12	-0.38	-0.18	0.42	0.02	0.43
498.40	0.11	-0.08	-0.09	0.18	-0.06	-0.09
498.60	0.04	0.02	-0.13	0.37	-0.20	-0.22
498.80	0.07	-0.19	-0.17	0.22	1.00	1.00
499.00	-0.05	-0.19	-0.17	0.45	-0.49	0.96

499.20	0.15	-0.34	-0.13	0.33	-0.24	-0.39
499.40	-0.05	0.06	-0.14	0.30	-0.08	0.10
499.60	-0.08	-0.33	-0.11	0.36	0.34	0.48
499.80	-0.15	-0.01	-0.16	0.19	-0.56	-0.21
500.00	0.14	-0.24	-0.15	0.42	-0.40	-0.69
500.20	-0.07	-0.27	-0.17	0.39	3.82	-0.38
500.40	0.11	-0.10	-0.14	0.37	-1.28	2.65
500.60	-0.76	0.01	-0.16	0.19	-0.23	0.35
500.80	-0.13	-0.01	-0.10	0.22	-2.35	-1.28
501.00	0.05	-0.31	-0.16	-0.35	-0.09	-1.63
501.20	0.09	-0.05	-0.18	0.21	1.96	1.67
501.40	-0.17	-0.24	-0.15	0.80	0.05	0.66
501.60	0.11	-0.31	-0.16	1.47	1.88	4.33
501.80	-0.01	-0.31	-0.16	-0.06	-0.55	-0.48
502.00	0.08	-0.18	-0.17	0.25	0.00	-0.03
502.20	0.06	-0.12	-0.14	0.26	-0.38	-0.01
502.40	0.09	-0.14	-0.14	0.31	0.13	-0.01
502.60	0.37	-0.25	-0.12	0.37	0.06	0.21
502.80	0.12	-0.13	-0.14	0.29	-0.04	0.15
503.00	0.08	-0.27	-0.17	0.28	-0.06	0.14
503.20	0.13	-0.32	-0.15	0.27	0.15	0.29
503.40	0.14	-0.11	-0.17	0.25	0.06	0.11
503.60	0.11	-0.25	-0.18	0.22	0.03	-0.09
503.80	0.19	-0.10	-0.17	0.26	-0.06	0.13
504.00	-0.03	-0.09	-0.16	0.25	0.10	0.27
504.20	-0.15	0.15	-0.11	0.14	0.33	0.05
504.40	0.13	0.00	-0.10	0.23	-0.30	0.39
504.60	0.35	-0.13	-0.13	0.19	-0.50	0.15
504.80	0.31	-0.25	-0.19	0.22	0.97	-0.07
505.00	0.18	-0.35	-0.17	0.14	-0.65	-0.02
505.20	-0.13	-0.22	-0.11	0.23	0.07	0.29
505.40	0.17	-0.41	-0.11	0.21	-0.81	0.27
505.60	-0.08	-0.35	-0.18	0.15	0.05	0.28
505.80	0.09	-0.41	-0.17	0.18	0.10	0.25
506.00	-0.04	-0.30	-0.06	0.38	0.38	0.45
506.20	0.04	-0.25	-0.14	0.24	-0.28	0.92
506.40	0.34	-0.51	-0.12	0.42	-0.19	0.30
506.60	0.36	-0.35	-0.05	0.29	-0.06	0.03
506.80	0.01	-0.17	-0.09	0.36	-0.13	0.43
507.00	0.14	-0.09	-0.09	0.30	0.00	0.32
507.20	0.29	-0.36	-0.10	0.16	0.07	-0.05
507.40	0.29	-0.53	-0.11	0.19	-0.25	-0.12
507.60	0.18	-0.43	-0.12	0.07	-0.41	-0.12
507.80	0.22	-0.24	-0.08	0.33	0.11	1.02
508.00	0.11	-0.05	-0.04	0.38	-0.88	1.41
508.20	0.25	-0.03	-0.03	0.11	-0.28	0.04
508.40	0.42	-0.19	-0.10	-0.02	0.08	0.27
508.60	0.29	-0.45	-0.06	0.09	1.22	-0.16
508.80	0.13	-0.14	-0.06	0.05	-0.09	1.24
509.00	0.26	-0.16	-0.07	0.04	0.54	0.31

509.20	0.62	0.41	-0.07	-0.01	-2.56	-1.97
509.40	0.37	-0.56	-0.05	-0.15	2.13	1.42
509.60	0.34	-0.40	-0.08	0.28	-0.17	0.30
509.80	0.27	0.01	-0.03	0.89	0.69	2.43
510.00	0.14	-0.35	-0.09	0.26	-0.49	0.45
510.20	0.04	-0.42	-0.08	0.58	-1.71	1.04
510.40	0.48	-0.24	-0.05	-0.30	2.07	0.75
510.60	0.41	-0.35	-0.05	0.20	0.20	1.02
510.80	0.34	-0.17	-0.09	0.04	-0.73	0.86
511.00	0.61	-0.31	-0.10	0.00	-1.68	-0.04
511.20	0.32	-0.31	-0.03	0.07	-2.45	-1.97
511.40	0.49	-0.31	-0.04	0.03	-0.27	-0.07
511.60	0.40	-0.39	-0.05	0.05	-1.84	-0.37
511.80	0.45	-0.35	-0.06	0.05	-1.29	0.88
512.00	0.23	-0.33	-0.03	0.29	1.66	-0.71
512.20	0.31	-0.30	-0.02	0.76	0.22	2.53
512.40	0.40	-0.40	-0.01	-0.17	1.42	-0.10
512.60	0.58	-0.28	-0.02	0.43	0.46	1.76
512.80	0.17	-0.20	-0.01	-0.25	3.12	0.57
513.00	0.46	-0.13	-0.01	-0.03	1.88	1.20
513.20	0.41	-0.28	0.05	0.00	0.08	-0.43
513.40	0.30	-0.32	0.01	0.26	-0.33	1.14
513.60	0.19	-0.42	0.04	-0.46	0.98	0.42
513.80	0.26	-0.55	0.05	0.17	-2.64	-1.04
514.00	0.75	-0.15	-0.02	-0.37	-0.01	-1.12
514.20	0.70	-0.46	0.01	-0.23	-1.37	1.61
514.40	0.23	-0.15	0.04	-0.01	0.66	0.77
514.60	0.35	-0.28	-0.02	0.09	-3.66	-2.09
514.80	0.38	-0.70	0.00	-0.23	-1.73	1.13
515.00	0.31	-0.77	-0.04	-0.01	-0.58	-0.07
515.20	0.35	-0.55	0.01	-0.37	-0.07	-1.14
515.40	0.35	-0.55	-0.02	0.22	1.02	0.15
515.60	0.48	-0.49	-0.02	-0.15	-0.50	-0.34
515.80	0.67	-0.63	0.08	-0.38	-0.37	-1.55
516.00	0.25	-0.31	0.06	0.00	0.49	1.03
516.20	0.36	-0.36	0.05	0.25	-0.54	0.55
516.40	0.31	-0.43	0.06	0.04	-0.77	1.89
516.60	0.37	-0.51	0.08	-0.14	-2.36	-0.73
516.80	0.44	-0.68	0.05	-0.42	0.48	-1.98
517.00	0.32	-0.40	0.09	0.41	0.93	1.68
517.20	0.09	-0.14	0.14	-0.08	-0.25	0.21
517.40	0.20	-1.02	0.08	0.26	-1.76	-0.25
517.60	0.29	-0.52	0.11	-0.27	-2.34	-0.15
517.80	0.24	-0.42	0.09	-0.12	-2.62	0.87
518.00	0.17	-0.75	0.05	-0.12	-2.27	0.27
518.20	0.37	-0.73	0.07	-0.08	1.37	-0.93
518.40	0.35	-0.76	0.08	-0.18	-0.21	-0.67
518.60	0.13	-0.74	0.11	0.13	1.83	-0.36
518.80	0.38	-0.47	0.12	-0.23	0.80	-0.73
519.00	0.18	-0.55	0.15	-0.09	-0.36	0.26

519.20	0.34	-0.69	0.11	-0.13	0.59	-0.03
519.40	0.69	-0.99	0.13	-0.17	-0.76	-0.09
519.60	0.26	-0.69	0.15	-0.13	0.25	-0.38
519.80	0.28	-0.66	0.18	-0.13	-0.36	-0.08
520.00	0.43	-0.68	0.18	-0.13	0.16	-0.07
520.20	0.21	-0.57	0.13	-0.08	0.72	0.06
520.40	0.24	-0.70	0.12	-0.08	-0.01	-0.07
520.60	0.19	-0.76	0.06	-0.09	0.21	-0.14
520.80	0.29	-0.60	0.06	-0.07	0.15	0.35
521.00	0.27	-0.79	0.05	-0.13	0.17	-0.10
521.20	0.33	-0.74	0.01	-0.12	0.01	-0.12
521.40	0.33	-0.63	0.00	0.05	0.04	0.73
521.60	0.26	-0.51	0.01	-0.34	0.17	-0.70
521.80	0.29	-0.69	-0.08	-0.20	0.26	-0.24
522.00	0.40	-0.66	-0.06	-0.17	0.11	-0.20
522.20	0.17	-0.57	-0.07	-0.33	0.24	-0.56
522.40	0.35	-0.70	-0.07	-0.49	-0.02	-0.75
522.60	0.33	-0.52	-0.09	-0.06	-0.37	0.12
522.80	0.10	-0.62	-0.11	-0.19	-1.45	1.66
523.00	0.18	-0.77	-0.15	-0.14	0.87	0.97
523.20	0.43	-0.70	-0.12	-0.25	3.03	0.64
523.40	0.16	-0.88	-0.21	-0.19	3.30	-1.42
523.60	0.30	-0.89	-0.07	0.06	1.80	0.19
523.80	0.19	-0.76	-0.05	-0.66	1.59	-0.07
524.00	0.72	-0.94	-0.02	-0.29	-3.30	-1.22
524.20	0.25	-0.87	0.02	-0.51	-0.55	-0.39
524.40	0.42	-0.92	0.01	-0.82	3.37	-1.11
524.60	0.35	-0.75	0.06	0.05	-0.70	0.15
524.80	0.34	-0.72	0.06	0.10	-0.45	-0.58
525.00	0.22	-0.59	0.07	-0.52	0.40	-1.89
525.20	0.49	-0.61	0.09	-0.05	1.83	-1.35
525.40	0.24	-0.76	0.03	-0.31	-0.75	0.08
525.60	0.26	-0.57	0.07	0.02	1.63	-0.68
525.80	0.26	-0.67	0.02	-0.18	0.01	-0.50
526.00	0.06	-0.83	0.01	0.22	1.14	0.23
526.20	0.11	-0.82	0.03	-0.40	0.84	-1.34
526.40	0.37	-0.82	0.02	0.34	-1.18	2.36
526.60	0.23	-0.81	-0.01	-0.13	-2.74	1.91
526.80	0.46	-0.63	0.05	-0.28	0.54	-1.37
527.00	0.24	-0.85	-0.01	0.11	-0.37	0.01
527.20	0.48	-0.97	0.05	-0.10	0.15	-0.37
527.40	0.79	-0.48	-0.06	0.15	-1.04	-0.29
527.60	0.42	-0.77	-0.03	0.09	-0.49	2.08
527.80	0.95	-0.61	-0.02	-1.18	-2.32	-2.99
528.00	0.60	-0.60	-0.04	-0.04	-1.48	1.82
528.20	0.46	-0.86	-0.11	-0.85	-4.70	-1.07
528.40	0.38	-0.80	-0.06	-1.20	-1.12	-3.61
528.60	0.24	-0.73	-0.04	-0.02	1.54	-0.22
528.80	0.74	-0.82	-0.10	-0.01	-1.88	-0.16
529.00	0.18	-1.06	-0.09	-0.54	1.09	-2.49

529.20	0.68	-0.77	-0.06	0.32	0.64	0.33
529.40	0.51	-0.86	-0.14	0.52	1.75	-0.56
529.60	0.28	-0.80	-0.10	-0.14	-1.51	2.81
529.80	0.35	-0.76	-0.05	-0.20	-0.38	0.28
530.00	0.47	-0.98	-0.08	-0.35	-0.73	-0.84
530.20	0.51	-0.62	-0.06	-0.07	1.38	0.26
530.40	0.74	-0.42	-0.10	-0.17	-1.29	-0.89
530.60	0.57	-1.01	-0.09	-0.41	1.62	1.02
530.80	0.61	-0.70	-0.03	-0.13	3.17	-0.40
531.00	0.45	-1.09	0.03	-0.25	-0.09	1.47
531.20	0.55	-0.70	-0.05	0.05	0.70	-1.01
531.40	0.86	-0.52	-0.06	0.26	-2.22	-0.58
531.60	0.29	-0.67	-0.05	-0.24	-0.66	-0.49
531.80	0.32	-0.52	-0.05	-0.78	-3.69	-2.34
532.00	0.49	-0.71	-0.04	0.08	-0.20	0.48
532.20	0.10	-0.11	0.02	-0.22	-1.16	-1.11
532.40	0.51	-0.34	-0.04	0.04	0.17	0.82
532.60	0.68	-0.37	-0.01	-0.48	-2.48	-0.59
532.80	0.47	-0.41	0.00	-0.94	-0.87	-2.70
533.00	0.31	-0.45	-0.01	0.17	0.74	1.20
533.20	0.37	-0.56	-0.05	0.11	0.43	0.45
533.40	0.49	-0.52	-0.11	-0.33	-0.16	0.46
533.60	0.71	-0.79	-0.07	-0.16	-1.85	-0.90
533.80	0.53	-0.39	-0.08	-0.11	-1.32	-0.74
534.00	0.29	-0.71	-0.13	-0.16	-0.17	-0.65
534.20	0.47	-0.34	-0.09	-0.23	0.35	0.46
534.40	0.59	-0.05	-0.07	-0.34	0.24	-0.05
534.60	0.75	-0.15	0.03	-0.11	0.25	-0.12
534.80	0.40	-0.52	-0.09	-0.25	-0.08	-0.10
535.00	0.39	-0.30	-0.04	-0.15	-0.90	-0.75
535.20	0.31	-0.40	-0.09	-0.26	0.91	0.48
535.40	0.65	-0.32	-0.05	-0.28	-0.03	-0.17
535.60	0.27	-0.34	-0.10	0.01	0.49	0.09
535.80	0.20	-0.52	-0.06	1.01	0.55	4.40
536.00	0.71	-0.43	-0.04	-0.72	-1.57	-2.04
536.20	0.46	-0.27	-0.05	-0.19	0.24	0.35
536.40	0.45	-0.32	-0.07	-0.40	-2.79	-0.98
536.60	0.36	0.01	-0.03	-0.86	2.38	-2.09
536.80	0.31	-0.18	-0.02	-0.66	0.50	-1.92
537.00	0.52	-0.08	-0.05	-0.07	-1.67	2.64
537.20	0.47	-0.20	-0.02	-0.66	1.73	-1.13
537.40	0.59	-0.25	-0.05	0.57	2.34	1.32
537.60	0.30	0.03	-0.02	0.06	0.05	-0.47
537.80	0.48	-0.27	-0.08	0.72	0.80	4.33
538.00	0.88	-0.49	-0.09	-0.45	0.90	-2.28
538.20	0.14	-0.15	-0.09	-0.15	1.37	1.21
538.40	0.52	-0.13	-0.09	0.88	2.07	1.13
538.60	0.73	-0.35	-0.10	0.78	0.55	1.08
538.80	0.54	-0.17	-0.05	-1.22	0.50	-2.22
539.00	0.78	-0.46	-0.08	0.15	-2.40	-0.24

539.20	0.58	-0.13	-0.09	-0.54	-4.53	-3.66
539.40	0.81	-0.49	-0.04	-0.41	-0.42	2.10
539.60	0.67	-0.23	-0.09	0.19	-2.97	2.87
539.80	0.69	-0.40	-0.07	-0.11	2.03	-0.48
540.00	-0.14	-0.07	-0.05	-0.95	-0.29	-1.15
540.20	0.67	-0.13	-0.05	-0.73	0.15	-0.72
540.40	0.58	-0.20	-0.02	-0.10	4.27	0.17
540.60	0.67	-0.35	-0.11	-0.36	0.04	-1.35
540.80	0.53	-0.11	-0.06	0.11	0.27	0.39
541.00	-0.01	-0.35	0.05	-0.33	0.07	-0.79
541.20	0.50	0.30	-0.05	-0.31	-2.79	-0.98
541.40	0.43	0.04	-0.08	-0.23	-0.61	0.15
541.60	0.47	0.21	-0.01	-0.28	0.12	0.19
541.80	0.29	-0.05	-0.12	-0.35	-0.19	-0.42
542.00	0.48	0.08	-0.03	-0.36	0.08	-0.21
542.20	0.60	-0.02	-0.08	-0.31	-0.02	0.40
542.40	0.62	-0.16	-0.04	-0.41	-0.25	-0.06
542.60	0.61	-0.08	-0.09	-0.28	-0.08	0.35
542.80	0.52	-0.20	-0.10	-0.29	0.18	0.16
543.00	0.45	0.24	0.00	-0.31	-0.22	-0.22
543.20	0.69	-0.24	-0.08	-0.32	-0.07	0.21
543.40	0.70	-0.04	-0.03	-0.29	-1.30	0.26
543.60	0.70	-0.06	-0.03	0.00	1.39	1.38
543.80	0.73	0.42	0.01	-0.60	-0.56	-1.71
544.00	0.74	-0.18	0.01	0.00	1.20	-0.30
544.20	0.68	-0.28	0.01	-0.37	1.16	2.30
544.40	0.68	-0.09	-0.02	-0.52	-2.45	-0.19
544.60	0.46	0.07	0.02	-0.45	0.39	1.84
544.80	0.60	-0.05	0.06	-0.09	0.98	0.09
545.00	0.64	-0.02	0.03	-0.36	0.41	-0.27
545.20	0.64	0.05	0.00	-0.41	-0.02	0.00
545.40	0.65	0.02	0.00	-0.43	1.51	-0.55
545.60	0.68	0.09	0.06	-1.04	0.80	0.02
545.80	0.48	0.18	0.05	-0.66	0.72	0.49
546.00	0.71	0.12	-0.01	0.06	0.07	2.83
546.20	0.46	0.12	-0.01	-0.01	2.97	1.64
546.40	0.67	0.10	0.06	-0.44	-1.63	-2.91
546.60	0.51	0.04	0.04	0.55	-2.70	0.42
546.80	0.47	-0.09	0.04	-0.17	0.35	1.31
547.00	0.75	0.09	0.05	-0.74	-1.33	-1.76
547.20	0.63	0.10	0.00	-0.42	2.79	1.46
547.40	0.61	0.05	0.02	-0.32	-0.91	0.44
547.60	0.69	0.28	0.05	-0.85	-0.31	-3.25
547.80	0.74	0.22	0.08	0.61	-0.40	0.27
548.00	0.62	0.09	0.05	0.19	1.20	1.42
548.20	0.72	-0.05	-0.02	0.79	1.64	2.72
548.40	0.56	0.35	0.01	0.02	0.94	-1.02
548.60	0.51	-0.07	0.00	-0.19	-1.04	-0.26
548.80	0.62	-0.04	0.06	-0.79	1.66	0.04
549.00	1.13	0.28	-0.02	-0.35	0.17	0.25

549.20	0.74	0.39	0.00	-0.40	-0.63	0.20
549.40	0.84	-0.17	-0.01	-0.34	0.56	0.46
549.60	0.79	0.33	0.02	-0.39	-0.38	-0.01
549.80	0.65	0.20	0.04	-0.37	-0.66	-0.27
550.00	0.76	-0.10	-0.02	-0.36	-0.21	0.17
550.20	0.18	0.50	0.08	-0.31	0.34	-0.04
550.40	0.52	-0.21	0.05	-0.27	-0.62	0.12
550.60	0.48	-0.06	0.05	-0.48	-0.35	0.99
550.80	0.20	0.03	-0.01	-0.22	-1.82	-1.25
551.00	0.62	-0.06	-0.01	-0.43	1.57	0.51
551.20	0.88	0.16	0.09	-0.26	-0.11	-0.09
551.40	0.22	0.18	0.02	-0.31	-0.54	0.01
551.60	0.60	0.06	0.05	-0.30	0.57	0.07
551.80	0.64	0.20	0.04	-0.37	0.13	0.18
552.00	0.71	0.15	0.02	-0.33	-0.05	-0.35
552.20	0.55	0.06	-0.01	-0.14	1.10	0.12
552.40	0.52	0.06	0.04	-0.18	-0.75	0.83
552.60	0.36	0.35	0.00	-0.51	0.73	-0.53
552.80	0.41	-0.12	0.07	-0.53	-2.64	-2.73
553.00	0.57	0.10	0.02	0.06	-0.14	1.47
553.20	0.55	0.21	0.02	-0.21	1.24	-1.40
553.40	0.71	-0.10	-0.01	-0.11	3.02	0.25
553.60	0.35	-0.09	0.02	-0.66	0.38	-1.31
553.80	0.51	-0.12	-0.01	-0.22	-1.31	-0.47
554.00	0.31	0.11	0.07	-0.29	1.19	0.77
554.20	0.52	0.26	0.01	-0.29	0.00	-0.44
554.40	0.57	0.04	0.04	-0.18	1.09	-0.19
554.60	0.89	-0.10	0.01	-0.24	-0.21	0.22
554.80	1.06	0.35	0.08	-0.46	0.03	-0.27
555.00	0.51	0.08	0.05	-0.25	-1.49	-0.73
555.20	0.77	-0.04	0.02	-0.12	-2.06	-1.43
555.40	0.47	0.22	0.04	-0.19	-3.35	-1.95
555.60	0.78	0.11	0.06	-0.17	-0.84	-1.01
555.80	0.65	0.08	0.00	-0.43	-1.71	-1.32
556.00	0.61	-0.23	0.03	0.13	1.39	-1.68
556.20	0.76	0.18	0.02	0.49	2.33	1.94
556.40	0.82	0.34	0.00	0.03	0.34	0.29
556.60	0.79	-0.01	0.01	-0.36	-0.83	-0.83
556.80	0.49	-0.25	0.04	-0.34	-0.55	-0.50
557.00	0.74	0.16	0.04	-0.27	0.41	0.07
557.20	0.78	0.10	0.04	-0.25	0.01	0.22
557.40	0.74	0.03	0.05	-0.34	0.10	0.20
557.60	0.63	0.15	0.03	-0.35	-0.32	0.02
557.80	0.76	-0.13	0.01	-0.35	-0.19	-0.22
558.00	0.64	0.04	0.07	-0.41	-0.22	-0.20
558.20	0.84	-0.08	0.04	-0.18	-0.23	0.40
558.40	0.79	0.00	0.05	0.02	0.18	0.97
558.60	0.60	0.02	0.05	-0.19	0.49	0.09
558.80	0.90	0.21	0.04	-0.40	-0.84	-2.98
559.00	0.61	0.01	0.05	-1.07	-0.22	-2.11

559.20	0.48	0.16	0.04	-0.31	-1.59	-3.05
559.40	0.85	-0.16	-0.01	-0.69	2.06	-0.29
559.60	0.78	0.17	0.09	-0.04	-2.63	0.51
559.80	0.65	-0.07	0.06	-0.38	0.44	0.15
560.00	0.62	0.07	0.07	-0.19	-1.04	0.22
560.20	0.65	0.25	0.06	-0.16	-1.01	0.10
560.40	0.51	-0.17	-0.01	0.12	1.71	1.45
560.60	0.69	0.12	0.07	0.13	4.43	-0.34
560.80	0.41	0.11	-0.01	0.47	4.40	0.01
561.00	0.62	-0.03	0.04	-0.30	-3.57	0.71
561.20	0.65	0.00	0.06	-0.04	-1.29	1.64
561.40	0.73	0.08	-0.01	-0.14	0.59	1.88
561.60	0.52	-0.02	-0.03	-0.62	3.39	-2.90
561.80	0.37	0.01	0.04	-1.05	-3.71	-2.50
562.00	0.91	-0.09	0.03	-0.31	1.99	1.51
562.20	0.48	-0.07	-0.01	-0.44	1.78	-0.01
562.40	0.17	0.54	0.06	-0.44	2.95	-0.94
562.60	0.42	0.27	0.05	-1.04	-3.24	-0.73
562.80	0.34	0.15	0.03	0.44	0.32	1.22
563.00	0.94	0.02	0.04	-0.41	-0.22	0.41
563.20	0.68	0.23	0.03	-0.47	0.28	-0.45
563.40	0.47	0.27	0.01	-0.47	0.02	-0.13
563.60	0.80	-0.21	0.00	-0.47	0.26	-0.13
563.80	0.86	-0.20	0.02	-0.40	-0.05	0.25
564.00	0.84	0.36	0.00	-0.38	0.07	0.34
564.20	0.47	-0.12	0.03	-0.39	-0.54	-0.51
564.40	0.90	0.24	0.02	-0.16	0.57	0.01
564.60	0.52	0.00	-0.02	-1.06	-0.09	-2.60
564.80	0.69	0.19	0.05	-0.50	4.41	-3.59
565.00	0.64	-0.02	0.00	-0.46	0.10	-0.37
565.20	0.60	-0.11	-0.06	0.15	2.85	1.63
565.40	0.95	-0.41	-0.06	0.17	-0.19	1.46
565.60	0.66	0.13	-0.03	0.43	3.37	-0.27
565.80	0.32	0.31	-0.03	0.01	-1.56	-2.82
566.00	0.42	0.04	0.00	-0.20	1.05	-2.10
566.20	0.66	-0.29	-0.04	-0.84	0.56	-0.68
566.40	0.83	-0.24	-0.04	-0.02	0.24	-0.12
566.60	0.69	-0.05	-0.04	-0.08	2.69	0.05
566.80	0.27	0.23	0.01	0.52	0.96	4.29
567.00	0.52	-0.19	-0.06	0.34	-0.17	3.17
567.20	0.62	-0.19	-0.05	-0.24	-0.76	1.23
567.40	0.52	-0.15	-0.06	-0.21	-2.19	-0.97
567.60	0.61	0.02	-0.07	-0.04	1.13	-1.47
567.80	0.68	-0.05	-0.08	0.02	3.08	0.39
568.00	0.58	-0.13	-0.07	0.08	-1.32	1.14
568.20	0.60	0.04	-0.08	-0.48	1.72	-0.34
568.40	0.47	0.18	-0.03	0.54	4.86	-0.60
568.60	0.52	0.11	-0.05	-0.04	0.26	-0.42
568.80	0.49	-0.10	-0.05	-0.52	0.39	-1.67
569.00	0.75	-0.14	-0.02	0.00	2.14	0.11

569.20	0.57	-0.19	-0.06	-0.33	-2.16	-2.62
569.40	0.63	0.04	-0.03	-0.72	1.27	-0.44
569.60	0.89	-0.32	-0.03	-0.04	-0.50	0.97
569.80	0.47	0.08	-0.07	-0.05	0.61	0.29
570.00	0.47	0.01	-0.03	-0.42	0.51	0.19
570.20	0.51	0.35	0.00	-0.56	1.01	0.40
570.40	0.40	0.06	0.01	-0.32	-1.13	0.15
570.60	0.54	0.10	-0.04	0.14	0.01	1.16
570.80	0.58	-0.05	-0.09	-0.40	0.94	-1.04
571.00	0.47	0.03	-0.08	-0.52	-1.47	-0.62
571.20	0.35	0.18	-0.04	-0.28	-0.58	-1.36
571.40	0.36	-0.04	-0.06	-0.35	-0.38	-1.95
571.60	0.51	-0.04	-0.02	-0.23	3.27	-2.92
571.80	0.48	-0.06	-0.05	0.57	-0.23	2.56
572.00	0.62	-0.10	-0.06	-0.21	0.11	0.37
572.20	0.51	-0.13	-0.06	-0.24	-0.15	-0.53
572.40	0.38	-0.09	-0.07	-0.16	0.46	-0.93
572.60	0.31	-0.27	-0.05	-0.41	-2.41	1.62
572.80	0.55	-0.18	-0.06	-0.26	-0.87	0.57
573.00	0.45	0.11	-0.06	-0.05	4.04	-2.32
573.20	0.40	-0.02	-0.10	0.01	0.66	0.31
573.40	0.37	0.16	-0.08	-0.41	-0.82	-0.01
573.60	0.58	-0.14	-0.04	-0.47	0.71	-1.23
573.80	0.56	-0.03	-0.09	0.26	-1.67	1.70
574.00	0.36	0.12	-0.01	-0.62	-2.16	0.75
574.20	0.42	0.20	-0.05	0.09	1.55	2.41
574.40	0.46	0.22	-0.02	1.23	0.96	4.22
574.60	0.42	0.04	-0.12	-0.44	-5.30	-2.27
574.80	0.52	0.05	-0.10	0.08	1.76	3.49
575.00	0.47	0.11	-0.09	-0.14	0.94	-1.61
575.20	0.77	0.14	-0.08	-0.54	2.32	-2.81
575.40	0.32	0.26	-0.01	-0.33	0.59	0.01
575.60	0.36	-0.18	-0.03	-0.55	-0.77	0.11
575.80	0.37	-0.06	-0.10	0.12	0.87	1.50
576.00	0.36	0.22	0.01	-0.50	4.94	1.00
576.20	0.71	-0.12	-0.05	-0.78	0.52	-2.31
576.40	0.35	0.26	-0.02	-0.40	0.02	-1.44
576.60	0.30	-0.12	-0.05	-0.07	-1.45	-0.69
576.80	0.41	-0.04	-0.06	-0.46	2.22	-0.40
577.00	0.51	-0.27	-0.07	0.62	-0.92	-0.96
577.20	0.93	-0.08	-0.08	0.13	0.28	-1.50
577.40	0.31	0.39	-0.15	-0.11	0.00	-0.71
577.60	0.59	0.00	-0.07	-0.28	0.17	-0.48
577.80	0.48	0.54	0.06	-0.33	0.19	0.04
578.00	0.31	-0.09	-0.06	-0.14	0.14	0.06
578.20	0.69	-0.38	-0.07	-0.27	-0.19	-0.01
578.40	0.50	-0.12	-0.03	-0.27	0.69	0.62
578.60	0.47	-0.01	0.03	-0.39	0.10	-0.62
578.80	0.40	0.29	-0.01	-0.53	-0.03	-0.78
579.00	0.40	-0.02	-0.07	-0.19	0.21	-0.09

579.20	0.30	0.18	0.00	-0.44	0.06	-0.50
579.40	0.41	0.28	-0.05	-0.15	-0.63	0.44
579.60	0.42	0.19	-0.07	-0.14	2.45	-0.83
579.80	0.40	0.05	0.02	-0.19	-0.44	0.26
580.00	0.68	0.11	0.01	-0.09	-1.14	-0.40
580.20	0.40	0.26	0.00	-0.30	0.25	0.32
580.40	0.46	0.04	-0.05	0.00	0.29	-1.58
580.60	0.11	0.17	-0.02	-0.14	0.62	0.11
580.80	0.33	-0.06	-0.06	0.21	0.95	-0.36
581.00	0.33	0.25	0.00	0.12	0.13	0.30
581.20	0.20	0.00	-0.04	-0.92	1.43	-2.82
581.40	0.24	0.28	-0.01	-1.01	-0.24	-4.09
581.60	0.21	0.28	-0.05	-0.65	-1.06	-2.70
581.80	0.39	0.01	-0.04	0.42	-0.17	2.91
582.00	0.42	0.10	-0.04	0.09	1.37	1.09
582.20	0.40	0.06	-0.03	-0.15	-2.88	0.87
582.40	0.39	0.22	-0.06	-0.21	-1.69	0.36
582.60	0.15	-0.15	-0.07	0.32	-0.08	1.64
582.80	0.39	-0.34	-0.09	0.00	1.20	0.06
583.00	0.13	0.37	0.02	0.95	-0.94	1.98
583.20	0.40	0.41	0.02	-0.66	0.64	-1.01
583.40	0.33	0.14	0.02	-0.18	-1.15	-0.88
583.60	0.35	0.12	-0.02	-0.06	-0.57	0.27
583.80	0.38	-0.02	-0.05	-0.01	0.66	0.09
584.00	0.29	-0.06	-0.02	0.10	3.03	3.37
584.20	0.55	0.19	-0.02	-0.07	0.09	0.75
584.40	0.55	-0.20	-0.08	-0.11	0.16	0.34
584.60	0.29	0.31	-0.02	-0.24	-2.28	-0.39
584.80	0.48	-0.15	0.00	-0.60	0.14	-2.24
585.00	0.05	0.25	0.03	-0.33	-0.72	-2.87
585.20	0.93	-0.25	0.04	0.59	-1.15	1.52
585.40	0.24	0.56	0.02	0.22	0.54	0.03
585.60	0.05	-0.02	-0.11	0.39	-3.26	-0.11
585.80	0.53	-0.30	0.01	-0.10	-2.87	-2.11
586.00	0.30	0.17	0.04	-0.35	-1.22	0.77
586.20	0.60	0.15	0.01	0.76	-1.68	3.01
586.40	0.22	0.03	-0.02	-0.07	1.46	0.43
586.60	0.44	0.08	-0.06	0.69	1.37	0.17
586.80	0.57	-0.06	-0.01	0.20	0.57	-0.44
587.00	-0.10	-0.13	0.03	-0.03	-0.99	1.62
587.20	0.36	-0.01	0.01	-0.21	1.35	-0.51
587.40	0.34	-0.07	-0.04	-0.30	-2.21	-2.14
587.60	0.41	-0.01	0.01	-0.78	3.57	-0.36
587.80	0.41	-0.07	-0.04	-0.53	1.74	-2.93
588.00	0.41	-0.20	-0.05	0.30	2.82	2.48
588.20	0.35	-0.27	-0.03	0.32	0.71	-0.07
588.40	0.26	-0.09	-0.02	-0.03	1.94	3.04
588.60	0.20	0.14	-0.02	-0.23	-6.12	-1.08
588.80	0.15	-0.22	-0.08	0.31	1.11	-1.05
589.00	0.10	-0.05	-0.01	0.37	-0.40	-1.16

589.20	0.38	-0.10	-0.05	-0.03	-1.32	-1.80
589.40	0.25	0.09	0.01	0.34	-3.64	1.55
589.60	0.28	-0.13	-0.05	0.40	-1.66	-1.18
589.80	0.37	-0.06	-0.03	-0.47	-0.51	-3.56
590.00	0.13	0.04	-0.07	0.59	2.42	1.35
590.20	0.34	-0.12	-0.01	0.29	2.63	1.88
590.40	0.19	0.15	-0.03	0.72	1.02	2.01
590.60	0.42	-0.32	-0.01	0.17	2.72	0.75
590.80	0.29	-0.63	-0.05	0.74	-1.03	0.20
591.00	-0.22	0.34	0.10	-0.55	-0.59	-1.38
591.20	0.18	0.17	0.03	-0.40	-4.51	-3.20
591.40	0.35	-0.28	0.00	-0.03	-0.32	1.26
591.60	0.08	-0.17	-0.11	-0.15	0.06	-1.39
591.80	-0.06	-0.37	-0.03	0.13	1.05	1.51
592.00	0.48	-0.25	-0.08	-0.44	0.33	-0.34
592.20	0.94	0.02	0.05	-0.11	0.96	0.45
592.40	0.42	-0.02	-0.02	-0.39	1.23	0.41
592.60	0.55	-0.15	0.01	-0.16	0.18	0.18
592.80	0.54	-0.04	0.03	-0.31	0.43	-0.32
593.00	0.37	0.17	-0.05	-0.55	0.32	-0.78
593.20	0.51	0.12	-0.03	-0.25	-0.17	0.08
593.40	0.08	-0.23	0.01	-0.44	0.28	-0.89
593.60	0.17	-0.06	-0.05	0.31	-0.19	2.10
593.80	0.24	-0.18	-0.05	-0.97	-1.00	-3.04
594.00	0.28	0.00	-0.05	0.32	1.52	2.02
594.20	0.22	-0.15	-0.01	-0.69	-0.88	-2.84
594.40	-0.05	-0.16	-0.03	0.26	3.84	0.08
594.60	0.17	0.04	0.00	-0.39	1.22	-2.17
594.80	0.21	0.04	-0.03	0.71	0.19	-0.34
595.00	0.34	-0.28	-0.05	-1.46	-2.50	-5.08
595.20	0.36	-0.05	-0.08	-0.44	-1.54	1.30
595.40	0.15	0.17	-0.05	0.26	-0.34	2.95
595.60	0.36	0.09	0.00	-0.07	0.09	0.98
595.80	0.07	0.07	-0.01	-0.50	-1.00	1.07
596.00	0.47	0.09	-0.03	-0.08	0.50	-0.64
596.20	0.15	0.09	-0.02	-0.22	-0.23	1.31
596.40	0.31	-0.05	0.00	-0.32	-0.26	2.50
596.60	0.32	-0.23	-0.06	0.22	1.01	0.21
596.80	0.05	0.11	-0.01	-1.54	-0.35	-3.69
597.00	0.12	-0.17	-0.06	-0.07	0.22	-0.27
597.20	0.20	-0.08	-0.05	-0.32	-0.60	-0.36
597.40	0.12	0.16	-0.02	-0.32	-0.64	-0.73
597.60	0.24	-0.06	0.00	-0.28	0.65	-0.96
597.80	0.08	-0.05	-0.05	-0.50	0.40	-0.50
598.00	0.17	-0.11	-0.06	-0.59	1.02	-1.87
598.20	0.18	0.05	-0.04	-0.36	0.47	0.64
598.40	0.24	-0.17	-0.06	-0.62	0.34	-0.80
598.60	0.09	-0.06	-0.07	-0.61	0.48	-1.34
598.80	0.11	0.07	-0.03	-0.39	0.06	-0.46
599.00	0.09	-0.06	-0.05	-0.20	0.31	-0.13

599.20	0.22	-0.12	-0.12	-0.13	0.07	0.10
599.40	0.28	0.02	-0.06	-0.15	-0.27	0.47
599.60	0.17	0.11	-0.06	-0.25	0.09	-0.18
599.80	0.06	0.26	-0.06	-0.29	0.82	-0.56
600.00	-0.07	0.00	-0.10	-0.18	-0.73	0.35
600.20	0.03	0.11	-0.07	-0.12	0.83	-0.29
600.40	-0.10	0.27	-0.04	-0.33	0.44	-0.33
600.60	-0.25	0.27	-0.05	-0.02	0.26	-0.59
600.80	0.08	-0.08	-0.12	-0.46	-0.13	-0.90
601.00	0.06	0.30	-0.07	-0.06	1.98	-0.77
601.20	-0.04	0.33	-0.08	0.37	-1.44	0.23
601.40	0.00	0.00	-0.09	-0.47	1.41	-0.07
601.60	0.15	-0.13	-0.15	0.59	0.06	4.16
601.80	0.10	0.13	-0.11	-0.05	3.07	1.04
602.00	0.02	-0.15	-0.14	-0.29	-0.60	-0.06
602.20	-0.01	0.06	-0.13	-0.96	-2.59	-1.87
602.40	0.02	-0.05	-0.13	-0.09	-1.69	1.26
602.60	0.01	0.09	-0.14	0.05	-0.91	0.94
602.80	0.24	-0.02	-0.11	-0.19	2.25	-2.03
603.00	0.07	-0.08	-0.12	-0.92	-0.15	-2.74
603.20	-0.02	0.26	-0.10	-0.34	-0.77	-1.41
603.40	0.31	0.00	-0.14	0.39	1.27	0.42
603.60	0.05	0.01	-0.10	0.08	1.99	-0.57
603.80	-0.11	0.19	-0.07	-0.32	0.39	-1.09
604.00	0.08	0.03	-0.08	-0.29	1.88	-0.99
604.20	0.05	-0.09	-0.13	-0.04	1.17	-1.37
604.40	-0.10	0.05	-0.09	-0.36	4.52	-3.14
604.60	-0.08	0.16	-0.11	0.10	0.90	0.62
604.80	-0.03	0.04	-0.09	-0.05	0.16	0.01
605.00	-0.09	0.11	-0.15	0.37	-1.50	2.62
605.20	0.07	0.04	-0.11	-0.16	-1.91	-0.18
605.40	-0.03	0.13	-0.10	-0.18	-3.76	-2.82
605.60	-0.02	-0.03	-0.13	-0.77	-4.48	-3.05
605.80	0.09	0.13	-0.14	-0.56	1.41	0.50
606.00	-0.23	0.10	-0.10	-0.86	-2.74	0.26
606.20	-0.15	0.17	-0.11	-0.09	0.48	0.00
606.40	-0.19	0.05	-0.09	0.30	2.94	1.97
606.60	-0.19	0.18	-0.11	0.15	1.44	-3.86
606.80	-0.06	-0.04	-0.07	0.30	-2.58	0.96
607.00	-0.36	-0.27	-0.07	0.76	-0.31	1.33
607.20	-0.16	0.11	-0.13	0.11	-0.08	0.52
607.40	0.05	-0.32	-0.09	0.86	-4.58	2.12
607.60	-0.35	0.28	-0.09	-0.54	-1.56	-2.79
607.80	-0.03	-0.01	-0.07	-0.04	-0.69	-0.55
608.00	-0.43	0.00	-0.05	-0.06	-0.23	-0.30
608.20	-0.20	-0.04	-0.04	-0.13	-1.86	0.20
608.40	-0.05	-0.17	-0.04	0.06	0.04	-1.36
608.60	-0.43	0.08	-0.05	-0.01	0.94	1.07
608.80	-0.13	-0.07	-0.07	-0.08	2.43	-2.00
609.00	-0.19	0.00	-0.02	-0.07	0.13	-0.46

609.20	-0.12	0.03	-0.04	-0.21	3.02	-0.17
609.40	0.03	-0.10	-0.04	-0.67	-0.24	-0.99
609.60	-0.22	0.01	-0.04	-0.17	2.91	-1.04
609.80	-0.21	-0.17	-0.05	0.21	-0.53	0.92
610.00	-0.32	-0.23	-0.10	0.31	-0.58	-0.53
610.20	-0.33	0.15	-0.06	0.22	-0.68	-0.14
610.40	-0.18	0.01	-0.03	0.15	-0.19	-0.32
610.60	-0.19	0.19	-0.02	0.24	0.10	0.22
610.80	-0.33	-0.24	-0.07	0.13	-0.22	-0.10
611.00	-0.10	-0.07	-0.05	0.26	-0.99	-0.35
611.20	-0.44	-0.25	-0.02	0.11	0.53	0.17
611.40	-0.54	0.26	0.00	0.04	2.51	1.79
611.60	-0.52	-0.21	0.02	0.18	-1.18	-1.45
611.80	0.01	-0.02	-0.03	0.10	1.73	1.48
612.00	-0.11	-0.03	-0.10	0.16	-0.76	-1.24
612.20	-0.14	-0.08	0.01	-0.03	-1.41	-0.31
612.40	0.00	-0.23	-0.02	0.69	-1.03	2.28
612.60	-0.18	-0.18	-0.08	-0.42	-0.09	-1.33
612.80	-0.32	-0.06	-0.06	0.20	1.59	-1.11
613.00	-0.23	0.15	-0.10	-0.14	-0.49	-0.37
613.20	-0.31	-0.22	-0.07	0.43	1.07	0.67
613.40	-0.13	-0.23	-0.06	0.42	0.02	0.37
613.60	-0.25	-0.34	-0.02	0.29	-0.77	0.95
613.80	-0.37	0.03	-0.11	0.30	-0.22	-0.21
614.00	-0.28	-0.03	-0.05	0.82	-0.39	1.60
614.20	-0.21	-0.19	-0.08	0.07	1.01	-0.80
614.40	-0.26	-0.26	-0.09	0.39	-1.31	1.43
614.60	-0.22	0.05	-0.13	0.60	0.93	2.38
614.80	-0.66	-0.16	-0.06	0.56	0.90	-0.03
615.00	-0.28	0.01	-0.08	0.23	-1.94	0.15
615.20	-0.21	0.31	-0.05	-0.02	-0.02	-1.99
615.40	-0.53	0.33	-0.08	0.90	-2.12	3.11
615.60	-0.36	0.10	-0.08	0.30	-0.23	0.16
615.80	-0.35	-0.48	-0.09	0.16	-0.23	-0.47
616.00	-0.30	-0.09	-0.07	0.22	-0.14	-0.49
616.20	-0.26	0.03	-0.09	0.31	-0.50	-0.22
616.40	-0.22	-0.10	-0.10	0.44	0.35	-0.06
616.60	-0.32	0.03	-0.06	0.38	-0.16	-0.13
616.80	-0.26	-0.22	-0.10	0.35	-0.32	-0.05
617.00	-0.31	-0.17	-0.08	0.28	-0.09	0.05
617.20	-0.12	-0.15	-0.04	0.25	-0.80	-0.56
617.40	-0.15	-0.17	-0.04	0.52	-1.22	-0.53
617.60	0.08	-0.10	-0.03	0.03	2.34	-1.85
617.80	-0.33	0.26	-0.04	0.64	0.65	1.52
618.00	-0.18	-0.42	-0.09	-0.57	-0.23	-2.32
618.20	0.01	-0.09	-0.05	0.47	-2.87	-2.02
618.40	-0.33	-0.09	-0.02	-0.35	-0.51	-2.69
618.60	-0.49	-0.06	-0.06	-0.75	0.81	-1.74
618.80	-0.04	-0.26	-0.10	-0.68	0.26	-3.81
619.00	-0.30	-0.12	-0.05	0.22	-0.26	-0.58

619.20	-0.22	-0.05	-0.05	0.40	-0.41	0.02
619.40	-0.10	-0.18	-0.01	0.28	-0.34	-0.18
619.60	-0.31	-0.12	-0.07	0.36	-0.69	0.12
619.80	-0.32	-0.08	-0.05	0.29	-0.31	-0.08
620.00	-0.19	-0.03	-0.10	0.29	1.18	0.96
620.20	-0.51	-0.07	-0.09	0.13	0.11	-0.19
620.40	-0.25	-0.46	-0.07	0.29	0.38	-0.29
620.60	-0.06	-0.10	-0.08	0.26	0.13	0.63
620.80	-0.09	-0.26	-0.11	0.39	-0.92	-0.50
621.00	-0.30	-0.13	-0.03	0.00	0.53	1.85
621.20	-0.25	-0.06	-0.06	0.14	-1.74	0.31
621.40	-0.46	0.20	-0.10	0.41	-1.31	-1.16
621.60	-0.48	-0.22	-0.12	0.71	-2.02	-0.87
621.80	-0.33	-0.42	-0.15	0.32	-0.81	-0.78
622.00	-0.17	-0.22	-0.14	0.61	-2.54	3.64
622.20	-0.02	0.11	-0.07	0.17	-3.20	1.47
622.40	-0.18	-0.04	-0.07	0.43	0.79	1.71
622.60	-0.35	0.45	-0.09	1.19	-0.46	3.16
622.80	0.00	-0.08	-0.04	0.24	1.33	0.03
623.00	-0.15	-0.12	-0.13	-0.03	1.66	-1.00
623.20	-0.36	-0.11	-0.08	0.28	1.49	-0.48
623.40	-0.27	0.21	0.02	0.54	-0.87	-1.70
623.60	-0.55	-0.14	-0.05	0.26	-0.34	0.98
623.80	-0.05	-0.25	-0.10	0.50	-0.42	0.55
624.00	-0.65	0.02	-0.15	0.02	0.62	-0.31
624.20	-0.14	-0.05	-0.05	-0.34	0.42	-1.98
624.40	-0.36	0.02	-0.04	-0.22	-0.44	-1.59
624.60	-0.28	0.29	-0.01	-0.06	0.15	-1.25
624.80	0.04	-0.16	-0.10	0.22	-0.42	-0.19
625.00	-0.14	0.07	-0.12	0.16	0.35	-0.30
625.20	-0.24	0.08	-0.06	0.31	-0.13	-0.02
625.40	-0.20	0.00	-0.09	0.21	-0.19	0.01
625.60	-0.27	0.00	-0.08	0.09	1.90	3.08
625.80	-0.27	0.00	-0.12	0.96	-1.02	1.24
626.00	-0.49	0.12	-0.14	0.24	0.78	-1.95
626.20	-0.31	-0.04	-0.02	0.05	1.86	1.35
626.40	-0.29	-0.18	-0.09	-0.02	-1.00	-0.76
626.60	-0.62	0.10	-0.06	-0.14	1.76	-3.08
626.80	-0.46	-0.57	-0.04	0.70	0.42	0.11
627.00	-0.10	-0.14	-0.16	0.22	-1.52	1.57
627.20	-0.53	0.66	-0.03	0.28	0.18	0.16
627.40	0.05	0.13	-0.07	0.38	0.31	0.06
627.60	-0.24	0.04	-0.11	0.30	0.84	-1.18
627.80	-0.09	0.08	-0.05	0.19	-1.77	0.85
628.00	-0.44	0.06	-0.06	0.18	-1.29	-0.54
628.20	0.01	0.12	-0.13	0.28	0.50	1.03
628.40	-0.24	0.05	-0.08	0.30	0.44	-0.63
628.60	-0.36	-0.20	-0.06	0.41	0.39	0.76
628.80	-0.34	0.21	-0.07	0.29	-0.07	-0.44
629.00	-0.55	-0.15	-0.09	0.53	0.00	1.06

629.20	-0.05	-0.16	-0.07	0.07	-0.50	-0.35
629.40	-0.16	0.11	-0.08	0.07	0.30	-0.43
629.60	-0.34	-0.18	-0.05	0.03	-0.06	-1.21
629.80	-0.17	-0.52	-0.06	0.60	0.77	0.59
630.00	-0.03	-0.28	-0.09	-0.14	0.30	-1.57
630.20	-0.27	-0.28	-0.03	0.38	-0.99	-0.16
630.40	-0.45	0.01	-0.03	-0.04	-0.21	-1.26
630.60	-0.10	0.06	-0.05	0.33	0.21	-0.24
630.80	-0.38	-0.11	-0.03	0.25	-0.05	-0.12
631.00	0.06	-0.23	-0.06	0.36	-0.15	0.12
631.20	-0.16	0.03	-0.05	0.43	0.01	0.51
631.40	-0.48	0.23	0.00	0.25	-0.07	-0.18
631.60	-0.20	0.10	-0.03	0.29	-0.34	-0.10
631.80	-0.33	0.03	-0.07	0.31	-0.27	0.28
632.00	-0.90	0.13	-0.06	0.27	0.20	0.25
632.20	-0.17	-0.24	-0.10	0.43	-2.33	2.08
632.40	-0.39	0.04	-0.10	0.35	-0.17	0.61
632.60	-0.35	-0.18	-0.11	0.14	-0.86	-0.25
632.80	-0.16	-0.13	-0.07	0.24	1.18	0.39
633.00	-0.39	0.34	-0.04	0.40	-0.15	0.46
633.20	-0.14	-0.23	-0.09	0.42	0.05	0.24
633.40	-0.29	-0.08	-0.07	0.10	-0.83	0.16
633.60	-0.17	-0.01	-0.12	0.41	-1.70	1.58
633.80	-0.58	-0.11	-0.11	0.23	0.04	-1.21
634.00	-0.49	-0.19	-0.03	0.53	0.30	-0.36
634.20	-0.61	-0.41	-0.04	0.45	-0.92	-0.57
634.40	-0.07	-0.05	-0.02	0.38	2.83	2.84
634.60	-0.16	0.37	-0.07	0.07	0.35	-1.47
634.80	-0.21	-0.37	-0.09	0.22	-1.16	-0.03
635.00	-0.17	-0.24	-0.06	0.16	1.16	-1.44
635.20	-0.54	-0.05	-0.06	0.12	0.06	-0.62
635.40	-0.70	-0.34	-0.09	-0.42	-0.50	-2.16
635.60	-0.12	-0.43	-0.06	0.63	0.02	0.74
635.80	0.02	-0.39	-0.02	0.06	0.24	-1.11
636.00	-0.36	-0.60	-0.08	0.34	-0.05	-0.11
636.20	-0.43	-0.21	-0.02	0.28	-0.43	-0.08
636.40	-0.19	0.01	-0.02	0.29	-0.10	-0.28
636.60	-0.49	0.05	-0.02	0.32	-0.08	-0.22
636.80	-1.07	-0.18	-0.06	0.39	0.19	0.11
637.00	-0.24	-0.28	-0.07	0.35	0.39	-0.19
637.20	-0.34	-0.10	-0.03	0.39	0.20	0.23
637.40	-0.26	-0.16	-0.07	0.71	-0.92	0.68
637.60	-0.24	-0.14	0.00	0.65	1.53	0.40
637.80	-0.26	0.09	-0.04	-0.05	-2.42	-1.93
638.00	-0.28	-0.17	-0.03	0.05	-1.70	3.13
638.20	-0.35	-0.19	-0.04	0.65	0.89	2.79
638.40	-0.53	0.04	-0.07	0.02	-1.69	-2.85
638.60	-0.47	-0.25	-0.02	-0.92	-1.13	-2.98
638.80	-0.16	-0.07	-0.04	-0.18	-2.96	-2.41
639.00	-0.26	-0.24	-0.05	-0.66	2.83	-2.03

639.20	-0.34	-0.25	-0.01	0.06	-0.83	-0.57
639.40	-0.43	-0.11	-0.03	0.26	2.04	1.01
639.60	-0.34	-0.28	-0.07	0.32	-0.15	0.14
639.80	-0.24	-0.03	-0.03	0.36	0.13	-0.60
640.00	-0.12	0.00	-0.05	0.18	-1.41	0.49
640.20	-0.52	0.10	-0.06	0.88	-0.27	2.54
640.40	-0.44	-0.23	-0.06	0.34	0.33	0.01
640.60	-0.24	-0.36	-0.08	0.20	-0.23	-0.29
640.80	-0.18	-0.18	-0.03	0.11	-1.25	-0.05
641.00	-0.46	0.29	-0.05	0.58	1.10	-0.95
641.20	-0.10	0.00	0.04	0.57	0.87	-0.21
641.40	-0.56	0.10	0.00	0.07	-2.77	0.05
641.60	-0.24	-0.16	-0.08	0.04	0.16	0.29
641.80	-0.37	-0.26	-0.04	-0.09	-4.17	0.13
642.00	-0.31	-0.10	0.05	-0.12	0.65	-1.81
642.20	-0.34	-0.09	0.00	-0.15	-0.16	-0.98
642.40	-0.34	-0.01	0.00	-1.00	-0.14	-4.11
642.60	-0.01	-0.19	-0.03	-0.07	0.35	-1.46
642.80	-0.50	-0.17	-0.01	0.59	0.69	0.36
643.00	-0.56	0.17	-0.02	0.40	1.71	1.23
643.20	-0.33	0.03	0.02	-0.04	0.23	-1.10
643.40	-0.19	0.17	0.01	0.49	-0.21	0.82
643.60	-0.42	0.42	0.01	0.43	-0.10	0.43
643.80	-0.12	-0.23	0.01	0.60	-0.84	-0.49
644.00	-0.23	-0.21	0.01	0.63	1.18	0.09
644.20	-0.04	-0.54	-0.03	0.52	1.27	-0.17
644.40	-0.40	0.24	0.03	0.33	-0.65	0.77
644.60	-0.27	0.08	0.07	0.39	-0.26	-0.59
644.80	-0.09	-0.18	0.02	0.18	0.18	1.47
645.00	-0.31	-0.01	0.02	0.45	-3.98	2.45
645.20	-0.53	0.02	0.02	1.03	-0.16	1.96
645.40	-0.13	-0.09	0.00	0.60	-1.03	1.28
645.60	-0.12	-0.17	0.04	0.32	1.28	-0.49
645.80	-0.42	-0.36	-0.04	0.54	-1.21	0.63
646.00	0.09	-0.24	-0.02	0.48	0.94	-2.10
646.20	-0.55	0.22	0.05	0.51	4.94	4.50
646.40	-0.13	-0.03	-0.01	-0.18	0.75	-3.04
646.60	0.11	-0.18	-0.04	1.08	0.44	3.71
646.80	-0.45	-0.16	-0.05	-1.26	-3.54	-0.42
647.00	-0.48	0.07	0.03	0.23	2.53	-0.97
647.20	-0.34	0.13	0.00	-0.35	-0.66	-1.39
647.40	-0.38	0.07	0.00	0.34	-2.58	0.97
647.60	-0.42	-0.02	-0.03	0.27	-0.93	-1.09
647.80	-0.09	-0.37	-0.03	0.55	1.02	1.76
648.00	-0.45	-0.30	0.01	0.43	-0.23	-0.36
648.20	-0.27	-0.14	-0.04	0.44	0.07	0.11
648.40	-0.44	-0.16	-0.02	0.45	-0.17	0.08
648.60	-0.38	-0.05	-0.06	0.46	0.10	0.46
648.80	-0.41	-0.14	-0.04	0.36	-0.12	0.07
649.00	-0.37	0.00	0.00	0.33	-0.25	-0.13

649.20	-0.56	0.10	-0.08	0.35	1.01	0.13
649.40	-0.66	0.17	0.00	0.28	0.40	-0.04
649.60	-0.72	-0.11	-0.07	0.26	-0.29	0.93
649.80	-0.50	0.34	-0.04	0.48	0.20	-0.13
650.00	-0.12	0.24	-0.01	0.24	0.05	-0.52
650.20	-0.38	0.23	-0.09	0.37	-0.13	-0.14
650.40	-0.36	-0.15	-0.04	0.42	-0.79	0.45
650.60	-0.16	0.11	-0.01	0.50	-1.62	1.08
650.80	-0.63	-0.24	-0.04	0.01	-0.66	-0.09
651.00	-0.58	0.24	0.02	0.87	0.93	-0.02
651.20	-0.31	0.03	-0.02	0.25	-0.68	0.64
651.40	-0.66	0.22	0.00	0.09	-2.60	1.13
651.60	-0.24	0.05	0.07	0.57	-0.36	0.76
651.80	-0.50	0.24	0.02	-0.19	-2.00	1.10
652.00	-0.51	0.09	-0.02	0.43	0.12	0.77
652.20	-0.61	0.70	0.10	0.20	-0.23	1.23
652.40	-0.42	-0.29	-0.03	0.29	0.38	0.01
652.60	-0.42	0.33	0.07	0.44	-0.28	-1.10
652.80	-0.58	0.19	0.07	0.27	0.43	-0.38
653.00	-0.38	0.31	-0.05	0.90	0.37	1.34
653.20	-0.25	0.02	0.00	0.12	0.75	-1.50
653.40	-0.44	0.25	0.03	0.14	-0.17	-0.91
653.60	-0.38	0.22	0.03	0.46	-0.13	0.21
653.80	-0.54	0.24	0.05	0.40	0.22	-0.10
654.00	0.07	-0.06	-0.08	0.40	-0.10	-0.08
654.20	-0.45	-0.03	0.00	0.37	-0.21	0.07
654.40	-0.55	0.11	0.04	0.40	-0.30	0.05
654.60	-0.19	0.09	0.09	0.40	-0.07	-0.13
654.80	-0.53	0.06	0.01	0.36	0.01	0.09
655.00	-0.33	0.01	0.01	0.40	0.31	0.33
655.20	-0.38	-0.09	0.06	0.46	0.49	0.69
655.40	0.00	-0.05	0.00	0.41	1.71	1.33
655.60	-0.06	0.24	-0.03	0.40	-0.03	-0.01
655.80	-0.60	0.31	0.04	0.37	-0.43	-0.06
656.00	-0.41	-0.17	-0.01	0.43	0.22	-0.09
656.20	-0.37	0.07	0.01	0.60	-0.19	0.65
656.40	-0.41	0.04	0.00	0.38	-0.07	-0.18
656.60	-0.67	0.13	0.06	0.43	0.15	-0.12
656.80	-0.36	-0.03	0.01	0.29	-0.27	-0.31
657.00	-0.74	0.01	0.02	0.86	-0.69	1.70
657.20	-0.09	-0.16	0.00	0.23	0.18	-0.39
657.40	-0.29	-0.42	-0.07	0.28	0.60	0.86
657.60	-0.21	-0.12	-0.01	0.82	-2.40	2.30
657.80	-0.22	-0.25	0.02	0.53	-0.52	0.13
658.00	-0.26	-0.16	0.05	0.17	3.35	-1.60
658.20	-0.36	-0.18	-0.03	0.90	2.48	2.34
658.40	-0.35	-0.03	0.04	0.48	0.63	0.76
658.60	-0.38	-0.03	-0.01	-0.57	-0.71	-1.41
658.80	-0.28	0.05	-0.03	-0.01	1.83	1.30
659.00	-0.27	0.13	0.05	0.25	1.53	-1.37

659.20	-0.52	0.07	0.00	0.29	-1.38	0.27
659.40	-0.58	0.07	-0.05	-0.26	0.43	0.09
659.60	-0.46	-0.19	-0.04	0.34	0.97	1.47
659.80	-0.42	0.08	-0.01	-0.09	0.48	0.50
660.00	-0.31	-0.10	-0.02	0.25	-0.09	0.45
660.20	-0.51	0.03	0.00	0.32	-2.29	-0.80
660.40	-0.34	-0.01	0.01	-0.06	-0.55	1.32
660.60	-0.38	0.16	-0.01	0.19	0.67	0.10
660.80	-0.12	0.07	0.01	0.15	-0.21	0.88
661.00	-0.45	0.11	0.01	-0.11	0.85	-0.45
661.20	-0.44	0.10	0.00	0.34	0.00	0.47
661.40	-0.45	-0.14	0.02	0.54	-0.10	0.98
661.60	-0.54	-0.28	-0.01	-0.09	0.37	-0.65
661.80	-0.71	0.03	-0.02	0.36	0.09	-0.06
662.00	-0.40	0.04	0.01	0.24	-0.18	0.10
662.20	-0.47	-0.10	-0.03	0.32	-0.57	0.97
662.40	-0.64	-0.18	-0.04	-0.06	-0.43	-1.14
662.60	-0.17	-0.11	-0.07	0.63	2.22	3.60
662.80	-0.50	-0.13	-0.06	0.56	-0.05	-1.51
663.00	-0.58	-0.22	-0.03	-1.03	-0.53	-4.77
663.20	-0.52	0.03	-0.02	1.22	0.10	2.71
663.40	-0.45	-0.07	-0.01	0.31	0.61	-0.16
663.60	-0.36	0.07	-0.01	0.46	-0.18	0.11
663.80	0.21	0.29	-0.09	0.37	0.50	0.34
664.00	-0.60	0.06	0.09	0.25	0.10	-0.17
664.20	-0.45	-0.13	0.01	0.51	0.95	1.31
664.40	-0.03	-0.48	-0.07	0.94	1.06	2.09
664.60	-0.30	0.09	0.02	-0.38	2.09	-0.29
664.80	-0.25	-0.18	-0.06	0.33	-2.21	-0.72
665.00	-0.23	0.15	0.07	0.63	2.39	3.33
665.20	-0.58	-0.31	-0.01	0.35	-0.81	-1.76
665.40	-0.64	0.11	0.06	0.80	-1.63	-0.50
665.60	-0.53	-0.09	-0.08	0.78	2.19	4.32
665.80	-0.55	-0.02	0.02	0.69	1.39	-0.44
666.00	-0.49	0.04	0.00	0.06	0.70	2.62
666.20	-0.56	0.20	-0.02	-0.47	-3.25	-1.35
666.40	0.05	-0.11	-0.02	0.40	-1.09	1.02
666.60	-0.02	-0.10	-0.04	-0.27	3.04	-2.27
666.80	-0.31	0.06	-0.06	0.18	-1.01	0.01
667.00	-0.35	0.04	0.03	-0.04	-2.27	-2.10
667.20	-0.17	-0.13	-0.04	1.02	-1.22	2.86
667.40	-0.46	0.05	-0.02	0.40	0.67	1.16
667.60	-0.32	0.20	-0.03	-0.08	0.36	-1.12
667.80	-0.62	0.10	0.01	0.30	-1.58	-0.65
668.00	-0.81	-0.12	-0.01	0.29	-3.91	-1.88
668.20	-0.51	-0.04	-0.03	0.48	-3.06	2.62
668.40	0.53	-0.23	-0.12	0.42	4.55	-0.57
668.60	-0.67	-0.14	0.02	0.20	-1.32	-0.48
668.80	-0.62	0.27	0.03	0.43	0.01	1.14
669.00	-0.43	-0.21	-0.02	0.48	0.00	0.81

669.20	-0.28	-0.14	-0.03	0.07	0.81	-2.00
669.40	-0.48	-0.10	-0.02	-0.11	-0.82	-3.01
669.60	-0.35	-0.01	0.01	0.60	0.85	2.13
669.80	-0.28	-0.05	-0.03	-0.05	-0.56	-0.91
670.00	-0.52	0.03	-0.02	-0.75	-2.14	-1.70
670.20	-0.50	0.05	-0.01	0.05	0.60	-1.17
670.40	-0.48	0.12	0.00	0.08	-2.66	-1.40
670.60	-0.59	-0.12	0.00	0.13	2.11	1.90
670.80	-0.31	0.08	-0.01	-0.55	2.90	-1.56
671.00	-0.05	-0.11	-0.06	0.15	-0.66	-0.59
671.20	0.07	-0.14	0.04	0.18	-0.76	-0.54
671.40	-0.30	0.00	-0.03	-0.23	1.21	-0.78
671.60	-0.16	-0.36	-0.02	0.25	-1.01	0.85
671.80	-0.31	0.14	-0.03	0.55	-0.87	1.00
672.00	-0.19	-0.19	0.06	0.39	0.97	-0.37
672.20	-0.15	-0.21	-0.05	0.41	-1.44	0.34
672.40	-0.30	0.20	-0.03	0.61	3.29	0.49
672.60	-0.21	0.30	-0.06	-0.90	-1.01	-4.02
672.80	-0.48	0.05	-0.04	0.25	1.82	-0.66
673.00	-0.32	0.21	-0.01	-0.05	-3.53	0.95
673.20	-0.36	-0.01	-0.07	-0.69	0.02	-1.70
673.40	-0.47	0.32	0.06	0.91	1.94	2.48
673.60	-0.41	-0.05	-0.03	0.73	1.53	1.10
673.80	-0.26	0.00	-0.01	0.80	1.47	1.48
674.00	-0.06	0.02	-0.10	-0.24	-2.25	-0.93
674.20	-0.21	0.00	0.05	0.02	0.80	0.56
674.40	-0.02	0.41	-0.02	-0.15	1.28	0.34
674.60	-0.33	0.55	0.07	0.41	-1.15	0.58
674.80	-0.20	0.09	0.02	0.46	0.74	-1.99
675.00	-0.33	0.17	0.02	0.89	-0.35	2.49
675.20	-0.28	0.12	-0.02	0.58	-0.81	1.98
675.40	-0.17	0.15	-0.06	-0.44	-1.38	0.04
675.60	-0.24	0.27	-0.03	0.36	-1.39	1.85
675.80	-0.47	0.39	0.00	0.33	0.09	-0.03
676.00	-0.44	0.02	-0.05	0.64	0.47	0.20
676.20	-0.58	-0.01	-0.01	0.03	0.99	-0.79
676.40	-0.37	0.01	-0.07	0.91	3.28	-0.44
676.60	-0.41	-0.05	-0.05	-0.23	-0.79	-0.28
676.80	-0.11	0.07	-0.03	-0.32	-3.61	0.85
677.00	-0.20	0.26	-0.03	0.22	1.90	0.91
677.20	-0.14	0.01	-0.08	0.45	-2.57	0.88
677.40	-0.28	-0.04	-0.07	0.91	0.95	1.80
677.60	-0.30	-0.19	-0.05	0.35	-1.42	2.29
677.80	-0.34	0.14	-0.04	-0.55	0.52	-3.90
678.00	-0.18	0.01	-0.07	-0.23	1.04	-2.92
678.20	-0.35	0.12	-0.06	0.34	1.22	1.23
678.40	-0.14	-0.09	-0.06	0.01	2.60	-1.93
678.60	-0.30	0.04	-0.05	-0.28	1.31	-1.48
678.80	-0.41	0.12	-0.04	0.37	0.41	-0.02
679.00	-0.34	0.15	-0.07	-0.20	-0.67	0.28

679.20	-0.33	-0.03	-0.06	0.01	-1.71	-0.52
679.40	-0.51	0.52	-0.06	0.42	-0.47	1.85
679.60	-0.22	0.24	-0.02	0.51	1.00	1.28
679.80	-0.13	-0.19	-0.09	-0.11	-0.25	0.21
680.00	-0.26	-0.10	0.00	-0.87	-2.07	-0.27
680.20	-0.40	0.20	-0.01	0.46	-1.57	3.04
680.40	-0.32	0.03	-0.02	-0.03	3.08	1.49
680.60	-0.28	-0.21	-0.11	0.64	1.45	2.53
680.80	0.06	-0.13	-0.06	-0.10	-0.68	-1.47
681.00	-0.07	0.04	0.00	1.44	1.29	2.86
681.20	-0.12	0.16	0.00	-0.21	-0.29	-0.60
681.40	0.17	-0.28	-0.11	0.26	2.12	0.83
681.60	-0.38	0.31	-0.03	-0.14	1.75	-0.25
681.80	-0.11	-0.03	-0.14	0.11	0.62	-0.06
682.00	0.01	-0.06	-0.09	0.53	-0.55	2.50
682.20	-0.03	0.20	-0.07	0.10	-0.78	-0.61
682.40	-0.32	-0.04	-0.11	-0.44	-3.65	0.40
682.60	-0.34	0.01	-0.03	0.52	-0.48	-0.30
682.80	-0.35	0.12	-0.09	0.06	-2.01	-0.71
683.00	-0.26	0.08	-0.06	0.28	2.08	0.26
683.20	-0.31	0.02	-0.11	0.16	0.30	-0.77
683.40	-0.25	0.09	-0.12	0.14	-1.42	-1.35
683.60	-0.20	0.02	-0.03	0.69	1.87	0.18
683.80	-0.48	0.50	-0.02	0.33	-1.78	0.41
684.00	-0.35	0.01	-0.09	0.10	-5.16	-0.83
684.20	-0.30	0.14	-0.07	-0.43	-0.04	-0.62
684.40	0.04	0.20	-0.05	0.42	-1.24	0.19
684.60	-0.13	-0.04	-0.08	0.35	1.80	-0.88
684.80	-0.16	0.01	-0.05	0.42	3.52	-0.60
685.00	-0.14	-0.17	-0.03	0.23	2.12	1.04
685.20	-0.20	-0.18	-0.08	0.33	-2.05	1.29
685.40	-0.18	0.14	-0.03	0.33	0.54	0.96
685.60	-0.16	-0.08	-0.08	0.09	-1.32	-1.53
685.80	-0.41	0.12	-0.07	0.41	-0.18	-0.31
686.00	-0.19	0.08	-0.07	0.08	0.35	1.36
686.20	-0.12	0.08	-0.07	0.50	-0.66	0.89
686.40	-0.31	0.00	-0.05	-0.39	-1.26	-2.66
686.60	-0.29	0.05	-0.02	0.07	-0.57	-0.34
686.80	-0.30	-0.08	-0.10	0.10	0.11	-0.22
687.00	-0.05	0.18	-0.03	0.30	-1.00	0.11
687.20	-0.24	0.25	-0.02	-0.40	1.85	-0.35
687.40	-0.46	0.15	-0.11	0.09	0.84	0.09
687.60	-0.33	-0.03	-0.12	-0.16	-0.07	-0.39
687.80	-0.26	-0.21	-0.08	0.12	-1.34	-0.24
688.00	-0.17	-0.06	-0.07	-0.02	0.00	-0.07
688.20	0.01	-0.01	-0.07	0.03	0.70	0.21
688.40	-0.23	0.17	-0.07	0.00	0.22	-0.06
688.60	-0.22	0.03	-0.10	0.07	0.62	0.11
688.80	-0.26	0.08	-0.06	0.02	0.93	0.55
689.00	-0.11	-0.07	-0.06	0.16	-1.70	-1.24

689.20	-0.24	0.22	-0.05	0.12	0.58	-0.01
689.40	-0.21	0.21	-0.05	0.09	-0.22	-0.01
689.60	-0.16	-0.05	-0.04	-0.08	1.67	0.32
689.80	-0.15	0.02	-0.05	0.62	-0.50	1.79
690.00	-0.25	-0.10	-0.07	-0.53	-0.07	-1.86
690.20	-0.31	0.04	-0.04	0.21	2.06	-0.92
690.40	-0.35	0.05	-0.02	0.21	0.13	0.02
690.60	-0.31	-0.21	-0.06	0.13	0.46	0.23
690.80	-0.09	0.23	-0.09	0.16	-0.38	-0.21
691.00	-0.26	-0.20	-0.07	0.09	-0.85	-0.19
691.20	-0.05	0.06	-0.08	0.13	-2.10	-1.70
691.40	-0.26	-0.14	-0.12	-0.01	1.42	0.42
691.60	-0.34	0.08	-0.03	0.00	0.16	0.37
691.80	0.04	-0.33	-0.11	0.05	2.16	1.26
692.00	-0.21	0.03	-0.05	-0.03	1.41	1.12
692.20	-0.13	-0.10	-0.06	-0.08	-1.13	0.82
692.40	-0.48	0.17	-0.18	-0.21	0.97	-1.57
692.60	0.14	-0.13	0.01	0.04	1.75	-1.33
692.80	-0.05	0.21	-0.03	-0.33	-0.65	-2.89
693.00	-0.25	0.01	-0.08	0.52	-1.44	1.83
693.20	-0.22	-0.11	-0.07	-0.02	-1.96	-0.90
693.40	-0.23	-0.25	-0.07	-0.05	-1.20	0.43
693.60	-0.66	0.45	0.01	0.17	2.35	0.06
693.80	-0.41	-0.16	-0.08	0.08	-1.21	-0.50
694.00	-0.51	-0.12	-0.08	0.25	1.97	-0.06
694.20	-0.24	0.08	-0.07	-0.23	-1.38	-1.65
694.40	-0.20	-0.16	-0.11	0.34	1.18	0.86
694.60	-0.18	-0.23	-0.08	-0.71	-0.89	-1.42
694.80	-0.37	-0.07	-0.12	-0.30	1.71	-0.48
695.00	-0.05	0.20	-0.06	0.42	0.28	0.92
695.20	0.10	0.09	-0.02	-0.48	-0.89	-2.04
695.40	-0.21	0.41	0.02	0.09	0.26	-1.01
695.60	-0.29	0.19	-0.08	0.67	1.83	1.05
695.80	-0.11	-0.16	-0.12	0.75	-1.38	0.34
696.00	-0.10	0.18	-0.09	0.27	-0.13	0.04
696.20	-0.29	-0.01	-0.12	0.37	-1.67	-0.09
696.40	-0.14	0.26	-0.05	-0.14	-0.86	-1.98
696.60	0.09	-0.02	-0.04	0.46	2.11	0.66
696.80	-0.17	-0.32	-0.08	0.65	1.07	1.26
697.00	-0.14	0.08	-0.06	0.42	-1.36	0.42
697.20	-0.01	0.30	-0.06	0.56	0.37	1.50
697.40	-0.67	0.33	-0.01	0.75	0.60	2.03
697.60	-0.47	-0.19	-0.01	1.22	-0.18	3.76
697.80	-0.09	0.12	-0.03	-0.26	-0.24	-1.36
698.00	0.01	-0.11	-0.08	-0.08	0.51	-0.75
698.20	-0.30	0.26	-0.02	0.03	-0.63	-0.64
698.40	-0.23	0.13	-0.02	0.38	-0.08	1.09
698.60	-0.27	0.14	-0.04	0.15	-0.06	0.09
698.80	-0.14	0.07	-0.07	0.42	-0.49	0.91
699.00	-0.06	0.22	-0.05	-0.47	0.06	-1.59

699.20	-0.10	0.10	-0.07	-0.14	-0.31	-0.84
699.40	-0.02	0.08	-0.03	-0.20	0.29	-0.53
699.60	-0.25	0.07	-0.08	-0.26	1.90	-0.23
699.80	-0.01	0.19	-0.10	0.15	-1.04	-0.91
700.00	-0.03	-0.18	-0.10	-0.43	-0.25	-1.73
700.20	-0.26	0.08	-0.06	0.32	1.31	1.31
700.40	0.13	-0.07	-0.07	0.41	2.74	0.51
700.60	-0.13	0.07	-0.09	-0.09	1.54	0.49
700.80	-0.14	0.09	-0.08	-0.12	0.86	-0.97
701.00	-0.25	0.15	-0.13	0.13	-0.63	0.14
701.20	-0.03	-0.13	-0.14	-0.53	-0.91	-1.96
701.40	0.00	-0.10	-0.13	0.06	0.10	0.38
701.60	-0.02	0.29	-0.13	-0.14	-1.43	-0.56
701.80	-0.10	0.17	-0.12	0.61	-1.35	-0.74
702.00	-0.05	-0.04	-0.09	0.18	-1.09	-0.42
702.20	0.03	-0.07	-0.11	0.62	-0.11	2.13
702.40	-0.02	-0.07	-0.12	-0.10	0.78	-1.01
702.60	-0.10	0.08	-0.13	-0.11	0.71	-0.76
702.80	0.02	0.06	-0.15	0.23	1.27	1.01
703.00	-0.07	0.18	-0.16	-0.37	0.54	0.39
703.20	0.00	0.03	-0.13	0.37	-0.96	1.04
703.40	0.05	-0.06	-0.14	-0.04	1.81	-1.44
703.60	-0.19	0.12	-0.13	0.03	1.10	2.07
703.80	-0.12	0.04	-0.12	0.40	0.85	-1.58
704.00	0.15	-0.02	-0.12	-0.69	0.15	-0.79
704.20	-0.04	0.03	-0.08	0.21	-1.42	-1.42
704.40	-0.05	-0.03	-0.17	0.43	-2.55	0.51
704.60	-0.06	0.01	-0.11	-0.13	-0.32	1.62
704.80	0.14	0.07	-0.14	0.23	-2.68	0.38
705.00	-0.20	0.16	-0.13	-0.09	2.43	-1.50
705.20	0.12	-0.04	-0.18	0.29	-1.39	-2.46
705.40	0.08	-0.06	-0.15	-1.90	1.93	-5.89
705.60	-0.35	0.62	-0.09	0.36	0.62	1.45
705.80	-0.07	0.14	-0.11	-0.62	1.39	-2.93
706.00	0.01	0.57	-0.12	-0.10	2.24	-0.23
706.20	-0.09	-0.38	-0.17	-0.50	0.22	-1.03
706.40	0.19	0.21	-0.09	1.44	2.44	4.17
706.60	-0.46	0.22	-0.03	-0.96	-2.26	-4.58
706.80	0.14	0.08	-0.07	-0.84	1.67	-2.88
707.00	0.30	0.24	-0.12	-0.53	-0.10	-2.86
707.20	-0.27	0.22	-0.17	-0.07	1.22	-2.44
707.40	0.01	0.46	-0.14	-0.15	-1.69	0.16
707.60	0.04	-0.09	-0.13	0.79	1.87	3.77
707.80	0.07	-0.33	-0.12	0.07	1.94	-1.74
708.00	-0.08	-0.06	-0.09	0.67	0.12	4.59
708.20	0.08	0.01	-0.14	-0.35	2.02	-1.48
708.40	0.13	0.43	-0.08	0.13	-1.80	0.09
708.60	0.32	-0.02	-0.09	0.62	-1.57	0.70
708.80	0.20	0.07	-0.18	-0.22	1.94	-0.18
709.00	0.03	0.23	-0.15	-1.07	-2.70	1.65

709.20	0.17	0.14	-0.14	-0.19	-3.61	-1.09
709.40	0.13	0.08	-0.16	0.12	0.87	0.56
709.60	0.08	0.27	-0.14	0.04	0.72	-0.85
709.80	-0.05	0.10	-0.17	-0.84	0.19	-0.94
710.00	0.16	0.14	-0.17	0.70	-1.82	1.32
710.20	0.01	0.33	-0.14	-0.04	-2.79	-0.07
710.40	0.17	-0.18	-0.18	-0.51	1.13	-1.57
710.60	0.25	0.13	-0.15	-0.11	-1.56	0.60
710.80	0.05	0.46	-0.13	-0.73	-0.25	-3.74
711.00	0.06	0.21	-0.12	-0.22	2.40	1.13
711.20	-0.20	0.30	-0.09	0.48	1.98	1.96
711.40	0.01	0.17	-0.06	-0.06	-1.30	2.08
711.60	0.00	0.05	-0.11	-0.66	0.42	-0.03
711.80	0.11	0.40	-0.12	-0.03	-0.68	0.94
712.00	0.23	-0.04	-0.16	-0.56	-0.03	-1.13
712.20	-0.36	-0.16	-0.11	0.34	-0.92	2.46
712.40	0.05	-0.16	-0.06	-0.55	3.25	-2.52
712.60	0.11	0.22	-0.05	-0.04	1.52	-1.52
712.80	0.28	0.60	-0.04	-0.22	-2.05	0.98
713.00	0.12	0.30	-0.08	-0.93	0.13	-4.11
713.20	-0.09	0.16	-0.05	0.29	1.79	-0.15
713.40	0.29	0.10	-0.08	0.43	1.46	0.37
713.60	0.10	0.17	-0.07	-0.61	4.27	-3.06
713.80	0.37	0.17	-0.12	-0.18	-0.09	-0.44
714.00	0.22	0.00	-0.07	-0.57	-6.99	-4.46
714.20	0.34	-0.02	-0.06	-0.13	-1.52	-0.55
714.40	-0.05	0.13	-0.07	-0.16	-0.25	-2.05
714.60	0.14	-0.04	-0.05	-0.28	0.46	-1.09
714.80	-0.19	0.23	-0.08	-0.72	0.27	-2.31
715.00	0.06	-0.15	-0.06	-0.10	0.30	2.16
715.20	0.15	0.09	-0.08	0.19	0.25	1.59
715.40	0.25	-0.12	-0.07	-0.68	-0.59	-1.81
715.60	0.35	-0.12	-0.06	-0.38	1.35	-1.07
715.80	0.31	0.11	-0.08	-0.65	0.15	-0.98
716.00	0.16	0.04	-0.09	0.97	-3.14	2.92
716.20	0.18	0.03	-0.10	-0.49	0.03	-0.16
716.40	0.24	0.17	-0.08	-0.80	-3.11	-1.87
716.60	0.01	0.23	-0.03	-0.06	1.94	-2.23
716.80	0.00	0.14	-0.04	0.30	-0.01	0.97
717.00	-0.30	0.54	-0.08	0.11	-0.66	1.66
717.20	-0.14	0.36	-0.01	0.04	-1.94	-0.07
717.40	0.21	0.01	-0.07	-0.42	0.51	-0.75
717.60	0.29	0.25	-0.08	-0.27	-0.62	-2.68
717.80	-0.08	-0.16	-0.09	0.12	-4.86	0.79
718.00	0.32	-0.13	-0.09	0.05	-1.60	3.43
718.20	0.08	-0.22	-0.08	-0.63	0.17	-1.72
718.40	0.21	0.12	-0.12	-0.11	0.55	-1.16
718.60	-0.07	-0.03	-0.10	-0.24	0.48	-0.94
718.80	0.17	0.06	-0.07	0.10	-2.22	-1.13
719.00	0.10	0.36	0.01	-0.56	-1.98	-2.00

719.20	-0.18	0.23	-0.09	-0.44	0.41	0.29
719.40	0.16	0.22	-0.03	0.49	3.78	2.00
719.60	-0.04	0.31	-0.13	-0.31	-2.42	-0.37
719.80	0.03	0.07	-0.13	-0.30	1.86	0.49
720.00	0.47	0.17	-0.06	-0.18	0.83	0.21
720.20	0.26	0.09	-0.09	-0.19	-3.23	-0.84
720.40	0.12	-0.10	-0.09	-0.06	-1.45	0.42
720.60	0.11	0.08	-0.09	-0.29	0.12	-0.69
720.80	0.10	0.09	-0.12	-0.31	-3.61	0.09
721.00	0.10	-0.02	-0.10	-0.18	-1.64	-1.37
721.20	0.05	-0.07	-0.14	0.03	0.41	-1.49
721.40	-0.08	0.00	-0.10	-0.07	0.62	0.39
721.60	0.00	0.13	-0.08	-0.17	-0.75	-0.07
721.80	0.19	0.12	-0.11	-0.22	1.55	-0.91
722.00	0.07	0.19	-0.05	-0.30	3.29	0.87
722.20	0.32	-0.20	-0.09	-0.23	-0.40	-0.53
722.40	-0.05	0.25	-0.02	-0.27	-0.99	-0.22
722.60	0.06	0.16	-0.10	-0.30	-0.91	0.28
722.80	0.48	-0.03	-0.08	-0.21	1.18	1.98
723.00	0.36	-0.12	-0.04	0.39	-1.32	1.62
723.20	-0.06	0.03	-0.10	-0.25	0.84	-1.47
723.40	-0.04	0.22	-0.06	-0.43	3.78	2.73
723.60	0.41	0.30	-0.11	-0.21	-0.06	-0.69
723.80	0.16	-0.16	-0.17	-0.59	0.46	-1.59
724.00	0.07	-0.04	-0.12	0.03	-1.83	-0.79
724.20	0.34	0.10	-0.12	-0.01	-0.76	0.20
724.40	-0.01	0.24	-0.11	-0.39	-0.40	0.13
724.60	0.59	-0.11	-0.11	-0.68	-1.00	-1.64
724.80	0.42	0.06	-0.14	0.30	-0.70	1.60
725.00	-0.33	0.18	-0.08	-0.50	0.68	-0.33
725.20	0.46	-0.42	-0.13	-0.44	1.03	0.58
725.40	-0.13	0.26	-0.08	-0.02	-1.46	-2.95
725.60	-0.02	0.05	-0.08	0.12	-1.36	0.18
725.80	0.05	0.00	-0.14	-0.31	0.03	-0.82
726.00	0.25	-0.16	-0.09	-0.31	1.93	0.20
726.20	0.11	0.06	-0.07	-0.13	-2.03	0.48
726.40	0.43	-0.08	-0.17	0.15	-1.50	-1.25
726.60	0.20	0.02	0.02	-0.44	-0.04	0.24
726.80	0.37	-0.23	-0.08	-0.71	0.12	-1.84
727.00	-0.22	0.22	-0.05	-0.28	0.57	-0.78
727.20	0.28	-0.08	-0.09	-0.16	0.13	-0.41
727.40	0.30	-0.03	-0.05	-0.52	1.80	1.58
727.60	0.18	-0.30	-0.08	-0.29	-0.06	-1.26
727.80	0.52	0.19	-0.02	-0.25	-0.84	0.33
728.00	0.14	-0.25	-0.13	-0.40	2.07	-0.35
728.20	0.30	-0.07	-0.09	-0.39	-3.70	-0.16
728.40	0.23	-0.07	-0.13	-0.36	0.58	-0.05
728.60	0.25	-0.05	-0.11	0.03	0.10	0.15
728.80	0.16	-0.02	-0.09	-0.24	-1.32	-0.87
729.00	0.11	0.24	-0.08	-0.04	0.64	-0.07

729.20	0.05	0.03	-0.07	-0.17	0.72	1.22
729.40	0.21	-0.10	-0.10	-0.28	-1.86	-1.45
729.60	-0.04	0.13	-0.04	-0.28	-1.28	-1.15
729.80	0.20	0.02	-0.07	0.13	-2.16	2.40
730.00	0.51	-0.01	-0.05	-0.10	-1.79	-1.10
730.20	0.05	-0.37	-0.12	0.29	-0.57	1.41
730.40	0.27	0.09	-0.09	0.81	-1.10	-0.76
730.60	0.29	0.17	-0.08	-0.03	0.74	0.27
730.80	-0.04	0.09	-0.07	-0.20	-3.24	1.89
731.00	0.49	0.00	-0.02	0.40	0.01	1.02
731.20	-0.12	0.06	-0.10	0.21	0.66	1.54
731.40	-0.02	0.36	-0.04	0.22	-0.13	0.15
731.60	0.42	0.07	-0.02	-0.14	0.84	0.46
731.80	0.04	0.09	-0.07	-0.27	-0.85	0.17
732.00	0.22	-0.36	-0.07	-0.04	-1.14	1.50
732.20	-0.03	0.01	-0.04	-0.18	1.62	-0.64
732.40	-0.03	-0.17	-0.09	0.02	-0.20	-0.78
732.60	0.26	0.15	-0.04	0.36	0.42	2.56
732.80	-0.20	0.00	-0.10	-0.37	-1.08	2.10
733.00	0.25	-0.16	-0.09	0.03	0.64	1.17
733.20	0.25	0.03	-0.05	0.01	-2.23	-0.09
733.40	0.36	-0.13	-0.07	0.22	1.33	2.26
733.60	0.06	0.10	-0.05	-0.29	0.85	0.69
733.80	0.01	0.10	-0.06	-0.22	1.05	1.13
734.00	0.05	0.21	-0.05	-0.36	1.51	1.43
734.20	0.14	0.08	-0.08	-0.01	-1.50	-0.20
734.40	0.13	-0.14	-0.09	-0.18	-0.93	1.18
734.60	0.11	-0.25	-0.05	-0.33	-1.28	-1.93
734.80	0.34	-0.20	-0.08	-0.22	-0.51	-0.73
735.00	-0.04	-0.04	-0.07	-0.25	-0.52	-1.89
735.20	0.36	-0.36	-0.13	-0.06	1.15	-2.15
735.40	0.30	0.11	-0.03	-0.22	3.78	1.47
735.60	0.53	-0.09	-0.05	0.04	0.64	0.57
735.80	0.32	-0.05	-0.07	-0.93	1.96	-2.21
736.00	0.67	-0.11	-0.09	-0.54	1.60	-3.68
736.20	0.72	0.26	-0.03	0.08	-0.63	-0.81
736.40	0.22	0.36	0.02	0.10	1.61	1.14
736.60	0.18	-0.04	-0.01	-0.58	0.31	-1.44
736.80	0.34	0.14	0.02	-0.21	-1.50	0.70
737.00	0.00	0.22	-0.03	-0.36	-0.06	-2.33
737.20	0.27	-0.28	0.00	-0.06	3.33	-0.83
737.40	0.27	0.01	-0.11	-0.38	-0.68	-0.51
737.60	0.05	0.22	-0.07	-0.47	1.08	-0.02
737.80	0.50	0.31	-0.04	-0.49	-0.75	-0.79
738.00	0.37	-0.10	-0.08	-0.41	-0.65	-0.59
738.20	0.58	0.02	-0.06	-1.15	1.33	-1.33
738.40	0.25	-0.06	-0.05	-0.05	-0.39	-0.19
738.60	0.28	-0.04	-0.04	-0.28	0.79	0.03
738.80	0.10	0.04	-0.04	-0.42	1.97	0.76
739.00	0.54	-0.15	-0.05	-0.13	0.27	0.83

739.20	0.04	-0.16	-0.06	-0.25	-3.12	-1.24
739.40	0.37	0.09	-0.06	0.01	1.50	4.30
739.60	0.33	0.06	-0.05	-0.16	1.31	-0.68
739.80	0.28	-0.14	-0.07	0.87	0.36	1.10
740.00	0.27	-0.11	-0.06	1.26	-2.09	3.45
740.20	0.20	-0.18	-0.11	0.25	1.06	2.11
740.40	0.41	-0.16	-0.02	-0.30	-2.80	0.86
740.60	0.19	-0.17	-0.08	-0.61	-0.55	-0.74
740.80	0.48	-0.03	-0.08	0.53	-1.04	0.15
741.00	0.35	-0.10	-0.10	0.09	1.27	0.02
741.20	0.48	0.02	0.01	-0.01	1.65	0.39
741.40	-0.13	-0.14	0.08	0.09	-0.44	0.56
741.60	0.29	-0.36	-0.11	-0.30	1.00	2.21
741.80	0.38	-0.03	-0.02	-0.41	-1.29	-0.37
742.00	0.15	0.11	-0.07	0.21	-1.43	2.88
742.20	0.37	0.04	-0.03	-0.53	2.57	-0.23
742.40	0.53	-0.01	-0.03	-0.60	0.58	-0.45
742.60	0.22	-0.18	-0.09	-0.38	1.37	-2.29
742.80	0.48	0.05	-0.03	-0.41	1.31	-0.68
743.00	0.16	0.48	-0.06	-0.37	3.39	-0.31
743.20	0.09	-0.15	0.01	-0.17	1.33	-0.29
743.40	0.26	-0.04	-0.02	-1.24	-1.84	-1.70
743.60	0.27	-0.54	-0.08	-0.15	-4.43	-0.75
743.80	0.18	0.04	0.03	-0.69	-0.86	-2.03
744.00	0.22	-0.21	-0.07	0.01	0.80	-0.84
744.20	0.27	-0.18	-0.03	-0.26	1.06	-1.17
744.40	0.26	-0.02	-0.07	-0.60	-1.37	0.94
744.60	0.32	-0.21	-0.06	-0.31	0.81	-0.34
744.80	0.42	-0.12	-0.04	-0.48	0.17	-0.30
745.00	0.44	-0.21	-0.01	0.62	3.13	0.63
745.20	0.33	0.07	0.00	-0.54	-0.58	-0.50
745.40	0.33	-0.02	-0.06	-0.56	0.49	-1.17
745.60	0.32	-0.09	-0.07	-0.20	-0.89	-0.86
745.80	0.32	-0.04	-0.03	-0.02	0.68	0.89
746.00	0.36	0.02	-0.07	0.28	-0.37	0.14
746.20	0.23	0.15	-0.03	-0.05	-2.04	2.18
746.40	0.37	-0.09	-0.05	-0.74	-1.67	-0.50
746.60	0.10	-0.05	-0.06	-0.32	0.88	0.34
746.80	0.20	-0.11	-0.06	-0.30	0.14	0.69
747.00	0.47	-0.02	-0.07	-0.64	0.04	-1.05
747.20	0.49	0.02	-0.02	-0.25	-0.17	0.57
747.40	0.10	-0.23	-0.03	-0.47	-3.62	1.75
747.60	0.24	-0.13	-0.06	-0.02	1.71	0.08
747.80	-0.10	0.16	-0.06	-0.59	-0.12	-4.42
748.00	0.11	-0.23	-0.06	-0.13	0.96	0.31
748.20	0.53	-0.09	-0.05	0.01	-1.31	-3.67
748.40	0.30	-0.22	-0.05	0.59	-2.56	-1.54
748.60	0.55	-0.33	-0.08	-0.38	0.95	-1.17
748.80	0.20	-0.14	-0.03	1.06	-4.73	1.22
749.00	0.18	-0.19	-0.03	0.61	-2.30	0.87

749.20	0.20	-0.09	-0.04	-0.23	-0.64	-2.06
749.40	0.06	-0.05	-0.06	0.07	-0.74	-1.20
749.60	0.30	0.03	0.00	-0.61	1.20	-1.19
749.80	-0.13	-0.14	-0.04	-0.31	-0.73	-1.25
750.00	0.21	-0.20	-0.06	-0.16	0.86	0.20
750.20	0.50	-0.07	-0.04	-0.22	-0.08	0.44
750.40	0.68	-0.29	-0.08	-0.29	0.08	-0.05
750.60	0.01	0.15	-0.05	-0.29	0.03	-0.24
750.80	-0.05	-0.08	-0.05	-0.31	0.55	0.28
751.00	-0.08	0.17	0.00	-0.26	0.25	0.01
751.20	0.11	-0.05	-0.07	-0.30	0.37	-0.03
751.40	0.24	0.03	-0.06	-0.33	-0.51	0.23
751.60	0.12	-0.02	-0.06	-0.55	-0.30	-0.54
751.80	-0.27	-0.07	-0.12	-0.41	0.65	0.40
752.00	0.37	-0.53	-0.05	0.08	-1.23	0.85
752.20	0.15	0.00	-0.03	0.19	-0.02	2.35
752.40	0.45	-0.04	-0.03	-0.02	-0.42	-0.31
752.60	0.04	0.13	-0.05	0.07	-0.66	-0.74
752.80	0.01	-0.26	-0.12	-0.63	0.34	-1.35
753.00	-0.13	0.06	-0.05	-0.12	0.81	2.37
753.20	0.31	0.01	-0.06	-0.13	0.25	-2.03
753.40	-0.19	0.19	-0.12	0.27	1.60	1.31
753.60	0.09	-0.08	-0.13	-0.13	-0.81	-1.61
753.80	0.35	-0.05	-0.09	0.49	-4.80	0.07
754.00	0.16	0.05	-0.08	0.12	-0.16	0.96
754.20	0.28	-0.28	-0.04	-0.32	2.73	-0.67
754.40	0.24	-0.18	-0.01	0.94	3.51	1.14
754.60	0.16	0.11	-0.05	-0.62	-1.59	-3.00
754.80	0.29	-0.32	-0.05	-0.79	4.20	-4.12
755.00	0.41	0.19	-0.09	-0.23	1.12	0.36
755.20	0.29	-0.30	-0.08	0.09	1.47	-0.11
755.40	0.57	-0.31	-0.04	0.12	1.72	-1.29
755.60	0.27	-0.19	-0.03	-0.19	1.39	0.12
755.80	0.23	0.02	-0.02	-0.50	0.14	1.33
756.00	0.05	-0.12	-0.09	-0.61	-0.25	-0.43
756.20	0.37	-0.11	-0.06	-0.59	-1.54	-0.70
756.40	0.35	-0.16	-0.09	0.19	-1.10	2.66
756.60	0.19	0.04	-0.01	-0.95	-0.67	-0.85
756.80	0.21	-0.14	-0.07	0.04	2.10	0.96
757.00	0.29	0.05	0.00	-0.16	1.48	-0.86
757.20	0.54	-0.26	-0.08	0.30	1.37	3.80
757.40	0.22	-0.06	-0.03	-0.07	-1.16	-0.25
757.60	0.38	-0.06	-0.05	0.14	0.29	0.40
757.80	-0.05	-0.05	-0.04	-0.44	-1.59	-1.74
758.00	0.40	-0.20	-0.03	-0.90	-0.21	-1.51
758.20	0.19	0.02	-0.06	-0.09	-1.74	-2.76
758.40	0.51	-0.14	-0.05	-0.79	-1.69	-0.66
758.60	0.20	0.04	-0.06	-0.32	-0.88	1.49
758.80	0.37	-0.11	-0.08	-0.30	0.49	-0.22
759.00	0.25	0.02	-0.07	-0.23	0.34	-0.39

759.20	0.14	0.00	-0.07	-0.41	-0.60	-0.75
759.40	0.07	-0.07	-0.06	-0.33	-0.46	-0.23
759.60	0.37	-0.09	-0.09	-0.21	0.37	0.00
759.80	0.04	-0.04	-0.06	-0.24	0.62	-0.12
760.00	0.16	-0.09	-0.07	-0.36	-0.39	0.86
760.20	-0.05	-0.16	-0.07	-0.19	-0.62	0.10
760.40	0.45	-0.04	-0.04	-0.31	0.47	0.40
760.60	0.35	-0.08	-0.07	-0.59	-0.59	-0.51
760.80	0.39	-0.07	-0.09	-0.70	0.18	-1.07
761.00	0.07	-0.05	-0.01	-0.47	0.04	-0.45
761.20	0.26	-0.07	-0.09	-0.86	0.55	-1.59
761.40	0.22	0.02	0.03	-0.42	0.02	-0.16
761.60	-0.09	0.35	0.01	-0.33	0.29	-0.16
761.80	0.95	-0.16	0.00	-0.29	-0.50	-0.43
762.00	0.19	-0.14	-0.05	-0.54	-0.44	0.09
762.20	-0.03	-0.03	-0.03	-0.38	1.32	-0.10
762.40	0.25	0.07	-0.09	-0.17	0.41	0.06
762.60	0.39	-0.05	0.00	-0.33	0.38	-0.23
762.80	0.11	-0.10	-0.09	-0.39	-0.03	-0.06
763.00	0.01	0.10	-0.05	-0.27	0.14	0.35
763.20	0.27	0.03	-0.07	-0.34	0.04	-0.20
763.40	0.16	0.00	-0.04	-0.28	-0.08	-0.15
763.60	0.18	-0.11	-0.03	-0.58	0.03	-0.59
763.80	0.22	0.13	-0.02	-0.33	0.20	0.27
764.00	-0.10	0.11	0.00	-0.34	-0.93	-0.15
764.20	0.28	-0.23	-0.07	-0.30	0.17	-0.47
764.40	0.30	0.12	-0.02	-0.21	0.57	0.47
764.60	0.27	0.42	-0.04	-0.25	-1.34	1.06
764.80	0.08	-0.17	-0.10	-0.20	-2.19	1.26
765.00	0.35	-0.09	0.04	-1.09	1.10	-1.42
765.20	0.22	0.06	-0.05	0.93	-0.23	3.60
765.40	0.12	-0.08	-0.08	-0.03	-0.61	1.69
765.60	0.06	-0.05	-0.06	-0.74	0.76	-1.01
765.80	0.04	0.30	-0.02	0.13	0.96	2.56
766.00	0.67	0.08	-0.02	-0.46	-0.74	-0.81
766.20	0.17	0.65	-0.05	-0.58	2.45	1.46
766.40	0.29	-0.22	-0.06	-0.12	-1.28	-1.29
766.60	0.42	-0.01	-0.08	-0.33	-0.41	-0.03
766.80	0.65	-0.19	0.00	-0.41	-0.72	0.70
767.00	0.22	0.13	-0.02	-0.64	1.75	-1.86
767.20	0.22	0.11	-0.05	-0.50	1.68	-0.40
767.40	-0.10	0.16	-0.01	-0.45	-0.36	1.67
767.60	0.01	0.12	0.01	-0.27	0.02	-0.81
767.80	-0.39	0.19	-0.07	0.32	-2.03	0.12
768.00	0.11	0.16	-0.09	-0.69	0.72	-0.44
768.20	0.22	0.09	-0.04	-0.85	0.69	2.11
768.40	-0.07	0.19	-0.05	0.26	-0.63	1.61
768.60	0.24	-0.05	-0.08	-0.76	1.94	-0.68
768.80	0.17	0.05	-0.07	-0.15	1.84	1.85
769.00	0.19	0.14	-0.02	-1.27	-0.58	-2.02

769.20	0.10	0.07	-0.03	0.37	-2.06	-2.12
769.40	0.24	0.10	-0.02	0.29	-1.01	-0.56
769.60	0.46	0.33	-0.02	-0.10	0.87	0.10
769.80	0.33	0.07	-0.05	-0.05	3.46	-2.66
770.00	0.50	-0.16	-0.04	-0.18	-0.38	-2.47
770.20	0.66	-0.06	0.00	-0.17	1.00	-0.69
770.40	0.35	-0.10	-0.05	-0.19	0.43	0.38
770.60	0.03	0.08	-0.04	-0.41	-2.98	0.83
770.80	0.53	0.12	-0.06	-0.16	1.41	-0.73
771.00	0.14	0.02	-0.06	-0.49	-0.43	-0.01
771.20	0.40	-0.07	-0.05	-0.44	0.16	-0.21
771.40	0.28	0.23	-0.03	-0.39	-1.33	0.45
771.60	0.24	-0.01	-0.03	-0.33	-1.31	-0.98
771.80	0.27	-0.26	-0.07	-0.33	-0.10	0.49
772.00	0.23	0.23	0.00	-0.22	1.09	-0.97
772.20	0.46	0.36	-0.04	0.07	-0.79	0.70
772.40	0.35	0.08	-0.04	-0.41	-1.32	0.17
772.60	0.23	0.01	-0.05	0.08	0.48	-0.15
772.80	0.24	0.16	-0.08	0.53	0.99	2.10
773.00	0.33	0.10	-0.05	-0.76	-2.31	-1.52
773.20	0.09	-0.04	-0.05	0.07	-2.29	-1.05
773.40	0.24	0.12	-0.02	-0.33	1.01	-1.37
773.60	0.07	0.15	-0.03	-0.49	0.43	-1.00
773.80	0.30	-0.04	-0.05	-0.23	-0.92	-1.08
774.00	0.18	0.03	-0.03	-0.30	0.54	-1.38
774.20	0.39	0.09	-0.03	-0.09	-2.45	0.90
774.40	0.20	0.08	-0.08	-0.19	-0.71	0.38
774.60	0.38	-0.27	-0.05	-0.48	-0.22	-0.40
774.80	0.53	-0.25	-0.07	-0.36	-0.20	-0.80
775.00	0.23	-0.04	-0.07	-0.27	1.16	0.77
775.20	0.65	-0.08	0.01	-0.31	-3.10	0.89
775.40	0.49	0.05	0.03	-0.74	-2.36	-1.23
775.60	0.00	0.21	0.01	-1.65	-2.34	-3.36
775.80	-0.09	-0.13	-0.03	0.19	3.46	-1.50
776.00	0.15	0.26	0.00	-0.59	0.63	-2.58
776.20	0.36	0.25	-0.04	-0.29	2.56	-0.32
776.40	0.46	0.01	0.00	0.04	-1.48	-0.71
776.60	0.42	-0.19	-0.02	0.33	-0.13	-0.17
776.80	-0.07	-0.07	0.00	-0.61	1.03	-1.05
777.00	0.15	-0.04	0.00	-0.34	2.64	-0.49
777.20	0.23	0.18	0.00	-0.95	-1.00	-2.29
777.40	0.13	0.16	-0.03	0.82	-0.17	0.52
777.60	0.21	0.12	0.01	0.00	-2.43	1.56
777.80	0.21	-0.02	-0.01	0.14	-3.62	1.67
778.00	0.52	-0.04	-0.08	-0.87	2.65	-2.02
778.20	0.21	0.10	-0.05	-0.22	-1.38	-0.27
778.40	0.06	0.12	-0.03	-0.58	-1.10	-4.72
778.60	0.01	0.17	-0.02	0.33	-0.47	-0.86
778.80	0.20	-0.09	-0.05	-0.28	-1.38	-2.01
779.00	0.36	-0.15	-0.02	-0.42	2.95	0.95

779.20	0.12	0.10	-0.06	-0.27	0.34	-0.33
779.40	0.00	0.19	-0.02	0.82	1.49	3.17
779.60	0.42	-0.18	-0.05	-0.44	-2.68	-1.80
779.80	0.10	-0.25	-0.04	-0.31	-0.68	0.01
780.00	-0.05	0.27	0.01	-1.00	1.32	-3.17
780.20	0.02	0.14	0.02	-0.50	0.33	-0.94
780.40	-0.17	0.09	-0.02	0.36	0.86	1.60
780.60	0.40	0.00	-0.07	-0.05	1.53	-0.44
780.80	0.04	0.29	-0.07	0.13	0.27	0.68
781.00	0.35	-0.07	-0.02	0.02	-1.02	1.36
781.20	0.32	0.06	-0.04	-0.19	0.62	-1.03
781.40	0.05	0.40	0.06	-0.29	-0.11	-0.13
781.60	0.03	-0.03	-0.06	-0.48	-0.12	-3.06
781.80	0.55	-0.33	-0.06	0.26	1.31	3.14
782.00	0.09	0.12	-0.03	-0.05	0.43	-0.17
782.20	0.03	-0.18	-0.11	0.53	-1.23	0.74
782.40	-0.24	-0.07	-0.03	-0.13	-0.29	-0.36
782.60	0.18	-0.03	0.00	-1.26	0.41	-3.51
782.80	0.34	-0.23	-0.07	-0.43	1.24	0.23
783.00	0.66	-0.15	-0.04	-0.77	-1.26	-0.68
783.20	0.67	-0.12	-0.02	-0.01	1.58	1.01
783.40	0.22	0.26	0.00	-0.21	-0.52	0.92
783.60	-0.03	-0.18	-0.05	-0.71	1.36	-2.80
783.80	0.32	0.29	-0.01	0.26	-0.74	0.99
784.00	-0.09	0.26	-0.02	-0.27	-1.16	-0.27
784.20	0.01	0.51	-0.03	0.26	0.43	1.65
784.40	-0.11	0.27	-0.05	-0.67	1.71	-3.85
784.60	0.08	0.07	0.04	0.03	-1.20	-0.39
784.80	0.25	-0.03	0.04	-0.37	-2.05	-2.08
785.00	0.82	-0.26	0.04	0.60	-1.15	-0.12
785.20	0.50	0.09	0.04	-0.18	1.03	-0.45
785.40	0.33	0.32	-0.01	-0.23	1.92	-0.51
785.60	-0.05	0.18	0.00	-0.23	-2.88	-0.37
785.80	0.01	0.29	0.02	-0.16	1.12	2.29
786.00	0.22	0.07	0.07	-0.24	3.74	0.38
786.20	0.05	0.16	0.01	-0.44	1.49	-2.13
786.40	0.16	0.19	-0.05	-0.67	3.11	-2.19
786.60	0.20	-0.02	-0.03	-0.02	0.24	0.78
786.80	0.02	-0.03	-0.01	-0.05	-1.51	-0.37
787.00	0.19	0.14	-0.04	-0.19	-0.74	-0.27
787.20	-0.12	0.15	0.02	-0.14	-1.68	-0.79
787.40	0.40	-0.09	-0.04	-0.18	-2.21	-2.35
787.60	0.27	0.51	-0.02	-0.12	-1.64	-0.61
787.80	0.02	0.06	0.07	-0.07	2.58	-0.24
788.00	0.06	0.25	0.01	-0.39	2.55	0.73
788.20	0.10	0.07	0.01	-0.18	-2.47	-1.02
788.40	0.40	-0.05	-0.05	0.30	0.54	1.69
788.60	0.67	0.00	-0.07	0.26	1.11	1.22
788.80	0.02	0.02	-0.03	-0.51	-1.49	-0.54
789.00	0.31	-0.07	-0.03	-0.19	-2.40	0.98

789.20	-0.35	0.17	0.00	0.51	-3.17	1.86
789.40	0.53	-0.12	-0.06	0.74	3.33	-0.34
789.60	0.17	-0.15	-0.06	-0.66	0.03	-4.04
789.80	0.05	0.06	0.01	0.11	-0.56	-0.67
790.00	0.05	-0.37	-0.07	0.16	-1.80	0.27
790.20	0.22	-0.08	-0.07	0.50	2.67	1.39
790.40	0.23	0.08	-0.02	-0.47	4.70	3.63
790.60	-0.02	0.15	0.02	-0.33	-3.18	1.15
790.80	0.24	0.05	-0.03	-0.20	0.66	2.92
791.00	0.33	-0.15	-0.01	0.17	1.30	-0.85
791.20	0.42	0.04	0.00	0.18	-0.80	0.53
791.40	-0.07	-0.10	-0.04	0.00	-2.46	1.62
791.60	0.10	0.08	0.00	-0.63	-0.15	-0.91
791.80	0.27	0.10	-0.01	-0.02	1.11	-1.26
792.00	0.08	0.44	-0.06	-0.14	-0.49	-1.87
792.20	0.09	0.14	-0.06	0.63	7.13	-3.76
792.40	-0.40	0.05	-0.06	-0.29	0.53	-1.48
792.60	-0.06	-0.16	-0.02	-0.13	1.09	-0.65
792.80	0.33	0.04	-0.07	-0.18	-0.53	-1.10
793.00	0.21	0.10	-0.01	-0.10	-0.14	-1.31
793.20	0.03	0.14	-0.02	-0.22	-4.14	-1.11
793.40	0.34	-0.14	-0.07	-0.07	0.94	-0.63
793.60	0.01	-0.05	-0.09	-0.06	0.20	-0.06
793.80	0.31	-0.09	-0.07	-0.31	-0.32	-0.21
794.00	-0.01	0.13	-0.09	0.52	0.18	1.05
794.20	0.15	-0.09	-0.08	-0.62	2.30	-3.15
794.40	-0.06	0.02	-0.06	-0.30	-0.42	-0.90
794.60	0.05	-0.01	0.00	0.39	-0.76	1.59
794.80	0.34	-0.29	-0.07	0.24	-1.36	3.04
795.00	0.27	-0.02	-0.11	-0.27	0.82	-0.75
795.20	-0.11	0.41	-0.03	0.25	-1.75	2.36
795.40	0.06	0.44	-0.07	0.14	0.20	-0.49
795.60	0.43	0.13	0.06	-0.10	-4.94	-0.77
795.80	0.11	0.09	-0.02	0.50	3.88	1.09
796.00	0.23	0.08	-0.09	0.55	1.60	2.84
796.20	-0.41	0.12	-0.08	-0.82	-1.36	-1.86
796.40	0.37	0.28	0.03	0.26	-3.29	-2.97
796.60	0.43	0.05	-0.05	1.12	-2.89	2.64
796.80	0.46	0.04	0.00	0.08	1.61	1.32
797.00	0.10	-0.08	-0.04	0.17	-1.33	-0.55
797.20	0.35	0.02	-0.03	-0.57	0.72	-1.99
797.40	0.30	-0.21	-0.05	0.21	1.26	0.77
797.60	0.00	0.15	-0.06	0.14	-0.75	1.29
797.80	0.02	0.11	-0.06	-0.23	0.19	-2.67
798.00	0.17	-0.06	-0.11	0.18	-1.17	0.05
798.20	0.04	0.15	-0.06	-0.09	1.30	-1.08
798.40	-0.02	0.22	-0.10	-0.63	1.81	-3.28
798.60	-0.13	0.05	-0.08	-0.54	-3.60	0.07
798.80	-0.03	0.11	-0.07	-0.95	-1.44	-3.21
799.00	-0.09	0.00	-0.05	-0.42	-1.86	-1.31

799.20	0.13	0.12	-0.09	-1.04	1.47	-1.67
799.40	0.16	-0.04	-0.10	-0.15	1.67	0.06
799.60	0.09	0.10	-0.10	0.32	0.45	0.12
799.80	0.20	0.13	-0.10	0.24	-1.20	-0.03
800.00	0.31	0.02	-0.11	0.09	1.80	-0.84
800.20	-0.12	-0.06	-0.15	-0.18	0.65	0.47
800.40	0.19	0.16	-0.13	-0.03	2.48	-1.05
800.60	0.08	0.04	-0.13	0.12	-2.11	1.13
800.80	0.01	0.14	-0.10	-0.09	1.13	-1.04
801.00	0.01	-0.22	-0.11	0.09	1.42	-0.52
801.20	-0.32	0.08	-0.10	-0.17	0.33	-0.08
801.40	-0.18	-0.26	-0.15	-0.06	-2.30	-1.13
801.60	-0.05	0.05	-0.11	-0.34	-0.41	-0.96
801.80	-0.05	0.13	-0.08	0.20	-1.32	2.48
802.00	0.05	-0.01	-0.06	-0.10	-0.30	0.33
802.20	-0.16	-0.22	-0.11	-1.43	1.31	-3.30
802.40	0.12	0.23	-0.13	-0.23	-0.96	-2.22
802.60	0.55	0.15	-0.08	-0.39	-0.87	0.32
802.80	0.03	-0.30	-0.04	1.45	0.83	5.67
803.00	0.15	-0.15	-0.11	-1.85	-1.96	-3.49
803.20	0.11	0.06	-0.08	0.34	1.24	0.35
803.40	0.12	-0.09	-0.08	0.53	0.26	1.84
803.60	0.14	-0.05	-0.11	0.43	-0.61	2.15
803.80	0.02	-0.19	-0.12	0.14	-1.08	0.69
804.00	-0.16	-0.32	-0.07	0.66	-0.17	0.68
804.20	0.01	0.14	-0.13	0.49	2.91	1.93
804.40	-0.08	0.03	-0.20	0.32	-1.29	2.67
804.60	0.08	0.04	-0.10	0.39	1.05	1.29
804.80	0.20	0.18	-0.15	-0.09	0.33	-1.41
805.00	-0.25	-0.16	-0.05	-0.08	-2.20	0.18
805.20	-0.22	-0.04	-0.07	0.04	-2.20	0.52
805.40	-0.12	0.21	-0.13	-0.05	2.24	1.72
805.60	0.07	0.05	-0.10	-0.45	0.51	-3.04
805.80	0.08	0.37	-0.15	-0.60	2.44	-1.59
806.00	-0.41	0.07	-0.12	1.23	2.54	2.88
806.20	0.13	-0.01	-0.15	1.19	2.29	5.08
806.40	0.11	0.02	-0.09	0.32	-2.44	-0.43
806.60	0.10	0.14	-0.10	0.05	-3.84	1.55
806.80	0.00	0.19	-0.07	0.46	-0.48	2.47
807.00	-0.10	-0.09	-0.10	-0.41	1.12	-0.57
807.20	0.17	0.06	-0.06	-0.83	0.73	-5.30
807.40	-0.31	-0.06	-0.08	-1.00	-0.33	-4.61
807.60	-0.34	0.13	-0.08	0.47	-6.17	4.55
807.80	0.02	0.01	-0.10	0.03	0.37	0.51
808.00	0.05	0.08	-0.12	1.06	0.89	5.19
808.20	-0.01	0.17	-0.07	-0.32	-4.80	-0.26
808.40	0.06	-0.14	-0.08	-0.77	0.68	-3.36
808.60	-0.06	-0.01	-0.13	0.15	-1.05	0.40
808.80	-0.16	0.41	-0.09	0.09	-0.33	-1.94
809.00	-0.22	0.29	-0.12	0.18	-1.65	0.79

809.20	0.00	0.28	-0.11	0.22	-1.96	0.97
809.40	-0.06	0.17	-0.06	-0.11	-2.91	-0.79
809.60	-0.08	-0.26	-0.10	0.25	0.12	-0.95
809.80	-0.14	-0.19	-0.13	-0.05	-1.82	-1.38
810.00	-0.49	0.42	-0.08	0.83	1.32	1.40
810.20	-0.26	-0.39	-0.19	0.11	-2.03	1.26
810.40	-0.24	0.10	-0.04	0.55	-2.59	3.36
810.60	-0.31	0.05	-0.11	-0.22	1.98	-0.39
810.80	-0.31	0.09	-0.09	-1.23	-1.37	-2.12
811.00	0.24	0.23	-0.14	0.11	-2.23	1.39
811.20	0.07	-0.10	-0.06	0.55	1.33	-0.53
811.40	-0.14	0.20	-0.04	0.52	1.76	0.48
811.60	-0.21	-0.04	-0.07	0.41	1.31	1.13
811.80	-0.14	0.04	-0.12	-0.04	0.77	-1.20
812.00	-0.22	0.04	-0.15	-0.40	-0.79	-0.82
812.20	0.15	-0.01	-0.10	0.43	0.25	0.75
812.40	-0.24	0.34	-0.07	0.02	-4.13	-3.21
812.60	-0.18	0.29	-0.10	0.41	0.11	1.72
812.80	-0.08	-0.10	-0.11	-0.15	-0.31	-1.11
813.00	-0.18	0.46	-0.02	-0.27	-3.16	0.73
813.20	-0.12	0.21	-0.04	0.94	-1.05	2.84
813.40	-0.35	0.24	-0.03	0.18	-0.86	0.87
813.60	-0.41	0.13	-0.04	0.12	0.96	1.30
813.80	-0.18	-0.19	-0.13	0.31	-1.86	1.25
814.00	-0.26	-0.01	-0.10	0.36	1.70	0.33
814.20	-0.14	0.12	-0.13	0.18	0.62	-1.69
814.40	-0.37	0.34	-0.10	0.15	-1.00	-1.83
814.60	-0.05	-0.16	-0.07	0.35	-1.87	-0.15
814.80	-0.25	0.01	-0.04	-0.13	-0.15	0.99
815.00	-0.05	0.10	-0.07	-0.18	-2.35	-0.09
815.20	-0.22	0.05	-0.08	0.20	-1.65	0.32
815.40	-0.04	-0.08	-0.04	0.24	0.14	0.14
815.60	-0.36	0.16	-0.04	0.19	-1.20	-1.37
815.80	-0.06	0.16	-0.01	0.25	1.16	1.14
816.00	-0.06	-0.11	-0.05	0.03	-0.91	-0.89
816.20	-0.23	0.14	-0.03	0.17	1.31	1.18
816.40	-0.05	-0.11	-0.04	-0.40	0.53	-1.66
816.60	-0.07	0.01	-0.04	0.02	0.13	-0.05
816.80	-0.07	-0.02	-0.08	0.22	2.99	0.79
817.00	-0.40	0.12	-0.04	-0.29	1.32	-1.47
817.20	-0.15	0.06	-0.10	0.18	-0.80	-0.24
817.40	-0.05	0.05	-0.06	0.26	-0.32	0.92
817.60	-0.26	0.16	-0.08	-0.18	-0.39	-1.09
817.80	-0.06	-0.12	-0.07	0.04	-0.09	0.60
818.00	0.47	-0.04	-0.15	-0.01	0.42	0.34
818.20	-0.27	0.31	-0.07	0.15	-1.16	-2.70
818.40	-0.24	-0.05	-0.12	0.14	-0.81	1.13
818.60	-0.20	0.26	-0.08	0.47	0.75	0.26
818.80	-0.14	0.52	-0.08	0.34	-2.29	-0.92
819.00	-0.31	0.07	0.00	0.27	1.12	1.03

819.20	-0.09	0.72	-0.10	0.20	2.22	1.20
819.40	-0.97	0.70	0.09	0.22	-0.59	0.64
819.60	-0.54	0.18	-0.07	-0.35	0.95	-1.69
819.80	-0.10	0.49	0.01	-0.11	0.65	-1.77
820.00	-0.11	-0.02	-0.14	0.02	-0.65	-0.75
820.20	0.07	-0.18	-0.06	0.57	-0.19	1.32
820.40	-0.44	0.07	-0.04	0.26	-0.47	0.04
820.60	0.09	-0.50	-0.10	0.32	-0.16	0.05
820.80	-0.14	0.01	-0.09	0.22	0.79	0.14
821.00	-0.10	-0.01	-0.10	0.90	-1.44	1.85
821.20	-0.30	0.09	-0.03	-0.22	0.57	-0.81
821.40	0.24	0.14	0.02	0.65	0.10	0.80
821.60	-0.36	-0.10	-0.02	0.22	-0.16	-1.46
821.80	-0.08	0.30	-0.13	-0.47	1.21	-1.38
822.00	-1.33	1.28	0.17	-0.20	-1.59	-0.39
822.20	0.08	-0.42	-0.07	0.12	2.17	-0.01
822.40	-0.23	-0.51	0.01	0.22	2.94	-0.03
822.60	0.25	0.03	-0.08	0.27	-1.88	0.26
822.80	0.45	-0.21	-0.06	-0.29	-0.53	-3.56
823.00	0.12	0.11	-0.05	-0.15	1.09	-2.30
823.20	-0.07	-0.23	-0.06	-0.39	5.20	-4.67
823.40	-0.38	-0.06	-0.05	-0.40	-2.28	-1.52
823.60	-0.30	0.18	-0.08	-0.02	-1.42	0.42
823.80	-0.05	0.12	-0.09	0.10	0.09	-1.48
824.00	-0.07	-0.05	-0.05	-0.71	-0.86	-0.10
824.20	-0.43	0.19	0.00	-0.34	2.39	1.78
824.40	0.12	-0.17	-0.06	-0.69	1.44	-3.20
824.60	-0.09	-0.01	-0.01	-0.53	-0.24	-0.82
824.80	-0.36	0.16	-0.06	0.74	4.56	-0.04
825.00	-0.11	0.01	-0.09	0.10	0.54	-1.80
825.20	-0.32	0.12	-0.10	0.01	0.67	-1.26
825.40	-0.33	0.23	-0.04	0.84	-2.06	4.44
825.60	-0.11	-0.02	-0.07	-0.23	3.58	-3.35
825.80	-0.20	-0.22	-0.07	-0.56	-2.36	0.46
826.00	-0.02	-0.25	-0.12	0.31	-0.68	-0.32
826.20	-0.27	-0.01	-0.13	-0.22	0.72	0.32
826.40	-0.22	0.05	-0.12	0.18	-6.37	-0.62
826.60	-0.41	-0.29	-0.12	0.46	2.43	0.02
826.80	0.09	0.10	-0.11	0.02	-0.01	-3.28
827.00	-0.70	0.41	-0.09	0.02	1.32	1.32
827.20	-0.26	0.03	-0.11	0.22	0.61	-1.72
827.40	-0.34	-0.08	-0.04	-0.34	-0.52	-0.91
827.60	-0.52	-0.27	-0.13	1.79	0.07	4.82
827.80	-0.05	0.22	-0.15	-0.30	1.39	0.17
828.00	0.07	0.26	-0.10	0.13	-1.19	0.29
828.20	-0.24	0.29	-0.03	-0.58	-1.02	-3.41
828.40	0.20	-0.19	-0.04	-0.32	-1.63	-0.23
828.60	-0.18	0.05	-0.04	1.05	-0.66	3.24
828.80	-0.40	-0.13	-0.05	-0.29	-0.02	-0.37
829.00	0.10	0.17	-0.08	-0.12	0.47	-1.68

829.20	-0.21	0.31	0.01	0.17	0.63	-0.83
829.40	-0.13	0.17	-0.12	-0.29	0.07	-0.43
829.60	-0.10	-0.34	-0.12	-0.07	-0.87	-0.94
829.80	0.11	0.20	-0.12	0.29	-0.55	-0.90
830.00	-0.05	0.01	0.00	-0.57	-1.38	-2.70
830.20	-0.49	0.15	-0.04	0.75	0.39	0.98
830.40	-0.34	0.24	-0.06	-1.16	0.40	-3.95
830.60	-0.14	-0.08	-0.10	0.61	0.29	0.94
830.80	-0.33	-0.02	-0.08	0.15	0.25	0.93
831.00	-0.06	0.15	-0.05	0.38	-0.57	0.70
831.20	-0.28	0.11	-0.06	-0.89	0.66	-3.32
831.40	-0.18	-0.16	-0.14	0.48	-1.56	0.67
831.60	-0.10	0.14	-0.12	0.29	-1.67	1.65
831.80	-0.09	-0.50	-0.05	1.17	0.44	3.35
832.00	-0.39	-0.25	-0.10	0.10	1.63	0.68
832.20	-0.05	0.15	-0.05	0.27	-0.54	-0.40
832.40	0.04	0.06	-0.05	0.44	1.02	1.65
832.60	-0.26	0.30	-0.06	0.04	1.94	1.15
832.80	-0.20	-0.15	-0.06	0.41	-0.89	0.57
833.00	-0.17	0.05	-0.12	-0.30	-2.93	-2.88
833.20	-0.20	0.12	-0.07	0.16	1.75	0.69
833.40	-0.30	0.11	-0.11	0.45	2.42	1.85
833.60	-0.24	-0.01	-0.06	0.38	-0.34	0.83
833.80	-0.10	-0.06	-0.10	0.89	-1.39	1.60
834.00	-0.32	0.09	-0.02	0.27	2.76	2.65
834.20	-0.12	-0.12	-0.12	0.79	1.49	3.43
834.40	0.06	0.09	-0.08	-0.43	-1.26	-3.25
834.60	-0.03	0.24	-0.13	1.29	-0.25	3.42
834.80	0.13	0.05	-0.16	-0.30	2.95	-0.94
835.00	-0.21	0.17	-0.06	0.47	-1.97	0.90
835.20	-0.27	0.30	-0.08	0.53	0.67	1.91
835.40	-0.06	0.02	-0.04	0.26	0.16	0.88
835.60	-0.18	-0.43	-0.07	0.17	-1.22	-1.69
835.80	-0.38	0.01	-0.05	-0.10	-1.45	-0.41
836.00	-0.21	-0.18	-0.08	0.15	2.46	1.02
836.20	-0.50	0.15	-0.06	0.96	0.19	1.06
836.40	-0.38	0.05	-0.09	0.08	-0.01	-0.32
836.60	0.01	0.03	-0.04	-0.15	-0.58	-0.97
836.80	-0.14	0.05	-0.07	0.14	-0.69	-0.11
837.00	-0.37	0.37	-0.06	0.79	-0.37	1.66
837.20	-0.33	-0.08	-0.07	0.23	0.23	-0.20
837.40	-0.42	-0.16	-0.10	-0.01	0.59	-0.95
837.60	-0.25	0.14	-0.10	0.38	-1.94	1.51
837.80	-0.08	0.06	-0.07	0.39	0.50	-0.11
838.00	-0.27	0.14	-0.09	0.40	0.84	-0.09
838.20	0.05	-0.02	-0.05	0.24	0.33	-0.70
838.40	0.34	0.11	-0.03	0.11	-0.59	-0.20
838.60	-0.14	0.05	-0.11	0.00	-2.54	-0.85
838.80	-0.28	0.11	-0.04	0.66	0.09	1.20
839.00	-0.19	-0.16	-0.04	0.49	-3.17	0.81

839.20	-0.09	0.08	-0.02	0.55	0.82	1.15
839.40	-0.45	0.05	-0.01	0.09	1.63	0.59
839.60	-0.42	0.34	-0.03	0.01	-0.25	-0.40
839.80	-0.44	-0.49	-0.13	0.42	-0.48	0.13
840.00	-0.38	-0.14	-0.02	-0.33	0.16	-1.93
840.20	-0.52	0.31	-0.04	0.57	-0.35	1.25
840.40	-0.79	0.12	-0.04	-0.18	0.24	-1.40
840.60	-0.50	-0.01	0.04	0.52	-1.21	1.79
840.80	-0.60	0.36	-0.06	0.59	-0.84	1.33
841.00	-0.55	0.17	-0.04	-0.28	-0.14	-0.94
841.20	-0.34	0.07	-0.03	-0.05	-1.55	-0.58
841.40	-0.10	0.14	-0.01	0.40	0.38	2.02
841.60	-0.39	-0.09	-0.10	0.45	0.69	-0.20
841.80	-0.29	0.02	-0.08	0.80	0.38	1.34
842.00	-0.26	0.08	-0.02	0.21	0.30	-0.42
842.20	-0.09	-0.23	-0.03	0.25	0.04	-0.14
842.40	-0.58	0.06	-0.06	0.20	-0.14	-0.12
842.60	-0.28	0.25	-0.05	0.31	-0.24	0.27
842.80	-0.12	-0.09	-0.06	0.26	-0.04	-0.03
843.00	-0.43	-0.11	-0.02	0.30	-0.23	0.07
843.20	-0.50	0.00	-0.08	0.27	0.00	-0.29
843.40	-0.41	0.01	-0.09	0.21	0.13	-0.09
843.60	0.07	-0.20	-0.06	0.25	-0.14	0.05
843.80	-0.28	-0.10	0.00	0.26	-0.30	-0.23
844.00	-0.93	0.18	-0.18	0.31	0.05	0.09
844.20	-0.08	-0.02	-0.05	0.31	0.22	0.33
844.40	-0.90	2.15	0.15	0.32	-0.22	0.24
844.60	-0.14	-0.37	0.03	0.09	0.17	-0.42
844.80	-0.03	-0.40	-0.19	0.21	-0.24	0.01
845.00	0.24	-1.01	-0.12	0.22	-0.02	0.09
845.20	-0.77	1.28	0.06	0.25	-0.57	-0.28
845.40	-0.67	0.60	0.14	0.09	0.20	-0.92
845.60	-0.22	0.26	-0.01	0.23	-0.04	-0.32
845.80	-0.62	0.50	-0.08	0.83	0.46	2.12
846.00	-0.28	-0.05	-0.06	0.50	-0.71	0.80
846.20	-0.25	-0.02	-0.04	0.05	0.82	1.21
846.40	-0.23	0.34	-0.05	0.51	-0.41	0.64
846.60	-0.32	0.11	-0.08	0.68	-0.22	1.32
846.80	0.04	-0.52	-0.07	0.26	-0.33	0.01
847.00	-0.04	-0.17	-0.07	-0.12	-1.45	0.02
847.20	-0.18	0.06	-0.04	-0.19	1.43	-1.04
847.40	-0.52	-0.21	-0.06	0.53	-4.02	1.59
847.60	-0.39	0.02	-0.04	-0.16	-0.43	1.42
847.80	-0.02	0.19	-0.02	0.47	-4.86	0.76
848.00	-0.72	0.13	-0.09	-0.48	1.37	-4.67
848.20	-0.17	-0.08	-0.02	-0.31	-5.92	2.91
848.40	-0.18	-0.02	-0.01	0.81	1.37	-0.11
848.60	-0.05	0.10	-0.09	0.19	-3.72	1.76
848.80	-0.30	-0.15	-0.05	0.15	-4.34	0.90
849.00	-0.21	0.34	-0.09	0.08	1.42	-0.17

849.20	-0.54	-0.09	-0.14	0.18	2.32	0.58
849.40	-0.39	0.26	-0.04	-0.07	1.71	-0.90
849.60	-0.55	-0.10	-0.09	0.69	0.09	-0.70
849.80	-0.13	0.16	0.01	0.66	-0.05	1.59
850.00	-0.12	-0.30	-0.08	0.16	-0.95	-2.10
850.20	-0.74	0.66	0.04	0.47	2.23	1.67
850.40	-0.21	-0.47	-0.02	0.13	-2.01	0.38
850.60	-1.01	-0.10	-0.03	0.29	-5.18	-0.48
850.80	-0.41	0.33	-0.04	-0.17	1.10	1.29
851.00	-0.22	0.48	0.04	-0.10	2.28	-0.11
851.20	-0.30	-0.10	-0.07	0.26	0.62	3.13
851.40	-0.01	-0.17	0.08	-0.26	-0.45	-1.59
851.60	-0.17	0.01	-0.04	-0.44	-1.68	-0.07
851.80	-0.37	0.03	-0.06	0.23	-0.69	-0.80
852.00	-0.77	0.25	-0.03	0.51	0.74	1.20
852.20	-0.06	-0.47	-0.17	0.09	0.03	-0.16
852.40	-0.15	-0.41	-0.11	0.27	0.76	-0.72
852.60	-0.27	-0.34	-0.06	0.02	1.66	-1.39
852.80	-0.44	0.33	-0.04	0.77	3.29	1.70
853.00	-0.45	0.25	-0.09	0.09	-0.82	-0.26
853.20	-0.13	0.31	-0.14	-0.18	1.72	-0.09
853.40	-0.56	-0.06	-0.05	0.80	-1.33	2.53
853.60	-0.60	0.08	-0.06	0.34	-1.68	0.12
853.80	-0.51	-0.02	-0.03	0.58	0.86	0.77
854.00	-0.49	-0.15	-0.06	0.62	-1.14	0.91
854.20	-0.28	0.20	-0.05	-0.11	3.87	-3.93
854.40	-0.45	0.04	-0.07	0.19	0.44	-0.17
854.60	-0.17	-0.07	-0.03	0.51	2.60	-1.17
854.80	-0.37	0.16	-0.05	0.58	1.13	-0.25
855.00	-0.23	0.22	-0.04	-0.45	-1.77	-1.19
855.20	-0.12	0.11	-0.04	0.53	0.54	0.32
855.40	-0.31	-0.17	-0.07	0.45	-0.41	0.01
855.60	-0.54	0.24	-0.05	0.28	-1.22	-1.85
855.80	-0.37	0.29	-0.03	0.20	-1.59	-0.75
856.00	-0.22	0.28	-0.03	0.66	4.08	1.05
856.20	-0.31	0.01	-0.04	1.11	-0.06	1.60
856.40	-0.50	0.02	-0.09	-1.13	0.00	-5.24
856.60	-0.60	0.32	-0.04	0.16	-0.36	0.79
856.80	0.06	-0.31	-0.05	0.06	1.25	-2.75
857.00	-0.42	-0.13	-0.03	0.23	-1.82	1.67
857.20	-0.19	-0.02	-0.05	-0.45	-0.32	-2.00
857.40	-0.26	-0.12	-0.10	0.03	-0.60	-0.28
857.60	-0.41	-0.09	0.01	0.21	-0.14	-0.24
857.80	-0.31	0.58	-0.03	0.27	-0.16	0.02
858.00	-0.35	0.11	-0.02	0.38	1.02	-0.83
858.20	-0.41	0.14	-0.02	0.20	-0.79	0.93
858.40	-0.76	0.36	-0.04	0.32	0.02	0.37
858.60	-0.06	-0.17	-0.07	0.23	0.44	0.30
858.80	-0.09	-0.05	0.06	0.20	1.20	0.31
859.00	-0.18	-0.21	0.00	0.21	-0.03	-0.19

859.20	-0.05	-0.02	0.01	0.30	0.82	1.41
859.40	0.14	0.20	-0.06	-0.23	2.13	-1.68
859.60	-0.06	0.05	0.02	0.37	-4.27	1.22
859.80	-0.50	0.20	-0.05	0.26	-1.66	2.21
860.00	0.06	-0.23	-0.03	0.24	-0.24	-0.38
860.20	-0.54	0.11	0.00	0.72	-0.67	0.71
860.40	-0.12	-0.25	0.00	0.59	-0.06	2.01
860.60	-0.32	0.04	-0.07	-0.12	-1.36	2.81
860.80	-0.21	-0.30	-0.12	-0.04	-2.19	-0.92
861.00	-0.55	0.20	-0.02	-0.03	-2.11	1.24
861.20	-0.34	0.09	-0.07	0.34	-1.52	0.59
861.40	-0.36	0.01	0.01	-0.30	-0.97	-1.08
861.60	-0.22	-0.07	-0.04	-0.09	0.21	-0.63
861.80	-0.40	0.00	-0.07	-0.07	-1.52	-0.15
862.00	-0.36	0.04	-0.05	-0.33	-0.20	-1.24
862.20	-0.18	-0.23	-0.02	0.34	-0.12	0.57
862.40	-0.04	0.04	0.01	0.19	-1.19	0.93
862.60	-0.42	0.32	-0.09	0.08	-2.24	0.91
862.80	-0.28	-0.02	-0.05	0.38	1.14	-0.22
863.00	-0.36	-0.09	-0.10	0.48	0.86	-0.07
863.20	-0.30	0.03	-0.03	0.29	0.07	0.37
863.40	-0.60	0.31	-0.05	0.18	-0.74	0.36
863.60	-0.64	0.04	-0.08	0.36	-0.54	0.59
863.80	-0.36	-0.49	-0.14	0.56	1.29	0.00
864.00	-0.41	-0.13	-0.05	0.02	1.98	-1.50
864.20	-0.26	0.40	-0.02	-1.25	0.19	-4.60
864.40	-0.39	0.47	-0.03	-0.61	0.86	-3.21
864.60	-0.23	-0.18	-0.10	0.17	-3.10	1.16
864.80	-0.25	-0.13	-0.07	0.11	-5.42	0.08
865.00	0.17	0.03	0.01	-0.20	-0.85	-4.66
865.20	-0.67	0.42	-0.20	-0.10	-0.17	-0.66
865.40	-0.50	-0.48	-0.01	0.43	-1.72	-0.11
865.60	-0.39	-0.69	-0.10	0.56	1.36	1.58
865.80	-0.45	-0.22	0.05	0.29	1.91	1.07
866.00	-0.47	0.24	-0.04	0.44	1.45	-0.27
866.20	-0.31	0.05	-0.02	0.12	-2.82	0.57
866.40	-0.19	-0.05	0.00	-0.25	0.96	-0.27
866.60	-0.20	0.27	0.04	-0.50	-0.09	-0.70
866.80	-0.45	0.39	0.01	0.78	3.18	2.87
867.00	-0.17	0.16	-0.08	0.02	0.22	0.95
867.20	-0.34	0.02	-0.06	-0.57	-1.20	-2.37
867.40	-0.32	-0.09	-0.04	0.59	-0.46	1.60
867.60	-0.37	-0.23	-0.08	-0.86	-0.13	-3.08
867.80	-0.49	0.19	-0.10	0.57	0.00	0.25
868.00	-0.18	-0.12	-0.08	0.02	3.27	-2.62
868.20	-0.27	0.01	-0.07	-0.20	2.90	-1.52
868.40	0.07	-0.09	-0.06	0.11	1.06	0.78
868.60	-0.22	-0.20	-0.03	0.91	-0.33	2.32
868.80	-0.34	0.22	-0.03	0.26	-1.30	1.00
869.00	-0.31	-0.10	-0.07	0.35	-2.36	1.66

869.20	-0.58	0.33	-0.03	0.27	-0.84	1.29
869.40	-0.21	-0.07	-0.09	-0.34	3.08	-4.43
869.60	0.14	-0.42	-0.11	-0.57	-0.99	-3.80
869.80	-0.25	-0.10	0.01	-0.05	-0.10	2.31
870.00	-0.36	0.04	-0.03	-0.09	-0.05	-0.45
870.20	-0.18	-0.16	-0.09	-0.13	-0.98	-1.12
870.40	-0.23	-0.12	-0.06	0.28	1.48	-0.05
870.60	0.08	-0.08	-0.11	0.87	-1.70	1.36
870.80	0.05	0.15	-0.11	0.54	-0.84	0.36
871.00	-0.32	-0.02	-0.05	0.07	0.08	0.92
871.20	-0.10	0.03	-0.09	-0.19	0.60	-0.82
871.40	-0.33	-0.34	-0.09	1.03	-0.25	4.23
871.60	-0.10	-0.27	-0.08	0.34	-0.53	2.26
871.80	-0.91	1.15	0.08	-0.17	-1.40	-0.92
872.00	-0.50	0.36	-0.07	0.24	0.64	1.00
872.20	-0.01	0.18	-0.06	-0.38	-0.38	-1.62
872.40	0.01	0.17	-0.05	0.35	-1.28	0.12
872.60	0.08	0.11	-0.10	0.38	0.42	-0.27
872.80	-0.21	-0.08	-0.10	-0.05	-1.37	0.75
873.00	-0.51	-0.11	-0.09	0.44	2.71	2.60
873.20	-0.05	-0.06	-0.08	0.60	2.05	0.96
873.40	0.14	-0.24	-0.07	0.36	5.46	0.85
873.60	0.35	0.26	-0.16	0.54	-0.58	1.47
873.80	0.05	-0.22	-0.09	-0.62	-0.50	-1.75
874.00	0.18	0.27	-0.10	0.27	0.03	0.54
874.20	-0.02	-0.02	-0.02	0.54	-0.02	1.15
874.40	-0.27	0.22	-0.09	0.36	0.72	0.79
874.60	0.07	-0.14	-0.15	-0.46	0.11	-1.67
874.80	-0.31	0.08	-0.05	-0.58	-0.62	-2.34
875.00	0.03	0.14	-0.06	0.06	-0.48	-0.38
875.20	0.18	0.10	-0.06	-0.30	-0.86	-1.33
875.40	-0.09	0.04	-0.06	0.06	-1.01	0.34
875.60	-0.20	-0.05	-0.08	-0.16	-0.18	-0.61
875.80	-0.16	-0.06	-0.03	-0.20	-0.08	-1.32
876.00	0.06	-0.04	-0.06	-0.06	0.35	-1.57
876.20	-0.34	0.35	-0.06	0.43	0.52	-0.83
876.40	0.08	-0.07	-0.12	-0.08	-1.98	-0.87
876.60	-0.17	0.01	-0.09	-0.35	0.96	1.14
876.80	-0.21	-0.04	-0.04	0.27	2.26	-0.45
877.00	-0.10	0.06	-0.08	0.16	0.57	-0.42
877.20	-0.21	0.01	-0.10	-0.29	2.58	-2.09
877.40	-0.15	0.05	-0.08	0.12	-0.16	-0.67
877.60	-0.14	0.09	-0.09	0.28	0.03	0.39
877.80	-0.09	0.06	-0.05	-0.31	1.31	-1.95
878.00	-0.13	-0.36	-0.10	-0.14	-0.90	-1.36
878.20	-0.25	0.31	-0.06	0.42	-1.18	1.53
878.40	-0.16	0.50	-0.05	-0.26	-1.42	-1.96
878.60	-0.03	-0.01	-0.11	0.03	0.08	0.95
878.80	-0.45	-0.06	-0.12	0.04	-1.31	-1.32
879.00	-0.30	0.00	-0.06	-0.17	-0.50	0.38

879.20	-0.26	-0.06	-0.09	0.75	-2.22	1.12
879.40	-0.25	-0.21	-0.09	-0.08	1.82	-1.41
879.60	0.07	-0.18	-0.13	-0.41	-3.36	-1.79
879.80	0.18	0.07	-0.06	0.20	0.00	1.04
880.00	-0.25	-0.14	-0.09	-0.95	-1.13	-0.78
880.20	-0.21	0.03	-0.12	0.18	-2.56	-0.32
880.40	-0.04	0.26	-0.08	0.42	-1.48	0.21
880.60	-0.15	-0.04	-0.09	0.14	0.64	-0.48
880.80	-0.14	0.04	-0.11	-0.03	-0.12	-0.76
881.00	-0.25	0.03	-0.10	0.01	-1.60	0.64
881.20	-0.25	0.10	-0.11	0.12	2.12	2.37
881.40	-0.13	-0.12	-0.12	-0.19	-0.51	1.43
881.60	-0.07	-0.04	-0.13	0.14	1.75	0.58
881.80	-0.09	-0.17	-0.14	0.44	-1.68	0.33
882.00	-0.02	-0.01	-0.11	0.27	5.09	0.24
882.20	-0.28	0.06	-0.09	-1.40	2.81	-3.87
882.40	-0.01	-0.04	-0.09	1.11	-1.13	2.55
882.60	-0.08	0.09	-0.12	-0.61	-4.48	0.30
882.80	-0.09	0.12	-0.10	-1.32	5.58	-5.82
883.00	0.00	-0.06	-0.13	0.69	-0.62	0.41
883.20	0.14	-0.01	-0.13	0.30	1.90	-0.55
883.40	-0.31	0.15	-0.10	0.04	0.65	-0.27
883.60	0.18	0.17	-0.03	-0.61	-1.70	1.50
883.80	0.07	0.05	-0.07	0.34	-0.39	-1.98
884.00	0.03	-0.01	-0.08	-0.16	-4.35	1.72
884.20	-0.02	-0.11	-0.09	0.16	-1.79	1.91
884.40	0.05	-0.12	-0.09	-0.20	-1.69	-2.47
884.60	-0.23	0.00	-0.07	-0.15	-3.75	3.03
884.80	-0.11	0.07	-0.07	0.38	-0.30	0.68
885.00	-0.10	0.13	-0.12	-0.62	2.88	-0.84
885.20	-0.23	0.02	-0.12	0.58	1.46	2.74
885.40	-0.09	0.13	-0.13	0.94	-1.40	3.28
885.60	-0.09	0.08	-0.12	0.27	1.05	0.01
885.80	-0.04	0.19	-0.12	0.19	-0.13	0.16
886.00	-0.15	0.08	-0.12	-0.02	1.29	-0.52
886.20	-0.08	0.02	-0.10	0.25	-1.43	1.47
886.40	-0.13	-0.07	-0.10	-0.13	0.30	0.07
886.60	-0.39	0.23	-0.10	0.41	0.44	0.84
886.80	-0.11	-0.09	-0.14	0.22	-2.19	0.11
887.00	0.01	0.06	-0.11	0.29	0.77	-0.06
887.20	0.06	-0.13	-0.10	0.33	0.13	1.91
887.40	-0.06	0.07	-0.13	-1.12	1.77	-4.36
887.60	0.16	0.26	-0.03	0.09	-0.96	0.08
887.80	-0.04	0.02	-0.16	0.77	-0.75	2.08
888.00	-0.34	-0.10	-0.16	0.00	0.97	-0.95
888.20	-0.14	0.24	-0.09	0.81	-0.24	3.27
888.40	-0.28	0.08	-0.09	0.93	1.81	1.80
888.60	-0.21	0.15	-0.14	0.06	-1.95	-0.36
888.80	0.26	-0.01	-0.08	0.53	-0.91	1.63
889.00	-0.23	0.11	-0.18	-0.32	1.89	-0.23

889.20	-0.17	0.10	-0.08	-0.08	-1.65	-1.06
889.40	0.16	0.27	-0.06	0.40	-1.92	1.68
889.60	-0.72	0.38	-0.09	-0.39	0.00	-1.14
889.80	0.30	-0.41	0.00	-0.67	0.06	-2.91
890.00	0.07	0.10	-0.11	-0.12	-0.80	-1.22
890.20	0.09	0.02	-0.13	-1.01	0.20	-4.86
890.40	-0.37	0.10	-0.06	0.19	1.73	0.36
890.60	-0.16	0.24	-0.01	0.06	-1.51	0.70
890.80	0.02	0.10	-0.07	-0.01	-2.46	0.30
891.00	0.35	-0.93	-0.27	0.43	0.64	0.85
891.20	-0.03	-0.31	-0.18	0.58	-0.07	1.41
891.40	-0.01	0.09	-0.11	0.04	-0.92	-1.27
891.60	0.19	0.26	-0.11	0.07	-1.18	-1.98
891.80	-0.41	0.15	-0.19	-0.19	-3.36	1.08
892.00	0.16	0.08	-0.12	0.09	1.91	1.74
892.20	0.24	0.01	-0.18	0.01	-0.17	-1.02
892.40	0.23	-0.22	-0.18	-0.14	1.41	1.24
892.60	0.41	0.16	-0.11	-0.04	-0.86	-0.34
892.80	-0.08	0.03	-0.14	-0.06	1.77	0.52
893.00	-0.50	0.18	-0.18	-0.06	1.30	0.16
893.20	0.02	0.11	-0.06	0.03	0.06	-0.37
893.40	0.06	-0.83	-0.21	0.06	-0.77	-0.52
893.60	-0.25	0.82	-0.12	0.00	0.09	0.03
893.80	-0.12	0.10	-0.12	0.11	-0.28	0.32
894.00	0.33	0.13	-0.03	0.06	0.03	-0.15
894.20	-1.01	1.30	0.02	0.02	-0.04	-0.20
894.40	-0.43	0.50	-0.12	0.03	0.44	0.13
894.60	0.93	-0.85	-0.25	0.03	0.19	0.00
894.80	0.25	-0.75	-0.02	-0.01	-0.47	0.03
895.00	0.93	-1.49	-0.36	-0.03	0.20	-0.18
895.20	0.21	-0.01	-0.13	0.09	0.40	0.28
895.40	0.37	-0.44	-0.20	0.11	0.19	0.33
895.60	0.02	-0.15	-0.12	0.06	0.14	-0.08
895.80	-0.63	0.47	0.00	0.10	0.17	0.21
896.00	0.38	0.18	-0.10	0.05	0.14	-0.01
896.20	-0.27	0.46	-0.10	0.03	-0.16	0.06
896.40	0.34	-0.17	-0.10	0.03	-0.20	0.12
896.60	-0.14	0.04	-0.10	0.07	0.21	0.06
896.80	0.53	-0.57	-0.25	-0.01	-0.11	-0.10
897.00	0.09	-0.06	-0.06	0.09	-0.01	0.32
897.20	-0.04	-0.60	-0.12	0.03	-0.24	-0.34
897.40	-0.21	0.23	-0.16	0.10	0.16	0.22
897.60	0.94	-1.06	-0.17	0.07	-0.50	-0.07
897.80	0.46	-0.47	-0.18	0.06	0.12	0.17
898.00	1.08	-1.89	-0.43	0.06	-0.04	-0.01
898.20	-0.22	1.00	-0.02	-0.07	0.07	-0.20
898.40	-0.61	0.46	0.04	0.03	-0.11	0.03
898.60	0.05	-1.02	-0.17	-0.01	-0.09	-0.20
898.80	-0.22	-0.11	-0.12	0.05	0.12	0.36
899.00	-0.02	-0.04	-0.15	-0.10	0.10	-0.31

899.20	0.02	0.25	-0.05	0.06	0.35	0.28
899.40	-0.13	0.04	-0.11	0.02	0.39	0.00
899.60	-0.29	0.21	-0.10	0.00	-0.17	-0.03
899.80	-0.20	0.26	-0.13	0.09	0.18	0.08
900.00	-0.48	0.46	-0.06	0.09	0.11	0.34
900.20	0.21	0.01	-0.13	-0.05	1.42	0.80
900.40	0.02	0.28	-0.10	-0.12	-1.04	-1.09
900.60	-0.08	-0.17	-0.19	0.11	-0.35	-0.09
900.80	-0.03	0.52	-0.06	0.03	-0.46	-0.34
901.00	0.26	-0.37	-0.16	0.02	0.35	0.04
901.20	0.22	-0.41	-0.14	-0.03	0.02	-0.42
901.40	0.10	0.41	-0.08	-0.01	-0.40	0.06
901.60	-0.17	0.00	-0.13	0.11	-0.37	-0.14
901.80	-0.01	0.01	-0.12	0.01	0.32	-0.05
902.00	-0.21	0.21	-0.13	0.13	-1.21	-0.71
902.20	0.06	0.06	-0.17	-0.03	0.21	-0.02
902.40	-0.02	0.11	-0.14	0.04	0.64	0.22
902.60	0.04	-0.20	-0.17	-0.02	0.14	-0.02
902.80	-0.05	-0.06	-0.12	0.04	-0.12	-0.06
903.00	0.10	-0.18	-0.14	0.08	0.09	0.34
903.20	0.04	-0.04	-0.16	0.06	-0.48	-0.16
903.40	0.07	-0.05	-0.15	0.08	0.22	0.09
903.60	-0.05	0.02	-0.11	0.02	0.90	0.57
903.80	-0.05	0.13	-0.11	0.01	0.36	0.10
904.00	-0.06	-0.07	-0.14	-0.01	0.16	-0.26
904.20	0.12	0.03	-0.08	-0.12	0.43	-0.15
904.40	-0.14	-0.04	-0.08	0.04	-0.11	-0.16
904.60	0.37	-0.09	-0.11	0.12	0.34	-0.19
904.80	0.13	-0.14	-0.12	0.05	0.27	0.27
905.00	0.07	0.16	-0.09	0.01	0.51	-0.04
905.20	0.14	-0.01	-0.13	-0.01	-0.41	-0.32
905.40	0.07	0.03	-0.10	0.12	0.09	0.05
905.60	-0.11	0.18	-0.08	0.03	-0.19	0.17
905.80	0.07	-0.05	-0.10	0.06	0.36	-0.10
906.00	0.06	0.04	-0.13	0.01	0.01	0.17
906.20	0.10	0.31	-0.10	0.06	-0.14	-0.22
906.40	-0.15	0.21	-0.12	-0.02	0.20	0.00
906.60	0.06	0.25	-0.07	0.00	-0.18	-0.21
906.80	-0.11	0.08	-0.14	0.13	0.83	-0.22
907.00	0.22	0.10	-0.14	0.02	-1.01	0.69
907.20	-0.05	0.16	-0.11	0.16	-1.39	0.97
907.40	0.04	0.05	-0.17	0.04	1.55	-0.59
907.60	0.00	0.12	-0.11	0.08	0.30	0.09
907.80	-0.03	0.15	-0.11	0.01	0.21	-0.30
908.00	0.00	-0.01	-0.12	0.06	1.05	-0.49
908.20	-0.09	0.24	-0.10	-0.08	-0.80	1.14
908.40	0.14	0.06	-0.14	-0.02	0.04	-0.25
908.60	0.00	-0.07	-0.10	-0.27	-0.08	-0.87
908.80	0.04	0.17	-0.11	-0.17	-0.03	-0.76
909.00	-0.03	0.09	-0.14	0.06	-0.13	0.02

909.20	0.02	0.17	-0.12	-0.14	0.22	-0.21
909.40	0.04	0.09	-0.12	-0.30	0.31	-1.59
909.60	0.17	0.11	-0.12	0.10	-0.92	0.72
909.80	0.09	-0.02	-0.15	0.41	-0.35	0.61
910.00	0.02	0.01	-0.13	0.04	1.36	-1.18
910.20	0.03	0.14	-0.15	-0.16	-1.42	0.29
910.40	0.09	-0.12	-0.10	0.51	-0.42	1.32
910.60	-0.19	0.13	-0.15	0.00	0.23	0.24
910.80	-0.10	0.11	-0.14	-0.60	0.04	-1.98
911.00	0.01	0.03	-0.15	-0.71	0.46	-1.86
911.20	-0.03	0.27	-0.13	0.05	-1.09	-0.71
911.40	-0.01	-0.02	-0.15	0.11	-0.20	0.57
911.60	0.03	-0.01	-0.15	-0.13	-0.11	-0.36
911.80	-0.04	0.25	-0.13	-0.06	0.09	-0.02
912.00	0.07	0.17	-0.12	-0.02	0.37	-0.41
912.20	0.00	0.07	-0.15	-0.07	0.23	0.14
912.40	0.01	0.33	-0.10	0.03	0.15	0.42
912.60	0.03	0.06	-0.07	-0.05	-0.01	0.39
912.80	0.06	0.07	-0.10	-0.09	-0.91	-0.63
913.00	-0.04	0.18	-0.07	-0.04	0.09	0.06
913.20	0.00	0.24	-0.12	-0.03	-0.16	-0.20
913.40	0.14	0.23	-0.09	-0.01	0.14	-0.08
913.60	-0.14	-0.05	-0.09	-0.12	0.31	-0.42
913.80	0.25	-0.33	-0.13	-0.10	-0.12	0.09
914.00	0.22	-0.20	-0.12	-0.12	0.41	-0.23
914.20	-0.18	0.33	-0.07	-0.11	-0.30	-0.18
914.40	0.13	0.11	-0.08	-0.22	-0.79	0.04
914.60	0.09	0.05	-0.11	-0.09	0.33	-0.37
914.80	-0.38	0.74	0.02	0.03	-0.26	0.32
915.00	0.05	-0.27	-0.14	-0.08	0.20	-0.33
915.20	-0.33	-0.14	-0.06	-0.14	-0.08	-0.07
915.40	0.02	-0.02	-0.07	-0.09	-0.05	0.06
915.60	0.45	-0.01	-0.11	-0.11	-0.46	-0.09
915.80	0.50	-0.01	-0.05	-0.11	0.29	0.04
916.00	-0.03	-0.21	-0.03	0.00	0.16	0.37
916.20	0.14	-0.01	-0.07	-0.16	0.45	0.33
916.40	-0.11	0.48	-0.06	-0.25	0.23	0.15
916.60	0.29	0.18	-0.05	-0.12	2.01	0.95
916.80	0.32	-0.06	-0.07	0.46	-0.62	1.95
917.00	0.25	-0.05	-0.08	0.14	0.00	1.01
917.20	0.22	-0.12	-0.09	-0.58	-0.22	-1.81
917.40	0.12	0.19	-0.06	-0.10	-0.78	1.94
917.60	0.16	-0.12	-0.09	0.44	1.92	1.78
917.80	0.12	0.00	-0.11	0.29	0.79	0.39
918.00	0.06	0.16	-0.11	0.77	2.32	0.70
918.20	0.20	0.11	-0.10	-0.31	0.32	-1.65
918.40	0.19	0.06	-0.13	-0.03	-0.49	0.18
918.60	0.06	0.10	-0.13	0.94	-0.21	3.38
918.80	-0.16	0.29	-0.07	0.45	-0.61	2.64
919.00	0.13	-0.17	-0.08	0.78	2.95	2.32

919.20	-0.03	0.37	-0.10	0.42	0.67	3.75
919.40	-0.14	-0.27	-0.08	-0.08	0.92	1.20
919.60	0.14	0.10	-0.09	-0.53	-0.26	-1.38
919.80	0.08	-0.04	-0.04	-0.23	-0.12	0.21
920.00	0.03	0.11	0.00	-0.21	0.32	-0.55
920.20	-0.03	0.08	0.04	0.09	-0.24	0.85
920.40	0.02	0.04	0.06	0.10	-0.28	0.81
920.60	-0.23	0.12	-0.01	-0.09	0.19	0.05
920.80	0.06	0.32	0.01	0.00	0.36	0.48
921.00	0.17	-0.06	-0.06	0.11	0.21	0.88
921.20	0.15	-0.27	-0.07	-0.21	0.67	-0.77
921.40	-0.12	0.00	-0.02	-0.11	0.57	-0.31
921.60	-0.01	0.20	0.00	-0.08	0.26	0.08
921.80	-0.07	0.37	-0.03	-0.28	0.32	0.03
922.00	-0.01	0.32	-0.04	-0.10	0.69	0.08
922.20	-0.03	0.10	-0.08	-0.13	-0.03	0.23
922.40	-0.04	0.02	-0.04	-1.00	2.31	-4.27
922.60	0.14	-0.03	-0.08	-0.27	1.26	-0.91
922.80	0.26	-0.12	-0.11	-0.10	1.29	1.26
923.00	0.14	-0.11	-0.03	0.77	2.49	2.41
923.20	0.05	0.02	-0.05	0.03	0.32	2.54
923.40	-0.02	0.01	-0.09	0.47	-0.80	4.48
923.60	0.11	0.01	-0.08	-0.87	2.67	-4.42
923.80	0.25	0.02	-0.10	0.05	-2.02	3.04
924.00	-0.13	-0.05	-0.09	0.92	-0.65	1.89
924.20	0.00	-0.07	-0.05	0.74	2.40	-0.17
924.40	-0.26	0.23	-0.06	0.55	-1.06	-0.98
924.60	0.31	-0.07	-0.04	0.32	-1.99	1.36
924.80	0.13	0.03	-0.04	0.19	2.98	-0.36
925.00	0.15	-0.03	-0.06	0.16	-0.01	1.91
925.20	0.17	0.04	-0.10	-0.44	1.87	-1.72
925.40	0.33	0.01	-0.05	-0.05	-1.97	-0.25
925.60	0.15	-0.09	-0.07	-0.10	-0.74	0.81
925.80	0.09	-0.12	-0.09	-0.30	2.32	-0.78
926.00	0.13	0.01	-0.04	-0.78	1.57	-1.30
926.20	-0.05	0.21	-0.01	0.32	5.29	3.57
926.40	0.20	-0.02	-0.04	0.33	-2.24	0.40
926.60	0.05	-0.03	-0.04	0.00	2.92	-0.99
926.80	0.16	0.05	-0.05	-0.46	0.70	-0.94
927.00	0.23	-0.13	-0.06	0.19	0.53	-0.57
927.20	0.17	0.05	-0.06	-0.59	-0.99	0.31
927.40	0.18	0.16	-0.04	-0.49	1.24	-1.52
927.60	0.04	0.15	-0.07	-0.15	0.98	-0.40
927.80	-0.20	0.09	-0.05	-0.05	1.08	0.38
928.00	-0.08	-0.02	-0.04	-0.16	1.81	1.93
928.20	0.00	0.14	-0.08	-0.33	2.34	1.49
928.40	0.26	-0.09	-0.12	-0.12	-1.56	-1.12
928.60	0.15	-0.16	-0.09	-0.05	-0.75	-0.32
928.80	0.15	0.09	-0.09	-0.30	0.27	0.82
929.00	0.09	-0.09	-0.07	-0.33	0.04	-0.33

929.20	-0.10	-0.17	-0.10	0.16	-0.78	0.67
929.40	0.16	0.20	-0.10	1.29	-1.11	4.39
929.60	0.30	0.03	-0.11	-0.26	0.57	-0.03
929.80	0.11	0.13	-0.10	-0.24	-0.61	-1.77
930.00	0.16	0.07	-0.10	0.49	3.03	1.79
930.20	0.27	0.27	-0.09	0.33	1.41	1.67
930.40	0.42	-0.21	-0.10	0.40	-0.95	0.76
930.60	0.06	0.10	-0.09	0.08	-1.74	-0.87
930.80	0.00	-0.09	-0.11	0.00	0.09	1.59
931.00	0.25	-0.22	-0.12	0.17	-0.37	-0.44
931.20	0.51	0.09	-0.13	0.00	-0.08	-1.89
931.40	0.17	0.32	-0.05	0.65	-0.49	1.49
931.60	0.46	-0.07	-0.05	0.03	0.61	-0.43
931.80	-0.10	0.91	0.01	0.43	-3.23	2.33
932.00	0.38	0.38	0.03	0.16	3.07	1.72
932.20	0.15	0.20	-0.07	-0.78	3.94	-3.51
932.40	0.10	-0.07	-0.08	1.03	3.00	0.81
932.60	0.39	-0.28	-0.10	-0.53	1.98	-1.80
932.80	-0.20	0.31	-0.03	0.36	3.17	1.62
933.00	0.24	-0.08	-0.07	0.19	3.72	-0.09
933.20	0.25	0.02	-0.08	0.65	1.07	4.78
933.40	-0.01	-0.07	-0.11	-0.03	3.71	0.59
933.60	0.18	-0.03	-0.06	-0.74	-1.99	-1.02
933.80	-0.10	-0.02	-0.11	-0.86	-3.68	-1.64
934.00	0.24	-0.16	-0.11	-0.57	0.47	-1.50
934.20	-0.05	0.15	-0.03	-0.61	-1.15	-1.78
934.40	0.15	-0.13	-0.06	-0.26	-0.91	-0.79
934.60	0.06	0.25	-0.08	-0.14	-0.86	0.06
934.80	0.32	0.08	-0.10	-0.20	0.34	-0.06
935.00	-0.21	0.25	-0.04	-0.24	-0.06	-0.43
935.20	0.34	-0.31	-0.13	-0.19	-0.02	0.27
935.40	-0.21	0.11	-0.08	-0.20	0.30	-0.03
935.60	0.09	-0.03	-0.06	-0.20	0.13	0.21
935.80	0.25	-0.01	-0.07	-0.25	0.10	-0.22
936.00	0.32	0.05	0.00	-0.29	0.05	-0.13
936.20	0.36	-0.10	-0.05	-0.22	0.00	0.05
936.40	0.09	0.04	-0.06	-0.22	-0.05	0.09
936.60	0.13	-0.04	-0.04	-0.22	-0.02	0.08
936.80	0.24	0.06	-0.06	-0.14	0.26	0.25
937.00	0.13	-0.08	-0.08	-0.28	0.29	-0.20
937.20	0.29	0.04	-0.09	-0.61	-0.04	-1.10
937.40	0.21	0.14	-0.05	-0.90	-0.63	-2.02
937.60	0.35	0.11	-0.04	-0.66	2.62	-3.34
937.80	0.20	-0.07	-0.09	0.46	0.69	0.77
938.00	0.19	0.00	-0.07	-0.43	-4.27	-0.38
938.20	0.18	0.07	-0.07	0.23	2.19	2.41
938.40	0.12	0.24	-0.03	-0.01	-3.93	-0.86
938.60	0.04	-0.04	-0.04	-0.68	-3.61	-2.21
938.80	0.02	0.03	-0.05	-0.44	-0.33	0.55
939.00	0.32	0.07	-0.05	-0.74	0.12	-2.10

939.20	0.19	-0.05	-0.03	-0.20	3.24	-1.82
939.40	0.26	-0.09	-0.05	0.74	-1.27	-2.96
939.60	0.15	0.09	-0.10	1.97	-0.24	3.94
939.80	0.26	-0.08	-0.10	0.37	-1.49	0.18
940.00	0.22	0.08	-0.05	-0.45	4.48	-4.73
940.20	0.39	0.28	-0.07	-0.36	5.27	-5.06
940.40	-0.03	0.00	0.00	-0.14	-3.32	-0.29
940.60	0.32	-0.15	-0.10	1.25	-0.76	4.59
940.80	-0.26	0.04	0.01	-0.58	-0.09	-1.77
941.00	0.43	0.09	-0.05	0.29	-1.88	0.75
941.20	0.15	-0.25	-0.04	-0.45	-3.55	-5.26
941.40	0.27	-0.05	-0.07	1.06	-0.16	4.25
941.60	0.38	-0.10	-0.12	-1.29	4.56	-5.86
941.80	-0.37	0.03	-0.01	0.11	-4.24	0.86
942.00	0.31	-0.05	-0.16	0.12	-3.18	-1.24
942.20	0.17	0.06	-0.03	0.23	-1.29	1.90
942.40	0.25	0.13	-0.08	0.28	-0.68	0.97
942.60	0.36	-0.04	-0.08	-0.18	-0.14	-0.11
942.80	0.37	-0.05	-0.03	-0.24	-0.74	0.76
943.00	0.31	-0.05	-0.08	-0.03	-1.67	1.28
943.20	0.47	0.05	-0.11	-0.98	0.87	-2.78
943.40	0.57	0.41	-0.09	-0.26	-2.34	0.29
943.60	0.43	0.31	-0.07	0.12	-0.51	0.01
943.80	0.05	0.05	-0.02	-0.32	-0.88	0.56
944.00	0.14	0.27	-0.03	0.09	-0.68	1.42
944.20	0.10	-0.26	0.00	0.09	2.85	1.47
944.40	0.27	0.44	-0.04	0.24	-2.10	3.39
944.60	0.21	0.05	-0.11	-0.25	3.24	-0.87
944.80	0.52	-0.17	-0.02	-0.73	0.20	-1.80
945.00	0.28	0.09	0.00	-0.37	-1.87	-1.83
945.20	-0.06	0.24	-0.03	-1.60	2.40	-2.94
945.40	0.32	0.33	0.02	0.35	-3.58	1.93
945.60	0.54	-0.06	-0.04	0.18	-0.45	-1.39
945.80	0.25	0.06	-0.04	-0.39	-0.89	-2.46
946.00	0.09	-0.05	-0.05	-0.35	-0.90	-2.62
946.20	-0.03	-0.08	-0.11	-0.86	-1.99	-0.32
946.40	0.23	0.22	-0.06	-0.27	-1.00	2.25
946.60	-0.07	-0.17	-0.05	0.22	-1.86	-0.11
946.80	0.31	-0.41	-0.05	-0.72	-0.19	-1.52
947.00	0.21	-0.10	-0.03	0.09	0.69	0.65
947.20	-0.02	-0.10	-0.06	-0.21	2.06	0.36
947.40	0.74	0.25	-0.05	-0.06	-3.42	-1.25
947.60	0.20	-0.02	-0.11	-0.32	0.31	1.80
947.80	0.00	-0.05	-0.02	-0.42	3.19	1.28
948.00	-0.03	-0.40	-0.15	-0.44	0.15	-1.87
948.20	0.24	0.53	0.00	-0.35	-1.14	0.84
948.40	0.53	-0.26	-0.04	-0.74	-1.44	0.53
948.60	1.28	-1.55	-0.20	-0.97	2.17	-3.25
948.80	-0.01	0.25	0.07	-0.70	-0.94	-1.03
949.00	0.58	0.51	-0.05	0.12	-2.58	1.08

949.20	0.66	-0.94	-0.09	0.14	2.19	-0.89
949.40	0.21	-0.33	-0.01	0.03	0.19	-0.47
949.60	0.02	-0.15	0.04	0.14	-0.17	-0.29
949.80	0.04	-0.12	-0.11	0.11	-0.69	-2.33
950.00	0.38	-0.37	-0.03	0.14	-0.83	-1.17
950.20	0.40	0.04	-0.02	0.60	2.48	0.22
950.40	0.19	-0.06	-0.04	-0.65	1.75	-1.75
950.60	0.15	0.19	-0.03	0.15	-0.29	1.45
950.80	-0.01	0.11	-0.07	1.01	0.05	3.65
951.00	0.59	-0.35	-0.07	-0.37	-0.15	-0.25
951.20	0.31	-0.20	-0.07	-0.09	1.88	0.57
951.40	0.02	-0.28	-0.11	-0.53	1.96	-1.19
951.60	0.16	-0.09	-0.06	-0.22	0.15	0.62
951.80	-0.08	-0.09	-0.04	-0.48	0.34	0.30
952.00	-0.21	-0.54	0.00	-0.62	-0.41	-0.84
952.20	0.59	0.05	0.07	-0.52	-0.16	-0.91
952.40	0.38	-0.44	-0.05	-0.24	-1.13	-0.23
952.60	0.10	0.06	-0.03	-0.06	-1.06	1.28
952.80	0.08	0.21	-0.05	-0.60	1.09	-0.91
953.00	-0.13	-0.18	-0.06	-0.12	-1.25	0.16
953.20	0.65	-0.36	-0.10	0.05	0.71	0.20
953.40	0.34	0.22	-0.09	-0.29	2.25	-0.49
953.60	-0.04	0.08	-0.06	-0.82	2.51	-2.79
953.80	0.31	-0.23	-0.05	-0.26	1.55	1.03
954.00	0.43	-0.14	-0.07	0.64	-1.43	2.90
954.20	0.40	-0.56	-0.05	-0.33	-0.15	-0.23
954.40	0.21	-0.31	-0.02	0.63	0.29	3.01
954.60	0.37	-0.14	-0.04	-0.22	-0.39	-0.75
954.80	0.08	0.00	-0.04	0.35	2.61	1.41
955.00	0.13	-0.18	-0.09	-0.14	6.59	0.71
955.20	0.03	0.27	-0.05	0.72	0.64	3.98
955.40	0.22	-0.24	-0.09	0.08	0.58	-2.01
955.60	0.16	-0.23	-0.09	0.01	-3.13	4.11
955.80	0.45	-0.31	-0.09	-0.10	-1.62	0.29
956.00	0.05	0.21	-0.04	-0.74	0.54	-1.00
956.20	-0.07	-0.07	-0.02	0.25	0.69	-0.01
956.40	0.23	-0.33	-0.10	-0.43	0.51	-0.20
956.60	0.22	-0.02	-0.14	-0.26	0.24	0.33
956.80	0.32	0.02	-0.05	-0.17	-2.28	-1.08
957.00	0.03	-0.17	-0.11	-0.10	-2.19	-0.79
957.20	0.21	-0.01	-0.11	-0.63	2.59	-1.10
957.40	0.25	0.01	-0.06	0.09	2.22	-0.20
957.60	0.09	-0.03	-0.08	0.34	0.30	1.54
957.80	-0.06	-0.22	-0.11	-0.29	1.32	-1.18
958.00	0.25	-0.07	-0.07	-0.13	-1.27	0.79
958.20	0.34	-0.05	-0.01	-0.33	1.95	-2.52
958.40	0.20	-0.09	-0.05	-0.13	3.18	-0.49
958.60	-0.02	0.04	-0.11	0.46	0.52	-0.44
958.80	0.20	-0.03	-0.08	-1.23	1.53	-4.26
959.00	0.25	-0.32	-0.03	-0.25	0.92	1.32

959.20	-0.01	0.08	-0.06	0.00	3.01	-1.03
959.40	0.69	-0.27	-0.02	0.10	-0.57	0.47
959.60	0.13	0.09	-0.07	0.21	1.53	0.75
959.80	0.15	0.02	-0.07	-0.31	-1.21	2.49
960.00	0.21	-0.18	-0.09	0.31	-0.66	1.06
960.20	0.20	-0.05	-0.08	-1.17	2.22	-3.02
960.40	0.26	-0.18	-0.07	0.06	-0.79	1.94
960.60	0.22	-0.15	-0.06	-0.48	-0.33	-1.38
960.80	0.05	-0.22	-0.09	0.56	0.03	1.38
961.00	-0.01	-0.06	-0.10	-0.47	-5.17	2.57
961.20	0.01	-0.10	-0.10	-0.06	-0.59	3.05
961.40	0.04	-0.54	-0.08	-0.17	-0.40	0.78
961.60	0.08	-0.16	-0.07	-0.68	-0.88	-1.47
961.80	0.03	0.17	-0.11	-0.09	-2.28	-1.00
962.00	0.21	0.01	-0.13	-0.25	4.78	-1.01
962.20	0.11	0.09	-0.09	0.53	-3.27	2.21
962.40	-0.01	-0.07	-0.10	-0.14	1.45	1.00
962.60	0.16	-0.05	-0.08	-0.27	-0.89	-0.56
962.80	0.00	0.18	-0.06	-0.36	-0.46	-0.45
963.00	0.19	0.05	-0.04	-0.07	0.59	1.20
963.20	0.18	-0.33	-0.09	-0.05	1.66	1.90
963.40	0.01	0.10	-0.10	-0.33	-0.48	0.46
963.60	0.02	-0.01	-0.10	-0.58	1.71	-0.19
963.80	0.19	-0.14	-0.10	0.30	1.78	0.34
964.00	0.07	-0.31	-0.13	-0.45	0.32	-0.77
964.20	0.07	-0.13	-0.11	-0.02	-4.17	-1.23
964.40	0.57	0.29	-0.09	0.37	-1.48	0.81
964.60	0.02	0.10	-0.10	-0.99	0.50	-4.34
964.80	0.11	0.43	-0.11	0.27	-1.10	1.07
965.00	-0.03	0.17	-0.04	-0.56	-2.07	-2.85
965.20	0.16	0.10	-0.08	-0.22	0.83	1.43
965.40	0.16	-0.04	-0.11	-0.08	-1.40	-0.62
965.60	0.21	-0.54	-0.11	-0.50	0.76	0.12
965.80	-0.33	-0.18	-0.06	-0.80	2.49	-0.59
966.00	0.30	0.14	-0.05	0.99	-2.32	1.37
966.20	0.07	-0.27	-0.07	-0.09	-4.18	0.06
966.40	0.76	-0.06	-0.05	0.57	1.17	-0.86
966.60	0.01	-0.08	0.00	-0.25	2.29	0.16
966.80	0.01	0.00	-0.12	0.04	0.07	-4.93
967.00	-0.08	0.16	-0.10	-0.24	-1.90	-4.28
967.20	0.14	0.24	-0.10	-0.88	2.57	-0.62
967.40	0.16	0.12	-0.07	-0.28	-0.15	-0.96
967.60	0.08	-0.14	-0.07	-0.71	-0.93	-2.62
967.80	0.15	-0.04	-0.08	-0.35	1.67	-0.11
968.00	0.19	0.09	-0.11	0.68	2.08	-0.88
968.20	-0.17	-0.09	-0.11	-1.16	-0.58	-3.72
968.40	0.14	0.03	-0.10	-0.47	0.84	-1.89
968.60	0.29	-0.03	-0.09	-0.27	2.90	3.39
968.80	0.29	0.02	-0.15	-0.19	-0.97	2.46
969.00	0.22	-0.30	-0.10	-0.59	-5.57	-0.22

969.20	0.17	-0.03	0.01	-0.05	2.71	-0.85
969.40	0.03	0.33	-0.06	-0.76	0.93	-0.56
969.60	0.21	0.17	-0.12	0.04	-2.58	3.96
969.80	-0.16	0.23	-0.08	-0.59	-2.45	-1.61
970.00	-0.10	-0.18	-0.16	-0.09	1.29	-0.22
970.20	0.22	0.07	-0.19	-0.24	-0.09	-0.02
970.40	0.23	-0.27	-0.11	0.43	0.38	3.57
970.60	0.06	-0.14	-0.11	-0.47	0.42	-1.22
970.80	0.12	-0.21	-0.14	-0.10	-0.02	0.25
971.00	-0.37	0.22	-0.12	-0.15	-0.75	1.08
971.20	0.52	0.24	-0.12	0.01	-0.97	2.41
971.40	-0.15	-0.33	-0.14	0.40	0.78	0.50
971.60	0.31	0.03	-0.10	-0.24	-0.38	-0.10
971.80	-0.01	-0.26	-0.12	-0.58	0.19	-0.68
972.00	0.00	0.01	-0.12	-0.35	0.14	0.32
972.20	-0.07	-0.04	-0.13	-0.16	-0.13	0.83
972.40	0.09	-0.13	-0.18	-0.28	0.48	0.30
972.60	0.32	-0.43	-0.16	-0.21	-1.79	-1.32
972.80	-0.06	0.04	-0.11	-0.12	-1.79	-1.43
973.00	-0.32	0.05	-0.11	-0.23	0.46	-1.90
973.20	-0.33	0.19	-0.11	-0.42	-0.47	0.35
973.40	0.14	0.06	-0.13	-0.10	2.04	-0.64
973.60	0.11	-0.16	-0.18	-0.15	-0.09	-1.12
973.80	-0.45	0.47	-0.12	-0.64	-0.89	-0.89
974.00	-0.43	0.27	-0.14	-0.27	2.62	-0.74
974.20	0.13	-0.05	-0.18	0.33	-0.04	2.62
974.40	0.15	0.13	-0.15	-0.74	-2.18	-1.72
974.60	0.38	-0.19	-0.07	-1.05	-1.04	-1.71
974.80	0.10	-0.83	-0.22	-0.24	0.92	-2.02
975.00	0.10	0.07	-0.16	-0.59	-0.04	-0.44
975.20	-0.13	0.31	-0.07	-1.58	1.80	-3.88
975.40	-0.09	0.24	-0.09	-0.11	-0.39	0.70
975.60	0.64	0.06	-0.09	-0.43	2.69	-0.35
975.80	-0.05	0.38	0.02	-0.63	-1.42	0.06
976.00	0.37	-0.07	-0.12	-1.05	-4.96	-0.91
976.20	0.19	0.01	-0.13	0.10	1.28	0.44
976.40	0.32	-0.25	-0.19	-0.25	-0.96	-0.47
976.60	-0.14	-0.18	-0.09	0.48	-1.31	4.91
976.80	0.06	-0.18	-0.17	0.26	-0.57	0.04
977.00	-0.11	0.37	-0.19	-0.26	-1.02	0.20
977.20	-0.10	0.19	-0.13	-1.08	2.42	2.10
977.40	-0.05	0.18	-0.16	0.40	1.97	0.99
977.60	0.19	0.13	-0.17	-0.26	0.48	-1.12
977.80	0.05	-0.32	-0.16	0.04	-3.70	-3.39
978.00	-0.19	0.18	-0.09	-0.29	6.01	-0.49
978.20	-0.19	0.20	-0.10	-1.14	2.16	-2.49
978.40	-0.03	-0.27	-0.13	-0.48	-0.61	-3.52
978.60	0.16	0.02	-0.08	-0.13	2.06	0.90
978.80	0.04	0.23	-0.10	0.97	1.86	3.23
979.00	-0.12	0.25	-0.07	1.62	-3.83	3.62

979.20	0.06	0.04	-0.12	0.06	-0.20	0.58
979.40	0.11	-0.01	-0.17	-0.25	-3.70	1.42
979.60	0.30	-0.16	-0.12	-0.62	-0.98	-0.47
979.80	-0.06	0.30	-0.16	-0.01	-0.54	0.82
980.00	-0.07	-0.09	-0.12	-0.22	0.48	0.17
980.20	0.29	-0.07	-0.16	0.43	-1.07	2.49
980.40	0.00	-0.12	-0.10	0.07	3.79	1.12
980.60	0.31	0.26	-0.15	-0.56	0.43	-2.88
980.80	0.04	-0.09	-0.12	-0.93	2.30	-1.61
981.00	-0.17	-0.18	-0.13	0.30	-1.26	-0.07
981.20	-0.04	-0.09	-0.13	-0.70	0.94	-1.30
981.40	-0.27	0.03	-0.11	0.52	-3.22	0.58
981.60	0.34	0.01	-0.14	0.64	-1.83	2.73
981.80	0.11	-0.13	-0.17	-0.43	3.11	-0.47
982.00	-0.04	0.36	-0.14	-0.10	1.47	0.47
982.20	-0.29	0.10	-0.10	-0.44	0.71	-1.24
982.40	0.12	-0.30	-0.18	0.09	1.81	0.84
982.60	0.11	0.10	-0.14	-0.43	-1.72	0.15
982.80	0.18	-0.08	-0.14	-0.02	1.98	0.29
983.00	0.05	0.21	-0.12	-0.04	-0.53	-0.42
983.20	-0.02	0.14	-0.10	0.70	-1.23	3.24
983.40	0.05	-0.21	-0.14	-0.54	1.73	0.11
983.60	0.01	0.00	-0.19	-0.41	-0.54	-0.14
983.80	-0.14	0.11	-0.14	-0.23	0.16	-4.18
984.00	0.06	-0.09	-0.16	0.11	4.63	-1.85
984.20	-0.03	-0.09	-0.18	-0.32	0.25	-1.66
984.40	-0.13	0.02	-0.17	0.81	-2.49	1.18
984.60	-0.13	0.04	-0.21	0.45	-0.73	2.29
984.80	0.15	-0.04	-0.13	-0.37	-2.83	-1.49
985.00	-0.03	0.10	-0.15	0.91	-0.10	3.18
985.20	0.03	0.02	-0.12	-0.11	-0.28	0.51
985.40	-0.02	-0.24	-0.13	-0.06	-1.21	0.00
985.60	-0.01	0.08	-0.15	-0.14	1.45	-1.91
985.80	-0.01	0.23	-0.10	-0.10	0.08	2.40
986.00	-0.25	-0.01	-0.15	-0.10	1.24	0.23
986.20	-0.05	0.24	-0.07	0.09	-0.26	0.45
986.40	0.04	0.09	-0.11	-0.14	-0.20	0.25
986.60	0.17	-0.03	-0.12	-0.24	-0.27	-0.09
986.80	0.12	0.13	-0.13	-0.56	0.56	-0.44
987.00	0.08	0.04	-0.09	0.07	-0.44	1.08
987.20	0.32	0.27	-0.06	0.23	-0.51	1.35
987.40	-0.12	0.18	-0.09	0.34	1.36	0.34
987.60	0.19	0.00	-0.12	-0.38	1.41	1.31
987.80	-0.30	0.59	-0.05	-0.33	2.10	-1.05
988.00	0.03	0.20	-0.11	-0.08	-0.95	0.46
988.20	0.17	-0.26	-0.16	0.08	0.24	0.42
988.40	0.05	-0.13	-0.16	0.13	-0.96	0.62
988.60	0.40	-0.08	-0.12	-0.53	-2.66	0.01
988.80	-0.11	-0.25	-0.12	0.04	0.22	-0.25
989.00	-0.02	0.26	-0.10	-0.40	0.53	-0.03

989.20	0.25	-0.08	-0.10	0.62	-0.56	3.49
989.40	-0.04	0.04	-0.11	-0.58	1.95	1.30
989.60	-0.40	-0.04	-0.14	0.02	-0.59	3.71
989.80	0.01	-0.08	-0.11	1.42	1.48	2.64
990.00	0.14	-0.15	-0.15	0.02	-0.53	0.62
990.20	-0.05	-0.04	-0.14	-0.86	-0.88	-0.55
990.40	0.02	0.04	-0.10	0.00	1.32	-0.30
990.60	-0.04	0.25	-0.05	-0.10	-1.19	0.56
990.80	0.09	-0.01	-0.10	-1.14	-2.51	-0.65
991.00	-0.05	-0.07	-0.07	-0.40	0.88	-3.01
991.20	0.02	0.12	-0.04	0.04	-0.69	0.94
991.40	-0.12	0.13	-0.06	-0.61	-1.37	-1.03
991.60	-0.24	-0.02	-0.12	-0.13	1.99	0.10
991.80	-0.03	0.08	-0.06	0.57	1.03	-0.20
992.00	0.07	-0.05	-0.08	0.17	-1.54	0.63
992.20	-0.03	0.00	-0.06	0.10	0.99	-1.00
992.40	0.04	0.07	-0.07	1.00	1.36	3.83
992.60	-0.08	0.15	-0.06	0.20	-3.46	-1.19
992.80	-0.10	0.12	-0.07	-0.18	0.73	-1.64
993.00	0.11	-0.11	-0.11	-0.60	-3.53	-2.56
993.20	-0.02	-0.15	-0.09	-0.40	2.46	0.25
993.40	-0.08	0.02	-0.06	-0.34	-1.63	-0.67
993.60	-0.04	0.17	-0.05	0.29	-0.61	-5.29
993.80	0.07	0.14	-0.07	0.08	0.64	-2.97
994.00	0.06	0.06	-0.05	-0.02	0.28	0.67
994.20	-0.03	0.12	-0.02	-0.22	0.74	1.63
994.40	-0.02	0.04	-0.07	-0.40	-1.71	1.33
994.60	0.18	0.09	-0.04	0.05	0.38	2.32
994.80	-0.01	0.07	-0.07	-0.32	0.59	-1.25
995.00	0.18	0.00	-0.07	-0.34	2.77	0.72
995.20	-0.03	-0.16	-0.04	-0.17	-0.29	0.32
995.40	0.11	-0.01	-0.08	-0.41	1.31	-1.04
995.60	-0.06	0.00	-0.04	0.30	0.88	0.61
995.80	-0.04	0.15	-0.06	-0.53	-1.07	-0.64
996.00	-0.15	-0.04	-0.05	-0.34	-2.65	0.05
996.20	-0.06	-0.06	-0.09	0.07	0.15	0.32
996.40	-0.05	-0.07	-0.06	0.50	3.83	3.55
996.60	0.08	0.06	-0.04	0.03	4.35	0.61
996.80	0.04	-0.14	-0.07	0.06	1.59	2.73
997.00	0.07	0.05	-0.06	-0.09	-1.17	-2.44
997.20	-0.03	0.22	-0.04	-0.27	-2.29	-1.43
997.40	-0.04	0.02	-0.05	-0.47	-0.41	0.45
997.60	-0.16	0.21	-0.03	0.03	-0.05	0.45
997.80	-0.02	0.05	-0.02	-0.21	6.43	-1.65
998.00	0.12	0.03	-0.04	0.01	2.45	-1.04
998.20	-0.06	0.15	-0.03	-0.16	2.01	-0.64
998.40	0.25	0.00	-0.07	-0.93	1.86	-2.02
998.60	-0.05	0.18	-0.06	-0.27	-4.08	1.56
998.80	-0.13	0.04	-0.07	0.68	-2.13	2.60
999.00	-0.07	0.09	-0.03	0.52	-0.19	1.58

999.20	0.15	-0.02	-0.02	0.68	0.47	1.23
999.40	0.18	-0.04	-0.05	1.00	0.62	3.37
999.60	0.01	0.28	0.01	0.09	-0.27	1.96
999.80	-0.13	0.10	-0.08	0.47	-1.00	2.64
1000.00	0.10	0.02	-0.05	-0.09	1.62	-0.46
1000.20	-0.09	0.14	-0.06	-0.53	-0.97	-1.97
1000.40	0.19	0.05	-0.03	-0.04	1.54	-0.56
1000.60	0.10	0.01	-0.07	0.35	1.15	0.91
1000.80	0.11	-0.05	-0.08	0.33	0.31	1.98
1001.00	-0.06	-0.17	-0.10	-0.04	-0.01	0.14
1001.20	-0.18	-0.02	-0.07	-0.24	0.52	-0.21
1001.40	-0.21	0.22	-0.08	-0.20	-0.78	0.13
1001.60	-0.11	-0.03	-0.07	-0.21	-0.09	-0.15
1001.80	-0.08	0.17	-0.05	0.12	-0.42	1.13
1002.00	-0.01	-0.07	-0.07	-0.30	-0.20	-0.29
1002.20	0.05	0.13	-0.06	-0.13	-1.13	0.08
1002.40	-0.16	0.29	-0.08	-0.08	0.15	-0.42
1002.60	-0.10	0.08	-0.02	0.53	-1.91	1.41
1002.80	-0.02	0.13	-0.03	0.44	-0.46	1.59
1003.00	-0.14	0.13	-0.06	-0.12	0.58	-0.58
1003.20	-0.14	0.09	-0.04	0.43	-0.18	2.36
1003.40	-0.09	0.09	-0.05	0.26	0.63	0.92
1003.60	-0.09	0.03	-0.09	1.07	0.43	3.58
1003.80	-0.02	0.01	-0.03	-0.26	-2.53	-0.54
1004.00	0.02	-0.15	-0.08	-0.57	-0.33	0.04
1004.20	-0.03	-0.14	-0.07	0.42	-0.74	2.09
1004.40	0.09	0.13	-0.10	-0.18	1.31	-0.48
1004.60	-0.11	-0.03	-0.09	-0.44	-0.25	-0.10
1004.80	-0.14	0.01	-0.04	-0.37	0.82	-0.46
1005.00	0.05	-0.09	-0.07	-0.24	-0.95	-0.43
1005.20	-0.03	0.01	-0.10	-0.46	-1.26	-0.90
1005.40	-0.18	0.01	-0.07	0.16	-0.44	1.49
1005.60	-0.19	-0.03	-0.08	0.42	0.28	1.55
1005.80	-0.04	-0.04	-0.12	-1.34	0.40	-3.01
1006.00	-0.16	0.06	-0.14	-0.25	0.06	-0.30
1006.20	-0.08	0.11	-0.08	0.08	0.08	0.47
1006.40	-0.06	0.08	-0.11	0.28	-1.05	1.46
1006.60	-0.05	0.11	-0.12	-0.40	-1.37	2.12
1006.80	-0.17	0.02	-0.10	-0.25	-0.70	0.79
1007.00	0.01	-0.03	-0.12	0.18	-0.10	1.40
1007.20	-0.11	0.03	-0.13	0.26	-1.00	1.39
1007.40	0.00	0.08	-0.13	-1.00	-1.38	-3.65
1007.60	-0.11	0.00	-0.14	-0.01	0.27	2.75
1007.80	-0.16	0.08	-0.11	0.17	4.01	0.64
1008.00	-0.15	-0.07	-0.11	-0.70	0.99	-0.70
1008.20	-0.16	0.10	-0.13	-0.18	-1.19	-0.24
1008.40	-0.28	0.03	-0.08	-0.45	2.16	-0.30
1008.60	-0.13	0.21	-0.11	-0.60	-0.96	-1.55
1008.80	-0.21	-0.02	-0.07	0.05	-2.51	-0.60
1009.00	-0.20	0.05	-0.07	-0.05	2.06	-0.93

1009.20	-0.02	0.08	-0.06	-0.10	-2.49	-0.12
1009.40	-0.38	0.10	-0.12	-0.06	-0.73	-1.41
1009.60	-0.14	0.10	-0.12	-0.15	1.09	-0.56
1009.80	-0.07	0.22	-0.10	0.00	2.51	0.61
1010.00	0.27	0.13	-0.03	-0.04	-1.61	-0.59
1010.20	-0.02	-0.16	-0.06	-0.03	-0.36	0.32
1010.40	0.05	0.18	-0.06	0.21	-0.22	-0.98
1010.60	-0.15	0.18	-0.04	0.13	0.11	0.25
1010.80	0.02	-0.35	-0.20	-0.12	-0.48	-0.41
1011.00	0.01	-0.66	-0.05	0.04	-0.70	0.74
1011.20	-0.07	0.19	-0.10	-0.13	0.41	-0.44
1011.40	-0.25	0.27	-0.08	0.24	-0.53	0.92
1011.60	0.26	-0.10	-0.10	-0.03	-0.51	0.08
1011.80	-0.72	0.10	-0.07	0.03	-0.48	0.69
1012.00	-0.11	0.03	0.00	0.09	0.46	0.20
1012.20	-0.73	0.77	0.05	-0.09	-0.08	0.06
1012.40	-0.35	-0.82	-0.06	-0.14	-0.72	-0.02
1012.60	0.16	0.29	-0.03	-0.13	-0.21	-0.12
1012.80	0.20	0.31	-0.14	0.02	-0.13	-0.04
1013.00	-0.71	0.18	-0.04	-0.09	0.24	-0.30
1013.20	0.18	-0.42	-0.04	0.02	0.15	0.18
1013.40	0.08	-0.01	-0.11	-0.03	-0.31	0.06
1013.60	0.03	-0.34	-0.14	0.12	-0.15	0.28
1013.80	-0.69	0.55	-0.02	0.05	-0.03	-0.02
1014.00	0.05	0.34	0.02	0.09	0.12	0.01
1014.20	-0.24	0.65	0.12	0.09	-0.14	-0.04
1014.40	-0.63	-0.24	-0.16	0.11	0.01	0.21
1014.60	-0.03	-0.44	-0.07	0.02	0.03	0.12
1014.80	0.07	0.31	0.04	-0.04	-0.16	-0.34
1015.00	-0.01	0.22	-0.06	0.13	-0.11	0.02
1015.20	-0.21	-0.01	-0.06	0.05	0.09	0.21
1015.40	-0.23	0.23	-0.08	-0.01	0.05	0.03
1015.60	-0.06	0.24	0.02	0.07	-0.13	0.00
1015.80	-0.16	0.02	-0.01	0.03	0.15	0.18
1016.00	0.08	-0.29	-0.08	0.04	-0.59	-0.23
1016.20	-0.15	-0.24	-0.06	0.19	0.07	0.31
1016.40	0.00	-0.20	-0.05	0.11	1.12	0.27
1016.60	-0.57	0.05	-0.09	0.01	-0.07	-0.23

50% Constriction Time in seconds; velocity in cm/s

	Saltwater			Freshwater		
"Time"	"vel_u_SW"	"vel_v_SW"	"vel_w_SW"	"vel_u_FW"	"vel_v_FW"	"vel_w_FW"
0.00	-0.53	1.05	0.02	0.53	1.45	2.30
0.20	-0.01	-4.21	1.83	0.09	0.73	2.30
0.40	-0.27	-2.70	1.30	-0.87	-0.06	-2.07
0.60	3.16	-7.38	0.56	0.45	3.02	0.27
0.80	7.00	-0.88	0.93	-0.17	-4.00	0.56
1.00	-2.97	0.96	-0.23	0.01	-3.18	-0.63
1.20	-1.71	-0.30	0.68	0.71	0.87	1.95
1.40	2.35	0.35	-1.31	0.39	0.70	0.33
1.60	-4.88	-2.60	0.98	-0.84	-3.39	-5.05
1.80	0.82	-4.19	1.27	0.81	0.16	2.21
2.00	-0.43	0.99	0.38	-0.97	4.01	-2.40
2.20	-1.92	-2.02	-0.52	-1.09	-1.31	-2.77
2.40	2.80	-2.23	-0.02	0.02	-0.96	-0.12
2.60	-5.27	1.15	0.58	-0.35	1.47	-1.44
2.80	-0.44	-1.89	1.43	-0.87	-6.00	-2.44
3.00	-2.46	-2.48	0.61	-0.90	-2.04	-3.34
3.20	-3.52	1.12	0.12	-0.23	-1.66	-2.63
3.40	-1.47	0.49	0.01	0.45	-0.04	1.71
3.60	-0.99	3.20	0.26	0.19	0.37	0.15
3.80	-1.13	1.40	-0.17	-0.03	-1.03	1.65
4.00	-1.39	-1.32	1.10	-0.09	1.07	-1.37
4.20	0.50	-0.94	0.79	0.08	0.88	2.53
4.40	2.59	-2.35	0.44	0.45	1.93	4.57
4.60	-0.69	-3.20	0.25	-0.49	2.09	-3.22
4.80	-2.93	0.39	0.30	-0.98	1.40	-0.34
5.00	3.06	-2.65	-0.22	0.17	-3.03	-0.02
5.20	1.30	-1.83	0.27	0.13	0.65	2.26
5.40	-0.96	0.19	-0.27	0.36	1.24	0.29
5.60	-1.69	3.26	-0.04	-1.60	3.74	-5.91
5.80	2.46	0.91	1.03	-0.65	-1.45	0.89
6.00	-0.09	-0.20	-0.26	-0.25	0.48	0.94
6.20	0.27	-0.19	0.81	-0.06	-1.99	2.26
6.40	-3.30	-4.73	-1.15	0.87	-0.17	2.18
6.60	0.40	-0.19	0.69	-1.08	3.82	-2.21
6.80	3.51	-2.39	0.40	0.51	-5.56	2.00
7.00	2.88	-3.87	-0.85	-1.00	-2.95	-3.10
7.20	-0.88	3.04	-0.02	0.53	1.27	0.30
7.40	-4.40	1.25	0.00	1.77	-3.68	4.61
7.60	-4.78	-3.63	0.69	0.52	4.37	1.63
7.80	1.55	2.37	-0.05	-1.05	3.84	-2.86
8.00	-0.33	3.31	0.10	-0.32	-1.11	0.75
8.20	-3.58	2.05	0.22	-0.51	6.12	0.41
8.40	-3.09	0.12	0.10	0.00	-7.46	3.24
8.60	-0.10	-6.09	-0.36	0.46	-1.88	3.05
8.80	0.70	-2.49	0.78	0.53	0.14	-1.36
9.00	0.75	-3.91	0.62	1.35	-2.45	7.58

9.20	-5.92	-2.54	1.28	0.24	-2.09	1.58
9.40	0.05	5.88	-0.15	0.05	9.05	1.85
9.60	-6.35	-2.96	0.89	0.64	-3.13	2.98
9.80	1.80	-2.07	0.75	-0.66	-3.12	-3.80
10.00	2.20	0.18	-0.06	0.06	5.24	0.50
10.20	-4.17	-0.78	-0.19	1.07	0.62	1.16
10.40	-0.37	-0.75	1.01	0.30	-2.48	2.44
10.60	2.01	-2.93	1.23	-0.07	-3.46	1.69
10.80	-0.66	-0.39	0.34	0.38	-1.32	1.92
11.00	-1.21	-4.30	0.03	0.01	-9.84	6.64
11.20	-3.40	-1.75	0.09	-1.56	-0.08	-0.86
11.40	0.20	0.08	0.10	0.71	0.33	3.54
11.60	-0.31	-1.97	0.04	-0.23	-4.94	0.21
11.80	-0.75	0.08	0.28	0.32	2.46	0.51
12.00	-2.87	2.27	0.81	-0.11	0.06	-0.75
12.20	-0.43	1.26	0.16	1.11	1.40	1.14
12.40	-3.36	2.61	0.17	-0.46	0.83	-0.26
12.60	-0.99	1.10	0.33	-0.55	-1.33	-1.95
12.80	0.52	0.07	0.08	0.22	-2.86	1.90
13.00	0.86	-1.57	-0.35	1.38	-2.07	3.41
13.20	-0.77	1.49	0.41	0.52	-1.83	2.86
13.40	1.76	-3.89	-0.38	-0.64	1.90	-1.33
13.60	-2.91	0.89	0.02	0.66	3.54	1.46
13.80	0.67	1.70	0.45	-0.62	4.04	-4.09
14.00	1.47	-0.76	0.20	-0.40	-1.48	0.46
14.20	-0.12	0.08	0.16	-1.49	-0.02	-4.54
14.40	1.79	1.56	0.68	0.54	-1.51	0.43
14.60	3.45	0.02	0.55	-0.02	0.70	-0.24
14.80	-0.21	-4.83	-0.78	-0.22	-1.66	1.28
15.00	2.49	-1.35	0.24	-0.02	-0.10	-3.23
15.20	-3.28	0.62	-0.35	-0.05	0.86	0.54
15.40	-1.91	-0.97	-0.55	-0.07	-0.44	1.04
15.60	-0.33	2.01	0.61	0.29	0.93	-0.35
15.80	5.57	0.44	0.84	0.12	4.55	-0.57
16.00	1.49	-0.45	-0.39	-0.26	2.65	-2.22
16.20	-1.29	8.79	0.45	-0.68	0.88	-2.65
16.40	0.16	0.98	-0.68	0.83	-0.93	2.31
16.60	1.03	6.12	0.99	0.18	-3.93	-1.64
16.80	-2.73	-0.59	-0.25	-0.03	-0.81	-3.40
17.00	-2.96	-1.47	1.04	0.62	-0.41	-1.33
17.20	4.31	2.09	-0.09	0.10	-0.71	-0.82
17.40	2.99	-3.28	0.73	-0.53	-1.55	-1.85
17.60	-8.15	8.24	0.18	0.64	-0.84	3.98
17.80	-2.73	-1.53	-0.17	-0.91	-1.38	1.22
18.00	3.14	0.74	0.43	-0.22	-0.29	-2.69
18.20	7.31	3.81	-0.17	-0.06	-3.39	2.92
18.40	-2.69	-5.24	-0.05	-0.18	-2.12	-2.31
18.60	-1.94	-4.22	1.41	1.75	-3.89	3.39
18.80	-0.88	3.27	0.63	-0.35	-0.72	-2.00
19.00	4.50	-4.95	0.06	0.11	-1.53	-0.73

19.20	5.19	3.74	0.29	0.41	-1.91	1.02
19.40	-3.13	-2.91	1.47	0.83	-1.10	0.35
19.60	-0.81	2.59	-1.12	0.47	-1.87	2.30
19.80	-3.09	5.04	-0.24	-0.98	-0.91	-2.71
20.00	6.46	3.63	-0.22	0.28	1.85	0.40
20.20	-3.83	-2.10	0.55	-0.02	0.98	1.61
20.40	-0.26	0.66	0.03	0.16	-1.48	2.33
20.60	0.43	0.60	0.71	-0.32	-1.41	0.84
20.80	0.69	-0.88	0.49	-0.13	0.02	-0.82
21.00	0.50	0.94	0.41	1.15	-3.05	4.36
21.20	-5.04	1.73	0.24	-0.89	1.04	-2.11
21.40	4.13	1.98	0.13	-0.54	0.25	-2.16
21.60	0.87	-0.08	0.49	-1.14	1.49	-2.14
21.80	0.03	0.45	0.28	0.95	-1.92	1.49
22.00	-1.71	-0.19	0.26	1.37	1.48	4.32
22.20	0.66	-0.39	0.70	-0.58	0.94	-1.32
22.40	-0.16	0.73	0.50	0.87	-0.52	1.16
22.60	0.82	1.43	0.41	1.04	1.58	3.78
22.80	0.05	-1.54	0.86	-0.29	0.55	-1.55
23.00	-0.66	-0.49	0.15	0.27	0.82	0.87
23.20	7.53	1.42	0.54	0.17	-1.14	-1.08
23.40	2.51	-0.27	-0.05	-0.34	2.15	0.37
23.60	-4.10	0.41	-0.21	0.36	-0.67	-0.39
23.80	-4.94	1.19	0.21	-0.03	0.74	0.07
24.00	5.93	-1.33	0.37	0.45	-0.22	1.16
24.20	1.19	4.68	0.24	-0.82	-0.64	-2.45
24.40	1.21	-3.45	-0.71	-0.49	0.23	-0.68
24.60	-4.69	-2.62	-0.63	-0.22	-0.36	-0.57
24.80	4.70	-0.01	-0.21	2.09	1.82	6.46
25.00	1.34	3.67	0.36	-0.07	0.84	-0.98
25.20	-3.89	2.86	-0.04	-0.34	2.89	1.30
25.40	-2.15	-5.84	0.40	0.11	0.71	-0.03
25.60	-1.06	1.93	-0.58	0.20	-0.28	0.21
25.80	-1.55	0.21	0.02	-0.05	1.34	0.71
26.00	-1.97	0.88	-0.49	-0.33	-0.47	0.07
26.20	-0.83	0.34	-0.12	0.10	2.49	0.20
26.40	2.68	-0.87	0.49	0.48	0.80	0.03
26.60	2.97	1.89	-0.25	0.79	-0.89	1.46
26.80	1.19	-0.04	0.34	1.15	1.41	3.43
27.00	-0.40	-1.04	0.26	0.13	-0.14	-0.12
27.20	-0.65	-2.00	0.47	-0.10	-2.29	0.42
27.40	2.15	1.54	-0.44	-0.12	0.87	-0.97
27.60	1.33	1.94	-0.51	-0.12	-0.22	-0.40
27.80	-1.04	0.91	0.11	-0.75	0.85	-1.98
28.00	0.71	-0.81	-0.21	-0.38	0.30	-2.29
28.20	-0.92	-0.95	-0.28	0.20	2.28	-0.08
28.40	0.08	0.17	0.03	0.58	-0.38	-0.33
28.60	0.20	-0.97	0.04	-0.63	1.46	-0.55
28.80	-0.70	-0.23	-0.08	0.01	3.50	2.40
29.00	-0.33	-0.12	0.26	0.72	-1.27	1.72

29.20	-1.90	-0.98	-0.09	0.05	1.09	0.72
29.40	2.92	-0.91	0.63	0.40	-0.67	3.03
29.60	0.43	-1.77	0.23	-0.36	-0.16	-1.03
29.80	-0.52	1.02	-0.14	0.03	-2.15	-1.17
30.00	-1.13	-0.16	0.18	-0.35	1.44	-0.38
30.20	0.64	-0.89	-0.20	-0.30	0.43	-0.61
30.40	0.48	0.26	-0.19	-0.26	1.40	-0.58
30.60	1.23	1.83	-0.78	0.78	1.14	2.72
30.80	-1.37	-1.95	0.57	0.29	1.93	1.17
31.00	3.63	1.92	-0.90	-0.12	-1.69	0.82
31.20	-1.83	3.02	0.93	0.11	-0.48	0.80
31.40	-0.75	-0.71	0.67	0.29	-1.07	-2.10
31.60	3.93	3.74	-0.07	0.06	-1.01	-0.06
31.80	-3.19	-0.70	0.08	-0.28	-0.16	-0.85
32.00	-1.30	-1.91	0.29	0.16	0.34	-0.85
32.20	-1.96	1.21	1.02	-0.07	-2.37	-1.92
32.40	4.36	3.56	-0.42	-0.04	0.43	-0.22
32.60	-0.99	-3.09	-0.43	0.13	-2.28	-1.79
32.80	-2.69	-4.23	0.91	0.04	0.71	0.02
33.00	-4.59	-5.92	-0.01	0.02	-0.72	-0.50
33.20	-1.78	1.98	0.52	-0.07	1.36	0.27
33.40	-6.07	1.08	-0.52	0.01	-0.54	-0.56
33.60	-2.15	1.95	0.57	0.16	0.58	1.00
33.80	-3.16	2.84	0.96	0.48	-1.14	0.38
34.00	1.31	-0.48	-0.24	0.45	-0.18	0.77
34.20	0.86	-0.54	-0.58	-0.11	1.03	1.05
34.40	0.12	0.85	0.26	0.49	0.23	1.43
34.60	-1.41	-0.97	0.18	0.44	-0.28	1.41
34.80	-2.66	-3.00	0.26	-0.22	0.27	-1.07
35.00	-0.21	1.03	-0.28	0.31	0.62	0.29
35.20	0.22	2.30	0.00	0.14	-0.71	-0.42
35.40	-1.54	0.86	1.06	-0.66	0.24	-2.21
35.60	2.55	-0.68	0.29	0.97	-1.53	2.51
35.80	-2.76	7.28	0.02	0.07	-0.44	-0.72
36.00	0.21	1.70	0.77	-0.15	0.98	-0.93
36.20	2.34	-1.53	0.41	-0.30	-0.19	-1.75
36.40	-1.82	-2.49	0.21	0.05	1.50	-0.57
36.60	4.13	4.90	0.09	-0.67	-0.34	-3.41
36.80	-1.43	0.42	0.42	-0.04	-1.62	0.00
37.00	-2.79	2.19	0.10	-0.18	0.02	-0.41
37.20	-0.50	-0.99	0.28	-0.36	-0.31	-0.38
37.40	1.91	4.00	0.88	0.39	-0.09	1.92
37.60	-1.76	-1.12	-0.14	1.02	-0.20	0.79
37.80	1.51	-2.94	0.66	1.13	0.49	1.81
38.00	2.60	0.97	1.27	-0.17	0.70	-0.28
38.20	1.40	-0.78	0.63	-0.31	0.47	-2.86
38.40	0.12	-4.72	0.84	0.68	-0.98	0.04
38.60	-2.45	-3.94	0.05	0.49	-1.64	1.20
38.80	-1.69	5.05	0.62	-0.60	0.60	-3.22
39.00	-3.17	0.56	0.23	0.61	-2.24	-0.73

39.20	-4.06	5.40	0.37	-0.63	2.87	-2.01
39.40	-0.20	-4.18	-0.74	0.70	-1.72	-3.11
39.60	-0.49	1.70	0.93	0.21	-0.15	-1.67
39.80	0.10	0.75	0.52	-0.02	1.74	0.14
40.00	-2.25	4.53	-0.27	-0.76	5.70	0.76
40.20	0.00	1.78	-0.02	0.20	1.80	1.12
40.40	-0.40	-3.26	-0.31	-0.50	-1.14	-2.23
40.60	1.79	-2.78	-0.53	1.37	5.83	4.22
40.80	-2.72	3.71	-0.27	-0.68	2.22	-2.90
41.00	0.72	-4.14	-0.09	-0.40	1.12	-2.82
41.20	0.75	-1.70	0.56	0.20	-0.77	-2.14
41.40	-2.60	-0.15	-0.03	0.15	2.22	0.33
41.60	0.81	3.72	-0.16	-0.21	0.87	1.09
41.80	-3.92	4.52	-0.62	0.25	1.75	1.10
42.00	-1.45	0.25	0.67	-0.76	0.55	0.51
42.20	-1.27	-3.63	-0.32	0.05	-1.46	-0.05
42.40	2.51	1.09	-0.31	0.44	-2.33	-0.17
42.60	2.76	4.13	-0.31	-0.24	2.26	2.47
42.80	-5.31	-0.09	-0.16	1.60	-1.99	6.76
43.00	-1.53	2.94	1.22	0.82	2.52	3.13
43.20	0.26	2.64	1.13	0.38	-2.58	1.08
43.40	-2.88	1.74	0.29	-0.67	-0.33	-3.36
43.60	-0.32	-5.54	1.01	1.38	0.42	0.61
43.80	-0.75	-0.96	0.33	-0.82	-2.78	-2.44
44.00	-0.09	1.56	0.47	0.08	-0.08	1.18
44.20	3.19	6.99	1.16	0.73	-1.20	0.33
44.40	-0.60	3.11	0.91	0.13	-2.65	-1.37
44.60	-0.47	-1.45	-0.08	-0.14	1.31	-5.06
44.80	1.77	2.67	0.33	1.09	0.20	0.02
45.00	-3.03	-1.97	-0.06	0.11	0.21	-1.38
45.20	-0.25	1.38	0.33	-0.30	-0.35	-4.50
45.40	1.27	-2.46	0.04	-0.27	-1.55	-3.34
45.60	-4.31	-2.56	-0.33	-0.50	0.19	-1.71
45.80	-2.57	1.08	-0.23	0.28	0.64	-0.55
46.00	-3.14	0.11	-0.12	-0.56	1.42	-2.53
46.20	1.37	-0.61	0.09	0.59	-1.59	-0.52
46.40	-1.46	0.19	-0.09	0.43	3.00	-2.14
46.60	1.59	-1.22	0.21	0.85	0.27	-1.45
46.80	5.24	-1.73	0.08	0.88	-1.82	2.83
47.00	-5.28	0.99	0.15	0.75	0.51	0.51
47.20	-3.70	-0.28	-0.14	0.15	-4.29	1.09
47.40	1.80	0.37	-0.26	1.03	-2.30	2.77
47.60	-0.71	-4.14	0.75	0.80	-1.54	2.47
47.80	-3.41	0.56	-0.52	-0.06	-2.17	-0.14
48.00	2.83	-0.79	0.66	0.77	-2.37	0.89
48.20	1.43	4.09	-0.08	0.71	-3.97	1.99
48.40	0.45	1.92	0.49	0.08	-1.45	0.78
48.60	-0.08	-0.84	-0.23	1.04	1.42	3.91
48.80	-3.14	3.64	0.74	-0.49	1.75	-0.60
49.00	-1.76	-0.85	-0.02	0.04	-2.95	-3.77

49.20	0.31	-8.11	-1.06	-0.49	-0.53	-2.02
49.40	-0.35	-1.61	-0.28	0.71	-2.54	-0.58
49.60	4.16	0.13	0.46	0.95	-2.51	-0.20
49.80	-0.42	5.17	-0.85	0.59	0.19	3.61
50.00	1.69	0.93	0.47	-0.60	0.10	-3.15
50.20	2.22	-1.43	-0.01	0.03	-0.56	-0.24
50.40	-0.50	-0.02	0.55	-0.47	-3.74	-5.20
50.60	6.11	2.45	-0.93	0.39	1.97	2.23
50.80	-3.38	-2.16	1.26	1.00	-0.99	0.16
51.00	-0.60	3.61	-0.21	0.39	-1.29	-5.02
51.20	3.04	-5.88	0.21	-0.09	-2.00	-0.89
51.40	-2.57	-0.46	0.22	0.78	-0.31	0.96
51.60	-0.54	-1.92	-0.31	0.83	-2.69	3.21
51.80	-0.36	-0.09	0.05	0.92	-4.17	-1.87
52.00	6.08	2.81	0.55	1.21	0.56	1.86
52.20	-1.34	1.97	0.46	1.06	0.16	-0.67
52.40	0.28	3.64	0.60	0.77	-1.88	-0.70
52.60	-0.98	-0.83	0.91	2.02	-2.32	1.26
52.80	-3.26	0.99	0.71	0.02	-1.77	-4.55
53.00	0.15	-1.65	0.80	0.75	2.42	7.66
53.20	-0.04	0.67	0.41	-0.23	-2.50	-1.91
53.40	8.74	1.64	-0.60	0.50	-1.16	-0.62
53.60	-1.96	1.75	1.48	1.02	1.10	0.43
53.80	-2.87	-2.02	0.70	0.44	0.52	-2.18
54.00	0.18	0.68	1.16	-1.07	-0.70	-6.36
54.20	-2.94	0.51	1.00	0.36	0.24	1.96
54.40	-4.66	-0.06	0.29	0.70	-0.65	1.06
54.60	-4.30	-0.30	0.39	0.79	2.17	-0.85
54.80	-3.99	-0.26	0.15	1.53	1.78	1.01
55.00	-4.19	-0.27	-0.28	0.39	-0.85	-3.46
55.20	-4.15	-0.42	0.18	-0.01	1.90	-4.33
55.40	-4.29	-0.58	0.26	2.15	-1.65	2.95
55.60	-4.88	-0.30	-0.16	2.77	0.69	2.93
55.80	-4.81	-0.12	-0.17	2.25	0.79	-1.95
56.00	-4.95	-0.56	-0.05	-0.25	2.16	3.13
56.20	-5.30	-0.79	-0.02	-0.33	4.20	-0.96
56.40	-4.77	-0.75	0.20	1.95	3.48	2.99
56.60	-4.49	-0.88	0.33	0.54	0.58	1.24
56.80	-4.39	-0.91	0.40	1.16	-0.88	0.55
57.00	-5.00	-1.46	0.51	0.72	-3.03	0.12
57.20	-5.11	-1.50	0.62	1.67	0.85	0.97
57.40	-5.59	-1.55	0.26	2.53	4.45	5.14
57.60	-5.58	-1.37	0.16	1.77	0.93	0.83
57.80	-5.76	-1.84	0.16	-0.28	-7.35	-1.98
58.00	-6.35	-0.77	0.40	0.21	2.29	1.65
58.20	-5.93	-0.33	0.86	1.29	-2.35	0.98
58.40	-5.40	0.13	0.78	-0.59	-0.04	-3.06
58.60	-5.07	0.09	0.68	0.46	1.55	2.06
58.80	-5.54	-0.81	0.54	1.91	-2.96	2.63
59.00	-5.37	-1.23	-0.43	0.49	0.18	-4.93

59.20	-4.84	-1.71	-0.44	0.37	1.37	4.15
59.40	-4.54	-1.57	-0.29	1.86	-0.34	0.57
59.60	-3.97	-1.37	-0.10	2.14	0.71	-1.01
59.80	-4.50	-1.66	0.11	0.92	2.15	-0.80
60.00	-4.93	-1.85	-0.08	1.63	-4.03	0.89
60.20	-5.12	-1.50	-0.25	1.66	-0.66	0.28
60.40	-4.38	-1.47	-0.48	1.20	-0.97	1.07
60.60	-4.02	-1.59	-0.30	1.85	-1.59	5.94
60.80	-3.53	-1.70	0.10	1.11	0.17	0.26
61.00	-3.72	-1.23	0.10	1.26	0.22	-3.43
61.20	-4.07	-1.58	0.01	2.42	-3.06	2.66
61.40	-4.13	-1.16	0.12	2.12	-1.11	2.03
61.60	-3.99	-1.17	0.22	2.36	-1.82	2.86
61.80	-4.39	-2.00	0.01	1.35	-0.89	-0.35
62.00	-4.11	-1.84	-0.29	0.55	-1.27	-2.56
62.20	-3.75	-1.70	-0.70	1.02	0.66	-1.01
62.40	-3.37	-1.12	-0.85	2.96	-1.45	5.99
62.60	-4.05	-0.51	-1.00	1.04	1.43	-1.31
62.80	-4.95	-0.61	-0.68	2.70	-3.68	0.18
63.00	-4.64	-0.35	-0.58	2.31	1.61	2.34
63.20	-4.98	-0.71	-0.67	0.84	0.54	-2.49
63.40	-5.15	-0.76	-0.97	1.12	3.32	-0.09
63.60	-4.65	-0.23	-1.14	0.15	-5.81	-2.99
63.80	-4.56	-0.40	-0.78	-0.30	1.35	-1.25
64.00	-4.23	-0.85	-0.13	1.15	-4.08	2.11
64.20	-4.88	-0.42	-0.19	2.33	-1.40	5.93
64.40	-4.36	-0.66	-0.09	0.40	-3.30	-0.35
64.60	-4.56	-0.66	0.18	0.08	-1.38	-3.11
64.80	-4.36	-0.64	0.14	0.56	-1.35	0.66
65.00	-4.26	-1.29	-0.72	0.34	0.14	1.85
65.20	-3.22	-0.61	-1.21	-0.20	1.72	2.96
65.40	-3.18	-0.41	-0.83	-0.13	-4.29	0.09
65.60	-3.74	-0.25	-0.59	0.24	-1.70	-3.86
65.80	-4.48	0.03	-0.37	-0.84	-2.91	-5.96
66.00	-4.91	-0.32	-0.26	0.17	-0.54	-0.60
66.20	-4.93	-0.53	-0.30	1.09	3.22	0.39
66.40	-5.40	-0.56	-0.19	0.15	-4.84	-5.70
66.60	-5.04	-0.99	-0.09	1.58	0.79	-0.06
66.80	-5.13	-1.28	-0.10	-0.05	-1.33	-5.11
67.00	-3.64	-1.25	0.73	0.90	2.10	1.75
67.20	-3.63	-1.17	0.68	0.58	4.47	-1.95
67.40	-4.42	-0.80	0.04	0.99	1.28	4.55
67.60	-5.04	-0.45	-0.26	1.39	-4.33	4.01
67.80	-4.81	-1.19	0.00	-0.04	2.16	1.95
68.00	-3.61	-1.69	0.16	1.09	-1.63	0.37
68.20	-3.54	-0.55	-0.04	0.52	2.07	-3.08
68.40	-4.15	-0.39	-0.28	1.79	-0.16	1.55
68.60	-4.26	-0.34	-0.52	1.46	0.59	0.76
68.80	-4.47	-0.22	-0.65	1.89	-4.23	1.29
69.00	-4.40	0.03	-0.71	1.63	-3.89	-3.24

69.20	-3.77	0.12	-0.80	0.42	2.16	-0.27
69.40	-3.77	-0.03	-1.05	1.68	3.67	0.53
69.60	-3.71	-0.50	-1.09	1.09	0.07	-0.26
69.80	-4.11	0.05	-0.91	0.37	-1.57	-1.51
70.00	-3.99	-0.67	-0.52	0.85	3.62	6.70
70.20	-3.88	-0.41	-0.59	0.12	0.02	-4.40
70.40	-3.11	-0.87	-0.43	1.76	0.56	-0.73
70.60	-3.85	-1.09	-0.16	1.35	-0.23	2.02
70.80	-3.99	-0.49	0.08	0.68	1.25	-5.82
71.00	-4.93	-0.71	-0.37	1.02	1.70	2.49
71.20	-4.32	-0.44	-0.56	0.77	0.81	-1.40
71.40	-4.10	-0.84	-0.70	0.85	-1.32	0.94
71.60	-4.21	-1.13	-0.81	0.37	-2.00	0.31
71.80	-4.61	-0.86	-0.89	0.48	-3.00	-1.12
72.00	-4.79	-0.92	-0.78	1.72	1.42	0.08
72.20	-4.77	-0.94	-0.59	2.07	1.64	4.97
72.40	-4.92	-0.89	-0.50	-0.63	2.56	-6.50
72.60	-4.68	-0.87	-0.52	2.21	0.38	3.94
72.80	-4.47	-1.01	-0.47	1.28	0.76	-4.37
73.00	-4.65	-0.88	-0.51	2.01	4.26	1.16
73.20	-4.55	-0.96	-0.54	1.87	-0.79	-3.27
73.40	-4.60	-1.17	-0.44	0.94	0.11	-5.25
73.60	-4.70	-0.90	-0.09	1.50	4.54	0.64
73.80	-4.53	-1.04	0.16	0.26	-6.25	-0.73
74.00	-4.49	-0.67	0.49	0.47	-0.77	-1.29
74.20	-4.57	-0.93	0.06	2.14	-3.41	-2.25
74.40	-4.73	-1.01	-0.28	0.65	-2.31	0.33
74.60	-4.82	-0.92	-0.33	0.94	-3.52	2.87
74.80	-4.55	-0.91	-0.31	1.19	-1.28	4.09
75.00	-4.42	-0.98	-0.33	1.46	-3.90	-0.96
75.20	-4.67	-0.95	-0.39	0.40	1.56	-3.05
75.40	-4.39	-1.24	-0.17	0.79	0.66	-0.83
75.60	-4.17	-1.12	-0.26	0.36	1.02	-4.34
75.80	-4.05	-1.03	-0.44	0.65	1.16	-4.03
76.00	-4.17	-1.21	-0.42	0.49	3.33	-1.42
76.20	-4.32	-1.07	-0.28	2.00	-0.67	2.18
76.40	-4.03	-1.32	-0.21	1.75	1.93	1.80
76.60	-3.83	-1.07	-0.28	0.66	-4.12	-0.36
76.80	-3.83	-1.00	-0.25	0.15	3.43	0.25
77.00	-3.64	-0.82	-0.06	1.39	0.72	1.43
77.20	-3.82	-0.48	-0.30	-0.20	1.51	-0.43
77.40	-4.15	-0.63	-0.66	0.77	-0.53	2.21
77.60	-4.24	-0.67	-0.71	0.84	-4.58	-0.04
77.80	-3.95	-0.84	-0.42	-0.43	-7.26	-5.56
78.00	-3.76	-0.49	-0.25	-0.50	-0.47	-1.11
78.20	-4.18	-0.55	0.01	1.07	2.40	-1.87
78.40	-4.30	-0.69	-0.32	1.66	-3.80	1.80
78.60	-4.07	-0.76	-0.42	-0.50	1.46	-3.23
78.80	-3.94	-0.91	-0.22	0.48	2.48	-2.31
79.00	-4.22	-0.66	-0.42	0.41	0.09	-0.39

79.20	-4.36	-0.71	-0.29	-0.20	3.15	-4.95
79.40	-4.63	-1.13	-0.24	1.07	2.35	-0.45
79.60	-4.33	-1.02	-0.33	2.01	-2.27	0.57
79.80	-4.21	-0.64	-0.08	2.13	0.04	-2.15
80.00	-4.24	-0.74	0.16	1.85	3.51	-0.37
80.20	-4.66	-1.07	-0.09	1.23	2.88	4.67
80.40	-4.47	-1.38	-0.21	0.35	1.36	0.05
80.60	-4.57	-1.25	-0.37	0.18	-3.64	-3.25
80.80	-4.65	-0.96	-0.27	1.19	-2.52	1.39
81.00	-4.67	-1.15	-0.03	1.65	2.46	2.09
81.20	-4.70	-1.05	-0.33	1.75	0.36	0.99
81.40	-4.89	-1.15	-0.21	2.39	-0.69	0.03
81.60	-4.53	-0.90	0.06	0.94	-0.11	-3.82
81.80	-4.66	-0.72	-0.08	1.43	0.14	-1.55
82.00	-4.25	-1.34	0.05	2.18	-1.00	0.46
82.20	-4.10	-1.56	-0.06	-0.68	-1.39	-3.74
82.40	-3.61	-1.31	-0.14	1.11	1.03	-1.99
82.60	-3.73	-1.13	-0.03	1.55	-2.24	0.61
82.80	-3.59	-1.17	0.10	0.80	1.85	1.38
83.00	-3.20	-1.42	0.06	1.40	-2.45	-0.24
83.20	-3.19	-0.96	0.16	2.00	0.90	-0.30
83.40	-3.43	-0.76	0.15	1.04	-2.93	-0.30
83.60	-3.22	-0.48	0.01	-0.05	-6.98	-3.39
83.80	-3.64	-0.06	-0.31	0.22	-3.59	-2.91
84.00	-3.60	-0.45	-0.45	1.13	0.52	-1.94
84.20	-3.56	-0.87	-0.73	1.80	-2.26	3.22
84.40	-3.31	-0.78	-1.01	0.83	1.05	1.82
84.60	-3.41	-1.10	-1.11	-0.18	2.62	-1.88
84.80	-3.71	-0.95	-1.21	-0.43	-2.78	-2.35
85.00	-3.89	-1.49	-1.47	1.65	-2.27	3.60
85.20	-3.87	-1.16	-1.42	0.13	-3.52	-0.20
85.40	-3.03	-0.45	-1.02	-0.23	-3.81	0.03
85.60	-3.37	-0.73	-0.20	2.42	-0.76	1.53
85.80	-3.80	-0.28	-0.25	0.42	-0.83	-1.57
86.00	-3.87	-0.44	-0.42	0.82	1.12	-1.96
86.20	-4.03	-0.54	-0.60	1.14	-0.96	4.57
86.40	-4.23	-0.88	-0.81	1.35	-1.33	-1.60
86.60	-4.31	-0.63	-0.80	1.95	0.15	-1.33
86.80	-4.29	-0.36	-0.85	1.91	1.72	1.36
87.00	-4.42	-0.36	-0.90	0.46	4.47	-0.32
87.20	-4.50	-0.62	-0.90	0.89	-0.16	-1.82
87.40	-4.24	-0.98	-0.48	2.20	-1.56	-0.39
87.60	-3.68	-0.65	-0.42	2.12	1.16	2.11
87.80	-3.85	-0.57	-0.32	-0.68	-3.55	-2.71
88.00	-4.37	-0.86	-0.26	3.15	0.23	3.93
88.20	-4.68	-1.17	-0.19	-0.28	2.26	-7.06
88.40	-4.82	-1.09	-0.04	0.94	0.14	-5.06
88.60	-4.56	-1.01	-0.16	0.63	0.69	-3.32
88.80	-4.41	-1.12	-0.36	0.26	-6.20	0.89
89.00	-4.22	-1.15	-0.37	0.70	6.23	1.79

89.20	-4.05	-0.98	-0.34	0.25	-0.51	-4.01
89.40	-4.05	-1.14	-0.27	1.54	0.57	-0.72
89.60	-3.82	-1.03	-0.27	1.63	-2.32	-1.54
89.80	-3.65	-1.07	-0.31	1.09	-3.66	-0.29
90.00	-3.79	-1.06	-0.43	0.89	2.59	-2.67
90.20	-3.72	-1.06	-0.40	2.33	0.04	2.84
90.40	-3.70	-1.56	0.04	1.02	0.07	-6.76
90.60	-3.90	-1.43	-0.25	3.08	-1.06	0.90
90.80	-4.09	-1.05	-0.54	2.06	-1.15	4.43
91.00	-3.86	-1.69	-0.51	0.93	-0.60	0.37
91.20	-3.70	-1.50	-0.23	0.21	-1.42	1.18
91.40	-3.54	-1.53	-0.26	0.97	0.77	-0.63
91.60	-3.70	-1.32	-0.34	1.47	0.86	-1.70
91.80	-3.50	-1.45	-0.17	1.98	-0.41	-0.35
92.00	-3.68	-1.26	-0.27	2.12	1.21	1.00
92.20	-4.00	-1.41	-0.15	2.24	3.19	2.75
92.40	-4.03	-0.89	0.07	3.54	2.01	4.70
92.60	-3.58	-1.08	0.02	1.49	1.48	0.67
92.80	-3.74	-1.04	0.24	1.81	-0.72	2.95
93.00	-3.95	-0.79	-0.40	1.62	-0.44	-0.14
93.20	-3.64	-0.85	-0.59	1.11	2.20	-0.49
93.40	-3.82	-0.54	-0.53	-1.12	1.67	-7.73
93.60	-3.77	-0.63	-0.43	1.51	-0.63	-1.53
93.80	-3.77	-0.85	-0.31	1.63	1.99	-0.71
94.00	-4.12	-0.53	-0.42	1.78	2.71	2.25
94.20	-4.16	-0.42	-0.49	0.90	2.07	3.50
94.40	-4.25	-0.61	-0.51	0.98	1.09	-1.60
94.60	-4.50	-0.71	-0.58	1.22	0.55	-0.80
94.80	-4.16	-0.63	-0.71	0.72	-1.23	0.74
95.00	-4.22	-0.75	-0.73	0.07	-5.33	-7.49
95.20	-4.21	-0.93	-0.72	1.07	-0.46	1.39
95.40	-4.12	-1.02	-0.62	0.34	-0.14	-1.63
95.60	-4.11	-0.98	-0.60	2.34	0.00	1.13
95.80	-4.11	-0.81	-0.54	1.30	1.04	0.28
96.00	-4.27	-0.98	-0.48	0.27	0.77	-3.19
96.20	-4.27	-0.88	-0.49	0.01	3.06	-1.22
96.40	-4.16	-0.85	-0.50	0.04	2.36	-1.20
96.60	-3.92	-0.88	-0.43	-0.12	7.24	1.72
96.80	-3.86	-0.82	-0.53	0.84	-1.91	-1.13
97.00	-4.03	-0.69	-0.52	0.82	0.05	-2.42
97.20	-3.82	-0.91	-0.58	0.57	-3.81	1.60
97.40	-3.94	-0.71	-0.54	0.95	2.05	-3.91
97.60	-3.40	-0.66	-0.52	0.42	-1.29	-3.31
97.80	-3.91	-0.74	-0.55	0.90	-0.34	1.24
98.00	-3.72	-0.65	-0.55	1.27	-3.13	-0.27
98.20	-4.13	-0.60	-0.53	1.90	0.92	3.53
98.40	-4.00	-0.38	-0.61	0.65	1.68	-3.26
98.60	-4.15	-1.00	-0.60	-1.58	1.53	-7.84
98.80	-3.90	-0.97	-0.68	1.05	-0.39	3.86
99.00	-3.32	-1.14	-0.68	2.43	-4.26	6.15

99.20	-3.22	-0.77	-0.52	-0.05	0.77	-2.19
99.40	-3.75	-0.41	-0.33	0.33	0.41	0.58
99.60	-4.01	-0.27	-0.35	1.53	-3.39	0.14
99.80	-4.29	-0.64	-0.42	0.98	0.85	0.77
100.00	-4.05	-0.66	-0.46	0.79	2.33	1.06
100.20	-4.30	-0.59	-0.53	1.45	1.58	-0.01
100.40	-4.10	-0.42	-0.54	-0.20	0.24	-0.95
100.60	-4.18	-0.73	-0.68	0.77	1.30	-0.55
100.80	-3.95	-0.85	-0.69	1.48	1.22	2.37
101.00	-4.11	-0.92	-0.68	1.35	-2.70	-1.16
101.20	-4.10	-0.74	-0.70	1.00	0.22	-2.55
101.40	-4.51	-0.35	-0.67	0.04	-3.17	0.54
101.60	-4.26	-0.32	-0.66	0.20	-3.25	1.17
101.80	-4.27	-0.60	-0.68	0.32	0.40	-1.89
102.00	-4.35	-0.40	-0.68	1.58	-0.59	0.70
102.20	-4.36	-0.24	-0.71	2.42	2.35	1.91
102.40	-4.22	-0.30	-0.53	0.23	3.97	5.81
102.60	-4.36	-0.19	-0.50	1.01	-2.68	1.15
102.80	-4.27	-0.43	-0.55	1.39	-1.15	1.32
103.00	-4.27	-0.32	-0.55	1.51	1.32	0.40
103.20	-4.25	-0.28	-0.57	0.46	0.35	1.01
103.40	-4.42	-0.33	-0.49	2.04	-1.39	0.04
103.60	-4.30	-0.55	-0.46	2.74	0.39	0.16
103.80	-4.20	-0.42	-0.55	2.01	-0.10	2.10
104.00	-4.09	-0.33	-0.55	1.40	-0.65	-1.35
104.20	-4.09	-0.62	-0.43	2.01	0.58	2.60
104.40	-4.23	-0.43	-0.38	0.19	-0.21	-2.97
104.60	-3.97	-0.13	-0.30	-0.51	-2.04	-2.82
104.80	-4.07	-0.16	-0.10	0.86	-0.94	-3.33
105.00	-3.92	-0.02	-0.19	0.52	-1.50	-0.80
105.20	-3.94	-0.24	-0.19	0.46	-4.29	-0.78
105.40	-4.33	-0.45	-0.07	1.77	-1.79	0.79
105.60	-4.36	-0.19	-0.06	1.66	1.10	1.27
105.80	-3.85	-0.24	-0.10	0.36	0.34	-2.87
106.00	-4.11	-0.23	-0.10	-0.94	-1.37	-6.43
106.20	-4.22	-0.06	-0.12	-1.59	1.87	-6.06
106.40	-4.21	0.00	-0.14	0.35	0.31	0.04
106.60	-4.04	-0.09	-0.10	0.00	-1.81	1.32
106.80	-4.16	-0.46	-0.23	0.39	-1.77	2.96
107.00	-4.35	-0.32	-0.27	0.54	-2.60	1.51
107.20	-4.27	-0.46	-0.16	2.13	1.12	2.00
107.40	-4.40	-0.55	-0.19	1.55	3.58	1.88
107.60	-4.17	-0.66	-0.19	0.86	-1.04	0.72
107.80	-4.18	-0.52	-0.24	-0.29	-3.97	-2.72
108.00	-3.91	-0.55	-0.35	1.86	2.54	2.84
108.20	-4.01	-0.47	-0.38	0.57	-0.88	-1.40
108.40	-4.18	-0.73	-0.38	2.86	-0.57	0.69
108.60	-4.53	-0.49	-0.34	2.93	-0.70	0.25
108.80	-4.41	-0.57	-0.34	2.16	0.28	1.36
109.00	-4.40	-0.43	-0.44	1.27	-1.23	-0.60

109.20	-4.48	-0.51	-0.44	1.11	2.04	0.06
109.40	-4.47	-0.54	-0.33	-0.87	-5.57	-6.04
109.60	-4.43	-0.48	-0.31	0.18	-1.88	-4.91
109.80	-4.21	-0.51	-0.44	-0.09	0.61	-7.55
110.00	-4.09	-0.50	-0.42	0.25	-3.13	-0.32
110.20	-4.58	-0.91	-0.45	0.13	-3.46	0.20
110.40	-3.83	-0.95	-0.61	1.09	-0.53	0.72
110.60	-4.16	-0.80	-0.53	0.99	0.48	1.38
110.80	-3.88	-1.00	-0.54	0.88	-1.94	1.41
111.00	-3.94	-0.62	-0.62	2.03	-2.45	0.88
111.20	-3.58	-0.83	-0.59	0.35	-0.07	-1.56
111.40	-3.47	-1.03	-0.49	0.27	-2.08	-1.04
111.60	-3.60	-0.91	-0.35	1.21	2.35	2.19
111.80	-3.72	-0.59	-0.26	1.60	0.62	2.08
112.00	-3.30	-0.64	-0.23	1.28	-1.27	2.68
112.20	-3.65	-0.71	-0.39	-0.43	2.11	-7.57
112.40	-4.04	-0.92	-0.49	0.17	-3.45	0.54
112.60	-3.89	-0.83	-0.46	0.46	4.03	-1.42
112.80	-4.10	-0.54	-0.54	1.58	1.96	-1.24
113.00	-4.32	-0.65	-0.63	0.65	2.72	3.29
113.20	-4.12	-0.54	-0.63	-0.37	3.42	-5.46
113.40	-4.13	-0.71	-0.70	1.21	2.48	-0.68
113.60	-3.96	-0.49	-0.71	0.93	-3.98	-0.79
113.80	-3.91	-0.60	-0.75	1.99	-0.28	2.78
114.00	-3.78	-0.67	-0.65	0.70	-1.35	0.51
114.20	-4.14	-0.74	-0.67	1.57	-0.51	-2.08
114.40	-4.36	-0.72	-0.65	1.89	-0.86	0.10
114.60	-4.39	-0.59	-0.68	0.79	6.54	-1.21
114.80	-4.39	-0.55	-0.78	2.33	-1.89	2.50
115.00	-4.44	-0.36	-0.89	2.90	0.33	3.41
115.20	-3.92	-0.45	-0.95	0.87	-2.49	-1.74
115.40	-3.90	-0.42	-1.02	2.02	-2.21	1.84
115.60	-3.94	-0.75	-1.01	-0.16	2.46	-5.20
115.80	-4.03	-0.73	-0.89	0.23	1.95	-0.67
116.00	-4.00	-0.56	-0.84	0.57	0.96	-2.48
116.20	-4.08	-0.46	-0.92	1.63	-3.01	2.07
116.40	-3.86	-0.30	-0.84	0.79	-5.75	3.49
116.60	-4.06	-0.48	-0.77	1.58	0.05	2.04
116.80	-4.00	-0.33	-0.86	1.11	-0.66	-1.28
117.00	-3.86	-0.76	-0.82	1.26	-3.30	-1.74
117.20	-3.81	-0.64	-0.79	1.28	0.19	-1.08
117.40	-4.15	-0.53	-0.85	0.67	-1.72	-3.64
117.60	-4.09	-0.59	-0.83	1.74	1.03	-0.72
117.80	-3.87	-0.66	-0.76	1.76	2.26	2.43
118.00	-3.85	-0.60	-0.72	0.81	-0.61	0.50
118.20	-3.48	-0.46	-0.65	1.43	-0.76	1.43
118.40	-3.66	-0.55	-0.68	1.92	-2.40	1.45
118.60	-3.93	-0.44	-0.72	0.53	-1.08	-1.88
118.80	-3.95	-0.87	-0.68	1.99	-0.05	3.23
119.00	-3.73	-0.90	-0.45	0.04	0.73	-4.31

119.20	-3.51	-0.74	-0.14	2.22	2.59	4.27
119.40	-3.80	-0.99	-0.19	1.76	2.02	1.45
119.60	-3.60	-0.94	-0.39	0.97	0.56	-1.97
119.80	-3.76	-0.96	-0.51	0.50	-0.81	-3.22
120.00	-3.57	-0.50	-0.67	1.43	2.14	-1.64
120.20	-3.97	-0.64	-0.82	1.46	0.30	1.85
120.40	-3.66	-0.41	-0.75	2.10	-1.60	1.49
120.60	-4.02	-0.61	-0.76	1.63	0.38	1.70
120.80	-4.11	-0.57	-0.61	1.77	-6.72	2.26
121.00	-4.04	-0.51	-0.51	0.62	-0.51	-0.87
121.20	-3.87	-0.44	-0.52	1.22	-4.09	2.06
121.40	-4.09	-0.07	-0.48	1.17	-0.41	0.26
121.60	-4.11	-0.26	-0.46	1.71	-0.61	-2.20
121.80	-4.17	-0.35	-0.41	2.42	0.10	0.58
122.00	-3.98	-0.44	-0.45	1.89	0.62	0.71
122.20	-4.25	-0.44	-0.51	1.97	0.52	-0.46
122.40	-3.68	-0.51	-0.51	0.95	1.13	0.01
122.60	-3.99	-0.56	-0.52	0.14	-1.22	-5.12
122.80	-3.84	-0.39	-0.58	0.98	0.89	-2.52
123.00	-3.85	-0.26	-0.59	0.29	-0.49	-3.63
123.20	-3.84	-0.46	-0.52	0.51	-3.20	-3.88
123.40	-3.58	-0.88	-0.30	1.10	-1.65	-0.03
123.60	-4.02	-0.66	-0.23	2.68	-0.62	0.19
123.80	-3.80	-0.65	-0.28	1.58	-2.37	-1.63
124.00	-3.85	-0.64	-0.18	1.17	-0.99	-1.39
124.20	-3.49	-0.76	-0.18	1.83	0.08	2.56
124.40	-3.48	-0.88	-0.28	1.04	-0.86	-1.55
124.60	-3.66	-0.86	-0.32	1.09	3.00	0.69
124.80	-3.41	-0.92	-0.33	1.41	-2.95	0.60
125.00	-3.49	-0.88	-0.40	0.19	-1.01	-2.01
125.20	-3.84	-0.94	-0.38	-0.09	1.01	-3.06
125.40	-3.68	-1.15	-0.40	0.52	2.87	-1.54
125.60	-3.53	-1.14	-0.36	0.90	-2.59	-0.78
125.80	-3.28	-0.91	-0.29	1.03	-2.18	-4.20
126.00	-3.51	-0.89	-0.43	0.15	2.06	-1.42
126.20	-3.30	-0.97	-0.38	-1.15	-1.84	-7.12
126.40	-3.50	-0.86	-0.31	-0.06	1.22	-0.01
126.60	-3.47	-0.80	-0.35	0.47	-1.76	0.29
126.80	-3.73	-1.16	-0.28	0.62	-2.76	0.16
127.00	-3.69	-0.87	-0.35	1.26	3.23	3.08
127.20	-3.67	-1.10	-0.38	0.63	-3.49	-2.65
127.40	-3.85	-0.81	-0.40	1.85	-1.13	-0.56
127.60	-3.70	-0.76	-0.38	1.41	1.38	-1.01
127.80	-3.64	-0.83	-0.40	2.16	-1.10	-0.24
128.00	-3.33	-1.09	-0.37	2.07	-1.45	1.01
128.20	-3.69	-0.58	-0.40	0.86	3.07	-1.69
128.40	-3.19	-0.64	-0.42	0.60	1.05	-4.18
128.60	-3.37	-0.61	-0.37	1.19	0.69	-0.52
128.80	-3.33	-0.35	-0.39	1.60	2.76	3.20
129.00	-3.55	-0.54	-0.31	0.10	-1.40	-5.80

129.20	-3.42	-0.50	-0.35	2.01	2.21	0.55
129.40	-3.73	-0.43	-0.37	2.62	-0.46	1.25
129.60	-3.26	-0.50	-0.36	1.44	2.59	-0.17
129.80	-2.98	-0.44	-0.33	2.19	0.42	0.43
130.00	-2.98	-0.44	-0.28	2.38	0.19	-0.37
130.20	-2.81	-0.73	-0.36	1.90	0.18	0.70
130.40	-2.65	-0.94	-0.40	1.70	-0.16	0.41
130.60	-2.57	-0.70	-0.38	2.04	0.26	0.75
130.80	-2.72	-0.71	-0.27	2.21	0.48	1.28
131.00	-2.92	-0.59	-0.15	1.38	0.01	-0.82
131.20	-3.11	-0.46	-0.09	1.78	0.06	-0.18
131.40	-2.95	-0.57	-0.05	1.80	-0.13	-0.03
131.60	-2.69	-0.71	-0.03	1.47	1.10	-0.99
131.80	-2.70	-0.52	-0.09	1.51	-0.54	-1.08
132.00	-2.29	-0.55	-0.13	1.24	2.78	-1.27
132.20	-2.45	-0.54	-0.08	1.27	1.11	0.03
132.40	-2.27	-0.62	-0.09	1.28	2.52	1.90
132.60	-2.24	-0.56	-0.10	0.99	0.93	-1.62
132.80	-2.13	-0.43	-0.11	1.55	-0.39	-0.15
133.00	-2.40	-0.40	-0.05	1.43	2.21	1.03
133.20	-2.03	-0.37	0.05	1.47	-0.03	-0.43
133.40	-2.26	-0.32	0.09	0.70	-0.45	-2.31
133.60	-2.48	-0.40	0.13	2.06	-1.22	0.47
133.80	-2.30	-0.28	0.09	1.86	2.23	1.36
134.00	-2.05	-0.20	0.07	2.27	0.78	0.40
134.20	-2.35	-0.11	-0.13	2.18	0.80	-0.50
134.40	-2.00	0.05	-0.18	1.80	-0.06	-1.68
134.60	-2.19	-0.24	-0.14	2.43	0.16	2.40
134.80	-2.10	0.10	0.02	1.98	-0.84	0.75
135.00	-2.20	-0.09	0.16	2.33	-0.06	1.44
135.20	-1.97	-0.02	0.20	1.82	-0.95	-0.49
135.40	-1.87	-0.28	0.22	1.36	-0.09	-0.90
135.60	-1.89	-0.20	0.20	1.27	0.34	-2.56
135.80	-1.77	-0.23	0.21	0.88	-0.11	-0.97
136.00	-1.70	-0.05	0.20	0.98	0.46	-1.06
136.20	-2.00	0.20	0.23	1.29	0.55	0.81
136.40	-2.08	0.09	0.25	0.12	-0.31	-1.32
136.60	-2.18	0.23	0.20	1.14	-1.25	1.61
136.80	-2.06	0.12	0.24	0.37	0.31	-1.35
137.00	-2.02	0.07	0.22	0.73	-0.77	0.48
137.20	-2.05	0.14	0.29	0.88	2.15	-1.24
137.40	-2.08	0.44	0.31	0.77	2.85	1.63
137.60	-2.03	0.25	0.26	0.36	5.37	0.74
137.80	-2.22	0.29	0.20	-0.65	3.69	-3.09
138.00	-2.16	0.27	0.09	1.69	-0.11	-1.49
138.20	-2.34	0.20	-0.01	1.89	-4.74	0.20
138.40	-2.30	0.03	-0.04	1.54	2.50	0.93
138.60	-2.23	0.06	-0.07	0.73	1.66	-0.92
138.80	-2.32	-0.09	-0.18	-0.48	1.66	-5.16
139.00	-2.03	-0.03	-0.27	0.16	-0.83	0.26

139.20	-1.66	-0.29	-0.24	0.78	4.98	2.08
139.40	-1.67	-0.10	-0.21	1.04	5.40	0.87
139.60	-1.74	-0.01	-0.10	1.50	2.19	-0.29
139.80	-2.32	-0.03	-0.12	1.82	-4.79	0.18
140.00	-2.09	0.03	-0.13	0.60	2.99	-1.74
140.20	-2.31	0.11	-0.16	0.94	5.65	0.87
140.40	-2.29	-0.03	-0.11	1.69	4.95	3.18
140.60	-2.34	0.30	-0.08	-0.26	1.43	-0.84
140.80	-2.38	0.34	-0.12	0.72	-1.18	-1.64
141.00	-2.50	0.23	-0.09	0.57	3.67	-1.58
141.20	-2.46	0.36	-0.08	1.65	-0.24	0.32
141.40	-2.41	0.32	-0.07	0.29	-1.04	-4.72
141.60	-2.53	0.10	-0.05	0.97	-1.48	0.71
141.80	-2.62	-0.04	-0.15	0.28	0.25	0.32
142.00	-2.37	-0.61	-0.50	-0.41	2.42	-7.75
142.20	-2.49	-0.71	-0.77	-0.38	5.02	-1.46
142.40	-2.25	-0.51	-0.84	-0.14	0.85	-3.02
142.60	-1.97	-0.53	-0.72	-0.23	0.79	-1.51
142.80	-2.11	-0.20	-0.63	1.36	-0.34	0.47
143.00	-2.42	-0.14	-0.56	-0.13	7.61	2.09
143.20	-2.27	0.02	-0.47	0.11	2.21	1.34
143.40	-2.26	-0.14	-0.45	-0.60	-2.46	-1.73
143.60	-2.34	0.01	-0.37	-1.41	-3.28	-5.64
143.80	-2.53	0.08	-0.31	0.55	-1.52	-1.84
144.00	-2.54	0.08	-0.26	0.52	1.67	-0.67
144.20	-2.58	0.13	-0.27	1.04	-0.20	-0.34
144.40	-2.14	0.10	-0.22	1.24	-1.40	0.64
144.60	-2.38	-0.17	-0.15	0.10	1.28	-0.12
144.80	-2.15	-0.22	0.06	-0.22	0.50	0.71
145.00	-1.98	0.01	0.01	0.86	-2.44	1.72
145.20	-2.29	-0.05	-0.15	0.12	-3.87	2.86
145.40	-2.53	0.06	-0.25	0.75	4.21	0.21
145.60	-2.81	0.02	-0.25	0.67	-4.12	2.54
145.80	-2.16	0.18	-0.10	1.12	-3.37	3.46
146.00	-2.03	0.04	0.10	0.72	-0.07	1.68
146.20	-2.42	0.28	0.10	-0.32	-3.87	-1.62
146.40	-2.26	0.24	0.02	-0.19	-1.58	-1.62
146.60	-2.36	0.29	-0.09	1.17	0.34	-0.36
146.80	-2.71	-0.07	-0.11	1.46	0.71	2.45
147.00	-2.03	0.02	-0.14	0.11	1.71	0.91
147.20	-1.89	-0.04	-0.10	-0.45	-5.50	1.79
147.40	-2.08	0.14	-0.22	-0.61	-0.21	-5.74
147.60	-2.20	0.22	-0.22	-0.62	-0.11	-4.19
147.80	-2.09	0.10	-0.25	0.27	-0.86	-1.50
148.00	-2.00	-0.13	-0.32	0.39	-0.20	-0.74
148.20	-1.97	0.06	-0.32	0.39	1.53	0.34
148.40	-1.76	0.14	-0.33	0.10	2.06	-0.85
148.60	-1.92	0.10	-0.33	0.17	-0.48	-0.08
148.80	-1.84	-0.14	-0.27	0.62	1.21	-0.09
149.00	-1.83	-0.01	-0.24	-0.13	1.61	-0.47

149.20	-1.61	-0.04	-0.13	-0.41	3.27	2.05
149.40	-1.54	-0.11	-0.05	-0.54	-1.55	-3.33
149.60	-1.91	-0.20	0.12	0.21	-0.77	0.11
149.80	-1.66	-0.11	0.13	0.37	1.34	2.32
150.00	-1.70	-0.02	0.18	-0.06	5.68	2.97
150.20	-1.44	0.03	0.34	-1.40	0.96	-2.72
150.40	-1.38	-0.13	0.27	-1.27	1.76	-3.73
150.60	-1.19	-0.04	0.29	-0.04	3.42	1.17
150.80	-1.34	0.02	0.29	-0.62	-2.48	0.49
151.00	-1.33	0.12	0.22	-0.98	-2.93	-4.17
151.20	-1.72	0.16	-0.01	-0.71	0.88	-4.74
151.40	-1.52	0.34	-0.06	-0.68	-0.26	-7.11
151.60	-1.41	0.28	-0.16	-0.37	5.74	2.14
151.80	-1.22	0.32	-0.25	0.61	0.78	2.26
152.00	-1.25	0.19	-0.30	-0.89	6.40	-0.84
152.20	-1.25	0.47	-0.35	0.57	6.76	2.85
152.40	-1.28	0.37	-0.39	-0.57	1.70	-3.44
152.60	-1.26	0.26	-0.50	-1.82	-3.62	-4.41
152.80	-1.32	0.28	-0.50	-2.38	5.06	-5.75
153.00	-1.02	0.36	-0.53	-0.28	6.08	-3.14
153.20	-1.13	0.33	-0.63	0.71	-3.41	-0.11
153.40	-1.12	0.24	-0.66	1.32	-1.31	4.46
153.60	-1.02	0.41	-0.68	-0.36	3.21	1.41
153.80	-0.93	0.33	-0.77	-0.44	-0.30	-1.40
154.00	-0.84	0.48	-0.81	-0.16	1.48	-0.49
154.20	-0.56	0.33	-0.78	-0.48	0.26	0.46
154.40	-0.69	0.68	-0.80	0.19	0.53	6.95
154.60	-0.91	0.59	-0.76	0.95	8.04	0.51
154.80	-0.69	0.49	-0.74	-1.33	0.24	-2.68
155.00	-0.67	0.79	-0.69	-0.74	5.44	-0.03
155.20	-0.82	0.59	-0.60	0.84	-3.92	4.71
155.40	-0.78	0.50	-0.52	0.60	3.60	1.45
155.60	-0.78	0.25	-0.40	-0.56	0.03	-2.57
155.80	-1.10	0.32	-0.34	-0.67	1.58	1.13
156.00	-0.76	0.16	-0.33	0.19	-2.86	0.47
156.20	-0.76	-0.34	-0.28	-0.10	-0.17	1.07
156.40	-0.72	-0.29	-0.26	-0.50	-1.01	-0.66
156.60	-0.27	-0.44	-0.26	-0.38	1.33	0.77
156.80	-0.30	-0.50	-0.27	-0.06	-2.08	0.55
157.00	-0.61	-0.57	-0.26	1.03	0.03	2.39
157.20	-0.04	-0.56	-0.16	-0.60	-0.23	-1.17
157.40	-0.25	-0.47	-0.07	0.65	-2.56	5.34
157.60	-0.24	-0.57	0.08	-0.17	0.73	2.44
157.80	-0.08	-0.50	0.15	-0.38	0.71	-0.48
158.00	0.07	-0.49	0.21	-1.12	2.15	-0.60
158.20	0.24	-0.41	0.36	-0.68	-0.02	-0.65
158.40	-0.06	0.02	0.35	-0.47	3.43	-0.13
158.60	-0.25	-0.03	0.45	-0.69	1.26	-1.25
158.80	-0.26	-0.15	0.61	-0.49	0.83	0.02
159.00	-0.29	0.01	0.62	-1.17	-0.66	-1.40

159.20	-0.19	0.09	0.63	-0.52	0.16	0.87
159.40	-0.33	-0.10	0.65	-0.60	0.35	1.08
159.60	-0.38	-0.25	0.59	-0.20	-0.38	3.24
159.80	-0.25	-0.09	0.49	-1.19	1.63	-0.06
160.00	-0.25	-0.36	0.53	-1.02	1.30	2.52
160.20	-0.28	-0.50	0.45	-1.83	0.62	-1.46
160.40	-0.48	-0.40	0.32	-1.30	0.84	-0.01
160.60	-0.19	-0.47	0.30	-1.03	-0.15	1.08
160.80	-0.01	-0.46	0.24	-1.30	1.21	-0.59
161.00	-0.37	-0.50	0.14	-1.54	-0.67	-1.13
161.20	-0.03	-0.38	0.15	-1.37	0.12	0.30
161.40	-0.25	-0.37	0.15	-1.01	-2.37	-1.48
161.60	-0.29	-0.47	0.13	-1.12	-0.26	-1.18
161.80	0.02	-0.36	0.12	-0.37	-0.08	0.63
162.00	0.00	-0.44	0.14	-0.98	1.31	1.01
162.20	0.01	-0.57	0.15	-0.42	0.71	2.46
162.40	0.01	-0.33	0.16	-1.06	0.40	-4.84
162.60	0.05	-0.48	0.15	-1.20	0.09	-3.40
162.80	-0.23	-0.59	0.13	-1.30	4.17	-0.74
163.00	-0.24	-0.44	0.11	-0.65	-1.77	-1.29
163.20	-0.23	-0.55	0.15	-1.76	-1.49	-1.78
163.40	-0.06	-0.50	0.14	-0.94	5.74	-0.94
163.60	0.07	-0.27	0.13	-1.59	-3.23	-4.01
163.80	0.30	-0.36	0.08	-1.23	0.82	0.44
164.00	0.46	-0.37	0.04	-1.28	-0.14	-0.46
164.20	-0.01	-0.25	-0.03	-2.05	1.28	-0.15
164.40	0.19	-0.32	-0.09	-1.45	-0.45	-0.17
164.60	0.26	-0.10	-0.07	-0.88	-2.46	-0.61
164.80	0.25	0.07	-0.08	-0.51	-4.94	0.31
165.00	0.37	-0.17	0.08	0.02	-1.94	1.32
165.20	0.09	0.05	0.16	-0.03	-2.04	1.85
165.40	0.22	-0.07	0.22	-0.56	2.55	-2.09
165.60	0.36	-0.04	0.24	-0.27	1.26	2.71
165.80	0.22	-0.42	0.26	-0.40	-0.10	0.26
166.00	0.34	-0.75	0.20	-0.01	0.70	2.89
166.20	0.31	-0.47	0.02	-1.48	3.45	2.21
166.40	0.49	-0.49	-0.10	-1.42	-1.74	-0.93
166.60	0.66	-0.75	-0.13	-1.09	-1.17	1.61
166.80	0.76	-0.71	-0.17	-0.86	-1.55	1.15
167.00	0.49	-0.85	-0.21	-1.00	-0.73	0.56
167.20	0.83	-1.24	-0.29	-0.73	-0.60	-1.21
167.40	1.17	-1.67	-0.34	-1.02	-1.13	-0.68
167.60	0.79	-1.76	-0.56	-0.86	-0.97	-0.45
167.80	0.79	-1.29	-0.69	-1.30	0.51	-1.90
168.00	0.59	-1.72	-0.70	-0.85	-0.62	1.05
168.20	0.37	-1.73	-0.87	-1.05	-0.14	0.60
168.40	0.68	-1.55	-1.03	-0.95	0.53	0.93
168.60	0.51	-0.96	-0.85	-1.62	4.52	-1.38
168.80	0.23	-0.15	-0.55	-1.18	2.67	-2.53
169.00	0.14	-0.22	-0.07	-1.16	-1.79	-0.67

169.20	0.26	-0.04	0.24	-0.58	2.21	2.38
169.40	0.28	-0.10	0.28	-0.89	1.16	-1.48
169.60	0.15	-0.77	0.17	-1.19	-0.74	-4.86
169.80	0.00	-1.09	0.03	-1.73	-1.88	0.77
170.00	-0.21	-0.85	-0.21	-1.37	-0.01	0.07
170.20	0.28	-1.08	-0.25	-1.46	1.63	-1.22
170.40	0.62	-0.61	-0.22	-0.82	1.05	-0.64
170.60	0.73	-0.69	-0.03	-0.52	0.43	0.68
170.80	0.87	-0.77	0.05	-0.37	0.16	1.53
171.00	1.08	-0.88	0.08	-1.43	1.84	-0.80
171.20	1.53	-0.45	0.00	-1.33	0.67	-1.78
171.40	1.33	-0.47	-0.08	-0.73	0.16	-0.03
171.60	0.97	-0.36	-0.08	-0.85	1.55	-0.23
171.80	1.12	-0.40	-0.05	-1.13	-0.67	0.20
172.00	0.83	-0.38	0.00	-1.18	-1.03	-0.44
172.20	1.26	-0.14	0.05	-1.06	-1.19	-0.58
172.40	0.56	0.41	0.22	-0.66	0.03	-0.82
172.60	0.72	0.76	0.55	-0.51	-0.30	1.43
172.80	0.88	0.36	0.66	-0.46	-0.17	0.59
173.00	0.96	-0.14	0.59	-0.60	-0.11	-0.41
173.20	1.15	-0.06	0.45	-1.30	-2.35	-1.55
173.40	1.04	-0.53	0.23	-1.46	2.04	0.09
173.60	1.31	-0.61	0.07	-0.85	0.40	2.01
173.80	1.25	-0.52	-0.01	-1.54	-2.86	0.39
174.00	1.27	-0.72	0.03	-2.28	-2.98	-1.27
174.20	1.35	-0.98	0.16	-2.26	-3.52	-0.57
174.40	1.44	-1.19	0.17	-2.22	-5.65	-1.66
174.60	1.34	-1.26	0.15	-2.94	-2.84	-0.08
174.80	1.64	-1.36	0.14	-3.17	-3.86	-0.71
175.00	1.40	-1.70	0.08	-1.89	-2.22	-0.70
175.20	2.05	-1.59	-0.16	-2.19	-2.57	-0.82
175.40	1.72	-1.49	-0.21	-1.38	-3.20	-1.12
175.60	1.96	-1.49	-0.12	-1.01	-2.51	0.65
175.80	1.51	-1.62	-0.05	-1.51	-2.28	0.40
176.00	1.75	-1.52	0.00	-3.44	-2.62	0.46
176.20	1.84	-1.83	0.00	-3.10	-2.41	1.87
176.40	1.72	-1.74	-0.18	-2.72	-0.76	-0.89
176.60	1.62	-1.73	-0.20	-1.71	-2.82	-0.04
176.80	1.69	-2.00	-0.12	-1.20	-2.72	0.41
177.00	1.78	-1.98	-0.10	-0.61	-1.96	-0.09
177.20	1.94	-1.95	-0.09	-1.26	-3.17	1.51
177.40	1.79	-1.94	-0.16	-1.58	-1.82	0.48
177.60	1.68	-2.10	-0.22	-1.02	-2.39	0.40
177.80	1.79	-2.24	-0.11	-0.62	-1.33	3.02
178.00	1.96	-2.20	0.03	-2.24	-1.35	1.11
178.20	1.71	-2.53	0.22	-2.45	-2.21	-0.57
178.40	1.89	-2.36	0.42	-1.76	-2.59	-1.12
178.60	2.04	-2.39	0.60	-1.86	-2.57	0.42
178.80	1.84	-2.60	0.52	-2.16	-2.46	0.11
179.00	1.69	-2.82	0.48	-3.39	-4.64	-0.08

179.20	2.03	-2.48	0.35	-2.70	-2.50	0.34
179.40	1.87	-2.34	0.33	-2.41	-1.04	0.86
179.60	1.98	-2.42	0.37	-1.59	-2.38	0.99
179.80	2.11	-2.31	0.44	-0.76	-1.02	-0.17
180.00	2.18	-2.53	0.48	-0.67	1.74	2.91
180.20	2.13	-2.50	0.55	-1.59	-0.63	1.20
180.40	2.20	-2.95	0.55	-1.44	-1.41	3.80
180.60	2.14	-2.92	0.59	-1.69	-1.64	1.58
180.80	2.01	-2.87	0.62	-1.67	-1.45	1.77
181.00	2.10	-2.60	0.61	-1.37	-0.73	0.19
181.20	2.15	-2.87	0.62	-1.71	-1.04	0.56
181.40	2.56	-2.85	0.59	-1.31	-2.47	0.86
181.60	2.55	-2.93	0.53	-1.85	-2.30	-0.74
181.80	2.77	-2.95	0.60	-1.67	-2.33	0.63
182.00	2.65	-3.04	0.74	-2.28	-2.08	1.52
182.20	2.47	-3.15	0.82	-2.48	-2.26	0.62
182.40	2.71	-2.95	0.96	-2.61	-1.84	0.25
182.60	2.61	-3.09	1.04	-1.63	-0.99	0.55
182.80	2.90	-3.20	1.14	-1.27	-0.78	0.87
183.00	2.67	-2.93	1.17	-1.29	-1.32	-0.45
183.20	2.54	-2.93	1.29	-1.20	-1.70	-0.76
183.40	2.75	-3.01	1.30	-0.74	-0.72	1.66
183.60	2.29	-2.95	1.17	-0.08	-1.03	0.80
183.80	2.11	-2.81	1.15	-0.25	-1.47	-0.49
184.00	2.28	-2.87	1.24	-0.54	1.94	-0.29
184.20	1.90	-2.84	1.22	-0.52	0.33	1.47
184.40	2.16	-2.54	1.16	-1.02	0.34	0.35
184.60	2.25	-2.24	1.23	-0.69	-0.54	0.69
184.80	2.22	-2.42	1.25	-0.17	0.46	1.39
185.00	2.49	-2.62	1.02	-0.36	-0.19	0.50
185.20	2.37	-2.23	0.46	-0.62	-1.31	0.50
185.40	2.25	-2.01	0.40	-0.42	-1.19	1.29
185.60	2.26	-2.19	0.46	-0.58	-1.46	0.32
185.80	2.33	-2.19	0.37	-0.47	-1.02	0.62
186.00	2.48	-2.24	0.42	-0.08	-1.00	-0.25
186.20	2.29	-2.15	0.38	0.01	-2.47	0.63
186.40	2.18	-2.08	0.44	0.19	-2.50	0.79
186.60	2.17	-1.85	0.46	-0.02	-1.65	0.48
186.80	2.06	-1.85	0.50	-0.98	-2.27	0.94
187.00	2.08	-1.48	0.49	-1.08	-0.23	-1.11
187.20	1.86	-1.20	0.46	-1.63	-2.15	-0.62
187.40	1.77	-0.87	0.42	-1.04	-1.20	-1.06
187.60	1.51	-0.96	0.41	-1.21	-0.34	-0.78
187.80	1.71	-0.96	0.46	-1.11	-0.92	-0.71
188.00	1.37	-0.94	0.48	-0.89	-1.24	-0.67
188.20	0.98	-1.05	0.44	-1.45	-1.64	-0.08
188.40	1.15	-0.86	0.35	-1.46	-1.86	-0.38
188.60	1.29	-0.84	0.32	-0.96	-1.55	0.02
188.80	1.44	-1.07	0.34	-0.78	-1.42	0.89
189.00	1.35	-0.57	0.29	-0.83	-0.72	0.89

189.20	1.32	-0.79	0.33	-1.39	-0.57	0.93
189.40	1.52	-0.63	0.43	-1.71	-0.86	0.83
189.60	1.09	-0.63	0.45	-1.56	-1.01	-0.92
189.80	1.51	-0.58	0.41	-1.70	-0.84	0.02
190.00	1.57	-0.75	0.33	-1.77	-0.39	0.21
190.20	1.39	-0.76	0.22	-1.69	-1.01	-0.27
190.40	1.58	-0.85	0.04	-1.07	-0.53	0.67
190.60	1.14	-0.96	-0.01	-0.51	0.80	0.46
190.80	1.19	-0.86	-0.12	-0.49	-1.00	-0.59
191.00	1.11	-1.06	-0.13	-0.61	-1.61	-0.47
191.20	0.88	-0.89	-0.16	-0.70	-0.02	0.81
191.40	1.08	-1.02	-0.13	-0.27	0.81	2.06
191.60	0.98	-0.94	-0.19	-1.11	-0.36	-0.21
191.80	0.86	-1.21	-0.14	-1.53	0.16	-1.50
192.00	0.82	-1.25	-0.19	-1.55	-0.85	0.05
192.20	1.01	-0.99	-0.19	-1.42	-0.90	0.46
192.40	1.08	-0.73	-0.23	-1.87	-1.17	-0.38
192.60	1.51	-0.53	-0.20	-1.13	1.73	-0.53
192.80	1.54	-0.53	-0.17	-1.70	-0.01	-1.61
193.00	1.43	-0.43	-0.17	-1.51	-0.55	-1.32
193.20	1.57	-0.01	-0.12	-1.13	0.27	0.68
193.40	1.41	-0.24	-0.05	-1.33	-0.33	-0.28
193.60	1.48	-0.29	-0.03	-0.90	-1.17	0.89
193.80	1.30	-0.16	-0.04	-1.02	-1.01	0.57
194.00	1.29	-0.31	-0.01	-1.11	-0.14	0.64
194.20	1.42	-0.28	-0.02	-1.15	-0.12	-0.18
194.40	0.97	-0.36	-0.03	-1.14	-0.70	0.91
194.60	1.48	-0.29	0.02	-0.64	0.57	0.84
194.80	1.49	-0.34	0.00	-1.78	-1.65	-2.48
195.00	1.43	-0.30	-0.05	-1.27	-0.67	2.27
195.20	1.33	-0.69	-0.25	-1.26	-1.85	1.49
195.40	1.81	-0.50	-0.37	-1.98	-0.91	0.14
195.60	1.71	-0.63	-0.51	-1.43	-0.07	0.48
195.80	1.55	-0.62	-0.45	-1.80	-1.35	1.82
196.00	1.52	-0.76	-0.19	-1.84	-0.93	1.84
196.20	1.68	-0.77	-0.05	-1.94	-0.62	0.59
196.40	1.46	-0.97	0.00	-1.34	-1.78	1.74
196.60	1.65	-0.82	-0.19	-1.41	-0.97	1.60
196.80	1.79	-0.55	-0.30	-1.04	-0.77	1.84
197.00	1.72	-0.70	-0.27	-2.03	-1.20	-0.26
197.20	2.03	-0.42	-0.14	-1.78	-0.68	-0.22
197.40	2.43	-0.37	0.02	-1.33	0.07	0.63
197.60	2.09	-0.55	0.10	-1.91	-0.45	0.41
197.80	2.15	-0.59	0.11	-1.19	-0.62	1.86
198.00	2.18	-0.52	0.06	-1.38	-1.01	0.07
198.20	2.03	-0.52	0.08	-1.05	0.75	0.06
198.40	1.92	-0.43	0.11	-1.92	-1.38	-1.71
198.60	1.79	-0.65	0.12	-0.62	1.73	2.42
198.80	1.77	-0.55	0.16	-1.24	-0.20	0.97
199.00	1.77	-0.76	0.18	-1.51	-0.39	1.62

199.20	1.36	-0.41	0.18	-2.62	0.36	-1.78
199.40	1.36	-0.58	0.19	-2.07	1.81	-1.64
199.60	1.57	-0.44	0.20	0.06	1.87	4.67
199.80	1.64	-0.53	0.25	-1.27	-3.13	1.44
200.00	1.35	-0.51	0.27	-1.73	0.31	0.10
200.20	1.57	-0.29	0.20	-1.49	-0.16	1.07
200.40	1.51	-0.57	0.17	-1.12	0.06	-0.10
200.60	1.36	-0.19	0.07	-1.40	1.37	1.26
200.80	1.34	-0.31	0.08	-1.31	-1.49	-0.25
201.00	1.55	-0.31	0.10	-1.34	-0.67	-1.14
201.20	1.44	-0.25	0.06	-1.60	1.11	-1.45
201.40	1.41	-0.20	0.01	-1.36	3.44	-1.23
201.60	1.49	-0.13	-0.01	-1.55	1.83	1.04
201.80	1.34	-0.16	-0.03	-1.26	-2.59	-1.47
202.00	1.60	-0.32	-0.03	-1.40	-0.93	0.37
202.20	1.70	-0.46	-0.02	-1.67	-1.06	-2.44
202.40	1.53	-0.29	-0.08	-0.86	-0.80	-1.89
202.60	1.55	-0.35	-0.12	-0.86	-3.20	2.15
202.80	1.60	-0.25	-0.14	-1.19	-1.70	-0.94
203.00	1.55	-0.18	-0.13	-1.53	-1.11	-0.51
203.20	1.93	-0.26	-0.15	-1.73	0.49	-1.15
203.40	1.87	-0.27	-0.10	-1.40	-1.68	0.54
203.60	1.74	-0.23	-0.10	-0.88	-2.10	1.49
203.80	1.69	-0.30	-0.15	-1.74	-0.17	-0.85
204.00	1.89	-0.23	-0.13	-1.73	-2.28	-1.10
204.20	1.93	-0.11	-0.10	-1.16	0.47	1.87
204.40	2.01	-0.20	-0.16	-1.53	-2.32	0.43
204.60	1.76	-0.33	-0.15	-1.04	0.69	1.48
204.80	1.77	-0.33	-0.15	-0.16	-0.02	3.33
205.00	1.43	-0.35	-0.13	-1.48	-0.44	1.00
205.20	1.80	-0.18	-0.16	-1.45	-0.31	1.02
205.40	1.66	-0.42	-0.12	-1.33	-0.82	1.82
205.60	1.52	-0.08	-0.12	-2.38	-0.06	-1.00
205.80	1.25	-0.12	-0.09	-1.51	-2.22	0.84
206.00	1.37	-0.28	-0.05	-1.61	-0.49	-0.01
206.20	1.42	0.01	-0.10	-1.38	-1.29	0.68
206.40	1.68	0.07	-0.08	-1.32	-0.76	0.11
206.60	1.56	0.03	-0.06	-1.32	0.08	-0.65
206.80	1.46	0.18	-0.04	-0.93	-1.55	1.03
207.00	1.65	-0.10	0.01	-1.51	-0.93	-0.08
207.20	1.73	0.00	-0.04	-0.44	0.90	2.31
207.40	1.59	-0.07	-0.02	-1.04	-0.14	1.91
207.60	1.76	-0.01	0.01	-1.65	-0.83	0.22
207.80	1.67	-0.06	-0.03	-1.33	-0.93	1.02
208.00	2.05	-0.06	0.02	-1.06	1.09	1.74
208.20	1.77	-0.23	0.04	-0.95	-0.81	0.75
208.40	1.62	0.05	-0.02	-1.43	-0.04	-0.35
208.60	1.66	-0.20	0.01	-1.41	-0.98	-0.47
208.80	1.75	0.00	0.05	-1.08	0.11	0.04
209.00	1.63	-0.04	0.10	-0.83	0.22	2.46

209.20	1.67	-0.37	0.16	-1.34	-0.10	0.02
209.40	1.97	-0.11	0.09	-0.84	-0.95	1.58
209.60	1.97	0.02	0.10	-0.84	-3.34	-0.29
209.80	1.75	-0.11	0.09	-0.54	-0.75	0.52
210.00	1.72	-0.24	0.12	-0.95	4.66	2.90
210.20	1.72	0.03	0.09	-0.94	0.49	-0.28
210.40	1.92	-0.14	0.08	-1.50	-1.03	-1.06
210.60	2.01	-0.14	0.05	-1.33	0.51	-1.66
210.80	2.14	-0.06	0.05	-0.70	-0.90	1.60
211.00	2.05	0.02	0.02	-1.03	-0.75	-0.48
211.20	2.17	-0.05	-0.05	-0.69	-1.71	-1.19
211.40	2.04	0.01	0.00	-0.73	2.36	-0.28
211.60	2.17	-0.05	0.02	-0.61	-1.45	0.09
211.80	1.86	0.06	-0.03	-0.68	0.99	0.80
212.00	2.16	0.09	0.01	-0.76	0.34	-0.59
212.20	1.99	0.04	-0.02	-0.81	2.02	-0.16
212.40	1.86	0.12	0.07	-0.20	-1.01	1.76
212.60	1.84	-0.08	0.09	-0.06	-3.46	2.13
212.80	1.71	0.10	0.08	-0.67	-1.20	-0.15
213.00	1.73	0.11	0.03	-0.93	-0.40	-0.93
213.20	1.89	0.24	0.02	-0.88	0.39	0.30
213.40	1.73	0.18	-0.01	-0.69	-0.16	0.32
213.60	1.74	0.42	-0.06	-0.09	0.16	1.52
213.80	1.73	0.24	-0.01	-0.68	0.29	0.11
214.00	1.69	0.46	0.00	-0.92	0.96	-0.35
214.20	1.58	0.32	0.06	-0.30	1.32	0.76
214.40	1.69	0.48	0.07	-0.63	-2.84	-1.18
214.60	1.69	0.40	0.08	-0.18	2.70	0.66
214.80	1.94	0.38	0.06	-0.41	-4.33	0.74
215.00	1.75	0.35	-0.05	-0.05	-0.20	0.30
215.20	2.00	0.41	-0.15	0.13	0.09	-0.20
215.40	1.75	0.36	-0.15	-0.47	-0.02	-1.06
215.60	1.66	0.03	-0.09	-0.36	0.10	-0.78
215.80	1.50	0.05	-0.06	-0.46	0.27	-0.84
216.00	1.49	0.21	0.03	-0.48	0.28	-0.46
216.20	1.38	0.05	0.07	-0.26	0.66	-1.56
216.40	1.31	0.17	0.15	-0.28	-0.62	0.80
216.60	1.34	0.18	0.24	0.00	1.47	0.03
216.80	1.29	0.25	0.21	-0.44	0.20	0.38
217.00	1.28	0.14	0.23	-0.11	0.08	1.85
217.20	1.52	0.27	0.24	-0.15	-0.50	0.27
217.40	1.26	0.19	0.12	-0.28	1.48	1.68
217.60	1.24	0.43	0.20	-0.49	-0.30	-0.28
217.80	1.63	0.50	0.23	-0.56	0.91	-1.67
218.00	1.55	0.33	0.18	0.15	-1.39	-0.49
218.20	1.42	0.39	0.15	-0.33	-0.57	0.53
218.40	1.72	0.37	0.07	-0.26	1.95	-0.34
218.60	1.57	0.49	-0.03	-0.05	-0.69	0.47
218.80	1.68	0.27	-0.11	-0.34	0.40	0.53
219.00	1.66	0.17	-0.17	-0.83	-1.02	-0.05

219.20	1.61	0.22	-0.13	-0.78	0.18	-0.94
219.40	1.68	0.14	-0.22	-0.64	-1.02	-0.87
219.60	1.82	0.04	-0.22	-0.44	-0.24	0.03
219.80	1.66	0.29	-0.22	-0.40	-0.13	-0.15
220.00	1.66	0.38	-0.24	-0.35	-0.10	0.40
220.20	1.37	0.00	-0.23	-0.44	0.21	0.36
220.40	1.51	0.05	-0.21	-1.13	-1.52	-1.51
220.60	1.39	0.16	-0.23	-0.44	-0.09	0.09
220.80	1.28	0.24	-0.19	-0.13	0.33	0.94
221.00	1.33	0.32	-0.14	-0.04	-0.42	0.35
221.20	1.37	0.11	-0.07	-0.42	1.15	1.33
221.40	1.06	0.24	-0.04	-0.55	-1.63	0.40
221.60	1.07	0.10	0.02	-0.15	0.52	1.89
221.80	1.20	0.12	0.00	-0.05	-2.27	1.50
222.00	1.26	0.29	0.00	-1.12	-0.81	-0.45
222.20	1.18	0.09	-0.01	-0.87	-2.37	-0.22
222.40	1.26	-0.01	-0.01	-0.93	-2.32	-0.78
222.60	1.17	0.24	-0.01	-0.45	-0.11	-0.05
222.80	0.97	0.06	-0.01	-0.10	-2.55	1.56
223.00	0.96	0.31	-0.03	0.20	-1.64	0.12
223.20	0.70	0.32	-0.03	-0.40	2.60	-0.98
223.40	0.80	0.20	0.00	-0.88	-0.88	-1.05
223.60	0.83	0.10	0.04	-0.63	-0.49	-1.31
223.80	1.05	0.13	0.04	-0.51	1.34	1.24
224.00	1.03	0.34	0.05	-0.18	-0.44	-0.75
224.20	0.99	0.49	0.03	-0.39	1.29	-0.66
224.40	0.91	0.48	-0.01	0.50	-1.78	2.52
224.60	1.12	0.36	0.03	0.07	4.25	3.52
224.80	0.89	0.23	0.07	-0.41	0.29	1.19
225.00	0.87	0.37	0.08	0.30	-0.05	1.68
225.20	0.80	0.45	0.10	-1.25	-0.19	-2.51
225.40	1.10	0.41	0.13	-0.09	-0.34	0.66
225.60	1.37	0.31	0.10	-0.36	-0.12	-1.41
225.80	1.27	-0.04	0.13	0.08	-1.45	1.07
226.00	1.29	0.19	0.16	-0.98	-0.10	-0.25
226.20	1.14	0.32	0.11	-0.01	2.49	1.49
226.40	1.02	0.42	0.14	-0.41	-1.36	1.23
226.60	1.07	0.23	0.10	0.33	-1.58	1.45
226.80	0.92	0.09	0.14	-0.38	-0.42	2.02
227.00	1.01	0.11	0.12	-1.24	-0.73	-2.57
227.20	0.91	0.23	0.14	0.42	-0.64	3.11
227.40	0.97	0.13	0.13	-0.37	-0.18	-0.22
227.60	1.32	0.27	0.14	-0.30	-2.03	-0.23
227.80	0.70	0.33	0.13	-0.29	-1.94	0.50
228.00	1.04	0.18	0.10	-1.21	1.31	-4.53
228.20	0.84	0.16	0.14	-0.90	0.93	0.11
228.40	0.91	0.22	0.07	-0.16	-1.02	1.52
228.60	0.95	-0.07	0.09	-0.06	-3.35	2.22
228.80	0.86	0.28	0.05	0.31	-3.22	1.84
229.00	0.88	0.03	0.05	0.04	0.76	-0.57

229.20	0.63	0.06	0.02	-0.20	0.26	-1.95
229.40	0.68	0.01	0.00	-0.32	0.63	-1.85
229.60	0.90	-0.03	0.04	0.38	1.29	1.45
229.80	0.95	0.20	0.05	0.43	-0.39	2.12
230.00	0.84	0.09	0.06	0.66	-2.90	0.76
230.20	0.85	0.02	0.03	0.68	-1.73	1.30
230.40	0.58	0.06	0.01	-0.35	0.21	-1.00
230.60	0.59	0.08	0.01	-0.01	2.83	-1.99
230.80	0.57	0.25	0.03	-0.04	0.99	-3.67
231.00	0.69	0.13	0.00	-0.20	-1.55	0.73
231.20	0.62	0.22	0.01	1.14	0.49	3.39
231.40	0.89	0.04	0.02	0.39	-0.46	-1.11
231.60	0.67	0.12	0.00	0.55	4.14	-2.20
231.80	0.97	0.11	0.01	-0.35	0.24	-2.52
232.00	0.78	0.15	0.01	-1.10	-2.37	-2.85
232.20	0.94	0.38	-0.01	-0.21	-2.29	-0.40
232.40	0.93	0.12	0.04	0.51	-4.41	3.29
232.60	0.82	0.12	-0.01	-0.40	3.19	-0.72
232.80	0.98	0.16	0.03	-0.92	-3.11	-2.66
233.00	0.94	0.25	0.00	-0.81	-1.40	0.37
233.20	0.59	0.23	-0.03	0.51	0.85	1.35
233.40	0.95	0.08	-0.02	0.90	-2.10	2.93
233.60	0.77	0.13	0.00	-0.04	-0.49	-0.09
233.80	0.65	0.31	0.00	-0.09	-0.96	-0.06
234.00	0.74	0.29	-0.03	0.21	-1.44	0.46
234.20	0.52	0.23	0.02	0.42	2.37	-0.85
234.40	0.66	0.16	0.06	0.60	-1.23	2.36
234.60	0.37	0.33	0.05	-0.06	0.03	-0.99
234.80	0.34	0.26	0.04	0.58	-3.26	2.86
235.00	0.26	0.20	0.04	0.07	0.32	0.36
235.20	0.41	0.37	0.02	0.22	-3.64	0.62
235.40	0.43	0.40	0.08	0.07	0.22	1.39
235.60	0.29	0.26	0.03	-0.68	-1.79	-1.29
235.80	0.17	0.31	0.00	0.42	0.93	-3.66
236.00	0.28	0.49	0.07	0.33	-0.39	0.17
236.20	-0.04	0.49	0.06	0.08	-1.39	0.70
236.40	0.06	0.39	-0.01	0.68	0.16	1.33
236.60	0.07	0.36	0.03	0.61	-0.61	2.15
236.80	-0.13	0.39	0.06	0.65	-3.84	1.92
237.00	-0.14	0.40	0.02	-0.55	-0.86	-2.57
237.20	-0.37	0.38	-0.01	0.06	-0.19	-2.32
237.40	0.06	0.32	0.01	0.85	-0.65	-0.06
237.60	-0.16	0.41	0.00	0.74	0.25	0.14
237.80	-0.25	0.47	-0.01	1.78	3.13	5.52
238.00	-0.18	0.54	0.00	-0.12	-1.23	2.11
238.20	-0.46	0.31	-0.02	0.35	-3.10	0.69
238.40	-0.32	0.31	-0.02	-0.37	-0.11	0.28
238.60	-0.35	0.36	0.00	0.85	2.28	-1.63
238.80	-0.30	0.16	0.02	-0.13	0.50	-1.38
239.00	-0.30	0.17	0.00	0.31	1.93	-1.32

239.20	-0.16	0.20	0.01	0.67	3.19	-0.76
239.40	-0.30	0.10	0.02	0.36	-1.44	-0.82
239.60	-0.24	0.07	-0.02	0.12	1.67	-0.10
239.80	-0.43	0.10	-0.03	0.41	1.69	1.45
240.00	-0.32	-0.11	-0.02	0.47	0.13	-0.66
240.20	-0.02	-0.13	-0.03	0.33	0.15	0.47
240.40	-0.24	-0.03	-0.10	0.36	-0.84	2.20
240.60	-0.11	0.10	-0.06	0.74	-0.96	-0.20
240.80	-0.25	0.09	-0.10	0.27	-0.29	-1.13
241.00	-0.12	-0.01	-0.12	0.29	0.73	-0.08
241.20	-0.30	-0.10	-0.12	0.07	-0.97	-3.73
241.40	-0.26	0.12	-0.14	0.28	2.82	-0.54
241.60	-0.16	0.08	-0.11	0.72	0.39	0.05
241.80	-0.23	0.25	-0.16	-0.13	1.03	-1.05
242.00	-0.35	-0.06	-0.14	0.60	0.33	-0.90
242.20	-0.16	0.09	-0.16	-0.38	0.71	-2.09
242.40	-0.27	0.05	-0.20	0.50	-1.51	1.39
242.60	-0.28	0.08	-0.17	-0.25	-2.20	-4.05
242.80	-0.04	-0.04	-0.14	-0.37	1.24	-3.23
243.00	-0.17	0.08	-0.16	0.05	-0.20	-2.67
243.20	-0.01	-0.15	-0.14	-0.05	3.07	-0.09
243.40	-0.20	0.04	-0.18	1.19	-0.99	1.05
243.60	-0.04	0.13	-0.15	0.62	-2.83	1.20
243.80	0.06	0.22	-0.14	1.16	-1.62	0.32
244.00	-0.22	0.06	-0.13	0.84	-2.81	2.14
244.20	-0.20	0.18	-0.10	0.29	-0.54	-0.68
244.40	-0.20	0.04	-0.10	0.94	0.26	-0.06
244.60	0.03	0.13	-0.08	-0.04	-0.36	-1.95
244.80	-0.22	0.11	-0.07	1.50	0.85	5.07
245.00	-0.28	0.18	-0.05	1.01	-3.27	0.96
245.20	-0.63	0.11	-0.04	0.71	-1.37	-0.80
245.40	-0.11	0.21	0.03	0.56	-2.63	0.59
245.60	-0.22	0.37	0.03	0.05	2.35	0.95
245.80	-0.31	0.18	0.10	0.99	0.05	0.95
246.00	0.06	0.32	0.06	1.00	-0.53	1.04
246.20	-0.29	0.07	0.04	0.40	-1.82	-1.39
246.40	-0.12	0.29	0.09	-0.35	5.56	-0.45
246.60	0.02	0.25	0.11	1.02	-2.41	1.64
246.80	-0.27	0.15	0.10	0.95	-0.84	0.43
247.00	-0.17	0.20	0.04	1.06	-1.09	0.87
247.20	-0.18	0.17	0.13	0.61	-0.12	-0.13
247.40	-0.40	0.15	0.09	-0.05	0.08	-1.27
247.60	-0.26	0.20	0.11	0.70	-3.10	-1.68
247.80	-0.29	0.19	0.15	0.45	-0.15	1.09
248.00	0.10	0.10	0.16	-0.16	-0.40	-0.82
248.20	-0.16	0.02	0.11	-0.20	-0.25	-2.07
248.40	-0.33	0.01	0.12	0.59	-1.22	0.39
248.60	-0.27	-0.01	0.14	-0.27	1.69	-1.85
248.80	-0.13	-0.13	0.14	-0.62	0.04	-2.78
249.00	-0.41	0.08	0.14	0.60	0.50	1.47

249.20	-0.48	0.04	0.15	-0.13	-1.09	-0.85
249.40	-0.10	-0.15	0.16	0.36	-1.04	0.97
249.60	-0.23	-0.13	0.14	0.48	-0.23	0.05
249.80	-0.16	-0.13	0.15	0.16	-1.97	0.40
250.00	-0.28	-0.21	0.15	0.27	-2.17	-0.59
250.20	-0.29	-0.21	0.17	0.31	-3.96	-0.46
250.40	-0.45	-0.16	0.10	0.93	-0.70	0.72
250.60	-0.52	-0.22	0.11	0.35	1.06	-1.60
250.80	-0.61	-0.51	0.09	0.77	0.55	0.07
251.00	-0.47	-0.35	0.11	0.01	0.62	-0.10
251.20	-0.60	-0.39	0.09	0.48	-2.32	-1.59
251.40	-0.77	-0.39	0.06	-0.07	3.07	-2.72
251.60	-0.73	-0.58	0.09	0.31	-1.55	0.49
251.80	-0.67	-0.63	0.04	0.37	-1.93	0.35
252.00	-0.92	-0.53	0.03	0.88	-0.11	0.47
252.20	-1.03	-0.59	0.03	0.37	-0.38	-0.80
252.40	-0.95	-0.47	0.02	0.64	1.67	-0.49
252.60	-0.79	-0.39	0.00	-0.21	0.18	-0.66
252.80	-1.07	-0.46	-0.02	1.33	0.93	-0.19
253.00	-0.86	-0.60	-0.02	0.14	-0.19	-0.76
253.20	-0.79	-0.40	-0.02	0.35	0.87	0.38
253.40	-0.74	-0.34	-0.03	-0.34	-3.11	-3.75
253.60	-0.63	-0.35	-0.01	-0.29	-0.82	-2.43
253.80	-0.65	-0.43	-0.01	-0.01	2.27	1.19
254.00	-0.87	-0.49	-0.05	1.28	-0.66	-0.13
254.20	-0.56	-0.37	0.01	0.70	-0.61	0.37
254.40	-0.74	-0.50	-0.03	1.20	-0.51	2.57
254.60	-0.65	-0.46	-0.03	0.25	-0.84	-1.15
254.80	-0.72	-0.36	-0.05	0.67	-1.32	-1.63
255.00	-0.79	-0.49	-0.02	0.56	-1.48	-0.35
255.20	-0.80	-0.46	-0.03	1.03	1.02	2.10
255.40	-0.86	-0.32	-0.12	1.25	-0.70	1.00
255.60	-0.97	-0.31	-0.13	0.86	0.39	0.16
255.80	-0.71	-0.50	-0.09	0.00	-1.04	0.54
256.00	-1.12	-0.66	-0.15	0.53	2.91	3.66
256.20	-0.76	-0.39	-0.13	0.53	0.84	-1.96
256.40	-0.93	-0.35	-0.14	-0.18	-0.26	-1.08
256.60	-0.71	-0.40	-0.14	-0.62	-0.10	-0.22
256.80	-0.77	-0.28	-0.15	0.00	0.30	-2.46
257.00	-0.94	-0.32	-0.10	1.11	-1.61	2.60
257.20	-0.61	-0.43	-0.16	-0.53	-0.13	-2.57
257.40	-0.82	-0.39	-0.10	-0.05	2.63	-0.89
257.60	-0.64	-0.45	-0.12	0.51	0.98	-2.45
257.80	-0.72	-0.43	-0.09	-1.44	-2.46	-0.82
258.00	-0.91	-0.35	-0.14	-0.03	-2.43	0.93
258.20	-0.80	-0.32	-0.12	-0.26	-2.61	-2.80
258.40	-0.88	-0.42	-0.12	0.98	-0.53	-0.04
258.60	-0.93	-0.53	-0.09	0.85	-0.60	-0.74
258.80	-1.01	-0.52	-0.08	0.31	1.19	-1.34
259.00	-1.08	-0.42	-0.12	0.37	-0.69	0.28

259.20	-0.99	-0.48	-0.11	1.59	-1.76	2.82
259.40	-1.03	-0.60	-0.07	0.74	1.52	2.39
259.60	-0.98	-0.51	-0.11	-0.60	4.06	0.23
259.80	-1.20	-0.56	-0.07	0.07	-0.24	-2.18
260.00	-1.19	-0.50	-0.07	-0.40	1.82	-0.60
260.20	-1.21	-0.58	-0.09	0.36	-2.52	-2.90
260.40	-1.16	-0.47	-0.09	0.59	0.40	1.34
260.60	-1.07	-0.78	-0.11	0.78	0.95	-2.65
260.80	-1.12	-0.60	-0.14	-0.11	0.30	-1.19
261.00	-1.12	-0.78	-0.11	0.54	-0.21	-3.19
261.20	-0.95	-0.77	-0.07	1.29	-2.54	0.71
261.40	-1.07	-0.60	-0.11	0.84	-1.15	-1.02
261.60	-1.27	-0.62	-0.15	0.83	-2.92	1.64
261.80	-1.13	-0.83	-0.14	-1.39	0.06	-1.19
262.00	-1.30	-0.61	-0.16	0.30	0.20	-3.26
262.20	-1.23	-0.70	-0.16	0.37	1.68	-1.49
262.40	-1.19	-0.81	-0.14	0.26	0.76	-2.94
262.60	-1.25	-0.66	-0.14	1.63	0.55	4.43
262.80	-1.45	-0.82	-0.17	0.51	1.47	-0.58
263.00	-1.45	-0.67	-0.13	1.03	0.61	-0.64
263.20	-1.33	-0.91	-0.14	0.92	-0.50	1.16
263.40	-1.54	-0.92	-0.13	0.07	1.64	-0.88
263.60	-1.48	-0.75	-0.14	1.23	0.28	2.88
263.80	-1.07	-0.56	-0.14	0.54	-1.12	0.64
264.00	-1.39	-0.71	-0.11	-0.32	-0.81	-4.10
264.20	-1.39	-0.61	-0.13	-0.49	-4.22	-3.32
264.40	-1.34	-0.59	-0.15	-0.04	0.23	-1.04
264.60	-1.26	-0.59	-0.13	0.20	-2.45	-0.57
264.80	-1.19	-0.52	-0.11	1.15	-1.42	3.11
265.00	-1.01	-0.59	-0.16	0.22	0.24	-1.31
265.20	-1.09	-0.67	-0.12	-0.48	0.12	-2.35
265.40	-0.99	-0.44	-0.09	-0.73	-2.31	-2.75
265.60	-1.27	-0.36	-0.11	0.89	-1.59	1.30
265.80	-1.20	-0.70	-0.08	0.49	5.49	1.02
266.00	-1.47	-0.59	-0.05	1.02	2.99	1.00
266.20	-1.34	-0.64	-0.08	0.31	1.35	0.19
266.40	-1.18	-0.47	-0.10	0.38	1.48	-0.54
266.60	-1.25	-0.50	-0.13	0.44	-0.74	0.25
266.80	-1.22	-0.28	-0.08	1.35	-1.78	3.62
267.00	-1.29	-0.53	-0.04	1.22	5.15	5.05
267.20	-0.94	-0.66	-0.02	-0.24	1.13	0.18
267.40	-1.13	-0.46	-0.05	0.96	-1.27	1.08
267.60	-1.09	-0.54	-0.09	-0.38	1.86	1.01
267.80	-0.94	-0.80	-0.07	0.45	1.26	-2.04
268.00	-0.97	-0.33	-0.08	1.45	-2.18	1.22
268.20	-0.81	-0.24	-0.12	0.28	-1.50	-1.85
268.40	-0.90	-0.64	-0.07	1.16	2.41	-0.19
268.60	-0.82	-0.58	-0.07	0.84	0.31	-0.48
268.80	-0.64	-0.53	-0.05	0.96	-3.17	-2.05
269.00	-0.81	-0.41	-0.07	0.44	-1.10	0.06

269.20	-0.76	-0.71	0.03	0.54	-0.57	-0.26
269.40	-0.88	-0.56	-0.01	0.63	-1.77	0.89
269.60	-0.94	-0.65	-0.03	0.31	0.56	-0.18
269.80	-0.81	-0.37	0.00	-0.61	1.24	-0.52
270.00	-1.17	-0.56	-0.06	0.08	-2.58	0.56
270.20	-1.21	-0.73	-0.07	1.25	-0.42	2.65
270.40	-1.16	-0.63	-0.10	-1.19	-0.97	-5.21
270.60	-1.17	-0.81	-0.09	1.64	-2.39	5.17
270.80	-1.39	-0.57	-0.15	-0.45	-1.75	0.37
271.00	-1.17	-0.72	-0.11	0.58	-6.30	1.33
271.20	-1.34	-0.77	-0.08	-0.29	1.98	-0.56
271.40	-1.23	-0.91	-0.09	1.06	-1.19	-0.93
271.60	-1.24	-0.59	-0.10	0.92	-0.64	2.75
271.80	-1.05	-0.70	-0.09	0.80	-2.29	1.15
272.00	-1.09	-0.89	-0.09	1.37	-1.23	2.28
272.20	-1.03	-0.73	-0.15	0.18	0.42	-0.91
272.40	-1.23	-0.56	-0.08	1.38	1.34	2.18
272.60	-1.22	-0.60	-0.10	-0.14	-0.59	-0.42
272.80	-1.39	-0.66	-0.10	0.48	-1.47	0.44
273.00	-1.34	-0.71	-0.10	0.53	0.35	-0.05
273.20	-1.15	-0.59	-0.11	0.19	-1.38	-0.15
273.40	-1.11	-0.73	-0.09	0.39	-0.24	2.14
273.60	-1.09	-0.88	-0.08	0.08	-2.11	-1.77
273.80	-1.08	-0.82	-0.08	0.12	-1.53	0.69
274.00	-0.93	-0.73	-0.10	-0.26	2.16	-1.75
274.20	-1.04	-0.50	-0.13	-0.19	0.89	-1.17
274.40	-1.00	-0.63	-0.14	0.80	1.20	1.35
274.60	-0.95	-0.65	-0.14	0.18	0.38	-0.05
274.80	-1.03	-0.71	-0.15	-0.03	-0.46	-0.93
275.00	-0.77	-0.70	-0.13	-0.16	-1.41	-0.33
275.20	-0.64	-0.63	-0.16	0.45	-1.05	2.44
275.40	-0.86	-0.71	-0.15	-0.12	0.62	-0.48
275.60	-0.62	-0.76	-0.15	0.77	-1.89	3.40
275.80	-0.73	-0.63	-0.16	-0.49	1.89	-3.06
276.00	-0.77	-0.70	-0.14	-0.34	-2.11	-0.36
276.20	-0.75	-0.59	-0.11	-0.05	0.99	-1.33
276.40	-0.93	-0.66	-0.09	0.14	-0.19	-0.94
276.60	-0.69	-0.48	-0.07	-0.42	-1.57	-1.08
276.80	-0.88	-0.55	-0.05	-0.03	1.13	-0.55
277.00	-0.65	-0.42	-0.03	1.01	-0.09	3.27
277.20	-0.66	-0.40	-0.05	-0.65	0.30	-2.47
277.40	-0.45	-0.45	0.03	0.12	-0.11	0.90
277.60	-0.57	-0.39	0.03	0.56	-0.08	0.55
277.80	-0.73	-0.34	0.03	0.21	-0.06	0.47
278.00	-0.69	-0.34	0.04	0.17	-0.63	1.02
278.20	-0.42	-0.36	0.02	0.46	-0.69	2.80
278.40	-0.62	-0.43	-0.02	0.26	0.32	0.65
278.60	-0.62	-0.41	-0.07	1.32	-0.16	3.24
278.80	-0.48	-0.43	-0.02	0.16	-0.86	1.06
279.00	-0.50	-0.41	0.01	0.65	-0.04	1.72

279.20	-0.49	-0.27	0.06	-0.31	0.23	-0.87
279.40	-0.62	-0.53	0.09	-0.99	0.16	-2.60
279.60	-0.37	-0.34	0.12	-0.93	0.94	-3.41
279.80	-0.45	-0.37	0.13	-0.51	-0.52	-1.10
280.00	-0.63	-0.38	0.09	1.14	0.35	3.04
280.20	-0.78	-0.29	0.11	1.00	0.39	2.61
280.40	-0.82	-0.23	0.06	-0.03	1.08	-1.23
280.60	-0.89	-0.38	0.09	-0.74	0.25	-2.89
280.80	-0.60	-0.42	0.12	0.58	3.27	2.95
281.00	-0.77	-0.20	0.09	0.65	0.83	1.91
281.20	-0.67	-0.28	0.11	1.14	-0.83	3.85
281.40	-0.43	-0.33	0.13	0.16	-0.98	-1.38
281.60	-0.91	-0.18	0.06	0.51	0.91	-0.25
281.80	-0.69	-0.17	0.08	0.59	-2.69	2.17
282.00	-0.84	-0.31	0.07	0.15	1.31	0.10
282.20	-0.62	-0.20	0.07	-0.46	-0.21	-1.00
282.40	-0.67	-0.08	0.04	-0.36	0.93	1.72
282.60	-0.96	-0.33	0.06	0.33	0.75	0.82
282.80	-0.74	-0.25	0.04	-0.82	4.07	-1.14
283.00	-0.73	-0.18	0.05	0.18	-0.50	-0.33
283.20	-0.82	-0.18	0.05	-0.19	2.46	-5.14
283.40	-0.67	-0.24	0.01	-0.33	-1.25	0.81
283.60	-0.73	-0.43	0.07	-0.13	-0.59	1.11
283.80	-1.19	-0.28	0.02	0.00	-0.27	3.57
284.00	-0.79	-0.18	0.00	-0.25	-4.45	-0.44
284.20	-0.89	-0.27	-0.02	-0.19	-7.16	-1.97
284.40	-0.79	-0.25	-0.03	-0.45	1.07	-0.26
284.60	-0.69	-0.29	0.01	0.49	8.29	-0.79
284.80	-0.74	-0.50	0.01	-0.24	-1.76	-1.91
285.00	-0.61	-0.16	-0.01	-0.05	-0.24	-3.58
285.20	-0.70	-0.38	-0.04	-0.15	1.60	-2.34
285.40	-0.67	-0.28	-0.01	-0.85	1.42	-3.49
285.60	-0.56	-0.35	0.01	-0.71	-2.85	-3.77
285.80	-0.68	-0.36	0.01	1.05	-0.02	3.43
286.00	-0.69	-0.50	0.00	-0.46	-3.32	-2.02
286.20	-0.69	-0.31	-0.05	0.49	-0.33	1.16
286.40	-0.62	-0.35	-0.04	-0.05	-2.39	2.69
286.60	-0.57	-0.40	-0.01	0.64	-2.82	4.16
286.80	-0.62	-0.28	0.00	1.04	-2.27	1.77
287.00	-0.65	-0.50	-0.02	0.11	-0.35	-0.09
287.20	-0.34	-0.13	-0.04	-0.17	1.04	1.32
287.40	-0.62	-0.35	-0.06	-0.31	-4.33	-4.32
287.60	-0.45	-0.46	-0.03	-0.18	2.16	-0.51
287.80	-0.66	-0.49	-0.06	-0.19	-0.36	0.82
288.00	-0.74	-0.43	-0.06	-0.17	-6.43	-0.44
288.20	-0.41	-0.25	-0.08	-0.31	-0.65	-1.07
288.40	-0.13	-0.36	-0.11	-0.31	-0.58	-3.62
288.60	-0.47	-0.47	-0.04	-0.66	1.26	1.27
288.80	-0.41	-0.41	-0.03	0.44	-0.79	-2.29
289.00	-0.29	-0.24	-0.05	0.49	-0.03	-0.19

289.20	-0.38	-0.35	-0.09	0.92	3.26	-2.55
289.40	-0.32	-0.32	-0.03	0.85	-0.61	1.49
289.60	0.01	-0.34	-0.01	-0.91	1.12	-4.45
289.80	-0.07	-0.34	-0.02	-1.05	-1.37	-0.88
290.00	-0.46	-0.57	-0.02	-0.21	-2.52	-0.05
290.20	-0.31	-0.43	-0.01	-0.29	-3.15	-0.42
290.40	-0.18	-0.30	-0.02	-0.73	0.08	-4.33
290.60	-0.23	-0.42	-0.03	0.14	-1.17	-2.19
290.80	-0.19	-0.40	-0.03	1.01	0.46	1.97
291.00	-0.31	-0.33	0.00	0.34	3.73	1.55
291.20	-0.33	-0.52	0.01	0.13	2.56	1.52
291.40	-0.48	-0.20	0.01	0.44	4.93	1.09
291.60	-0.23	-0.07	-0.03	0.82	-0.74	-0.21
291.80	-0.60	-0.32	0.04	-1.04	2.37	-3.61
292.00	-0.24	-0.34	0.04	-1.81	0.13	-4.39
292.20	-0.50	-0.39	0.03	0.11	2.04	0.50
292.40	-0.60	-0.27	0.02	1.07	-2.52	-1.21
292.60	-0.40	-0.47	0.03	-0.09	1.35	0.69
292.80	-0.49	-0.43	0.02	1.82	-0.67	1.88
293.00	-0.48	-0.46	0.02	0.21	-1.93	0.57
293.20	-0.41	-0.57	0.08	0.20	6.55	3.31
293.40	-0.40	-0.36	0.07	-0.60	0.58	-2.31
293.60	-0.37	-0.64	0.06	-0.26	-1.57	-3.47
293.80	-0.48	-0.41	0.07	0.31	4.91	2.57
294.00	-0.62	-0.46	0.05	0.27	-3.40	2.96
294.20	-0.56	-0.35	0.00	0.90	-0.57	1.00
294.40	-0.53	-0.59	0.08	-0.07	-0.08	-1.61
294.60	-0.76	-0.58	0.07	0.25	0.95	-4.41
294.80	-0.75	-0.46	0.13	1.83	1.78	1.74
295.00	-0.66	-0.53	0.09	1.48	-0.29	7.63
295.20	-0.50	-0.55	0.15	1.10	-3.80	0.11
295.40	-0.49	-0.72	0.12	0.85	-3.46	4.50
295.60	-0.25	-0.64	0.12	1.01	-5.48	-1.45
295.80	-0.49	-0.75	0.11	0.23	-1.01	0.04
296.00	-0.58	-0.77	0.17	-0.39	-2.36	-1.06
296.20	-0.19	-0.76	0.15	0.80	-3.42	6.56
296.40	-0.34	-0.64	0.14	0.82	-1.10	4.01
296.60	-0.41	-0.55	0.18	-0.28	0.87	-0.78
296.80	-0.55	-0.89	0.22	0.10	4.84	-2.36
297.00	-0.37	-0.87	0.24	0.45	-1.30	2.94
297.20	-0.39	-0.81	0.19	0.46	1.42	0.40
297.40	-0.21	-1.14	0.20	0.17	3.38	-0.28
297.60	-0.22	-0.76	0.20	0.30	2.58	2.92
297.80	-0.41	-0.93	0.23	1.02	-4.94	-0.20
298.00	-0.23	-0.59	0.16	0.25	-1.85	-2.00
298.20	-0.48	-0.94	0.14	-1.20	-1.00	-1.42
298.40	-0.32	-0.66	0.10	0.35	1.36	7.63
298.60	-0.46	-0.71	0.04	0.50	-0.56	2.62
298.80	-0.33	-0.88	0.03	-0.27	-6.55	3.24
299.00	-0.43	-0.93	0.02	0.57	-1.65	-0.76

299.20	-0.20	-0.90	-0.03	0.42	-1.78	1.13
299.40	-0.45	-0.75	-0.05	1.06	1.29	2.95
299.60	-0.51	-0.81	-0.05	-0.72	-0.26	-1.67
299.80	-0.37	-0.78	-0.02	-0.22	1.20	-0.51
300.00	-0.42	-0.62	-0.02	-0.17	4.23	-2.17
300.20	-0.58	-0.49	0.05	0.25	-1.16	1.06
300.40	-0.57	-0.82	0.01	-2.20	3.54	-4.90
300.60	-0.45	-0.78	0.02	-0.04	3.93	-1.87
300.80	-0.24	-0.77	0.00	-0.40	0.50	-2.88
301.00	-0.58	-0.43	-0.05	1.69	1.04	0.55
301.20	-0.19	-0.64	-0.09	1.26	-1.01	0.35
301.40	-0.23	-0.68	-0.06	0.37	-0.02	-0.96
301.60	-0.17	-0.75	-0.05	0.10	-1.55	-1.64
301.80	-0.16	-0.58	-0.09	-0.88	2.63	0.61
302.00	-0.28	-0.64	-0.05	0.92	-5.64	-1.89
302.20	-0.10	-0.48	-0.06	-0.65	1.28	-3.95
302.40	-0.21	-0.65	-0.05	-1.07	-3.39	-5.30
302.60	-0.39	-0.51	0.01	0.24	3.47	4.60
302.80	-0.07	-0.41	0.02	0.31	-1.27	1.88
303.00	-0.29	-0.63	0.09	0.45	-2.34	0.73
303.20	-0.49	-0.74	0.14	-1.25	-3.19	-8.24
303.40	-0.14	-0.55	0.18	0.52	-1.50	1.18
303.60	-0.33	-0.51	0.15	-0.73	0.71	-3.34
303.80	-0.42	-0.66	0.14	0.92	-0.45	1.50
304.00	-0.59	-0.68	0.11	0.24	0.39	1.33
304.20	-0.50	-0.47	0.16	-0.11	1.11	1.09
304.40	-0.42	-0.28	0.18	0.02	-0.62	1.56
304.60	-0.38	-0.49	0.18	-0.02	-9.00	-0.56
304.80	-0.31	-0.45	0.21	0.59	-0.08	-1.40
305.00	-0.47	-0.53	0.24	-0.01	-0.52	-1.58
305.20	-0.34	-0.70	0.26	0.21	-4.23	0.65
305.40	-0.40	-0.48	0.28	-0.93	-0.46	1.41
305.60	-0.60	-0.50	0.29	0.13	3.62	-0.49
305.80	-0.49	-0.58	0.36	0.27	4.51	-2.99
306.00	-0.55	-0.39	0.32	-0.27	-8.47	-0.51
306.20	-0.85	-0.49	0.31	-0.03	-5.67	3.51
306.40	-0.60	-0.57	0.34	-0.60	0.83	-3.46
306.60	-0.49	-0.45	0.33	0.37	-0.68	-1.01
306.80	-0.48	-0.39	0.33	0.29	4.05	-0.03
307.00	-0.34	-0.46	0.39	0.09	-3.92	2.50
307.20	-0.51	-0.57	0.33	0.51	2.83	4.47
307.40	-0.24	-0.25	0.29	0.45	-1.03	2.12
307.60	-0.33	-0.48	0.34	0.42	-0.41	-0.21
307.80	-0.25	-0.50	0.36	0.13	-3.24	-2.92
308.00	-0.28	-0.54	0.30	0.46	-1.13	1.82
308.20	-0.41	-0.40	0.27	-0.44	-3.60	-2.14
308.40	-0.54	-0.65	0.31	0.32	-1.29	-0.09
308.60	-0.37	-0.49	0.21	0.32	-2.59	0.10
308.80	-0.22	-0.53	0.21	-0.23	-0.44	-0.60
309.00	-0.36	-0.57	0.23	-0.67	-1.84	-1.31

309.20	-0.25	-0.56	0.23	0.75	-6.08	4.64
309.40	-0.53	-0.67	0.22	-0.63	-1.20	-3.13
309.60	-0.29	-0.65	0.24	1.34	1.73	2.56
309.80	-0.22	-0.26	0.19	-0.56	1.29	-4.11
310.00	-0.31	-0.47	0.19	-0.69	2.92	-1.83
310.20	-0.20	-0.52	0.20	1.12	-3.74	3.06
310.40	-0.14	-0.72	0.23	-0.62	1.98	-1.00
310.60	-0.16	-0.55	0.20	-0.01	0.18	0.80
310.80	-0.16	-0.67	0.18	-0.30	-1.36	-0.19
311.00	-0.28	-0.41	0.12	-0.34	-8.12	-3.30
311.20	-0.46	-0.57	0.20	1.54	-2.19	0.46
311.40	-0.04	-0.47	0.22	0.53	0.72	3.95
311.60	-0.12	-0.52	0.21	-0.33	-1.00	-2.04
311.80	-0.17	-0.36	0.19	-0.80	-0.98	-1.30
312.00	-0.18	-0.22	0.19	0.03	3.55	-0.08
312.20	-0.12	-0.59	0.18	0.37	2.37	0.35
312.40	-0.16	-0.65	0.22	-0.85	0.32	-4.07
312.60	-0.30	-0.51	0.20	-0.01	-0.05	-1.28
312.80	-0.37	-0.37	0.19	-0.94	0.16	-3.71
313.00	-0.57	-0.54	0.20	-0.76	-2.22	-0.92
313.20	-0.56	-0.54	0.15	-0.36	-3.75	0.21
313.40	-0.43	-0.55	0.18	0.34	-1.97	-0.05
313.60	-0.30	-0.74	0.16	0.64	-0.23	3.08
313.80	-0.41	-0.58	0.14	-0.95	-0.85	-0.14
314.00	-0.47	-0.48	0.13	0.56	0.79	-0.92
314.20	-0.46	-0.20	0.14	0.34	-0.54	2.30
314.40	-0.21	-0.14	0.11	0.28	2.56	5.45
314.60	-0.31	-0.58	0.11	0.95	17.49	12.10
314.80	-0.58	-0.32	0.08	0.12	0.64	3.74
315.00	-0.35	-0.64	0.08	0.71	-0.06	3.37
315.20	-0.24	-0.57	0.08	-0.63	-2.53	-1.50
315.40	-0.14	-0.46	0.05	-0.07	3.28	0.17
315.60	-0.25	-0.56	0.02	-0.21	-0.45	-2.30
315.80	-0.29	-0.54	0.02	0.35	1.03	3.44
316.00	-0.17	-0.61	0.02	-0.22	-0.91	-2.34
316.20	-0.33	-0.44	0.06	1.38	-2.44	4.13
316.40	-0.27	-0.54	0.02	0.95	-3.03	1.26
316.60	-0.30	-0.30	0.05	-1.33	-5.39	-6.42
316.80	-0.63	-0.60	0.09	-0.71	1.90	-1.17
317.00	-0.05	-0.53	0.09	0.16	-3.24	0.94
317.20	-0.43	0.01	0.01	-0.13	-0.29	-2.69
317.40	-0.35	-0.37	0.07	-1.20	-2.23	-2.44
317.60	-0.23	-0.41	0.13	-0.99	-1.06	-2.22
317.80	-0.44	-0.44	0.11	-0.03	-4.71	1.94
318.00	-0.21	-0.19	0.14	0.19	0.59	-1.05
318.20	-0.24	-0.24	0.12	0.95	-3.78	0.11
318.40	-0.38	-0.45	0.14	-0.66	1.07	-1.66
318.60	-0.37	-0.23	0.14	-0.34	-0.89	0.53
318.80	-0.43	-0.25	0.15	-0.14	-0.67	-0.67
319.00	-0.46	-0.59	0.11	0.04	-2.24	0.61

319.20	-0.33	-0.38	0.12	0.02	-0.28	1.02
319.40	-0.25	-0.26	0.09	0.08	-1.36	-1.12
319.60	-0.24	-0.40	0.17	-0.32	-1.60	0.22
319.80	-0.29	-0.26	0.12	0.27	2.13	3.60
320.00	-0.23	-0.36	0.13	0.19	1.04	2.93
320.20	-0.33	-0.50	0.16	0.63	1.07	3.88
320.40	-0.42	-0.46	0.12	0.26	0.47	2.74
320.60	-0.44	-0.38	0.10	-0.58	1.91	-3.08
320.80	-0.31	-0.45	0.15	-1.70	2.00	-1.78
321.00	-0.68	-0.63	0.14	0.24	-0.21	2.89
321.20	-0.47	-0.47	0.11	0.44	3.24	0.40
321.40	-0.53	-0.32	0.06	-0.08	-0.36	-0.09
321.60	-0.56	-0.66	0.13	-0.04	-0.30	0.32
321.80	-0.41	-0.54	0.08	0.16	-0.10	0.48
322.00	-0.26	-0.49	0.11	0.11	-0.65	-0.13
322.20	-0.19	-0.59	0.09	-0.18	0.46	-0.80
322.40	-0.36	-0.45	0.09	-0.84	0.01	-3.42
322.60	-0.44	-0.50	0.07	0.13	-0.61	0.93
322.80	-0.18	-0.36	0.08	0.20	-0.92	1.77
323.00	-0.39	-0.45	0.11	-0.32	-1.19	-1.63
323.20	-0.60	-0.23	0.08	-0.13	-1.42	-0.20
323.40	-0.34	-0.61	0.12	-0.37	1.04	-0.21
323.60	-0.47	-0.24	0.07	-0.14	-1.64	0.40
323.80	-0.24	-0.31	0.11	-0.46	0.74	-1.12
324.00	-0.37	-0.47	0.06	-0.16	-1.09	-2.41
324.20	-0.27	-0.43	0.12	-0.09	-1.18	-1.23
324.40	-0.18	-0.37	0.12	-0.39	-1.74	-1.66
324.60	-0.18	-0.30	0.14	-0.08	0.49	-0.32
324.80	-0.30	-0.47	0.12	-0.27	-2.24	-1.20
325.00	-0.19	-0.36	0.16	-0.94	2.76	-0.82
325.20	-0.36	-0.49	0.11	0.06	2.46	1.27
325.40	-0.13	-0.14	0.13	-0.23	-2.36	-2.24
325.60	-0.19	-0.34	0.16	-0.09	-0.92	-0.66
325.80	-0.39	-0.27	0.16	0.55	2.41	2.41
326.00	-0.35	-0.44	0.18	-0.16	-0.24	0.15
326.20	-0.21	-0.23	0.12	0.49	0.02	2.32
326.40	-0.48	-0.38	0.10	-0.05	-0.17	1.00
326.60	-0.40	-0.59	0.17	0.09	-0.98	1.66
326.80	-0.28	-0.16	0.12	0.34	0.67	1.50
327.00	-0.14	-0.37	0.16	0.68	-0.02	2.79
327.20	-0.14	-0.10	0.10	0.08	1.40	1.18
327.40	-0.45	-0.39	0.11	-0.53	0.37	0.64
327.60	-0.45	-0.45	0.07	0.02	2.70	-0.06
327.80	-0.55	-0.11	0.07	-0.32	2.73	1.30
328.00	-0.50	-0.31	0.07	0.44	2.21	-0.36
328.20	-0.50	-0.30	0.05	-0.03	1.86	-2.64
328.40	-0.43	-0.23	0.06	-0.17	0.91	-2.38
328.60	-0.31	-0.30	0.03	-0.13	-0.49	-0.88
328.80	-0.19	-0.26	0.09	0.20	1.79	-0.87
329.00	-0.52	-0.54	0.07	-0.42	-1.04	-0.71

329.20	-0.31	-0.10	0.02	-0.75	-0.20	-0.31
329.40	-0.32	-0.39	0.06	0.45	0.19	0.85
329.60	-0.21	-0.12	0.01	-0.17	-0.46	0.04
329.80	-0.43	-0.10	0.04	0.09	-4.10	-0.70
330.00	-0.36	-0.17	0.06	0.10	0.10	-1.32
330.20	-0.55	-0.10	0.05	-1.10	-2.28	-4.67
330.40	-0.41	-0.19	0.02	0.09	-1.94	-0.79
330.60	-0.26	-0.19	0.01	-0.49	-0.22	-1.74
330.80	-0.49	-0.18	0.02	0.72	-1.55	1.82
331.00	-0.36	-0.17	0.04	0.25	1.20	1.06
331.20	-0.35	-0.25	0.04	0.37	0.46	1.25
331.40	-0.36	-0.18	0.06	0.27	1.34	1.97
331.60	-0.45	-0.09	0.03	-0.40	0.16	-0.66
331.80	-0.15	-0.11	0.07	0.57	-2.21	1.44
332.00	-0.46	-0.35	0.05	-0.28	-0.24	-1.33
332.20	-0.39	-0.07	0.04	-0.29	-0.94	0.06
332.40	-0.19	-0.16	0.06	-0.19	-0.49	-1.37
332.60	-0.26	-0.16	0.07	0.00	1.77	1.23
332.80	-0.21	-0.35	0.01	0.51	-1.41	1.32
333.00	-0.15	-0.10	-0.02	1.23	0.82	2.41
333.20	-0.19	-0.10	0.01	-0.61	0.67	-2.68
333.40	-0.44	-0.36	0.00	-0.14	-0.74	-1.49
333.60	-0.32	0.01	0.02	-0.08	0.83	-0.83
333.80	-0.43	-0.21	0.00	0.72	-0.74	0.85
334.00	-0.51	-0.17	0.02	-0.63	-4.18	-1.71
334.20	-0.37	-0.22	0.01	-0.14	-1.16	1.84
334.40	-0.20	-0.06	-0.01	1.62	-1.06	1.93
334.60	-0.25	-0.23	-0.03	-0.62	2.33	-2.29
334.80	0.20	-0.11	0.06	-1.60	-2.96	-3.16
335.00	-0.39	-0.22	-0.03	-0.10	2.42	0.58
335.20	-0.26	-0.25	-0.03	0.30	0.87	-1.71
335.40	-0.30	-0.09	-0.02	0.36	-2.02	-1.33
335.60	-0.20	0.00	-0.03	-0.87	-1.47	0.35
335.80	-0.42	-0.24	0.00	0.36	-0.76	-0.12
336.00	-0.12	-0.01	-0.04	0.17	2.03	1.03
336.20	-0.08	-0.23	0.00	0.79	0.92	2.22
336.40	-0.22	-0.14	-0.04	0.15	0.10	1.70
336.60	-0.47	-0.45	-0.03	0.83	-1.72	1.42
336.80	-0.37	-0.27	-0.04	-0.39	2.55	-0.78
337.00	-0.48	-0.43	0.02	0.70	0.37	-1.49
337.20	-0.12	-0.45	-0.01	-0.19	1.45	-3.06
337.40	-0.62	-0.33	-0.06	0.43	-0.93	2.08
337.60	-0.59	-0.36	-0.05	0.18	-0.43	-1.28
337.80	-0.45	-0.09	-0.14	0.18	-0.01	-0.94
338.00	-0.38	-0.19	-0.07	0.18	-1.64	1.83
338.20	-0.56	-0.17	-0.06	0.96	-2.18	0.42
338.40	-0.65	-0.23	-0.04	-0.05	-1.01	-0.58
338.60	-0.39	-0.19	-0.06	0.76	-1.44	0.68
338.80	-0.49	-0.31	-0.09	1.05	2.39	3.16
339.00	-0.36	-0.29	-0.10	0.17	-0.76	-0.07

339.20	-0.55	-0.19	-0.13	0.39	1.13	1.23
339.40	-0.28	-0.19	-0.15	1.41	-0.48	4.42
339.60	-0.45	-0.04	-0.15	0.21	-0.89	0.19
339.80	-0.46	-0.25	-0.14	0.16	-0.43	-0.41
340.00	-0.49	-0.43	-0.12	-0.09	2.84	1.19
340.20	-0.35	-0.16	-0.11	0.34	-2.91	-0.13
340.40	-0.53	-0.51	-0.10	0.62	3.57	0.26
340.60	-0.57	-0.31	-0.16	0.76	0.44	3.02
340.80	-0.37	-0.28	-0.12	-0.03	-5.66	-0.77
341.00	-0.50	-0.37	-0.13	0.04	0.65	-0.21
341.20	-0.35	-0.14	-0.16	-0.50	-1.28	-2.02
341.40	-0.52	-0.27	-0.15	-0.20	-0.65	-1.80
341.60	-0.30	-0.42	-0.16	0.24	0.56	0.30
341.80	-0.31	-0.20	-0.12	-0.36	0.39	-0.71
342.00	-0.35	-0.50	-0.15	0.66	0.50	0.50
342.20	-0.38	-0.41	-0.08	-0.27	-1.98	-1.19
342.40	-0.39	-0.38	-0.14	-0.25	-1.79	-0.10
342.60	-0.13	-0.23	-0.16	-0.01	1.05	-0.19
342.80	-0.37	-0.33	-0.16	-0.19	1.67	-1.30
343.00	-0.17	-0.32	-0.13	0.77	-2.13	2.94
343.20	-0.17	-0.03	-0.16	0.38	1.51	1.18
343.40	-0.42	-0.35	-0.13	0.21	-1.73	-0.52
343.60	-0.12	-0.24	-0.16	-0.56	-1.95	-0.44
343.80	-0.16	-0.27	-0.08	-0.53	-0.22	-2.80
344.00	-0.46	-0.17	-0.12	-0.90	-1.37	-2.67
344.20	-0.30	-0.35	-0.12	0.46	2.10	3.18
344.40	-0.23	-0.28	-0.10	0.03	1.39	0.92
344.60	-0.37	-0.41	-0.08	0.29	1.15	-1.96
344.80	-0.29	-0.27	-0.05	-0.62	1.81	-5.51
345.00	-0.44	-0.30	-0.04	-0.50	1.27	-0.26
345.20	-0.53	-0.52	-0.07	0.92	5.47	0.78
345.40	-0.34	-0.35	-0.10	0.32	-2.28	-0.34
345.60	-0.22	-0.38	-0.04	-0.06	-3.00	3.67
345.80	-0.41	-0.31	-0.05	0.14	0.30	0.58
346.00	-0.41	-0.61	0.00	0.18	-3.13	-0.42
346.20	-0.33	-0.57	-0.01	0.38	0.26	1.19
346.40	-0.17	-0.25	-0.05	0.33	-1.81	-1.03
346.60	-0.30	-0.43	-0.02	0.02	-6.19	1.10
346.80	-0.23	-0.47	-0.05	0.33	2.57	-0.89
347.00	-0.24	-0.60	-0.01	-0.62	2.29	-3.91
347.20	-0.10	-0.40	-0.02	-0.65	1.36	-3.03
347.40	-0.35	-0.36	-0.05	0.22	-0.47	2.77
347.60	-0.18	-0.31	-0.04	0.95	2.21	2.63
347.80	-0.28	-0.32	-0.05	-0.25	0.63	-2.16
348.00	-0.25	-0.31	-0.06	0.53	-2.64	-0.37
348.20	-0.03	-0.28	-0.04	-0.56	-1.83	-1.58
348.40	-0.19	-0.35	-0.08	-0.22	-1.16	-1.09
348.60	-0.22	-0.41	-0.05	-0.05	-1.84	-0.08
348.80	-0.11	-0.31	-0.08	-0.27	-0.35	-0.55
349.00	-0.17	-0.33	-0.08	-0.17	-0.87	0.27

349.20	-0.15	-0.57	-0.06	-0.14	-0.33	0.26
349.40	-0.11	-0.31	-0.08	0.08	-0.83	-0.20
349.60	-0.03	-0.48	-0.06	-0.11	0.32	0.11
349.80	-0.02	-0.63	-0.10	-0.78	-0.36	-0.85
350.00	-0.16	-0.33	-0.11	-0.87	3.15	-0.16
350.20	0.07	-0.45	-0.07	-0.37	0.10	-1.12
350.40	0.08	-0.44	-0.10	0.18	0.96	-0.47
350.60	0.14	-0.24	-0.10	-0.10	-0.22	-0.82
350.80	0.05	-0.34	-0.14	0.94	2.16	2.71
351.00	-0.10	-0.44	-0.09	0.09	-1.69	1.44
351.20	0.03	-0.35	-0.14	0.81	-0.61	2.58
351.40	-0.15	-0.23	-0.14	-0.35	-0.38	0.01
351.60	-0.07	-0.49	-0.15	-1.32	0.91	-4.99
351.80	-0.05	-0.32	-0.17	0.13	0.61	0.26
352.00	-0.26	-0.25	-0.16	-0.53	-0.63	-1.54
352.20	0.21	-0.41	-0.11	-0.04	0.51	-3.37
352.40	-0.14	-0.51	-0.16	0.15	-0.14	1.14
352.60	-0.03	-0.30	-0.15	0.57	-5.55	2.10
352.80	-0.11	-0.44	-0.13	0.70	1.70	0.16
353.00	0.08	-0.57	-0.16	0.58	-0.66	1.61
353.20	0.04	-0.49	-0.12	0.28	-0.08	0.68
353.40	0.17	-0.37	-0.12	0.05	-2.14	-0.23
353.60	0.08	-0.48	-0.14	0.13	-1.21	-1.84
353.80	0.10	-0.54	-0.12	-0.89	-1.54	-2.85
354.00	0.05	-0.44	-0.13	-0.51	-0.66	-0.69
354.20	0.00	-0.61	-0.13	0.96	-1.29	1.90
354.40	0.15	-0.39	-0.15	-1.22	2.56	-2.08
354.60	0.20	-0.47	-0.13	0.66	-1.54	2.41
354.80	0.09	-0.48	-0.17	0.72	-1.84	2.97
355.00	0.28	-0.28	-0.16	-0.61	0.09	-0.23
355.20	0.15	-0.28	-0.16	-0.71	0.18	-2.98
355.40	0.06	-0.16	-0.16	0.22	1.08	1.28
355.60	0.17	-0.40	-0.15	-0.15	-1.83	-1.13
355.80	-0.05	-0.45	-0.16	1.05	2.11	3.31
356.00	0.27	-0.57	-0.19	0.41	-0.72	2.40
356.20	0.09	-0.53	-0.17	-0.12	3.29	-0.95
356.40	0.32	-0.49	-0.14	0.04	-0.11	-1.37
356.60	0.30	-0.65	-0.18	-0.34	-1.29	-3.37
356.80	0.33	-0.41	-0.16	0.17	2.50	0.55
357.00	0.13	-0.57	-0.19	-0.76	-1.87	-1.99
357.20	0.22	-0.43	-0.22	0.46	-0.03	2.81
357.40	0.44	-0.45	-0.24	-0.28	0.25	-1.97
357.60	0.30	-0.33	-0.20	0.60	-1.38	3.61
357.80	0.24	-0.44	-0.25	0.51	4.27	1.32
358.00	0.15	-0.54	-0.23	-1.58	1.34	-3.22
358.20	0.43	-0.33	-0.22	-0.88	0.30	-0.08
358.40	0.51	-0.32	-0.22	-0.22	2.84	0.22
358.60	0.40	-0.48	-0.24	0.44	-0.98	2.60
358.80	0.28	-0.38	-0.22	-0.40	-4.05	-2.14
359.00	0.11	-0.51	-0.24	-0.24	-3.44	0.05

359.20	0.26	-0.41	-0.23	0.23	0.40	1.60
359.40	0.30	-0.43	-0.22	0.07	0.15	1.62
359.60	0.30	-0.31	-0.22	-0.17	-2.71	-3.26
359.80	0.24	-0.46	-0.17	-0.02	-1.50	0.38
360.00	0.38	-0.43	-0.16	0.18	-0.69	-1.49
360.20	0.27	-0.44	-0.16	0.68	-9.65	0.43
360.40	0.36	-0.46	-0.15	-0.59	2.05	-3.00
360.60	0.43	-0.30	-0.14	0.32	0.24	2.25
360.80	0.63	-0.51	-0.13	-0.01	0.03	-1.91
361.00	0.81	-0.18	-0.16	0.47	-4.92	2.28
361.20	0.34	-0.45	-0.09	-0.08	0.48	0.97
361.40	0.30	-0.48	-0.05	-0.08	0.55	0.21
361.60	0.30	-0.35	-0.05	0.71	1.16	0.09
361.80	0.35	-0.38	-0.09	0.04	-2.30	-1.39
362.00	0.43	-0.34	-0.09	0.17	0.37	0.90
362.20	0.37	-0.53	0.02	0.08	2.86	0.06
362.40	0.74	-0.42	-0.01	0.42	0.85	1.18
362.60	0.18	-0.39	0.00	0.13	0.19	1.41
362.80	0.21	-0.56	0.02	-0.23	0.34	-1.91
363.00	0.37	-0.58	0.00	0.56	0.98	2.20
363.20	0.34	-0.25	0.00	0.14	-1.02	0.37
363.40	0.52	-0.26	-0.01	-0.63	0.79	-1.08
363.60	0.44	-0.45	0.04	0.95	-0.41	3.45
363.80	0.43	-0.25	0.01	0.00	0.95	1.36
364.00	0.35	-0.44	0.02	-0.08	-0.71	-0.37
364.20	0.36	-0.31	0.08	-0.34	-1.12	-0.57
364.40	0.28	-0.51	0.05	-0.61	-0.94	-3.36
364.60	0.45	-0.47	0.04	0.12	1.56	0.20
364.80	0.61	-0.47	0.05	-0.18	-0.08	0.18
365.00	0.38	-0.37	0.03	-0.41	1.10	-1.06
365.20	0.74	-0.41	0.06	0.57	0.39	1.59
365.40	0.58	-0.32	0.01	0.88	-1.59	1.06
365.60	0.09	-0.19	0.00	0.06	6.73	-0.19
365.80	0.52	-0.45	0.00	1.47	-0.58	3.72
366.00	0.07	-0.39	-0.01	0.11	-1.13	-0.47
366.20	0.28	-0.36	0.05	-0.06	-2.85	1.95
366.40	0.15	-0.38	0.00	-0.02	-1.82	3.00
366.60	0.57	-0.40	0.02	-0.44	1.23	1.04
366.80	0.27	-0.44	0.03	-0.81	-4.08	-0.34
367.00	0.34	-0.28	0.03	-0.09	1.27	-0.98
367.20	0.20	-0.39	0.01	0.74	0.14	0.27
367.40	0.42	-0.32	0.02	-0.75	-0.79	-3.33
367.60	0.59	-0.17	0.03	0.24	-3.54	0.39
367.80	0.32	-0.46	0.02	-0.54	-1.03	0.53
368.00	0.82	-0.19	0.05	0.38	0.92	0.89
368.20	0.52	-0.36	0.07	-0.05	3.15	-0.19
368.40	0.66	-0.29	0.05	0.09	-0.14	0.16
368.60	0.62	-0.35	0.06	0.31	-3.71	-1.87
368.80	0.60	-0.29	0.05	0.16	-0.48	0.04
369.00	0.62	-0.14	0.03	-0.08	0.57	1.44

369.20	0.55	-0.35	0.09	0.62	-0.66	3.71
369.40	0.81	-0.23	0.03	-0.92	-0.34	-1.53
369.60	0.59	-0.35	0.11	-0.34	0.27	-1.04
369.80	0.58	-0.10	0.15	-0.45	-0.85	0.30
370.00	0.51	-0.29	0.09	-0.54	0.91	-1.49
370.20	0.49	0.01	0.18	-0.43	-1.23	-0.70
370.40	0.64	-0.34	0.14	0.15	1.14	1.44
370.60	0.53	-0.42	0.16	-0.73	4.76	0.09
370.80	0.47	-0.19	0.16	0.59	-0.65	2.46
371.00	0.35	-0.25	0.19	-0.32	-1.33	-1.51
371.20	0.40	-0.18	0.17	-0.23	4.36	-3.76
371.40	0.81	-0.20	0.19	-0.41	4.31	-2.37
371.60	0.49	-0.22	0.22	0.57	-2.66	2.10
371.80	0.75	-0.25	0.24	-0.20	-3.49	0.08
372.00	0.47	-0.44	0.22	-0.68	-0.87	-1.53
372.20	0.48	-0.42	0.22	-0.42	-1.42	0.06
372.40	0.61	-0.28	0.22	1.06	2.51	2.15
372.60	0.64	-0.39	0.23	0.94	-3.56	-1.27
372.80	0.31	-0.27	0.19	-0.27	-1.08	-0.70
373.00	0.32	-0.31	0.20	-0.49	1.44	0.99
373.20	0.41	-0.18	0.20	-0.09	-1.50	-0.50
373.40	0.62	-0.32	0.18	-0.44	-0.73	-2.76
373.60	0.68	-0.19	0.19	-0.55	-3.28	-0.66
373.80	0.31	-0.44	0.18	-0.60	2.39	-1.71
374.00	0.34	-0.38	0.15	-0.58	0.23	0.00
374.20	0.54	-0.40	0.15	0.54	-6.84	0.94
374.40	0.50	-0.42	0.16	0.95	-0.74	1.20
374.60	0.65	-0.15	0.09	-0.21	-0.24	0.83
374.80	0.59	-0.09	0.12	0.46	-1.76	2.28
375.00	0.55	-0.31	0.12	0.57	0.94	1.03
375.20	0.37	-0.35	0.07	-0.74	-3.17	0.76
375.40	0.45	-0.68	0.14	0.97	-2.01	2.64
375.60	0.57	-0.19	0.09	-0.31	-1.48	1.08
375.80	0.71	-0.28	0.08	-0.99	-0.82	0.07
376.00	0.48	-0.18	0.05	-0.36	-0.48	-1.28
376.20	0.37	-0.37	0.02	-0.02	-4.13	1.48
376.40	0.31	-0.21	0.01	-0.06	0.31	-0.12
376.60	0.53	-0.36	0.06	0.03	0.22	1.04
376.80	0.77	-0.36	0.04	-0.02	-0.67	0.13
377.00	0.36	-0.30	0.04	-1.06	-1.69	-2.37
377.20	0.33	-0.49	0.07	0.11	2.96	-2.26
377.40	0.58	-0.27	0.05	-0.54	0.33	-1.16
377.60	0.39	-0.28	0.06	-0.35	-1.78	0.13
377.80	0.60	-0.13	0.08	0.22	-1.29	0.72
378.00	0.57	-0.43	0.06	-0.28	1.86	-0.69
378.20	0.56	-0.54	0.09	0.54	-2.47	3.53
378.40	0.41	-0.33	0.04	-0.58	-2.93	0.90
378.60	0.54	-0.34	0.02	0.07	-3.45	0.01
378.80	0.62	-0.48	0.10	0.35	-2.82	1.21
379.00	0.36	-0.45	0.07	0.04	-1.70	0.49

379.20	0.74	-0.44	0.08	0.63	1.49	1.22
379.40	0.48	-0.45	0.05	-0.09	-0.17	-0.69
379.60	0.22	-0.64	0.11	-0.26	-1.43	-1.09
379.80	0.58	-0.44	0.13	-0.20	-0.86	-0.46
380.00	0.50	-0.50	0.08	0.05	-1.90	1.16
380.20	0.22	-0.36	0.10	-0.38	-1.60	-0.44
380.40	0.52	-0.50	0.09	-0.26	-3.55	-2.63
380.60	0.13	-0.61	0.11	-0.15	0.62	-0.24
380.80	0.47	-0.48	0.12	0.04	-0.25	0.52
381.00	0.81	-0.58	0.17	-0.47	-1.28	-0.59
381.20	0.37	-0.43	0.09	0.10	-0.13	0.38
381.40	0.37	-0.45	0.13	0.51	0.44	1.42
381.60	0.39	-0.52	0.13	0.16	2.52	-1.07
381.80	0.33	-0.47	0.14	-0.67	-1.25	-2.24
382.00	0.52	-0.42	0.13	0.62	-2.76	1.41
382.20	0.49	-0.52	0.09	0.05	-1.35	-1.45
382.40	0.32	-0.23	0.10	0.06	-0.36	0.59
382.60	0.63	-0.48	0.08	-1.00	-0.25	-4.09
382.80	0.29	-0.58	0.11	-0.06	1.33	1.59
383.00	0.55	-0.33	0.08	-0.18	0.81	-1.18
383.20	0.63	-0.57	0.14	-0.40	0.25	-0.68
383.40	0.48	-0.11	0.05	0.10	-1.53	-0.70
383.60	0.52	-0.48	0.12	-0.20	0.21	-0.78
383.80	0.51	-0.35	0.06	-0.70	-2.06	-1.06
384.00	0.49	-0.46	0.07	-0.08	-3.33	1.89
384.20	0.46	-0.30	0.07	-0.10	-0.68	0.04
384.40	0.33	-0.29	0.05	0.06	-0.28	0.68
384.60	0.42	-0.30	0.06	-0.11	1.10	-0.95
384.80	0.56	-0.56	0.06	-0.59	-0.08	-3.12
385.00	0.30	-0.65	0.05	-0.96	0.70	-2.66
385.20	0.19	-0.48	0.01	0.25	-0.13	0.15
385.40	0.49	-0.42	0.00	-0.53	-1.87	0.93
385.60	0.35	-0.47	0.01	1.25	-1.96	3.01
385.80	0.47	-0.49	0.00	-0.17	1.96	-0.29
386.00	0.62	-0.36	0.02	0.07	0.26	1.01
386.20	0.45	-0.45	0.02	0.02	0.74	0.89
386.40	0.49	-0.39	0.00	0.03	-3.36	0.44
386.60	0.29	-0.56	-0.01	-0.18	-2.49	0.78
386.80	0.46	-0.57	0.00	0.32	0.64	2.22
387.00	0.45	-0.43	-0.01	0.04	-2.48	-1.13
387.20	0.36	-0.50	0.00	-0.19	0.78	0.73
387.40	0.38	-0.31	-0.02	-1.21	3.10	-3.03
387.60	0.54	-0.38	-0.03	-0.29	-0.93	1.01
387.80	0.48	-0.54	-0.04	-0.37	-0.50	-1.82
388.00	0.68	-0.16	-0.04	-0.90	-3.63	-3.40
388.20	0.32	-0.44	-0.06	-0.99	-5.84	-0.64
388.40	0.49	-0.56	-0.04	0.02	-0.16	1.20
388.60	0.45	-0.44	-0.06	-0.03	0.35	0.57
388.80	0.68	-0.37	-0.05	-0.88	-1.51	-1.70
389.00	0.60	-0.35	-0.01	-0.24	-1.19	2.00

389.20	0.55	-0.35	-0.07	-0.35	0.54	-3.17
389.40	0.60	-0.32	-0.05	-0.49	-0.66	-0.39
389.60	0.70	-0.40	-0.05	0.18	-3.31	3.72
389.80	0.73	-0.27	-0.08	0.18	0.35	-0.16
390.00	0.79	-0.31	-0.06	0.89	1.31	3.41
390.20	0.81	-0.22	-0.07	0.53	-3.67	5.02
390.40	0.72	-0.34	-0.03	0.91	0.91	3.04
390.60	0.70	-0.06	-0.05	0.73	-0.43	0.31
390.80	0.58	-0.37	-0.06	-0.75	5.19	-4.08
391.00	0.75	-0.23	-0.11	-0.19	0.35	-0.89
391.20	0.58	-0.29	-0.07	-0.91	0.68	-3.20
391.40	0.73	-0.36	-0.08	0.06	2.08	2.46
391.60	0.66	-0.41	-0.09	0.12	-2.14	0.93
391.80	0.84	-0.41	-0.02	1.08	1.62	3.86
392.00	0.58	-0.29	-0.08	-1.11	1.56	-3.95
392.20	0.67	-0.39	-0.03	0.62	-3.79	-0.12
392.40	0.79	-0.39	-0.05	0.74	0.84	1.55
392.60	0.74	-0.39	-0.06	-0.03	-0.04	-1.83
392.80	0.63	-0.52	-0.06	0.16	0.08	0.20
393.00	0.49	-0.24	-0.07	0.64	-1.23	0.30
393.20	0.98	-0.21	-0.02	-1.03	-1.34	-1.32
393.40	0.85	-0.10	-0.06	-0.29	0.35	0.26
393.60	0.70	-0.11	-0.06	-0.39	0.35	-1.84
393.80	0.84	-0.19	-0.09	0.04	-1.15	0.64
394.00	0.83	-0.20	-0.05	-0.72	-2.38	0.33
394.20	0.79	-0.12	-0.05	0.40	-3.86	0.00
394.40	0.79	-0.23	-0.07	-0.36	0.09	-1.72
394.60	0.69	-0.02	-0.09	-0.68	-0.13	-3.20
394.80	0.70	-0.32	-0.10	1.42	4.11	0.77
395.00	0.75	-0.06	-0.08	0.18	1.68	2.05
395.20	0.82	-0.39	-0.07	-0.60	0.86	-2.37
395.40	0.60	0.06	-0.08	-0.17	-1.16	-2.61
395.60	1.10	-0.18	-0.03	-1.06	1.45	-0.15
395.80	0.72	-0.30	-0.06	-1.11	-2.69	-2.10
396.00	0.90	-0.12	-0.06	0.15	-0.18	3.08
396.20	0.97	-0.10	-0.05	0.36	-2.78	-0.21
396.40	0.62	-0.16	-0.06	-0.24	0.18	-2.65
396.60	0.62	-0.24	-0.05	-0.63	-3.34	2.10
396.80	0.84	-0.29	-0.08	-0.76	-1.44	-2.22
397.00	0.94	-0.16	-0.06	0.59	-1.60	0.71
397.20	0.79	-0.21	-0.05	-0.10	-2.70	2.49
397.40	0.70	-0.11	-0.03	0.44	-0.10	2.31
397.60	0.74	-0.15	-0.03	-0.15	3.79	-1.40
397.80	0.90	-0.28	-0.04	0.25	2.97	2.03
398.00	0.71	-0.28	-0.02	-0.98	1.02	0.87
398.20	0.79	-0.26	-0.05	-0.22	0.61	-1.67
398.40	0.65	-0.34	-0.01	-0.07	1.22	-1.32
398.60	0.84	-0.19	-0.05	-1.35	-5.49	-2.44
398.80	0.93	-0.02	0.00	-2.07	-3.73	-7.49
399.00	0.65	-0.06	-0.01	-0.31	-1.53	2.43

399.20	0.92	-0.32	-0.01	0.51	7.03	1.52
399.40	0.76	-0.13	0.03	-0.60	-1.73	-3.27
399.60	0.99	-0.16	0.00	-0.05	6.75	0.88
399.80	1.05	-0.04	0.00	-0.48	5.09	-0.65
400.00	0.77	-0.32	-0.02	-0.61	1.33	-0.11
400.20	0.83	-0.20	0.03	-0.40	-1.60	-0.95
400.40	0.95	0.06	0.02	-0.16	-2.12	-0.05
400.60	0.84	-0.13	0.01	-0.01	-1.92	0.92
400.80	0.94	0.05	0.01	-0.32	0.71	-0.70
401.00	0.93	-0.31	0.01	0.52	-2.86	2.07
401.20	0.81	-0.10	0.03	0.08	2.46	0.32
401.40	0.77	-0.06	0.03	0.08	-0.94	1.56
401.60	0.61	-0.15	0.01	-0.67	1.73	1.43
401.80	0.86	-0.22	0.00	-0.51	-0.18	1.42
402.00	0.72	-0.18	0.01	0.27	-0.04	0.62
402.20	0.77	-0.12	-0.01	0.22	2.02	1.15
402.40	0.80	-0.03	-0.03	-0.73	-1.27	-0.54
402.60	0.72	-0.16	0.02	-0.60	2.61	-1.09
402.80	0.52	-0.29	0.01	-0.29	-3.58	-4.42
403.00	0.66	-0.21	0.01	0.53	3.44	-1.69
403.20	0.89	-0.20	0.02	-0.14	1.15	-0.48
403.40	0.85	-0.47	0.00	-0.31	-2.96	-3.24
403.60	0.68	-0.08	0.02	-0.11	-2.01	-2.20
403.80	0.91	-0.15	0.04	-1.02	-0.14	-2.01
404.00	0.79	-0.14	0.04	-0.30	-2.58	-1.83
404.20	0.65	-0.08	0.00	-0.39	-0.51	1.01
404.40	0.73	-0.20	0.00	0.57	0.17	-1.29
404.60	0.72	-0.23	0.04	-0.07	-2.43	3.06
404.80	0.84	-0.16	0.02	-0.11	3.30	-0.80
405.00	0.89	-0.36	0.02	-0.16	1.45	-3.06
405.20	0.72	-0.18	0.00	-0.24	2.72	-1.85
405.40	1.00	0.18	0.00	1.44	2.16	4.31
405.60	0.75	-0.12	-0.02	-0.94	-3.54	-1.98
405.80	0.59	-0.02	-0.01	-0.74	-5.59	-2.58
406.00	0.88	-0.08	-0.02	-0.44	-6.06	-3.31
406.20	0.63	-0.35	0.04	-0.56	-3.46	-4.50
406.40	0.59	-0.08	0.01	1.57	-4.06	7.24
406.60	0.57	-0.20	0.03	-0.59	0.39	-1.76
406.80	0.66	-0.16	-0.02	0.59	-1.31	0.41
407.00	0.71	-0.11	0.00	0.16	0.40	2.02
407.20	0.60	-0.11	0.02	-0.72	1.85	-1.49
407.40	0.50	0.00	0.02	0.34	-0.16	1.26
407.60	0.88	-0.14	0.03	-0.10	1.71	-4.31
407.80	0.79	-0.10	0.04	0.74	0.72	1.43
408.00	0.65	-0.27	0.00	-0.30	2.13	-1.99
408.20	0.77	-0.20	0.01	-0.43	-0.79	-1.32
408.40	0.53	-0.31	0.01	-0.52	-1.51	-0.94
408.60	0.67	-0.14	0.02	-0.88	-1.10	-0.17
408.80	0.60	0.04	0.02	-0.34	-0.53	0.14
409.00	0.36	-0.27	0.05	-0.42	-0.40	-0.18

409.20	0.55	-0.17	0.01	-0.41	-0.45	-0.25
409.40	0.39	0.00	0.02	-0.47	-0.15	-0.49
409.60	0.42	-0.14	0.05	-0.28	-0.71	0.14
409.80	0.52	-0.23	0.04	-0.33	0.11	0.55
410.00	0.62	-0.18	0.08	0.36	-0.36	1.94
410.20	0.50	-0.18	0.02	0.15	1.55	-0.28
410.40	0.51	-0.21	0.06	0.70	2.10	0.82
410.60	0.61	0.00	0.09	-0.06	0.34	1.31
410.80	0.76	-0.29	0.07	1.03	0.04	2.38
411.00	0.69	-0.28	0.04	-0.08	-0.06	-1.02
411.20	0.57	-0.07	0.07	-0.22	1.69	-1.89
411.40	0.64	-0.37	0.08	-0.03	2.34	-0.11
411.60	0.71	-0.31	0.09	-0.48	-0.79	-3.01
411.80	0.62	-0.22	0.08	-0.58	1.46	-2.26
412.00	0.63	-0.21	0.12	-0.26	-6.03	3.40
412.20	0.53	-0.26	0.05	-0.08	1.70	0.94
412.40	0.43	-0.31	0.11	-0.94	-2.48	-1.48
412.60	0.50	-0.29	0.09	0.18	2.40	-0.81
412.80	0.70	-0.44	0.05	-0.89	-1.93	-3.49
413.00	0.73	-0.31	0.09	-0.69	-0.75	-1.95
413.20	0.77	-0.16	0.08	-0.22	1.89	-0.19
413.40	0.66	-0.15	0.05	0.20	0.69	1.57
413.60	0.58	0.06	0.00	-0.10	-2.66	0.86
413.80	0.77	-0.14	0.02	0.33	-0.38	1.38
414.00	0.69	-0.23	0.03	0.33	-4.17	2.47
414.20	0.69	-0.15	0.05	-0.92	0.91	-1.92
414.40	0.57	0.04	0.02	-0.52	-0.83	-2.89
414.60	0.82	0.01	0.01	0.53	0.35	0.19
414.80	0.50	-0.03	0.03	0.42	-3.08	0.87
415.00	0.56	-0.34	0.06	-0.47	-0.43	-0.43
415.20	0.77	0.01	-0.03	0.73	-1.38	1.63
415.40	0.31	-0.19	0.00	-0.34	-1.10	-5.14
415.60	0.48	-0.23	-0.02	0.14	0.96	-0.42
415.80	0.55	-0.21	-0.02	-1.01	1.36	-2.34
416.00	0.76	-0.14	0.04	-1.09	-1.76	-3.94
416.20	0.41	-0.17	0.04	-0.85	0.90	-3.01
416.40	0.37	-0.32	-0.01	-0.21	-0.09	0.48
416.60	0.32	-0.21	-0.02	-0.13	-5.34	-1.96
416.80	0.30	-0.10	-0.05	-0.17	-3.83	-0.53
417.00	0.57	-0.17	-0.01	-1.82	-2.17	-3.39
417.20	0.23	-0.07	-0.01	-0.17	-0.10	0.83
417.40	0.60	-0.19	0.04	-0.07	-2.06	-1.33
417.60	0.41	-0.01	-0.01	0.02	-2.84	-0.02
417.80	0.51	0.04	-0.01	0.80	-2.64	-0.01
418.00	0.28	-0.25	-0.01	0.30	-1.59	2.30
418.20	0.22	-0.25	0.01	0.20	-1.37	0.05
418.40	0.44	-0.35	0.05	-0.64	-3.15	0.21
418.60	0.40	-0.08	0.01	-0.16	1.96	0.60
418.80	0.63	-0.25	-0.01	-0.04	1.05	-0.02
419.00	0.61	0.12	-0.03	-1.82	3.85	-5.44

419.20	0.52	-0.07	0.05	0.61	-0.12	3.76
419.40	0.69	0.10	0.04	0.42	-2.38	3.32
419.60	0.32	-0.26	0.02	-0.25	1.41	-2.15
419.80	0.55	-0.14	0.05	-0.52	-3.87	4.15
420.00	0.42	-0.13	0.02	-0.33	-0.50	-2.30
420.20	0.42	0.02	0.05	-0.25	0.29	-1.37
420.40	0.26	-0.40	0.00	0.09	-2.96	2.59
420.60	0.55	-0.17	0.02	-0.24	-0.27	0.77
420.80	0.46	-0.40	0.03	0.25	2.53	2.13
421.00	0.25	-0.20	0.04	-0.04	2.37	-2.19
421.20	0.46	-0.22	0.07	0.71	-2.32	4.52
421.40	0.38	-0.19	0.02	-0.05	1.51	1.55
421.60	0.61	-0.14	0.02	0.04	-1.45	-0.87
421.80	0.41	-0.19	0.06	1.17	-5.65	1.94
422.00	0.37	-0.21	0.01	0.99	3.13	2.71
422.20	0.40	0.03	0.02	0.16	-0.28	0.83
422.40	0.20	-0.23	0.00	0.03	-3.90	-5.03
422.60	0.43	-0.02	0.00	-0.23	2.97	-1.02
422.80	0.48	-0.10	0.03	-0.08	-0.37	-1.10
423.00	0.28	-0.56	0.03	0.30	-1.82	-0.58
423.20	0.31	-0.22	0.04	-0.80	-7.53	0.21
423.40	0.36	-0.08	0.04	-0.02	-2.39	-3.28
423.60	0.45	-0.27	0.05	-0.82	-6.52	-3.97
423.80	0.24	-0.08	0.00	0.12	2.08	0.70
424.00	0.05	-0.18	0.01	-0.86	-2.04	-4.08
424.20	0.26	-0.21	0.05	0.38	-2.16	-1.55
424.40	0.43	0.02	0.02	-0.64	-4.39	-3.64
424.60	0.10	-0.18	0.00	-0.40	2.21	0.61
424.80	0.22	-0.36	0.11	0.29	6.00	-1.19
425.00	0.36	-0.15	0.05	0.70	-0.61	3.60
425.20	0.36	-0.02	0.05	-0.42	-0.41	-0.11
425.40	0.26	-0.19	0.07	0.32	-0.59	0.63
425.60	0.00	-0.16	0.08	0.47	-2.34	-1.28
425.80	0.22	-0.12	0.10	-0.88	0.20	-1.25
426.00	0.37	-0.23	0.12	2.42	1.49	5.59
426.20	0.20	-0.16	0.11	0.88	1.10	-0.87
426.40	0.19	-0.30	0.13	-0.08	2.58	3.19
426.60	0.19	-0.25	0.12	-0.70	0.57	-1.56
426.80	0.07	-0.01	0.07	-1.71	-6.35	-1.38
427.00	0.27	-0.36	0.07	0.40	1.69	3.56
427.20	0.13	-0.15	0.10	0.94	0.76	4.27
427.40	0.11	-0.24	0.09	0.00	-0.59	0.40
427.60	-0.03	0.02	0.06	-0.12	-0.49	0.01
427.80	0.00	-0.31	0.07	-0.11	-0.97	-0.49
428.00	0.28	-0.12	0.09	-0.04	-0.36	-0.01
428.20	0.23	-0.31	0.06	-0.10	0.05	-0.28
428.40	0.12	-0.12	0.07	-0.12	2.99	-0.73
428.60	0.08	-0.09	0.06	0.31	1.33	1.96
428.80	0.20	-0.31	0.10	-0.66	-1.94	-1.18
429.00	0.28	-0.25	0.10	-0.87	0.01	0.69

429.20	0.18	-0.30	0.10	0.58	-2.21	1.32
429.40	-0.07	-0.23	0.07	0.41	-1.58	0.52
429.60	0.30	-0.15	0.05	-1.29	0.05	-1.40
429.80	-0.10	-0.40	0.09	-0.48	-1.79	-3.33
430.00	0.13	-0.40	0.09	-0.51	3.36	-1.53
430.20	0.21	-0.21	0.03	0.06	-1.17	-1.34
430.40	0.26	-0.44	0.10	0.41	-3.88	-1.30
430.60	0.00	-0.32	0.08	-0.30	-4.24	3.07
430.80	-0.02	-0.21	0.07	-0.46	0.82	-0.47
431.00	0.36	-0.34	0.08	0.79	-2.37	2.30
431.20	0.17	-0.33	0.08	-0.49	-0.65	-1.65
431.40	0.00	-0.54	0.05	0.18	0.84	1.47
431.60	-0.14	-0.40	0.08	0.61	-1.69	-1.95
431.80	0.12	-0.29	0.06	0.38	-2.30	2.20
432.00	0.11	-0.32	0.08	-0.34	0.56	0.74
432.20	0.27	-0.37	0.08	-0.02	0.40	6.90
432.40	0.16	-0.28	0.08	0.55	-1.16	1.58
432.60	0.20	-0.37	0.11	0.53	-2.30	1.84
432.80	0.02	-0.29	0.13	0.30	4.96	1.48
433.00	0.07	-0.41	0.11	0.30	0.26	0.37
433.20	0.10	-0.28	0.10	-0.23	3.54	4.40
433.40	0.15	-0.43	0.13	-1.57	-5.86	-0.91
433.60	0.11	-0.31	0.14	-1.40	-0.44	-1.76
433.80	0.03	-0.29	0.14	1.59	0.15	1.46
434.00	0.03	-0.38	0.15	0.91	0.46	1.84
434.20	0.08	-0.43	0.11	-0.37	0.13	-1.26
434.40	0.26	-0.32	0.13	0.56	0.59	0.65
434.60	0.00	-0.59	0.08	0.98	-2.25	1.14
434.80	0.26	-0.33	0.06	1.01	0.03	5.90
435.00	0.20	-0.34	0.04	-0.81	3.24	2.08
435.20	-0.05	-0.50	0.05	-0.38	0.83	-5.71
435.40	0.25	-0.36	-0.01	-0.84	-1.93	-6.41
435.60	0.13	-0.32	0.00	0.95	-1.60	-2.50
435.80	0.28	-0.34	0.00	-0.88	-5.14	-3.21
436.00	0.20	-0.29	0.01	-0.57	-0.76	-1.99
436.20	0.25	-0.45	-0.01	-0.17	-3.11	-0.14
436.40	0.05	-0.44	-0.07	0.43	-3.89	1.71
436.60	0.27	-0.32	-0.07	-0.33	-4.09	1.03
436.80	-0.13	-0.60	-0.06	0.03	-2.55	2.41
437.00	0.08	-0.48	-0.07	0.13	-2.08	4.74
437.20	0.16	-0.32	-0.07	0.03	0.27	0.32
437.40	0.15	-0.57	-0.14	-0.13	0.19	-0.70
437.60	0.09	-0.55	-0.07	0.36	2.44	1.73
437.80	0.06	-0.40	-0.12	0.07	0.09	0.65
438.00	0.15	-0.53	-0.10	0.40	-3.30	1.33
438.20	0.14	-0.60	-0.13	-0.38	-2.16	-0.64
438.40	0.02	-0.40	-0.13	-0.07	-0.14	2.12
438.60	0.00	-0.46	-0.13	-0.95	-0.84	-2.24
438.80	0.13	-0.52	-0.12	-0.34	-0.69	2.91
439.00	-0.16	-0.60	-0.09	0.19	-2.96	2.72

439.20	-0.08	-0.49	-0.13	-0.58	-5.57	-1.28
439.40	0.13	-0.49	-0.11	1.28	2.06	5.60
439.60	-0.03	-0.42	-0.13	-0.07	-2.17	-0.11
439.80	-0.23	-0.53	-0.12	-0.17	0.90	0.13
440.00	-0.44	-0.49	-0.10	0.02	-1.01	1.01
440.20	-0.33	-0.48	-0.07	0.21	1.72	-0.53
440.40	-0.20	-0.62	-0.10	0.87	-1.70	-1.06
440.60	-0.11	-0.38	-0.09	-0.49	-2.68	-2.75
440.80	-0.26	-0.75	-0.14	0.01	0.76	2.54
441.00	-0.17	-0.62	-0.10	0.76	-5.04	2.70
441.20	-0.27	-0.31	-0.11	-0.22	1.13	-0.50
441.40	-0.26	-0.48	-0.10	-0.38	0.84	1.73
441.60	-0.28	-0.55	-0.10	-0.52	1.92	-0.44
441.80	-0.16	-0.61	-0.03	-1.29	-1.96	-7.31
442.00	-0.35	-0.48	-0.07	-1.04	-0.39	-2.90
442.20	-0.07	-0.37	-0.03	1.07	-1.87	3.72
442.40	-0.07	-0.44	-0.07	-1.26	0.77	-4.59
442.60	-0.15	-0.24	-0.01	0.34	5.11	-2.28
442.80	-0.13	-0.52	-0.02	0.96	0.47	1.82
443.00	-0.02	-0.28	0.00	-0.73	2.71	-1.18
443.20	-0.31	-0.44	-0.01	-1.43	0.39	-2.78
443.40	-0.36	-0.31	-0.01	1.31	1.34	4.49
443.60	-0.34	-0.39	-0.04	-0.16	-2.56	-1.34
443.80	-0.20	-0.26	-0.02	-0.37	0.13	1.91
444.00	-0.37	-0.51	-0.07	-0.41	-3.07	-3.21
444.20	-0.34	-0.54	-0.02	0.31	3.58	4.18
444.40	-0.15	-0.43	-0.10	-0.29	1.40	-2.98
444.60	-0.24	-0.28	-0.06	0.44	0.62	-0.82
444.80	-0.38	-0.34	-0.08	0.18	-2.28	-0.67
445.00	-0.26	-0.30	-0.06	-0.96	-3.12	-4.84
445.20	-0.56	-0.36	-0.09	1.74	-2.32	4.29
445.40	-0.46	-0.31	-0.12	-0.24	0.06	0.55
445.60	-0.12	-0.27	-0.12	0.05	-0.04	0.47
445.80	-0.30	-0.22	-0.08	-0.32	-0.95	1.26
446.00	-0.33	-0.51	-0.04	0.62	-5.43	2.50
446.20	-0.35	-0.39	-0.08	-0.05	-0.32	-0.16
446.40	-0.12	-0.28	-0.10	-0.51	-2.84	-2.54
446.60	-0.35	-0.56	-0.07	-0.27	-0.39	0.24
446.80	-0.23	-0.48	-0.08	0.69	0.39	3.17
447.00	-0.26	-0.38	-0.07	0.80	-2.45	1.32
447.20	-0.12	-0.44	-0.05	-0.44	-0.24	-0.93
447.40	-0.23	-0.36	-0.01	0.12	-0.32	-0.14
447.60	-0.17	-0.38	-0.07	0.82	-0.51	3.21
447.80	-0.13	-0.29	-0.10	-0.26	1.70	-1.16
448.00	0.00	-0.15	-0.07	0.26	1.13	-0.23
448.20	-0.23	-0.28	-0.07	0.59	0.94	2.87
448.40	-0.40	-0.43	-0.06	-0.47	-0.36	-0.75
448.60	-0.42	-0.46	-0.03	0.41	-0.99	3.56
448.80	-0.08	-0.07	-0.12	-0.09	-1.85	-0.24
449.00	-0.38	-0.31	-0.05	0.21	-0.20	1.10

449.20	-0.15	-0.27	-0.03	-0.34	-0.19	-0.67
449.40	-0.22	-0.47	-0.02	0.53	-1.36	1.02
449.60	-0.47	-0.45	-0.06	-1.90	1.28	-6.11
449.80	-0.29	-0.10	-0.03	0.33	-0.22	-0.04
450.00	-0.10	-0.34	-0.06	-1.54	-2.80	-2.37
450.20	-0.34	-0.40	-0.02	0.36	-1.21	-1.87
450.40	-0.28	-0.34	-0.07	-0.06	-5.38	2.98
450.60	-0.21	-0.22	-0.10	-0.11	1.16	1.09
450.80	-0.53	-0.55	-0.05	-0.58	-4.58	-3.22
451.00	-0.45	-0.29	-0.10	0.49	1.96	-2.80
451.20	-0.30	-0.17	-0.05	-0.92	-0.70	-3.02
451.40	-0.67	-0.40	-0.07	0.23	-4.46	0.71
451.60	-0.31	-0.28	-0.08	-2.17	-2.25	-6.29
451.80	-0.52	-0.64	-0.08	0.36	-0.35	-1.46
452.00	-0.47	-0.50	-0.08	-0.78	-2.74	-1.87
452.20	-0.23	-0.26	-0.10	-0.22	-1.33	-0.05
452.40	-0.19	-0.31	-0.10	0.34	-2.59	-2.52
452.60	-0.37	-0.38	-0.10	1.78	-1.56	1.06
452.80	-0.15	-0.34	-0.09	-0.66	-3.94	0.30
453.00	-0.45	-0.37	-0.12	-0.40	-1.48	0.16
453.20	-0.50	-0.37	-0.08	0.25	-1.71	2.80
453.40	-0.38	-0.50	-0.13	1.03	-7.44	4.76
453.60	-0.65	-0.49	-0.16	-0.11	4.40	0.18
453.80	-0.61	-0.31	-0.15	0.27	4.31	-0.60
454.00	-0.65	-0.46	-0.15	0.57	-2.00	-0.84
454.20	-0.31	-0.32	-0.11	-0.90	-0.95	-0.81
454.40	-0.53	-0.52	-0.15	0.30	0.66	2.47
454.60	-0.51	-0.44	-0.13	-0.90	2.06	-4.22
454.80	-0.62	-0.42	-0.12	1.45	-1.12	4.05
455.00	-0.60	-0.46	-0.09	0.49	-0.22	2.23
455.20	-0.50	-0.38	-0.13	0.04	2.06	0.31
455.40	-0.78	-0.45	-0.11	-0.24	-3.11	-4.81
455.60	-0.47	-0.46	-0.12	0.08	4.37	1.72
455.80	-0.63	-0.52	-0.15	0.06	-3.37	-4.40
456.00	-0.72	-0.43	-0.12	-0.40	-3.02	-2.69
456.20	-0.62	-0.43	-0.10	0.39	-4.29	-1.42
456.40	-0.53	-0.37	-0.13	0.36	-1.15	0.53
456.60	-0.37	-0.28	-0.09	-0.37	0.78	-2.20
456.80	-0.41	-0.26	-0.12	-0.63	-3.78	-4.27
457.00	-0.70	-0.57	-0.05	-0.04	2.33	-0.12
457.20	-0.31	-0.26	-0.11	0.13	0.50	1.01
457.40	-0.51	-0.39	-0.11	0.39	-1.27	-2.08
457.60	-0.54	-0.30	-0.06	0.35	-2.45	-0.21
457.80	-0.10	-0.21	-0.07	0.03	0.69	0.64
458.00	-0.21	-0.29	-0.07	-0.08	2.81	0.85
458.20	-0.56	-0.51	-0.06	0.47	0.24	-0.24
458.40	-0.81	-0.26	-0.06	0.04	0.68	2.28
458.60	-0.33	-0.36	-0.07	0.24	-0.04	-0.47
458.80	-0.53	-0.17	-0.10	0.07	-0.92	1.10
459.00	-0.63	-0.45	-0.10	0.30	1.37	0.74

459.20	-0.41	-0.48	-0.12	0.25	-1.34	1.94
459.40	-0.34	-0.09	-0.13	-0.49	0.19	-1.63
459.60	-0.43	-0.20	-0.10	0.32	0.76	0.31
459.80	-0.58	-0.28	-0.12	-0.07	-0.31	0.07
460.00	-0.38	-0.64	-0.09	-0.68	-1.67	-1.81
460.20	-0.28	-0.10	-0.06	-0.07	1.26	1.17
460.40	-0.43	-0.32	-0.09	0.39	-0.20	-0.64
460.60	-0.44	-0.49	-0.05	0.21	-0.22	0.30
460.80	-0.77	-0.45	-0.13	0.24	0.48	1.75
461.00	-0.55	-0.37	-0.11	0.65	-0.48	1.39
461.20	-0.59	-0.17	-0.13	-0.03	-0.35	-1.49
461.40	-0.33	-0.36	-0.10	-0.29	-1.79	-2.39
461.60	-0.50	-0.11	-0.11	0.21	1.68	0.36
461.80	-0.47	-0.27	-0.08	0.40	1.21	0.24
462.00	-0.36	-0.49	-0.12	0.06	-0.63	-3.34
462.20	-0.42	-0.41	-0.14	1.05	1.24	4.00
462.40	-0.34	-0.48	-0.10	0.64	-0.72	2.06
462.60	-0.45	-0.39	-0.13	0.14	1.00	-0.97
462.80	-0.37	-0.56	-0.11	-0.20	1.51	1.86
463.00	-0.42	-0.42	-0.07	0.19	-3.05	-1.52
463.20	-0.41	-0.54	-0.10	0.14	-0.80	1.31
463.40	-0.49	-0.37	-0.10	-0.14	-1.74	-0.66
463.60	-0.21	-0.24	-0.08	0.20	0.42	0.91
463.80	-0.41	-0.54	-0.09	0.45	2.55	0.95
464.00	-0.67	-0.36	-0.06	-0.24	3.03	-1.05
464.20	-0.41	-0.33	-0.07	0.23	2.15	1.89
464.40	-0.55	-0.47	-0.07	0.08	-0.93	0.27
464.60	-0.13	-0.46	-0.07	0.03	-1.43	0.49
464.80	-0.45	-0.72	-0.07	-0.54	0.46	-0.58
465.00	-0.50	-0.51	-0.05	-0.03	2.80	-1.08
465.20	-0.34	-0.33	-0.12	0.61	0.99	2.08
465.40	-0.39	-0.61	-0.03	0.48	-1.51	2.91
465.60	-0.36	-0.53	-0.02	0.03	2.64	-2.75
465.80	-0.54	-0.42	-0.07	-0.53	0.00	-3.71
466.00	-0.70	-0.51	-0.05	-0.64	-3.58	-1.48
466.20	-0.65	-0.30	-0.04	-0.33	-0.30	-1.81
466.40	-0.53	-0.40	0.01	-0.66	-0.66	-3.15
466.60	-0.46	-0.50	-0.03	0.46	-0.07	-1.27
466.80	-0.56	-0.29	-0.08	0.73	0.56	1.25
467.00	-0.43	-0.53	-0.05	0.33	-0.10	-0.59
467.20	-0.46	-0.44	0.01	0.04	1.85	0.60
467.40	-0.54	-0.45	-0.02	0.29	1.38	2.09
467.60	-0.54	-0.45	-0.06	-0.05	-0.29	-1.03
467.80	-0.67	-0.44	-0.03	0.15	1.61	-0.96
468.00	-0.45	-0.34	-0.04	0.38	-2.13	-1.68
468.20	-0.50	-0.40	-0.03	0.15	1.79	-2.63
468.40	-0.61	-0.38	-0.02	-0.42	0.90	-3.86
468.60	-0.35	-0.37	-0.02	-0.51	0.47	-2.35
468.80	-0.76	-0.43	-0.03	0.03	0.56	-0.55
469.00	-0.57	-0.32	-0.02	0.68	-0.68	0.24

469.20	-0.64	-0.27	-0.08	-0.14	0.88	-3.17
469.40	-0.61	-0.44	-0.02	-0.02	0.27	1.06
469.60	-0.34	-0.43	-0.05	0.08	-0.68	1.48
469.80	-0.52	-0.32	-0.02	0.43	-0.27	3.87
470.00	-0.74	-0.41	-0.06	0.21	2.79	0.14
470.20	-0.80	-0.60	-0.07	-0.57	-1.81	0.45
470.40	-0.58	-0.42	-0.02	0.83	1.45	3.72
470.60	-0.54	-0.49	-0.08	0.22	-0.88	-0.23
470.80	-0.66	-0.39	0.00	-0.48	-0.44	-0.21
471.00	-0.64	-0.49	-0.03	-0.32	5.14	-2.01
471.20	-0.36	-0.36	-0.05	0.61	-0.83	0.02
471.40	-0.63	-0.26	-0.06	-0.36	-0.07	0.74
471.60	-0.59	-0.28	-0.06	0.27	-0.36	3.24
471.80	-0.54	-0.34	-0.06	-0.43	2.01	0.69
472.00	-0.68	-0.44	-0.09	0.25	-0.85	1.59
472.20	-0.70	-0.18	-0.05	0.05	-1.70	1.41
472.40	-0.76	-0.36	-0.07	-0.42	0.59	-0.01
472.60	-0.53	-0.12	-0.04	-0.02	-1.07	-2.20
472.80	-0.52	-0.55	-0.06	0.23	0.24	-0.35
473.00	-0.76	-0.30	-0.03	0.17	-0.60	2.39
473.20	-0.62	-0.35	-0.04	-0.07	0.32	0.64
473.40	-0.59	-0.22	-0.02	0.72	-0.82	4.76
473.60	-0.51	-0.41	0.00	0.56	0.32	0.69
473.80	-0.57	-0.17	-0.03	-0.36	2.91	-1.33
474.00	-0.73	-0.36	-0.02	-0.19	1.53	-0.27
474.20	-0.33	-0.61	0.01	0.33	0.59	1.70
474.40	-0.72	-0.45	-0.01	-0.55	1.88	-0.10
474.60	-0.57	-0.40	0.03	-0.10	1.50	0.30
474.80	-0.62	-0.30	-0.06	-0.05	1.94	0.13
475.00	-0.57	-0.50	-0.03	0.50	-2.24	-0.11
475.20	-0.44	-0.30	0.01	0.22	0.08	0.58
475.40	-0.55	-0.34	-0.02	0.68	0.79	1.03
475.60	-0.57	-0.38	-0.01	-0.54	-5.58	-5.83
475.80	-0.47	-0.05	-0.05	0.19	0.99	-0.71
476.00	-0.45	-0.40	0.02	0.06	-0.11	-0.83
476.20	-0.23	-0.11	-0.03	0.61	1.26	-0.10
476.40	-0.54	-0.37	-0.05	-0.16	-3.21	1.38
476.60	-0.39	-0.08	-0.07	-0.18	-4.64	0.38
476.80	-0.48	-0.34	-0.04	-0.43	-2.47	-1.02
477.00	-0.39	-0.38	0.00	0.61	1.73	1.80
477.20	-0.57	-0.26	-0.01	-0.21	-0.67	0.05
477.40	-0.49	-0.17	-0.04	0.48	-0.49	-0.30
477.60	-0.63	-0.26	-0.04	-0.09	-1.01	0.90
477.80	-0.43	-0.52	-0.04	0.05	-4.64	2.65
478.00	-0.32	-0.13	-0.02	-0.25	-3.89	1.49
478.20	-0.59	-0.20	-0.10	0.74	-0.80	1.53
478.40	-0.39	-0.25	-0.05	0.30	3.77	-0.66
478.60	-0.40	-0.18	-0.08	-0.61	1.67	-2.85
478.80	-0.25	-0.11	-0.07	-0.83	0.79	-1.83
479.00	-0.27	-0.03	-0.08	-0.57	-0.83	-1.37

479.20	-0.47	-0.46	-0.02	-0.78	6.11	-2.09
479.40	-0.51	-0.27	-0.05	0.22	-2.52	0.21
479.60	-0.42	-0.20	-0.09	0.39	1.14	0.29
479.80	-0.53	-0.11	-0.08	0.01	-1.49	-2.93
480.00	-0.33	-0.07	-0.07	0.25	-4.46	1.81
480.20	-0.48	-0.12	-0.05	-0.22	-3.89	-0.11
480.40	-0.37	-0.40	-0.06	-0.22	2.74	0.06
480.60	-0.41	-0.35	-0.05	0.37	0.16	2.40
480.80	-0.60	-0.36	-0.07	-0.98	-1.54	-2.86
481.00	-0.46	-0.28	0.00	0.04	4.06	0.82
481.20	-0.56	-0.29	-0.05	0.54	4.81	-4.34
481.40	-0.43	-0.17	-0.04	-0.08	-2.44	-2.65
481.60	-0.28	-0.17	0.00	0.71	-2.67	1.33
481.80	-0.38	-0.29	-0.04	-0.73	1.27	-0.58
482.00	-0.53	-0.36	-0.06	-0.38	1.01	-1.64
482.20	-0.57	-0.16	-0.01	1.20	-1.15	2.20
482.40	-0.38	-0.36	-0.04	1.17	-0.54	2.43
482.60	-0.09	-0.38	-0.05	0.91	-0.52	1.75
482.80	-0.24	-0.15	-0.06	-0.49	0.22	1.32
483.00	-0.23	-0.20	-0.06	-0.54	1.43	-0.37
483.20	-0.22	-0.35	0.00	-0.16	-2.56	1.91
483.40	-0.29	-0.28	0.00	0.00	-0.77	-1.54
483.60	-0.21	-0.38	-0.01	-0.26	-1.14	0.70
483.80	-0.46	-0.53	-0.02	0.99	4.81	4.26
484.00	-0.34	-0.14	-0.05	-0.44	-1.07	-2.76
484.20	-0.55	-0.54	-0.03	-0.50	5.03	-4.19
484.40	-0.13	-0.15	-0.06	-0.23	-3.95	-1.98
484.60	-0.73	-0.32	-0.09	-0.71	-1.21	-1.81
484.80	-0.14	-0.38	-0.01	0.61	-0.80	0.87
485.00	-0.44	-0.60	0.00	0.25	0.40	1.11
485.20	-0.30	-0.42	-0.02	-1.07	-0.79	-2.58
485.40	-0.29	-0.59	-0.01	-0.44	3.83	-1.89
485.60	-0.41	-0.58	-0.02	0.59	1.73	-1.74
485.80	-0.19	-0.46	-0.01	-0.03	-2.50	2.04
486.00	-0.34	-0.44	-0.06	-0.26	-2.33	1.18
486.20	-0.46	-0.40	-0.02	-0.84	-2.58	-1.46
486.40	-0.49	-0.30	-0.03	0.62	0.47	3.40
486.60	-0.40	-0.46	0.01	-0.53	-2.69	-0.37
486.80	-0.45	-0.33	-0.04	-0.31	2.61	-0.39
487.00	-0.35	-0.35	-0.02	0.11	4.97	0.04
487.20	-0.35	-0.43	-0.02	0.04	-0.53	2.68
487.40	-0.57	-0.37	-0.02	-0.39	-2.43	-0.66
487.60	-0.52	-0.57	-0.02	-0.10	1.51	1.19
487.80	-0.47	-0.39	0.00	-1.56	2.92	-6.58
488.00	-0.64	-0.61	0.01	-0.77	-0.78	-2.94
488.20	-0.44	-0.45	0.00	0.28	-1.61	-0.98
488.40	-0.37	-0.43	-0.03	0.75	-3.07	0.73
488.60	-0.62	-0.47	-0.01	-0.89	1.28	-3.18
488.80	-0.42	-0.47	0.02	0.08	-1.25	0.41
489.00	-0.16	-0.16	-0.07	-0.95	-1.73	-3.21

489.20	-0.55	-0.47	-0.02	-0.63	-0.44	-3.82
489.40	-0.41	-0.50	-0.03	-0.26	-1.20	-0.36
489.60	-0.46	-0.39	-0.07	0.20	-0.46	0.41
489.80	-0.70	-0.39	-0.02	-0.77	1.01	-2.47
490.00	-0.41	-0.25	0.02	0.44	0.23	1.21
490.20	-0.23	-0.31	0.00	0.17	1.51	-0.70
490.40	-0.46	-0.34	-0.05	-0.01	-1.48	0.82
490.60	-0.54	-0.42	-0.02	-0.67	-1.76	-0.44
490.80	-0.28	-0.25	-0.02	-0.10	2.75	-1.42
491.00	-0.50	-0.35	-0.05	-0.47	2.12	-3.37
491.20	-0.53	-0.36	-0.02	0.11	1.08	-0.02
491.40	-0.48	-0.44	-0.01	0.49	-0.55	3.59
491.60	-0.39	-0.57	-0.01	0.54	-0.91	1.79
491.80	-0.30	-0.39	-0.01	-0.90	0.13	-0.53
492.00	-0.43	-0.44	-0.03	-0.57	-1.39	-1.27
492.20	-0.34	-0.49	0.02	-0.42	1.29	0.13
492.40	-0.44	-0.46	0.01	0.37	-0.84	-2.69
492.60	-0.51	-0.33	-0.05	-0.11	1.92	-1.35
492.80	-0.39	-0.24	-0.05	-0.36	1.27	-2.11
493.00	-0.46	-0.13	-0.06	0.15	0.18	1.88
493.20	-0.36	-0.63	-0.06	0.48	-0.35	1.69
493.40	-0.35	-0.43	-0.03	0.45	0.80	0.69
493.60	-0.17	0.00	-0.05	0.11	0.66	-4.07
493.80	-0.73	-0.26	-0.01	0.04	5.09	-3.84
494.00	-0.38	-0.34	-0.04	1.54	1.51	5.58
494.20	-0.24	-0.44	-0.01	-1.02	0.89	-1.58
494.40	-0.47	-0.48	-0.05	-0.18	1.29	0.14
494.60	-0.35	-0.37	-0.05	0.09	4.26	-2.27
494.80	-0.39	-0.29	-0.03	-0.22	2.73	-0.79
495.00	-0.23	-0.39	-0.02	-0.13	-0.32	-0.68
495.20	-0.12	-0.45	-0.05	0.97	3.20	2.03
495.40	-0.37	-0.53	0.03	-0.39	-0.34	-0.95
495.60	-0.39	-0.13	-0.03	-0.80	4.51	-2.47
495.80	-0.35	-0.38	-0.03	0.91	2.88	0.74
496.00	-0.42	-0.59	-0.02	-0.47	-0.24	-2.98
496.20	-0.44	-0.39	-0.02	1.32	-1.76	4.39
496.40	-0.31	-0.64	-0.01	-0.55	4.22	-4.19
496.60	-0.23	-0.48	0.02	0.04	0.84	-1.02
496.80	-0.18	-0.24	-0.05	-0.02	-2.25	-0.96
497.00	-0.42	-0.68	-0.04	-0.48	-0.79	-4.94
497.20	-0.01	-0.32	-0.04	-0.37	5.04	-1.35
497.40	0.04	-0.53	0.00	0.68	0.99	-1.17
497.60	-0.40	-0.54	-0.03	-0.02	-2.03	-1.15
497.80	-0.29	-0.34	-0.02	-0.26	1.84	0.47
498.00	-0.25	-0.53	-0.04	0.76	3.20	0.70
498.20	-0.31	-0.39	-0.03	0.75	-1.59	3.58
498.40	-0.23	-0.47	0.03	-0.35	4.12	-0.15
498.60	-0.42	-0.50	-0.03	0.14	0.41	-0.26
498.80	-0.24	-0.42	0.00	-0.90	0.21	-4.16
499.00	-0.12	-0.34	0.02	0.52	-0.57	0.44

499.20	-0.35	-0.49	0.02	-0.05	1.79	1.45
499.40	-0.34	-0.42	0.04	-0.38	2.21	-2.90
499.60	-0.58	-0.27	0.05	0.18	-0.94	0.68
499.80	-0.26	-0.44	0.03	-0.61	2.12	-1.85
500.00	-0.32	-0.22	-0.01	-0.19	0.26	-0.56
500.20	-0.40	-0.37	-0.01	-0.17	-0.44	-0.69
500.40	-0.28	-0.25	0.01	-0.56	0.08	-1.85
500.60	-0.31	-0.38	0.01	-0.03	-0.50	0.05
500.80	-0.26	-0.33	0.01	0.08	-1.19	0.94
501.00	-0.38	-0.17	0.00	0.70	-1.97	1.72
501.20	-0.19	-0.24	0.02	0.59	-0.28	1.80
501.40	-0.36	-0.30	-0.01	-0.95	1.83	-1.02
501.60	-0.41	-0.11	-0.04	-1.25	-0.17	-4.15
501.80	-0.36	-0.46	0.00	0.49	-0.63	0.96
502.00	-0.36	-0.36	0.02	-0.82	-0.30	-2.32
502.20	-0.31	-0.24	-0.02	0.25	-0.34	1.26
502.40	-0.37	-0.34	0.00	0.88	-0.57	3.15
502.60	-0.35	-0.38	-0.01	1.11	1.13	2.77
502.80	-0.12	-0.24	0.02	-1.23	-1.21	-5.13
503.00	-0.61	-0.26	0.03	1.69	-2.93	5.64
503.20	-0.47	-0.60	0.03	0.58	-0.92	3.14
503.40	-0.43	-0.30	-0.01	0.51	-1.60	1.91
503.60	-0.45	-0.39	0.01	0.11	0.88	-0.06
503.80	-0.20	-0.22	0.04	0.35	-0.20	1.16
504.00	-0.32	-0.37	0.03	-0.15	-0.44	-0.54
504.20	-0.22	-0.31	0.01	-0.09	-0.38	-0.52
504.40	-0.22	-0.13	-0.03	0.81	2.94	0.54
504.60	-0.23	-0.14	0.01	1.21	1.01	2.59
504.80	-0.21	-0.23	0.07	-0.16	-1.77	-0.38
505.00	-0.25	-0.18	-0.01	-0.14	-3.38	1.28
505.20	-0.35	-0.33	-0.02	0.78	0.30	1.34
505.40	-0.31	-0.38	0.00	-0.18	0.13	-1.01
505.60	-0.32	-0.26	-0.03	0.99	0.79	1.26
505.80	-0.48	-0.04	0.01	-0.25	0.17	0.30
506.00	-0.34	-0.16	0.02	0.42	1.09	0.15
506.20	-0.45	-0.20	-0.04	-0.58	-1.18	-1.05
506.40	-0.48	-0.30	-0.06	0.55	-3.37	1.29
506.60	-0.52	-0.38	0.01	0.05	0.02	0.68
506.80	-0.30	-0.16	0.01	-0.52	-0.44	1.64
507.00	-0.20	-0.12	-0.03	-0.32	-2.54	0.39
507.20	-0.33	-0.30	-0.04	-0.17	0.89	1.98
507.40	-0.49	-0.40	0.02	0.22	-2.49	-1.20
507.60	-0.29	-0.26	0.00	0.33	1.06	-2.53
507.80	-0.47	-0.29	-0.01	1.13	0.46	2.70
508.00	-0.37	-0.23	-0.05	0.27	-2.14	1.45
508.20	-0.37	-0.17	-0.01	0.53	-1.27	1.40
508.40	-0.26	-0.33	0.06	-0.22	-1.04	-1.11
508.60	-0.31	-0.23	-0.01	0.30	3.84	0.18
508.80	-0.50	-0.27	0.02	-0.07	-3.79	-0.30
509.00	-0.35	-0.47	-0.01	0.04	-1.76	-2.70

509.20	-0.45	-0.22	0.00	0.04	-0.74	-0.97
509.40	-0.39	-0.20	0.00	-0.87	2.93	-3.97
509.60	-0.27	-0.52	0.05	-0.92	-3.63	-2.76
509.80	-0.30	-0.27	-0.01	1.11	-2.90	5.94
510.00	-0.38	-0.40	-0.05	0.11	-1.30	0.63
510.20	-0.19	-0.29	-0.03	0.61	0.95	0.88
510.40	-0.16	-0.44	-0.03	-0.27	-1.33	-0.26
510.60	-0.20	-0.34	-0.03	1.17	0.64	2.12
510.80	-0.22	-0.37	-0.02	0.62	-1.80	1.08
511.00	-0.32	-0.15	-0.03	0.10	-1.54	-1.18
511.20	-0.20	-0.13	-0.02	0.39	-2.95	2.04
511.40	-0.37	-0.11	-0.09	0.29	-1.27	0.77
511.60	-0.24	-0.05	-0.03	0.53	-0.84	1.70
511.80	-0.24	-0.29	-0.04	-0.15	-1.05	0.34
512.00	-0.25	-0.29	-0.02	0.52	-1.44	-0.72
512.20	-0.27	-0.24	-0.03	0.36	-3.52	-3.12
512.40	-0.30	-0.31	0.00	0.33	-0.49	5.78
512.60	-0.54	-0.53	-0.01	-0.10	0.23	-0.93
512.80	-0.30	-0.26	-0.06	0.33	-3.17	2.87
513.00	-0.05	-0.15	0.00	-0.15	3.29	1.91
513.20	-0.25	-0.42	0.03	-0.24	-1.73	-0.23
513.40	-0.16	-0.33	-0.01	-0.07	-0.46	1.09
513.60	-0.25	-0.33	0.03	0.37	-0.68	1.27
513.80	-0.30	-0.45	0.00	0.65	-0.23	2.69
514.00	-0.24	-0.31	0.02	-0.24	2.01	1.22
514.20	-0.10	-0.45	0.02	-0.28	1.91	0.08
514.40	-0.06	-0.39	0.02	0.60	-0.85	3.50
514.60	-0.29	-0.37	-0.02	-0.95	-3.19	-1.57
514.80	-0.44	-0.44	0.00	-0.56	1.22	-1.45
515.00	-0.35	-0.27	0.03	0.74	1.02	3.16
515.20	-0.32	-0.22	0.02	-0.54	1.45	1.24
515.40	-0.34	-0.38	0.04	0.36	-2.11	0.44
515.60	-0.13	-0.45	0.03	0.96	-1.17	1.92
515.80	-0.14	-0.44	0.00	0.73	-0.70	2.60
516.00	-0.43	-0.71	0.05	-0.46	-2.61	-1.86
516.20	-0.29	-0.18	0.04	-0.65	-1.48	-1.21
516.40	-0.36	-0.38	0.02	-0.43	0.52	0.10
516.60	-0.13	-0.44	0.04	0.74	-3.31	2.90
516.80	-0.34	-0.29	0.01	-0.70	1.85	-3.48
517.00	-0.17	-0.04	0.02	0.01	-0.02	-0.94
517.20	0.00	-0.28	0.04	0.31	-2.60	0.11
517.40	-0.29	-0.05	0.07	-0.23	-2.36	-1.31
517.60	-0.17	-0.09	0.07	-0.72	0.85	-1.29
517.80	-0.07	-0.23	0.02	0.22	0.22	1.55
518.00	-0.05	-0.33	-0.04	-0.57	1.44	1.38
518.20	-0.26	-0.27	0.01	-0.42	3.22	0.87
518.40	-0.07	-0.15	0.01	-0.13	-1.15	-1.09
518.60	-0.19	-0.28	0.02	-0.63	3.16	-2.45
518.80	-0.03	-0.23	-0.02	0.76	2.41	1.05
519.00	-0.17	-0.49	0.03	-0.22	0.81	-0.48

519.20	-0.10	-0.11	0.01	0.70	-1.64	0.35
519.40	-0.15	-0.32	-0.02	-0.50	0.03	0.13
519.60	-0.39	-0.38	0.02	-0.72	1.64	-2.80
519.80	-0.15	-0.20	-0.07	-0.54	-1.60	-2.35
520.00	-0.32	-0.32	-0.03	-0.72	-1.06	-0.77
520.20	-0.09	-0.12	-0.04	-0.17	0.74	-0.62
520.40	-0.18	-0.31	-0.01	-0.37	-1.21	0.03
520.60	0.03	-0.38	-0.05	1.03	1.21	2.03
520.80	-0.08	-0.27	-0.07	0.13	-0.51	-1.75
521.00	-0.22	-0.44	-0.02	0.60	-0.23	-1.32
521.20	-0.13	-0.27	-0.04	0.30	2.00	0.41
521.40	-0.17	-0.09	-0.06	0.68	2.17	-0.79
521.60	-0.11	0.09	-0.08	-0.31	-1.87	-0.43
521.80	-0.16	-0.23	-0.09	0.65	1.18	2.15
522.00	-0.02	-0.26	-0.09	-0.84	0.57	-2.17
522.20	-0.11	-0.06	-0.07	0.05	-0.68	-0.37
522.40	-0.12	-0.18	-0.03	0.16	0.39	1.86
522.60	-0.15	-0.14	-0.05	-0.76	0.03	0.22
522.80	-0.42	-0.35	-0.03	-0.27	4.06	-0.88
523.00	-0.35	-0.38	-0.03	-0.44	0.46	-5.11
523.20	-0.15	0.07	-0.02	1.04	-2.86	-2.93
523.40	-0.36	-0.17	-0.03	-0.43	-2.05	-0.47
523.60	-0.08	-0.14	-0.04	1.33	2.70	3.62
523.80	-0.28	-0.56	0.00	1.92	0.47	4.79
524.00	-0.04	-0.34	-0.01	0.36	-0.95	-0.44
524.20	-0.28	-0.18	-0.06	-0.08	0.17	0.68
524.40	-0.03	-0.12	-0.04	-0.38	0.51	-1.99
524.60	-0.44	-0.38	-0.08	-0.35	2.55	-2.14
524.80	0.01	-0.05	-0.08	0.14	-0.24	-1.09
525.00	-0.27	-0.11	-0.03	0.23	0.04	0.04
525.20	-0.08	-0.16	-0.05	-0.75	1.57	-1.49
525.40	-0.40	-0.16	-0.03	0.06	0.11	-1.75
525.60	-0.24	-0.19	-0.05	0.62	0.38	2.13
525.80	-0.04	-0.18	-0.04	-0.11	1.55	-2.18
526.00	-0.34	-0.33	-0.03	-0.21	-1.31	-1.19
526.20	0.00	-0.17	-0.03	0.46	-0.71	2.67
526.40	-0.31	0.06	-0.06	0.30	1.18	-0.87
526.60	0.13	-0.06	0.01	0.01	-1.73	-0.29
526.80	0.00	-0.06	-0.05	0.07	-2.37	-1.51
527.00	-0.28	-0.27	0.00	-0.01	0.78	0.16
527.20	-0.23	-0.10	-0.02	-0.19	-0.99	0.94
527.40	-0.16	-0.37	0.00	-0.17	2.13	0.80
527.60	-0.16	-0.27	0.03	0.22	-2.00	0.09
527.80	-0.16	-0.44	0.02	-0.04	-1.43	-0.08
528.00	-0.25	-0.24	0.02	-0.87	1.61	-1.56
528.20	-0.06	-0.21	-0.02	0.34	1.84	0.39
528.40	-0.15	-0.23	0.01	0.04	-0.80	0.39
528.60	-0.27	-0.11	-0.03	0.62	-0.90	0.05
528.80	-0.24	-0.09	-0.05	0.56	-1.22	-0.12
529.00	-0.21	-0.07	-0.03	-0.31	-1.55	-2.08

529.20	-0.19	-0.18	-0.03	0.24	-1.24	2.25
529.40	-0.29	-0.23	-0.03	-0.24	-2.67	-1.43
529.60	-0.17	-0.33	-0.03	0.53	1.10	0.27
529.80	-0.53	-0.25	-0.04	-0.58	0.72	0.15
530.00	-0.21	-0.22	-0.06	-0.37	7.77	0.11
530.20	-0.21	-0.26	-0.02	-0.43	-1.05	0.14
530.40	-0.19	-0.10	-0.06	-1.09	-2.66	-5.51
530.60	-0.16	-0.28	0.00	0.46	0.56	1.32
530.80	-0.02	-0.05	-0.02	1.21	-1.89	5.38
531.00	-0.17	-0.18	-0.04	-0.24	2.82	-3.52
531.20	-0.23	-0.23	-0.05	-0.22	-0.76	0.17
531.40	-0.13	-0.22	0.00	-0.38	0.07	-2.88
531.60	0.05	-0.12	-0.06	-0.07	0.23	-0.81
531.80	-0.07	-0.17	-0.04	-0.30	0.67	0.86
532.00	-0.38	-0.20	-0.06	0.09	-0.71	0.87
532.20	-0.26	-0.40	-0.06	0.89	-1.41	2.17
532.40	-0.39	-0.24	-0.06	0.57	1.80	2.27
532.60	-0.17	-0.14	-0.04	1.20	-0.63	3.78
532.80	-0.22	-0.19	-0.02	0.84	-0.40	2.37
533.00	-0.39	-0.24	0.02	-1.94	0.06	-5.94
533.20	-0.24	-0.14	-0.05	-0.71	0.27	-1.92
533.40	-0.21	-0.19	-0.04	0.16	-0.81	-1.48
533.60	-0.17	-0.22	-0.06	-0.54	-1.06	-2.11
533.80	-0.34	-0.21	-0.07	0.01	-2.95	-0.17
534.00	-0.15	-0.32	-0.01	-0.52	0.61	-1.06
534.20	-0.29	-0.15	-0.02	0.35	-1.51	1.28
534.40	-0.06	-0.34	-0.03	-0.75	1.35	-2.10
534.60	-0.12	-0.05	-0.05	0.68	-1.62	1.26
534.80	-0.36	-0.19	0.01	0.02	-1.53	-1.09
535.00	-0.01	-0.14	1.17	0.15	-1.21	0.09
535.20	-0.09	-0.25	-0.02	-0.43	0.97	-1.61
535.40	-0.19	-0.17	-0.07	-0.68	0.88	-1.51
535.60	0.00	-0.33	-0.04	-0.35	-0.29	-1.78
535.80	0.14	-0.38	0.01	-0.67	-0.64	-1.14
536.00	-0.21	-0.23	-0.10	-0.04	2.98	-1.57
536.20	-0.10	-0.10	-0.07	0.31	-0.88	0.81
536.40	-0.19	-0.23	-0.04	-0.08	-2.19	-1.24
536.60	-0.18	-0.40	-0.04	-3.31	2.41	-7.66
536.80	-0.15	-0.32	-0.04	0.17	2.26	1.97
537.00	-0.46	-0.17	-0.07	-0.08	-2.77	-2.03
537.20	-0.10	-0.50	-0.01	0.64	-0.57	3.00
537.40	-0.13	-0.26	-0.04	0.22	-0.85	0.97
537.60	-0.04	-0.24	-0.03	0.11	-1.34	0.91
537.80	-0.22	-0.19	-0.03	-0.83	0.13	-2.98
538.00	-0.33	-0.38	-0.06	1.29	0.32	3.01
538.20	-0.01	-0.21	-0.02	0.54	-0.17	0.93
538.40	-0.12	-0.38	-0.02	0.03	0.61	-0.40
538.60	-0.26	-0.27	-0.02	0.29	2.04	-0.22
538.80	-0.26	-0.23	0.01	0.18	0.12	-1.19
539.00	-0.13	-0.35	-0.05	0.98	-0.92	3.00

539.20	-0.19	-0.46	0.03	-0.21	0.35	-1.31
539.40	0.04	-0.26	-0.02	0.00	1.49	-1.33
539.60	-0.05	-0.17	-0.03	0.53	-0.13	1.70
539.80	-0.08	-0.43	-0.05	0.33	0.35	1.03
540.00	-0.14	-0.41	-0.03	0.14	0.27	-0.01
540.20	-0.17	-0.36	-0.01	-0.10	0.07	-0.95
540.40	-0.37	-0.11	-0.05	-0.63	-0.07	-2.18
540.60	-0.10	-0.16	-0.07	0.34	0.08	-0.13
540.80	-0.11	-0.19	-0.05	-0.61	-1.93	-2.31
541.00	-0.09	-0.28	-0.01	0.11	-1.06	1.60
541.20	-0.07	-0.24	-0.07	0.32	0.10	1.19
541.40	-0.04	-0.29	0.04	0.47	-0.03	1.28
541.60	-0.23	-0.17	-0.11	0.07	-1.19	-0.51
541.80	-0.19	-0.23	0.00	0.42	1.04	1.79
542.00	-0.08	-0.35	-0.07	0.31	1.42	1.74
542.20	0.05	-0.36	-0.01	-0.02	2.14	-0.67
542.40	-0.04	-0.17	-0.03	0.53	-0.59	-0.23
542.60	-0.07	-0.23	-0.02	0.13	-1.03	1.76
542.80	-0.23	-0.28	-0.05	-0.30	0.47	-1.60
543.00	-0.03	-0.52	-0.02	-0.79	-1.84	-3.10
543.20	0.13	-0.34	0.00	0.18	2.39	-0.90
543.40	0.03	-0.53	0.02	-0.95	-2.35	-3.91
543.60	-0.26	-0.11	-0.04	0.45	2.60	1.22
543.80	-0.08	-0.50	-0.01	0.04	-4.02	0.48
544.00	-0.08	-0.37	0.00	0.03	3.55	-0.42
544.20	-0.12	-0.27	-0.02	-0.30	-1.55	-1.23
544.40	-0.18	-0.38	0.00	-0.09	-0.44	0.67
544.60	-0.24	-0.34	-0.02	-0.50	1.53	-2.42
544.80	0.04	-0.22	-0.05	0.80	1.39	3.54
545.00	0.01	-0.41	-0.01	0.08	4.19	1.48
545.20	-0.01	-0.50	0.02	1.09	-4.30	1.61
545.40	-0.07	-0.30	-0.01	-0.16	1.30	0.18
545.60	0.17	-0.51	0.02	2.61	0.61	7.25
545.80	-0.04	-0.28	-0.01	0.20	2.05	1.82
546.00	-0.04	-0.23	0.00	-0.16	3.82	-0.17
546.20	-0.04	-0.42	-0.01	0.81	-0.50	-0.42
546.40	-0.31	-0.33	0.03	-0.58	-2.20	-2.02
546.60	0.01	-0.36	0.01	0.56	-7.01	-2.92
546.80	-0.06	-0.34	0.01	0.20	-0.65	-1.34
547.00	-0.14	-0.41	0.02	0.08	-1.30	-0.18
547.20	-0.06	-0.40	0.03	0.16	-1.16	0.08
547.40	-0.04	-0.24	-0.02	0.49	0.36	-1.01
547.60	-0.19	-0.55	0.01	0.28	1.99	-1.39
547.80	-0.19	-0.35	-0.03	0.76	-1.52	4.55
548.00	0.26	-0.44	0.08	0.03	0.64	1.48
548.20	0.00	-0.39	-0.01	0.59	-0.83	1.04
548.40	-0.32	-0.15	-0.03	-0.02	-1.45	-2.32
548.60	-0.07	-0.17	-0.04	0.27	-1.78	-2.05
548.80	-0.15	-0.27	0.02	-0.31	4.17	2.85
549.00	0.10	-0.24	0.00	0.47	2.96	0.43

549.20	-0.24	-0.38	-0.03	0.36	-1.62	-0.37
549.40	0.07	-0.17	-0.02	0.21	-1.30	1.91
549.60	-0.03	-0.31	0.00	-1.16	-0.40	-4.74
549.80	-0.18	-0.14	-0.02	0.93	5.54	4.67
550.00	0.09	-0.20	-0.03	0.10	-2.16	1.09
550.20	-0.17	-0.17	0.00	0.68	1.13	0.34
550.40	0.02	-0.26	0.02	-0.24	-3.68	-1.76
550.60	0.21	-0.12	-0.03	-0.27	3.34	-4.07
550.80	-0.16	-0.22	-0.05	0.23	-0.33	1.45
551.00	-0.17	-0.23	0.00	0.86	-1.28	2.19
551.20	-0.08	-0.28	-0.03	-0.24	-2.55	-2.86
551.40	-0.25	-0.33	-0.04	0.68	4.13	-0.72
551.60	-0.22	-0.32	-0.05	0.66	-0.92	2.10
551.80	-0.10	-0.13	0.01	0.36	-0.01	1.14
552.00	0.24	-0.20	0.02	0.17	2.59	1.24
552.20	-0.21	-0.22	-0.04	-0.38	1.39	0.08
552.40	-0.35	-0.27	-0.03	-0.41	-0.17	-1.75
552.60	-0.12	-0.25	-0.05	0.61	-1.95	1.51
552.80	-0.20	-0.40	-0.04	-0.52	2.97	-0.43
553.00	-0.41	-0.21	-0.07	-0.56	2.87	-3.56
553.20	-0.06	-0.25	-0.03	1.03	-0.60	4.44
553.40	0.00	-0.09	-0.06	-0.03	0.66	-2.25
553.60	-0.19	-0.54	-0.03	-0.19	-2.21	-2.81
553.80	-0.09	-0.27	-0.06	0.52	3.03	3.04
554.00	0.07	-0.38	-0.06	0.53	0.44	1.37
554.20	-0.13	-0.25	-0.08	0.53	0.68	0.36
554.40	-0.06	-0.16	-0.10	-0.08	-1.45	-3.87
554.60	-0.16	-0.42	-0.08	0.15	-1.70	-0.11
554.80	-0.11	-0.21	-0.07	0.01	1.68	-0.48
555.00	-0.05	-0.29	-0.07	-0.07	-4.34	1.58
555.20	0.09	-0.19	-0.08	-0.35	-4.41	-3.34
555.40	0.02	-0.12	-0.10	-1.47	0.61	-2.05
555.60	0.15	-0.36	-0.07	0.06	-1.90	-1.02
555.80	-0.11	-0.38	-0.08	-0.44	1.66	-1.59
556.00	-0.13	-0.30	-0.11	-0.33	-0.91	-0.35
556.20	-0.04	-0.17	-0.10	0.43	-1.06	1.12
556.40	0.11	-0.20	-0.05	0.50	0.56	-0.38
556.60	-0.19	-0.44	-0.05	0.18	2.43	0.15
556.80	0.00	-0.39	-0.02	-1.20	1.81	-4.37
557.00	-0.07	-0.30	-0.07	-0.95	-8.98	-4.95
557.20	-0.26	-0.29	-0.03	-0.19	-2.13	-0.94
557.40	-0.18	-0.32	-0.07	-1.45	0.91	-4.29
557.60	-0.02	-0.24	-0.06	0.73	-2.44	1.55
557.80	0.10	-0.01	-0.03	0.82	1.59	2.69
558.00	0.01	-0.61	-0.01	0.42	-4.49	-1.09
558.20	0.03	-0.38	-0.04	0.74	0.66	2.45
558.40	-0.11	-0.23	-0.06	1.01	2.20	3.25
558.60	0.09	-0.30	-0.04	-0.03	2.42	3.21
558.80	0.08	-0.29	-0.01	-0.20	1.61	-1.54
559.00	0.10	-0.22	-0.01	-1.05	0.49	-2.40

559.20	0.04	-0.20	0.01	-0.25	-1.76	-0.93
559.40	0.07	-0.31	-0.03	0.48	-3.82	0.97
559.60	0.03	-0.46	0.02	-0.51	-3.90	-2.48
559.80	0.02	-0.38	0.02	1.16	-1.33	4.18
560.00	-0.05	-0.27	0.05	0.32	0.02	2.05
560.20	0.13	-0.40	0.04	0.16	1.44	-0.52
560.40	0.09	-0.17	0.00	0.08	2.41	-1.40
560.60	-0.02	-0.23	-0.04	-0.37	-1.37	-1.08
560.80	0.09	-0.39	0.05	-0.18	-3.69	-0.45
561.00	0.13	-0.34	0.02	-0.50	1.89	-2.24
561.20	0.35	-0.32	-0.02	0.11	-1.41	-1.63
561.40	-0.19	-0.66	0.13	0.41	1.38	0.40
561.60	0.11	-0.29	0.03	1.37	-2.96	2.83
561.80	0.16	-0.46	0.00	1.10	0.04	0.84
562.00	0.26	-0.49	0.02	0.87	0.05	1.20
562.20	0.31	-0.38	0.01	1.02	1.02	0.55
562.40	0.33	-0.17	0.00	-0.53	-2.79	0.22
562.60	0.16	-0.15	0.05	0.88	-2.38	0.16
562.80	0.03	-0.31	0.00	0.16	-0.82	3.19
563.00	0.20	-0.16	0.00	-0.04	-4.59	0.91
563.20	0.19	0.04	-0.02	0.22	-1.95	-2.95
563.40	0.25	-0.46	0.08	-0.02	0.59	-2.74
563.60	0.22	-0.14	0.02	0.20	-0.69	-3.14
563.80	0.06	-0.27	0.03	-0.11	-1.37	-2.23
564.00	0.20	-0.35	-0.04	0.70	-2.06	4.11
564.20	0.32	-0.32	0.04	0.14	-2.60	0.38
564.40	0.37	-0.45	0.04	0.08	0.19	0.23
564.60	0.42	-0.35	-0.02	-1.26	-0.38	-2.84
564.80	0.11	-0.13	0.00	-0.14	-2.71	1.02
565.00	0.16	-0.23	0.02	-0.33	0.76	-1.38
565.20	0.12	-0.38	0.01	1.14	-1.49	0.71
565.40	0.23	-0.13	0.00	-0.34	-1.04	-1.36
565.60	0.10	-0.20	0.00	-0.17	-2.52	1.45
565.80	0.16	-0.27	0.06	-0.83	2.43	-2.16
566.00	0.23	-0.32	0.00	0.33	-1.68	-0.71
566.20	0.19	-0.32	0.01	0.44	-1.02	2.74
566.40	0.42	-0.38	0.03	-0.41	-6.47	-0.71
566.60	0.14	-0.46	0.02	-0.15	-3.28	-0.94
566.80	0.23	-0.32	0.01	-0.43	1.14	0.05
567.00	0.08	-0.21	-0.03	0.19	-2.46	0.61
567.20	0.11	-0.23	0.01	0.14	-1.58	3.23
567.40	0.03	-0.37	0.04	0.18	-1.61	0.48
567.60	-0.05	-0.30	0.03	-0.31	-0.49	0.06
567.80	0.23	-0.56	0.05	-0.27	-3.69	-0.99
568.00	0.01	-0.43	0.02	-0.33	-2.72	0.18
568.20	0.02	-0.47	0.03	0.55	2.44	1.70
568.40	0.14	-0.23	0.01	-0.16	-0.49	-2.29
568.60	0.11	-0.50	0.02	1.60	-4.71	4.98
568.80	0.28	-0.35	0.01	-0.39	-0.70	0.76
569.00	0.14	-0.24	0.00	-0.15	-0.25	-1.57

569.20	-0.02	-0.37	-0.01	-0.41	6.00	-5.45
569.40	0.22	-0.22	0.02	0.38	1.77	1.21
569.60	0.33	-0.39	0.04	-0.14	0.72	-0.63
569.80	0.24	-0.46	0.03	0.08	-0.15	-0.39
570.00	0.24	-0.38	0.00	0.33	-1.24	0.47
570.20	0.23	-0.13	-0.02	0.14	3.97	0.57
570.40	0.08	-0.24	0.04	-0.83	2.10	-1.97
570.60	0.25	-0.44	0.02	0.43	2.95	-1.65
570.80	0.19	-0.56	0.01	-0.89	0.92	-0.89
571.00	0.09	-0.40	-0.01	0.31	0.72	-1.67
571.20	0.17	-0.55	-0.01	0.00	0.08	-0.02
571.40	0.16	-0.53	0.05	1.37	-1.39	5.72
571.60	0.34	-0.45	-0.01	-0.58	1.50	-0.68
571.80	0.45	-0.29	0.01	2.23	0.27	3.16
572.00	0.08	-0.35	-0.02	-0.70	0.13	-0.30
572.20	0.17	-0.20	-0.03	-0.11	-1.45	0.51
572.40	0.10	-0.44	0.01	-0.24	1.32	-0.54
572.60	0.13	-0.35	-0.01	0.41	0.34	1.67
572.80	0.12	-0.54	0.02	-0.79	-0.47	-3.02
573.00	0.31	0.00	0.00	-0.67	2.57	-0.83
573.20	-0.01	-0.45	0.03	-0.26	-0.53	0.41
573.40	0.34	-0.49	0.00	-0.25	-0.66	-0.02
573.60	0.31	-0.49	0.03	-0.54	-1.18	-1.99
573.80	0.17	-0.11	0.00	0.31	-1.61	0.30
574.00	0.28	-0.18	-0.02	-0.13	1.41	-2.47
574.20	0.27	-0.34	-0.02	0.61	0.09	0.63
574.40	0.24	-0.41	0.02	-0.32	1.43	-0.85
574.60	0.44	-0.33	-0.01	0.11	-1.07	0.85
574.80	0.19	-0.39	0.00	0.00	0.19	0.13
575.00	0.09	-0.45	0.03	-0.13	1.95	-0.46
575.20	0.27	-0.28	-0.05	-0.16	-0.74	1.07
575.40	0.41	-0.34	0.01	-0.08	1.46	0.66
575.60	0.42	-0.47	-0.01	-0.14	-1.31	-2.22
575.80	0.19	-0.31	-0.03	-0.37	1.75	-0.82
576.00	0.34	-0.23	-0.01	-0.11	0.38	-1.48
576.20	0.08	-0.47	-0.02	-0.10	-0.38	-0.10
576.40	0.46	-0.48	0.01	0.31	-1.69	1.33
576.60	0.18	-0.40	-0.03	-0.78	-0.16	-2.06
576.80	0.25	-0.36	0.00	0.64	1.32	1.96
577.00	0.35	-0.71	0.01	1.02	-0.01	3.90
577.20	0.30	-0.27	0.02	-0.15	0.60	1.34
577.40	0.28	-0.22	0.02	-0.30	3.07	-1.31
577.60	0.18	-0.31	-0.01	-0.63	-0.15	-2.54
577.80	0.24	-0.40	-0.03	0.08	0.13	0.58
578.00	0.01	-0.24	-0.06	-0.30	1.70	-0.19
578.20	0.13	-0.68	0.04	-0.07	-1.64	-1.75
578.40	0.58	-0.32	0.01	0.28	-0.50	-1.82
578.60	0.08	-0.29	-0.02	-1.13	-2.02	-3.19
578.80	0.31	-0.31	-0.01	-1.15	1.85	-1.38
579.00	0.27	-0.27	-0.02	0.23	0.50	-0.53

579.20	0.34	-0.42	0.00	-0.29	-2.24	0.01
579.40	0.31	-0.42	-0.01	0.16	0.67	0.98
579.60	0.27	-0.42	0.02	-0.31	-0.53	-0.29
579.80	0.46	-0.29	0.03	0.22	0.46	1.59
580.00	0.26	-0.44	-0.03	-0.01	-1.39	-0.48
580.20	0.38	-0.52	-0.01	-0.57	2.07	-2.10
580.40	0.16	-0.48	0.01	-0.26	0.95	-0.80
580.60	0.36	-0.40	-0.02	-0.32	1.06	0.72
580.80	0.25	-0.39	0.02	-0.53	-2.44	-4.56
581.00	0.30	-0.49	0.02	0.11	2.16	2.68
581.20	0.24	-0.41	-0.04	0.75	1.73	4.28
581.40	0.27	-0.43	0.00	-0.32	-0.14	-0.97
581.60	0.45	-0.34	0.00	-0.56	2.05	-1.02
581.80	0.45	-0.43	0.03	0.77	-0.92	2.39
582.00	0.48	-0.44	0.05	0.73	1.51	1.09
582.20	0.34	-0.36	0.01	0.32	0.71	1.49
582.40	0.62	-0.49	0.01	-1.21	0.38	-3.35
582.60	0.36	-0.50	0.00	-1.10	-0.01	-1.79
582.80	0.50	-0.51	0.00	1.82	4.62	5.52
583.00	0.33	-0.26	0.00	0.43	-1.50	1.83
583.20	0.43	-0.36	-0.01	0.20	0.59	2.47
583.40	0.41	-0.48	0.02	0.09	-1.46	1.48
583.60	0.53	-0.45	-0.01	-0.09	-0.52	0.53
583.80	0.55	-0.45	0.04	-0.42	0.10	-0.12
584.00	0.31	-0.54	-0.01	0.03	0.63	-0.60
584.20	0.55	-0.54	0.00	-0.01	0.62	0.65
584.40	0.22	-0.47	0.02	0.34	-1.11	1.07
584.60	0.29	-0.58	0.03	-0.53	1.29	-1.78
584.80	0.59	-0.23	0.02	-0.14	1.71	-0.72
585.00	0.45	-0.42	0.00	0.28	0.81	0.44
585.20	0.44	-0.53	0.00	-0.37	0.33	-0.34
585.40	0.33	-0.38	0.02	-0.47	-0.22	-2.36
585.60	0.35	-0.42	0.01	-0.50	1.80	-0.66
585.80	0.32	-0.59	-0.01	0.22	-1.28	1.73
586.00	0.44	-0.48	0.01	0.72	2.71	3.62
586.20	0.32	-0.32	-0.01	0.69	0.41	3.93
586.40	0.28	-0.54	0.01	-0.01	-0.33	-0.13
586.60	0.39	-0.52	0.04	0.22	0.64	2.82
586.80	0.62	-0.55	0.01	-0.45	-0.57	2.93
587.00	0.39	-0.62	0.02	0.18	0.95	-0.90
587.20	0.50	-0.49	0.00	-1.36	2.23	-6.04
587.40	0.50	-0.44	0.02	0.75	0.77	3.21
587.60	0.44	-0.32	0.00	0.34	-0.35	1.77
587.80	0.38	-0.53	0.02	-0.20	-2.89	1.34
588.00	0.26	-0.52	0.00	-0.31	-0.85	-1.49
588.20	0.54	-0.36	0.03	-0.80	-0.39	-1.08
588.40	0.43	-0.42	0.02	-0.30	1.89	-3.69
588.60	0.50	-0.46	-0.02	0.43	3.59	-2.55
588.80	0.50	-0.41	0.00	0.36	4.93	-0.96
589.00	0.42	-0.48	0.04	-0.20	-1.30	1.96

589.20	0.53	-0.38	-0.01	0.66	0.25	6.44
589.40	0.35	-0.70	0.04	0.18	4.95	-0.44
589.60	0.38	-0.49	-0.02	0.63	-5.18	-0.41
589.80	0.38	-0.44	-0.01	0.43	-3.41	-1.11
590.00	0.44	-0.60	-0.02	-0.80	-0.25	-1.15
590.20	0.59	-0.34	0.00	0.68	-2.02	-0.06
590.40	0.52	-0.49	0.00	0.27	-0.77	1.07
590.60	0.47	-0.45	-0.01	-0.09	-0.56	-1.72
590.80	0.54	-0.11	-0.01	-0.48	4.41	-0.64
591.00	0.46	-0.33	-0.02	-0.17	3.39	-2.11
591.20	0.53	-0.47	-0.01	0.90	-3.59	2.06
591.40	0.47	-0.33	-0.04	-0.33	-1.23	-2.85
591.60	0.39	-0.44	0.02	-0.10	1.71	-0.57
591.80	0.59	-0.30	-0.02	0.04	1.89	2.20
592.00	0.53	-0.48	-0.02	-0.32	-2.84	-0.97
592.20	0.45	-0.23	0.01	-0.41	-1.75	-1.61
592.40	0.65	-0.32	-0.02	-0.35	-0.60	-0.05
592.60	0.39	-0.48	0.01	0.21	1.30	2.64
592.80	0.41	-0.60	-0.02	-0.16	-2.05	-0.50
593.00	0.50	-0.49	0.00	-0.25	0.61	-0.45
593.20	0.59	-0.40	-0.03	-0.26	-0.49	-0.04
593.40	0.39	-0.39	-0.05	-0.32	-0.25	-0.11
593.60	0.46	-0.47	0.03	-0.17	-0.65	-1.92
593.80	0.71	-0.48	-0.05	-0.11	-1.09	0.11
594.00	0.57	-0.48	-0.01	-0.18	-0.18	3.00
594.20	0.46	-0.38	-0.03	-0.04	-0.06	1.59
594.40	0.60	-0.23	-0.02	-0.14	-0.64	-0.44
594.60	0.29	-0.42	-0.06	-0.71	1.80	-2.44
594.80	0.61	-0.07	-0.03	0.14	0.34	0.13
595.00	0.54	-0.37	-0.01	-0.03	0.70	2.25
595.20	0.41	-0.48	-0.02	0.04	0.68	0.87
595.40	0.46	-0.39	-0.04	-0.27	0.68	-1.93
595.60	0.42	-0.31	-0.06	0.32	0.37	0.59
595.80	0.56	-0.19	-0.05	0.18	-0.14	1.12
596.00	0.68	-0.41	-0.03	-0.58	-0.68	-0.58
596.20	0.50	-0.27	-0.06	-0.44	-0.14	0.83
596.40	0.56	-0.21	-0.01	-0.24	0.25	-1.84
596.60	0.23	-0.31	-0.07	0.03	0.63	1.33
596.80	0.51	-0.33	-0.04	-0.09	-0.82	0.75
597.00	0.55	-0.50	-0.06	-0.94	-1.88	2.10
597.20	0.48	-0.59	-0.05	0.05	-1.78	1.03
597.40	0.32	-0.29	-0.05	0.20	-3.80	-1.49
597.60	0.31	-0.58	-0.01	0.33	-1.35	1.16
597.80	0.69	-0.28	-0.03	0.27	3.96	0.18
598.00	0.49	-0.57	0.00	-0.11	4.59	1.79
598.20	0.68	-0.39	0.02	-0.11	2.95	-0.59
598.40	0.72	-0.43	-0.03	-0.33	0.25	-1.54
598.60	0.51	-0.51	0.00	-0.68	2.85	-1.73
598.80	0.53	-0.51	-0.01	-0.04	-2.83	1.37
599.00	0.66	-0.54	0.00	-0.35	4.35	-0.37

599.20	0.45	-0.21	-0.01	-0.76	-0.28	1.26
599.40	0.45	-0.53	0.00	-0.34	-1.60	1.03
599.60	0.26	-0.57	0.01	-0.42	-4.86	-1.62
599.80	0.41	-0.18	-0.08	0.20	-4.20	-1.31
600.00	0.56	-0.25	-0.04	-0.43	0.43	0.01
600.20	0.77	-0.56	-0.03	-0.46	-5.75	-0.27
600.40	0.63	-0.42	0.02	-0.50	-1.17	-4.64
600.60	0.54	-0.56	0.03	0.04	2.00	-0.09
600.80	0.56	-0.34	0.04	0.98	-0.22	2.75
601.00	0.37	-0.26	-0.01	-0.66	-3.51	-0.15
601.20	0.46	-0.33	-0.02	0.96	-1.27	1.37
601.40	0.59	-0.25	-0.02	0.04	-0.03	2.31
601.60	0.58	-0.23	0.02	0.20	-0.82	2.34
601.80	0.71	-0.30	0.03	-0.30	-0.75	-0.41
602.00	0.36	-0.37	0.02	-0.44	0.46	-0.17
602.20	0.57	-0.54	-0.01	-0.17	0.13	0.65
602.40	0.51	-0.45	0.03	0.39	-1.41	1.41
602.60	0.97	-0.59	-0.04	-0.12	0.84	-1.07
602.80	0.52	-0.32	0.05	0.40	-1.36	1.17
603.00	0.50	-0.20	0.02	0.18	1.00	0.83
603.20	0.79	-0.29	0.00	-0.08	0.22	1.00
603.40	0.47	-0.31	-0.01	0.24	-4.37	1.42
603.60	0.42	-0.26	0.02	0.16	3.73	-0.10
603.80	0.59	-0.57	0.03	0.22	5.48	-1.80
604.00	0.62	-0.11	0.03	-0.28	-0.27	-1.18
604.20	0.34	-0.41	0.02	0.46	-1.19	0.48
604.40	0.68	-0.39	0.05	-0.10	-0.43	1.33
604.60	0.53	-0.28	0.08	-0.30	1.16	-2.87
604.80	0.77	-0.19	0.04	0.08	-3.59	6.13
605.00	0.75	-0.33	0.02	-0.08	2.35	-1.67
605.20	0.57	-0.56	0.06	0.20	0.02	-1.35
605.40	0.51	-0.57	0.07	-0.31	2.34	-0.57
605.60	0.51	-0.11	-0.01	0.06	-1.36	-1.30

86% Constriction Time in seconds; velocity in cm/s

	Saltwater			Freshwater		
"Time"	"vel_u_SW"	"vel_v_SW"	"vel_w_SW"	"vel_u_FW"	"vel_v_FW"	"vel_w_FW"
0.00	0.87	0.21	0.16	-0.32	0.27	-0.14
0.20	0.04	-0.55	0.02	0.07	-0.51	2.39
0.40	-0.68	-0.38	-0.02	0.19	4.62	1.02
0.60	0.77	0.00	-0.10	-0.64	1.72	-3.11
0.80	-0.64	0.01	-0.07	0.16	-1.37	0.04
1.00	1.18	0.38	0.06	-0.89	3.54	-5.06
1.20	0.16	-0.33	0.10	-0.08	2.94	0.37
1.40	-0.09	-0.20	-0.02	-0.16	0.43	-0.81
1.60	-0.07	0.28	0.02	-0.24	3.79	-2.19
1.80	-0.02	-0.07	0.01	0.05	0.82	-0.05
2.00	1.29	0.28	-0.11	-0.34	-0.83	-0.48
2.20	-1.08	-0.73	-0.13	0.01	0.16	-2.09
2.40	-0.11	-0.01	0.01	0.18	2.88	0.92
2.60	2.08	-0.08	0.22	0.04	0.92	-0.99
2.80	1.24	0.00	0.15	-0.04	1.48	-0.76
3.00	-0.40	-0.18	-0.04	0.05	0.73	0.02
3.20	0.21	0.52	-0.04	-0.04	0.83	-0.09
3.40	0.40	0.44	-0.02	-0.25	-0.54	-0.33
3.60	0.31	-0.10	0.03	-0.15	0.65	0.07
3.80	-1.60	-0.46	-0.10	-0.23	0.10	-0.26
4.00	0.20	0.21	-0.08	-0.28	-0.02	-0.39
4.20	0.27	-0.22	0.03	-0.25	-0.06	-0.10
4.40	-0.14	0.04	-0.01	-0.22	0.16	-0.36
4.60	1.07	0.30	0.04	-0.12	0.39	-0.17
4.80	0.11	0.05	-0.07	-0.12	0.08	-0.06
5.00	-0.20	-0.05	-0.02	-0.05	0.52	0.55
5.20	0.47	-0.35	0.21	-0.05	0.25	-0.21
5.40	1.97	0.00	0.15	-0.16	-0.02	-0.18
5.60	-0.34	0.59	-0.06	0.07	-0.05	-1.05
5.80	0.52	0.32	0.12	-0.50	-0.31	-0.84
6.00	0.47	0.00	0.06	0.14	-3.12	1.03
6.20	1.30	-0.06	-0.07	-0.08	-0.20	-0.42
6.40	0.62	-0.48	0.11	-0.36	0.93	-0.09
6.60	1.15	1.20	-0.05	-0.13	-0.37	-0.10
6.80	0.13	0.13	-0.01	-0.23	0.00	-0.25
7.00	-1.17	0.47	-0.16	-0.26	0.14	-0.26
7.20	0.71	0.00	0.11	-0.08	-0.38	-0.01
7.40	0.52	-0.18	0.20	-0.17	0.27	0.46
7.60	-0.55	1.23	-0.33	-0.26	0.43	-0.38
7.80	-0.31	-0.36	-0.05	-0.14	-0.68	-0.81
8.00	-0.46	-0.12	-0.05	-0.08	0.48	0.00
8.20	-0.40	0.48	-0.13	-0.31	0.99	-0.05
8.40	0.71	-0.09	0.06	-0.07	0.59	0.22
8.60	0.10	0.06	-0.02	-0.09	-0.79	-1.42
8.80	0.03	0.05	-0.10	-0.25	0.47	-0.56
9.00	0.11	0.29	-0.11	0.02	0.09	0.68

9.20	0.27	0.23	0.00	0.26	2.17	-0.12
9.40	0.32	0.21	0.00	-0.53	-0.33	-1.06
9.60	-0.02	0.28	-0.11	-0.33	0.41	-0.56
9.80	0.47	0.22	-0.03	-0.63	0.71	-1.65
10.00	-0.21	0.19	-0.10	0.55	-0.12	2.36
10.20	-0.08	0.16	-0.02	-0.27	1.91	-2.91
10.40	-0.12	0.40	-0.13	-0.34	0.36	-0.83
10.60	0.02	-0.08	0.01	-0.02	-1.42	-2.68
10.80	0.22	0.11	-0.07	-0.68	-0.14	-1.44
11.00	-0.07	0.19	-0.03	0.06	-1.22	-0.97
11.20	0.04	0.12	0.00	0.19	-0.01	0.14
11.40	1.58	0.10	0.04	0.92	0.98	-0.32
11.60	0.87	-0.18	0.11	1.73	-2.78	-0.68
11.80	-0.36	1.39	-0.29	1.93	-0.40	0.45
12.00	0.98	1.02	-0.12	1.16	-0.83	0.68
12.20	1.42	0.22	0.02	1.48	0.70	1.83
12.40	1.30	0.45	-0.03	1.83	-0.16	0.52
12.60	0.06	0.14	-0.04	0.56	-0.13	0.47
12.80	-0.10	-0.55	0.11	1.82	-1.09	0.02
13.00	0.71	0.83	-0.03	1.74	1.50	3.59
13.20	1.27	2.90	-0.43	-0.04	0.86	-2.68
13.40	0.00	-0.35	0.08	0.59	-6.22	0.21
13.60	-0.78	-0.31	0.03	-0.62	2.66	-3.38
13.80	0.38	-0.14	0.09	-1.82	-1.09	-1.56
14.00	-1.13	-0.58	0.01	-1.81	0.28	-1.53
14.20	-1.85	-0.86	0.07	-2.16	-1.09	1.77
14.40	-0.13	-0.67	0.19	-2.91	0.59	0.27
14.60	-0.88	-0.45	0.15	-2.61	1.88	-2.25
14.80	-1.24	-0.44	0.09	-3.54	2.02	-1.00
15.00	-1.61	-0.73	0.12	-3.20	3.40	-4.64
15.20	-0.72	-0.82	0.21	-1.93	-1.96	-0.62
15.40	-1.33	-0.32	-0.01	-0.55	-4.33	-1.46
15.60	0.09	-0.32	0.03	-0.18	0.24	1.57
15.80	-0.39	0.12	-0.05	-0.23	3.30	-0.12
16.00	0.68	-0.07	0.06	0.58	-0.47	-0.57
16.20	-0.16	0.12	-0.04	1.22	-0.75	-0.23
16.40	0.11	-0.12	0.12	1.42	0.13	-0.29
16.60	-0.69	0.01	0.02	1.79	-1.02	2.23
16.80	-1.25	-0.31	0.04	0.91	0.05	0.86
17.00	-0.87	-0.22	-0.01	0.41	-1.13	-0.74
17.20	-0.78	-0.27	0.06	1.31	1.23	1.22
17.40	-0.91	-0.80	0.04	0.46	-0.96	-2.30
17.60	-0.38	-0.70	0.18	-0.30	-3.64	-4.06
17.80	-0.40	-0.92	0.27	0.58	-0.11	1.40
18.00	-0.63	-0.81	0.19	0.28	2.80	0.58
18.20	-0.41	-1.64	0.39	0.12	3.09	0.95
18.40	-0.08	-0.76	0.21	-0.29	-1.24	0.21
18.60	-0.33	-0.71	0.08	0.33	1.90	0.26
18.80	0.79	0.77	-0.33	0.20	1.08	0.52
19.00	1.65	1.22	-0.18	0.63	-0.95	1.89

19.20	1.56	0.74	0.01	1.85	-0.97	-0.02
19.40	2.03	2.04	-0.31	2.24	0.32	0.96
19.60	1.80	1.33	-0.26	2.41	-0.23	1.01
19.80	2.08	0.56	0.09	2.39	-1.11	2.75
20.00	1.52	0.34	0.06	1.61	-0.22	-1.52
20.20	2.28	0.94	0.08	2.64	-4.34	-1.05
20.40	0.87	0.73	-0.15	2.83	1.19	2.51
20.60	1.63	0.30	-0.10	1.88	4.06	-1.70
20.80	0.50	-0.17	0.10	1.80	-2.60	4.31
21.00	0.59	0.44	-0.07	1.04	-1.34	0.32
21.20	0.02	-0.54	0.14	0.91	2.23	-0.57
21.40	0.06	-0.45	0.18	0.68	0.97	0.96
21.60	0.36	-0.71	0.08	-0.02	-2.17	-3.59
21.80	-0.30	-0.33	0.11	-1.10	-1.71	-1.12
22.00	-0.48	-0.38	0.13	-0.30	1.40	2.85
22.20	0.79	-0.28	0.32	-0.45	-1.13	-1.90
22.40	-0.96	0.08	0.01	-1.48	0.61	-1.31
22.60	-0.41	-0.20	0.01	-1.81	1.27	-1.14
22.80	-0.97	-0.68	0.09	-1.52	2.21	1.78
23.00	-0.41	-0.84	0.13	-0.82	3.60	-1.72
23.20	-0.58	-0.61	0.06	-0.21	3.48	0.76
23.40	-0.94	-0.76	0.09	0.00	1.44	-0.18
23.60	-1.04	-0.78	0.07	-0.15	1.68	-0.95
23.80	-0.06	-0.43	0.15	-0.16	0.88	2.00
24.00	-0.18	-1.07	0.26	0.63	-4.32	-3.98
24.20	-1.16	-2.72	0.45	0.39	1.08	-0.51
24.40	-2.10	-4.30	0.82	0.17	-0.77	-1.66
24.60	-2.59	-5.01	0.91	0.92	0.25	1.86
24.80	-0.94	-4.51	1.02	0.12	-3.25	-3.74
25.00	-2.05	-2.46	0.89	-0.01	0.50	-0.46
25.20	-3.97	-2.40	-0.02	0.39	0.84	-0.31
25.40	-5.97	-1.99	0.02	-0.19	1.15	-0.39
25.60	-7.27	-1.66	-0.40	-0.34	1.00	0.37
25.80	-8.00	-1.59	-0.31	-0.94	2.06	-1.22
26.00	-6.95	-2.56	0.46	-0.35	0.22	-0.05
26.20	-6.54	-2.66	0.50	-0.43	1.52	0.42
26.40	-6.78	-1.65	0.37	-0.12	0.72	-0.21
26.60	-5.93	-1.28	-0.34	0.66	1.50	1.26
26.80	-4.70	-1.45	-0.45	1.04	0.58	-0.27
27.00	-3.21	-1.81	-0.34	1.43	-1.16	-0.17
27.20	-1.88	-2.49	-0.68	2.00	1.53	2.10
27.40	-0.21	-3.12	-1.20	1.77	-0.84	-1.59
27.60	-0.36	-2.67	-1.80	2.73	1.59	3.85
27.80	-2.09	-1.53	-1.41	3.64	-3.74	2.01
28.00	-1.91	-3.24	0.44	3.18	0.54	1.66
28.20	-1.92	-2.82	0.63	3.13	1.44	4.23
28.40	-1.88	-3.04	0.59	2.83	-4.52	5.60
28.60	-0.45	-3.19	1.68	2.86	0.70	2.28
28.80	-0.14	-2.32	1.46	2.36	1.08	3.45
29.00	-0.50	-2.07	0.87	1.73	-5.39	3.50

29.20	-0.83	-0.92	0.95	0.39	-2.97	-3.26
29.40	-3.57	0.98	0.99	1.30	-2.74	-0.83
29.60	-6.39	0.36	-1.69	1.30	-0.27	1.52
29.80	-5.25	-0.39	-1.82	0.54	-2.38	-1.06
30.00	-5.79	0.25	-1.12	0.41	0.60	-1.83
30.20	-7.01	1.12	-0.32	0.83	-1.23	0.49
30.40	-6.78	0.48	-0.45	-0.03	-0.01	-0.41
30.60	-6.53	0.09	-0.17	-0.14	1.02	-0.43
30.80	-5.25	-0.29	-0.59	0.55	1.57	0.55
31.00	-3.79	-0.31	-1.48	1.57	-2.18	0.58
31.20	-2.73	-1.42	-1.58	0.39	-0.78	-3.48
31.40	-3.73	-1.50	-0.87	1.63	-0.41	1.17
31.60	-4.26	-2.67	-0.24	1.27	-2.55	0.51
31.80	-3.56	-3.33	-0.96	2.05	0.36	-0.17
32.00	-2.16	-3.12	-1.75	2.55	1.02	-0.26
32.20	-1.67	-3.74	-2.37	1.53	-0.92	0.80
32.40	-2.50	-3.11	-2.17	2.10	-1.04	0.51
32.60	-3.33	-3.11	-2.47	1.47	-0.29	-0.54
32.80	-4.23	-2.59	-1.78	1.52	-0.35	0.42
33.00	-4.25	-1.34	-1.32	0.83	1.49	0.14
33.20	-4.95	-0.44	-1.23	0.23	-4.52	-2.18
33.40	-5.77	-0.91	-0.74	-0.37	0.31	-3.08
33.60	-6.45	-1.62	-0.49	0.11	0.53	0.13
33.80	-6.01	-1.28	-0.59	-0.81	-3.72	-4.57
34.00	-5.39	-1.32	-1.19	0.64	2.20	-0.25
34.20	-4.27	-0.52	-1.43	1.03	-0.64	0.56
34.40	-4.43	-0.56	-1.54	1.03	-3.21	0.82
34.60	-4.59	-1.47	-0.85	1.40	2.40	-0.23
34.80	-4.72	-0.44	-1.28	0.97	1.43	0.38
35.00	-3.85	-0.31	-1.34	1.85	-0.84	-0.12
35.20	-2.89	-0.14	-1.43	2.26	0.42	-0.96
35.40	-2.07	0.18	-1.40	2.87	-1.52	2.25
35.60	-1.55	0.33	-1.50	3.25	0.12	3.15
35.80	-0.85	0.73	-1.69	1.92	-0.38	-0.38
36.00	-0.70	0.70	-1.75	3.13	-3.84	1.38
36.20	-2.10	1.01	-1.79	3.00	0.98	0.91
36.40	-3.13	1.38	-1.76	2.23	-0.17	0.85
36.60	-3.22	1.17	-1.72	1.37	-3.54	1.67
36.80	-2.92	1.00	-1.11	1.83	-1.51	0.53
37.00	-3.81	1.22	-0.95	2.10	-1.42	1.21
37.20	-4.74	0.72	-0.61	1.20	-0.85	-0.44
37.40	-5.07	0.72	-0.61	1.43	-1.05	0.78
37.60	-5.19	0.49	-0.45	0.67	0.19	1.61
37.80	-5.80	0.18	-0.21	1.32	4.39	3.53
38.00	-6.46	0.16	-0.51	-0.10	-2.53	-1.64
38.20	-5.73	-0.20	-0.70	0.86	-0.12	1.17
38.40	-5.06	-0.41	-0.54	1.23	0.54	2.04
38.60	-5.41	-0.39	-0.95	1.66	-2.11	2.03
38.80	-4.91	-0.59	-1.25	1.44	-0.66	0.70
39.00	-4.11	-0.53	-0.90	1.80	-0.90	0.42

39.20	-3.81	-0.80	-0.28	2.52	0.35	2.06
39.40	-3.46	-1.56	-0.38	2.16	0.45	-0.67
39.60	-3.98	-2.26	-0.37	0.57	0.40	-4.55
39.80	-4.30	-2.34	-0.19	1.26	1.36	0.70
40.00	-3.73	-2.35	-0.13	0.55	-2.39	-2.98
40.20	-3.33	-2.09	-0.22	0.65	-0.57	-2.81
40.40	-4.69	-1.81	-0.08	-0.16	0.52	-2.65
40.60	-6.55	-1.25	-0.18	1.30	1.83	1.15
40.80	-6.78	-1.33	-0.81	0.47	-0.93	-0.47
41.00	-6.44	-1.49	-1.36	0.21	-0.38	-0.35
41.20	-6.25	-0.15	-1.48	0.09	0.55	-0.58
41.40	-6.21	-0.65	-0.95	-0.59	0.49	-1.18
41.60	-6.02	-0.68	-0.91	0.47	1.50	0.41
41.80	-6.06	-0.86	-0.61	0.20	0.61	-0.74
42.00	-6.32	-1.37	-0.94	0.32	0.64	-0.99
42.20	-6.00	-1.06	-1.53	-0.11	1.23	-1.54
42.40	-5.60	-0.62	-1.49	1.15	-2.98	0.89
42.60	-4.73	-0.37	-1.26	1.25	0.73	1.29
42.80	-3.53	-0.59	-1.25	2.33	-1.16	0.26
43.00	-3.02	-0.72	-1.39	3.05	1.24	-0.07
43.20	-2.72	-0.76	-1.51	2.62	0.21	0.63
43.40	-1.75	-0.96	-1.44	1.99	-2.84	-0.78
43.60	-1.13	-0.39	-1.57	3.24	-3.01	-0.12
43.80	-1.83	0.00	-1.82	2.61	-0.19	-0.96
44.00	-1.93	0.41	-1.77	2.96	1.14	1.45
44.20	-2.59	0.95	-1.95	-0.62	0.71	-5.22
44.40	-3.03	1.28	-1.80	1.71	1.16	1.19
44.60	-3.80	1.25	-1.67	1.00	4.27	0.13
44.80	-4.54	1.30	-1.63	1.36	-3.91	-1.57
45.00	-5.43	1.08	-1.61	1.47	-0.32	0.88
45.20	-5.44	0.93	-1.69	0.66	0.56	-2.21
45.40	-5.87	0.96	-1.66	1.41	-0.29	-0.16
45.60	-6.22	0.74	-1.78	0.66	-0.50	0.06
45.80	-5.28	0.46	-1.40	0.78	-0.63	-0.31
46.00	-3.82	0.38	-1.50	1.33	-1.66	1.24
46.20	-4.00	0.61	-2.04	1.73	-0.50	0.72
46.40	-3.94	0.41	-2.08	1.15	1.53	0.60
46.60	-4.49	0.38	-1.93	0.76	0.38	2.28
46.80	-3.68	0.18	-2.19	2.00	0.48	5.31
47.00	-3.26	0.17	-2.29	1.41	-1.94	1.00
47.20	-2.79	-0.10	-2.40	2.42	-1.13	1.09
47.40	-2.30	0.01	-2.48	1.31	1.56	-0.68
47.60	-2.44	0.02	-2.53	2.28	-1.80	0.40
47.80	-2.95	-0.18	-2.46	2.09	-0.11	1.71
48.00	-3.95	-0.48	-2.45	1.67	-1.01	0.62
48.20	-3.83	-0.37	-2.15	2.59	-0.79	2.64
48.40	-4.74	0.26	-1.91	1.53	-2.17	-0.62
48.60	-5.79	0.55	-1.33	1.06	-2.64	2.16
48.80	-5.89	0.44	-0.93	1.18	-2.33	-0.22
49.00	-6.42	0.20	-0.77	0.60	-0.69	0.21

49.20	-6.24	0.02	-1.14	0.28	0.22	0.36
49.40	-5.76	0.04	-1.64	0.50	-0.22	0.27
49.60	-5.47	0.06	-1.68	0.92	0.22	0.19
49.80	-6.08	-0.21	-1.53	0.84	-0.67	0.01
50.00	-6.12	-0.81	-1.38	0.16	-0.82	1.09
50.20	-5.26	-0.63	-1.88	0.87	-0.30	0.43
50.40	-4.49	-0.50	-1.84	0.84	1.28	-0.67
50.60	-3.75	-0.63	-1.73	1.25	-1.71	0.11
50.80	-3.60	-0.33	-1.81	2.28	-0.02	2.63
51.00	-3.43	-0.28	-1.78	1.55	0.76	1.05
51.20	-2.82	-0.30	-1.64	2.05	-0.39	1.98
51.40	-2.65	-0.48	-1.53	1.51	-2.09	-1.69
51.60	-3.07	-0.09	-1.41	2.35	0.08	0.28
51.80	-3.00	-0.04	-1.41	2.40	-0.45	-0.13
52.00	-2.93	0.23	-1.31	2.60	-0.67	0.71
52.20	-3.37	0.38	-1.06	2.87	-2.10	0.18
52.40	-4.59	0.44	-1.00	1.79	0.67	0.25
52.60	-4.83	0.20	-0.94	1.87	-0.97	0.12
52.80	-5.30	0.16	-0.99	1.82	-0.34	-0.90
53.00	-5.71	0.19	-1.12	0.51	0.10	-2.01
53.20	-5.60	0.61	-1.19	0.78	-0.01	-0.49
53.40	-5.33	0.75	-1.18	0.98	-0.23	0.35
53.60	-5.06	-0.03	-1.11	1.39	-2.08	1.60
53.80	-4.87	-0.39	-0.98	1.65	1.50	1.52
54.00	-4.67	-0.37	-1.36	1.51	0.73	0.08
54.20	-4.19	-0.16	-1.68	2.13	2.00	-2.45
54.40	-4.10	-1.08	-1.06	1.48	-1.21	3.44
54.60	-4.18	-1.31	-0.74	-0.77	2.54	-8.03
54.80	-4.11	-1.23	-0.89	1.84	-3.20	1.36
55.00	-3.39	-1.35	-0.93	1.40	-5.69	-1.20
55.20	-2.85	-0.86	-0.99	2.09	-1.40	2.81
55.40	-2.71	-0.83	-1.28	2.18	-0.95	4.66
55.60	-2.91	-0.40	-1.21	3.59	-2.24	1.83
55.80	-3.84	-0.12	-1.32	1.66	0.89	1.99
56.00	-4.22	0.13	-1.41	1.72	-1.29	2.80
56.20	-4.03	0.02	-1.32	1.42	0.22	1.49
56.40	-4.83	0.04	-1.43	1.93	-0.80	-0.40
56.60	-5.27	-0.08	-1.35	0.30	1.37	-1.90
56.80	-5.74	-0.37	-1.15	0.83	1.51	2.14
57.00	-6.07	-0.40	-1.19	-0.02	1.27	1.41
57.20	-6.24	-0.41	-1.46	-0.24	0.08	-2.96
57.40	-6.10	-0.42	-1.31	0.57	1.58	-2.47
57.60	-6.04	-0.66	-1.34	1.29	1.07	1.47
57.80	-6.26	-0.74	-1.35	0.74	-0.48	-0.46
58.00	-5.46	-0.92	-1.21	1.01	0.01	-0.28
58.20	-4.57	-1.18	-1.28	2.16	0.91	3.03
58.40	-3.93	-1.46	-1.32	0.70	-2.73	1.03
58.60	-3.86	-1.40	-1.35	2.15	-0.18	0.64
58.80	-3.81	-1.40	-1.53	2.47	-0.80	1.07
59.00	-3.54	-1.19	-1.61	1.72	-0.35	0.67

59.20	-3.29	-0.93	-1.60	1.34	1.86	-3.90
59.40	-2.50	-0.63	-1.74	2.29	0.12	0.20
59.60	-2.26	-0.39	-1.69	1.31	-4.11	2.15
59.80	-2.90	-0.27	-1.59	1.57	-5.61	-1.06
60.00	-3.54	0.05	-1.65	2.08	-0.07	3.81
60.20	-4.16	0.21	-1.54	1.45	-1.49	1.44
60.40	-4.50	0.24	-1.23	2.00	0.41	0.47
60.60	-5.10	0.28	-0.95	0.87	-1.90	0.66
60.80	-5.73	0.56	-0.83	0.31	-0.34	2.64
61.00	-5.72	0.59	-0.82	0.54	-1.78	-0.01
61.20	-5.06	0.46	-0.86	0.76	-0.88	-0.50
61.40	-5.16	0.23	-0.87	1.18	-0.52	0.04
61.60	-5.08	0.01	-0.77	1.30	-1.98	0.56
61.80	-4.81	-0.44	-0.97	1.07	0.21	0.97
62.00	-3.55	-1.07	-0.84	1.54	-0.73	-0.71
62.20	-3.04	-0.99	-0.29	1.81	0.13	1.34
62.40	-3.25	-0.66	-0.23	0.39	1.61	-0.11
62.60	-3.00	-0.35	-0.46	1.60	-1.04	1.60
62.80	-2.54	-0.34	-0.50	0.63	1.19	-3.17
63.00	-2.35	-0.33	-0.41	2.17	-2.74	1.12
63.20	-2.49	0.07	-0.38	1.76	-0.57	0.62
63.40	-3.14	0.39	-0.71	1.96	2.64	-0.23
63.60	-3.25	0.34	-0.90	0.84	-3.88	-1.50
63.80	-3.97	0.14	-0.98	1.69	-0.80	0.15
64.00	-4.07	-0.14	-1.10	1.20	0.16	3.06
64.20	-4.07	-0.27	-0.70	1.38	2.56	2.34
64.40	-4.36	-0.40	-0.93	1.20	-1.61	-0.63
64.60	-5.03	-0.62	-1.64	0.99	-0.52	0.16
64.80	-5.73	-0.83	-1.78	0.98	1.13	0.29
65.00	-6.48	-0.77	-1.47	0.70	-0.12	-0.01
65.20	-6.22	-0.86	-1.39	0.47	0.19	0.36
65.40	-5.44	-0.91	-1.28	0.87	-0.98	0.76
65.60	-5.17	-0.88	-1.39	1.32	0.19	0.85
65.80	-4.59	-1.11	-1.47	1.01	5.23	3.59
66.00	-4.19	-1.04	-1.50	0.96	-0.99	-1.03
66.20	-3.69	-1.04	-1.61	1.90	-0.59	-0.29
66.40	-3.78	-0.93	-1.59	1.46	0.10	-0.78
66.60	-3.68	-0.70	-1.56	0.98	-1.72	0.21
66.80	-3.72	-0.55	-1.62	1.39	3.53	1.68
67.00	-3.39	-0.47	-1.61	2.01	-0.05	3.38
67.20	-2.64	-0.47	-1.50	3.07	-3.07	2.26
67.40	-2.90	-0.22	-1.62	2.84	-0.87	3.09
67.60	-3.47	0.02	-1.64	1.69	-2.70	-1.40
67.80	-3.12	0.38	-1.64	1.81	-1.64	0.35
68.00	-3.68	0.60	-1.70	1.13	-0.20	-0.82
68.20	-4.42	0.64	-1.44	1.11	-2.68	-4.31
68.40	-4.68	0.65	-1.21	0.25	1.89	-2.70
68.60	-4.94	0.69	-0.91	0.73	-0.39	0.11
68.80	-5.46	0.56	-0.97	0.99	2.84	2.49
69.00	-5.30	-0.04	-1.35	1.28	-3.55	2.64

69.20	-4.87	-0.23	-1.56	0.37	-2.00	-0.08
69.40	-5.05	-0.35	-1.58	0.55	2.39	1.33
69.60	-4.52	-0.30	-1.36	1.05	0.75	1.16
69.80	-4.27	-0.42	-1.28	1.80	-1.61	0.21
70.00	-3.71	-0.47	-1.37	1.93	-1.42	1.30
70.20	-3.47	-0.62	-1.48	1.75	-1.29	2.03
70.40	-2.65	-0.67	-1.59	2.70	-2.78	0.30
70.60	-2.58	-0.77	-1.69	0.91	-0.56	0.14
70.80	-3.02	-0.96	-1.69	2.06	-2.60	2.90
71.00	-2.97	-0.68	-1.66	2.07	-0.83	1.20
71.20	-2.91	-0.73	-1.67	2.11	-3.29	1.57
71.40	-2.74	-0.66	-1.65	2.46	-0.86	0.90
71.60	-3.19	-0.45	-1.61	1.84	-2.03	0.21
71.80	-3.46	-0.41	-1.46	0.60	-0.94	-3.13
72.00	-3.77	-0.05	-1.49	1.02	1.86	-2.14
72.20	-4.17	0.09	-1.36	1.60	0.20	1.15
72.40	-5.01	0.10	-1.39	1.40	1.08	1.40
72.60	-5.47	0.04	-1.55	0.79	1.67	-0.26
72.80	-5.62	-0.24	-1.39	0.38	-0.18	-0.91
73.00	-5.40	0.06	-1.03	1.19	0.97	1.23
73.20	-5.33	-0.17	-0.93	0.76	0.54	-0.07
73.40	-5.20	-0.43	-1.00	0.30	0.73	-1.46
73.60	-4.81	-0.67	-1.08	1.91	0.42	2.00
73.80	-4.17	-0.70	-1.13	1.55	0.84	-0.44
74.00	-4.17	-0.47	-1.09	1.78	-1.01	0.26
74.20	-4.06	-0.51	-1.08	1.63	-1.74	0.91
74.40	-3.63	-0.53	-0.99	0.68	-0.60	-1.22
74.60	-3.35	-0.48	-0.99	2.24	-1.13	0.80
74.80	-3.06	-0.49	-0.93	2.33	-1.12	1.22
75.00	-3.33	-0.54	-1.00	1.90	-0.97	-1.15
75.20	-3.41	-0.44	-1.00	2.33	-1.80	0.48
75.40	-4.02	-0.28	-1.01	2.33	-0.83	0.76
75.60	-4.37	-0.19	-0.93	2.20	-1.85	-0.32
75.80	-4.52	-0.16	-0.83	0.68	-3.19	-1.12
76.00	-4.57	-0.04	-0.93	1.25	-2.36	0.03
76.20	-5.06	0.10	-0.97	0.81	-0.76	-0.86
76.40	-4.92	0.02	-0.92	1.17	-1.70	-1.97
76.60	-5.32	-0.11	-0.95	1.70	-0.25	1.17
76.80	-5.74	-0.31	-0.89	0.92	-2.37	-0.25
77.00	-5.52	-0.25	-0.69	1.20	1.50	1.43
77.20	-5.17	-0.40	-0.70	1.28	-0.23	-0.33
77.40	-4.87	-0.58	-0.63	1.56	-0.94	0.72
77.60	-4.43	-0.80	-0.54	0.57	1.98	-1.98
77.80	-3.97	-0.73	-0.68	1.32	3.80	0.91
78.00	-3.39	-0.63	-0.81	0.97	-2.54	0.77
78.20	-3.30	-0.60	-0.83	1.28	-1.15	-0.18
78.40	-3.38	-0.37	-1.06	1.31	-1.88	-0.29
78.60	-3.32	-0.30	-1.13	2.10	-1.51	2.62
78.80	-3.16	-0.24	-1.03	1.99	-1.31	-0.67
79.00	-3.16	-0.06	-1.07	2.48	-0.61	0.94

79.20	-3.34	0.10	-1.08	1.81	1.89	1.29
79.40	-3.34	0.24	-1.07	0.54	2.03	-0.70
79.60	-3.60	0.23	-1.06	2.52	-0.42	2.99
79.80	-4.10	0.37	-0.99	0.88	-1.01	0.55
80.00	-4.89	0.36	-0.95	1.35	-2.19	-0.56
80.20	-5.29	0.35	-0.98	1.38	-1.45	0.06
80.40	-5.19	0.30	-1.04	1.21	1.75	0.57
80.60	-4.69	0.17	-1.11	0.80	-1.04	-0.48
80.80	-4.73	0.05	-1.19	1.50	-1.80	1.76
81.00	-4.92	-0.17	-1.40	1.36	-0.56	0.59
81.20	-4.62	-0.29	-1.45	1.22	-0.39	0.39
81.40	-4.62	-0.39	-1.18	1.58	-0.54	0.33
81.60	-4.27	-0.29	-0.86	1.43	-1.76	0.34
81.80	-4.05	-0.24	-0.71	1.19	1.20	-1.32
82.00	-3.87	-0.12	-0.81	2.27	0.33	1.29
82.20	-3.50	-0.22	-0.94	1.52	-1.01	-0.61
82.40	-3.31	-0.41	-1.01	2.33	-2.35	4.61
82.60	-3.46	-0.43	-1.10	1.66	-0.65	-0.57
82.80	-3.53	-0.38	-1.16	2.03	-1.13	0.39
83.00	-3.71	-0.35	-1.23	2.27	1.96	2.80
83.20	-3.95	-0.29	-1.25	1.47	0.20	-0.54
83.40	-4.02	-0.35	-1.11	1.40	-1.47	-0.26
83.60	-4.00	-0.29	-1.01	-0.13	-0.46	-0.47
83.80	-3.95	-0.36	-0.93	1.65	-3.30	0.09
84.00	-4.13	-0.39	-0.81	0.29	-1.88	-0.24
84.20	-4.57	-0.46	-0.74	0.79	1.17	-0.17
84.40	-4.96	-0.56	-0.70	1.22	-0.19	1.45
84.60	-5.25	-0.74	-0.79	1.05	1.94	0.57
84.80	-5.46	-0.69	-0.74	-0.14	0.41	-0.54
85.00	-4.86	-0.83	-0.67	1.23	-0.18	2.48
85.20	-4.76	-0.78	-0.77	1.04	-1.48	-1.15
85.40	-4.37	-0.92	-0.78	1.42	0.66	1.78
85.60	-3.47	-0.68	-0.85	1.11	0.08	0.37
85.80	-3.52	-0.67	-1.13	1.95	-1.07	0.93
86.00	-3.70	-0.66	-1.21	1.59	-1.39	-0.47
86.20	-3.35	-0.74	-1.24	1.96	-0.57	0.43
86.40	-2.76	-0.62	-1.25	2.05	-1.07	0.36
86.60	-2.91	-0.70	-1.21	0.86	-2.40	-4.20
86.80	-3.08	-0.50	-1.04	1.75	-0.89	1.54
87.00	-3.75	-0.34	-0.91	2.05	0.17	0.98
87.20	-3.71	-0.37	-0.84	1.89	-0.99	-0.35
87.40	-3.84	-0.36	-0.72	2.25	-0.83	0.66
87.60	-4.32	-0.45	-0.73	1.19	-4.55	1.50
87.80	-4.95	-0.64	-0.74	1.55	0.11	0.75
88.00	-4.84	-0.92	-0.90	1.27	-1.04	0.40
88.20	-4.65	-1.04	-1.03	1.49	-2.10	0.48
88.40	-4.33	-1.09	-1.05	1.44	0.56	0.75
88.60	-4.37	-1.01	-1.00	1.27	1.04	-1.89
88.80	-4.65	-1.01	-0.95	1.57	-1.38	0.66
89.00	-4.95	-0.65	-0.91	1.10	-0.20	-0.32

89.20	-4.71	-0.73	-0.90	1.40	-0.54	0.32
89.40	-4.91	-0.50	-0.90	1.68	-1.61	0.28
89.60	-4.25	-0.67	-1.01	1.30	0.43	1.53
89.80	-3.70	-0.51	-1.07	1.38	2.94	1.25
90.00	-3.58	-0.49	-1.08	2.41	-0.90	2.31
90.20	-3.59	-0.54	-1.28	1.92	-0.68	-1.55
90.40	-3.26	-0.63	-1.39	1.61	-0.68	0.54
90.60	-3.23	-0.51	-1.55	1.63	0.93	1.19
90.80	-3.44	-0.34	-1.70	1.12	-1.42	-2.56
91.00	-3.74	-0.26	-1.60	1.39	-1.58	0.37
91.20	-3.98	-0.32	-1.51	1.22	0.07	-1.38
91.40	-3.98	-0.35	-1.38	1.44	-2.89	-1.46
91.60	-3.88	-0.44	-1.36	1.49	4.64	1.86
91.80	-4.51	-0.40	-1.35	1.93	-1.91	0.11
92.00	-4.95	-0.23	-1.40	0.43	-1.72	-1.87
92.20	-5.02	-0.14	-1.45	0.33	-6.52	1.44
92.40	-4.74	-0.08	-1.21	0.22	-0.79	1.37
92.60	-4.86	-0.13	-1.13	0.54	-1.15	0.11
92.80	-5.07	-0.24	-1.07	0.89	-2.42	0.98
93.00	-4.63	-0.18	-1.08	0.30	1.93	-2.67
93.20	-4.28	-0.19	-1.19	0.74	-3.52	-3.06
93.40	-3.89	-0.11	-1.21	1.52	-3.43	-2.15
93.60	-4.05	-0.25	-1.30	1.18	4.97	0.61
93.80	-3.75	-0.21	-1.32	1.76	-0.72	0.45
94.00	-3.21	-0.19	-1.34	1.47	-0.60	0.36
94.20	-2.91	-0.21	-1.37	1.94	1.44	0.58
94.40	-2.75	-0.22	-1.33	2.63	-0.22	1.12
94.60	-2.99	-0.07	-1.32	2.66	-1.10	0.72
94.80	-3.55	0.01	-1.27	2.23	-1.93	1.78
95.00	-3.68	-0.04	-1.25	1.35	1.84	-1.74
95.20	-3.92	0.16	-1.21	0.36	4.61	-1.54
95.40	-4.41	0.22	-1.23	0.59	-0.17	0.95
95.60	-4.33	0.20	-1.30	1.07	-1.90	-0.10
95.80	-4.16	0.09	-1.34	1.41	-2.63	-0.15
96.00	-4.53	-0.06	-1.32	1.37	-0.08	0.56
96.20	-4.99	-0.19	-1.38	1.15	-0.30	-0.19
96.40	-4.88	-0.23	-1.36	1.26	-1.04	0.73
96.60	-4.85	-0.34	-1.38	1.60	-0.44	0.66
96.80	-4.87	-0.43	-1.44	1.40	-0.10	-0.35
97.00	-4.79	-0.67	-1.38	0.92	0.76	0.25
97.20	-4.61	-0.73	-1.26	1.05	-0.17	-0.37
97.40	-3.68	-1.02	-1.22	1.74	-3.35	2.76
97.60	-3.78	-1.26	-1.17	1.95	-2.85	3.64
97.80	-3.61	-1.16	-1.06	2.07	1.54	1.13
98.00	-3.93	-1.38	-1.00	0.61	3.23	0.00
98.20	-3.69	-1.10	-0.87	2.02	-0.44	3.95
98.40	-3.93	-1.00	-0.85	1.87	0.94	-0.03
98.60	-3.90	-0.79	-0.78	1.75	-1.36	-0.83
98.80	-3.89	-0.60	-0.80	0.45	-4.28	-2.20
99.00	-4.08	-0.56	-0.84	0.88	2.88	-2.17

99.20	-4.34	-0.49	-0.84	1.78	1.88	1.36
99.40	-4.56	-0.42	-0.80	2.42	0.32	4.46
99.60	-5.06	-0.59	-0.80	1.59	0.14	0.51
99.80	-5.27	-0.57	-0.80	1.02	0.95	0.61
100.00	-5.01	-0.67	-0.88	1.43	1.63	2.41
100.20	-4.85	-0.68	-0.90	1.25	0.31	2.04
100.40	-4.77	-0.72	-0.98	1.58	-0.93	2.50
100.60	-4.50	-0.71	-1.06	0.99	-2.19	-0.49
100.80	-4.38	-0.76	-1.06	1.28	0.07	1.07
101.00	-4.28	-0.82	-1.08	1.33	-1.13	0.46
101.20	-4.24	-0.53	-1.10	0.73	0.53	-1.08
101.40	-4.17	-0.63	-1.15	0.70	-1.41	-0.47
101.60	-3.86	-0.61	-1.21	-1.25	0.99	-6.24
101.80	-3.53	-0.62	-1.21	2.22	-0.54	1.63
102.00	-3.39	-0.60	-1.13	1.27	-0.50	-0.62
102.20	-3.11	-0.47	-1.23	2.09	1.80	1.97
102.40	-3.19	-0.59	-1.39	2.21	-1.03	1.58
102.60	-3.11	-0.38	-1.37	2.28	0.00	1.52
102.80	-3.88	-0.39	-1.48	2.15	0.63	-0.15
103.00	-4.18	-0.28	-1.41	1.13	0.89	1.35
103.20	-4.13	-0.44	-1.34	1.56	-0.22	1.50
103.40	-4.13	-0.19	-1.40	1.00	-2.48	-1.10
103.60	-4.32	-0.21	-1.37	0.77	0.52	-0.17
103.80	-4.67	-0.27	-1.40	0.29	1.51	0.92
104.00	-4.61	-0.35	-1.41	0.28	-0.55	-0.79
104.20	-4.63	-0.42	-1.36	1.28	6.16	0.83
104.40	-4.51	-0.66	-1.34	1.06	-3.33	1.05
104.60	-4.55	-0.68	-1.36	1.38	3.81	3.70
104.80	-4.24	-0.65	-1.38	1.78	0.87	0.87
105.00	-4.14	-0.79	-1.39	1.26	-0.78	1.40
105.20	-3.66	-0.84	-1.40	1.18	1.17	0.75
105.40	-3.82	-0.63	-1.39	0.22	0.45	-3.09
105.60	-4.01	-0.71	-1.36	1.55	-3.91	1.71
105.80	-3.77	-0.59	-1.40	0.82	2.06	-1.52
106.00	-3.51	-0.54	-1.38	1.83	-0.59	2.88
106.20	-3.38	-0.58	-1.35	1.99	-2.61	-0.16
106.40	-3.56	-0.60	-1.31	1.36	-0.21	-1.57
106.60	-3.69	-0.45	-1.30	1.77	-1.27	3.00
106.80	-3.51	-0.51	-1.27	0.94	2.05	-1.45
107.00	-4.30	-0.33	-1.24	0.19	-1.06	-3.61
107.20	-4.47	-0.33	-1.29	1.10	0.49	0.85
107.40	-4.74	-0.32	-1.29	1.30	0.45	2.16
107.60	-4.88	-0.27	-1.33	0.14	-2.94	-0.35
107.80	-4.81	-0.21	-1.38	1.43	-0.72	0.31
108.00	-4.90	-0.48	-1.27	1.62	-0.30	0.42
108.20	-4.52	-0.51	-1.32	1.51	-1.50	2.41
108.40	-4.33	-0.62	-1.33	1.34	-3.02	-0.54
108.60	-4.34	-0.69	-1.29	0.61	-0.12	-0.39
108.80	-4.13	-0.74	-1.29	1.14	0.38	1.26
109.00	-4.23	-0.69	-1.24	1.20	-0.13	0.19

109.20	-4.10	-0.79	-1.19	0.59	-2.49	1.84
109.40	-3.53	-0.81	-1.19	1.24	1.78	0.88
109.60	-3.42	-0.86	-1.22	2.15	0.21	2.04
109.80	-3.40	-0.81	-1.20	2.51	-3.79	4.11
110.00	-3.49	-0.66	-1.24	1.39	3.07	0.32
110.20	-3.81	-0.44	-1.27	2.20	-1.71	1.04
110.40	-3.66	-0.60	-1.29	2.03	0.51	1.12
110.60	-3.95	-0.42	-1.25	1.58	-2.16	-0.51
110.80	-4.04	-0.45	-1.27	1.75	-0.68	-0.14
111.00	-3.95	-0.45	-1.16	1.75	0.76	0.89
111.20	-4.34	-0.49	-1.12	2.56	1.37	1.12
111.40	-4.73	-0.58	-1.17	1.17	-0.80	4.08
111.60	-4.80	-0.72	-1.10	0.75	0.37	-0.66
111.80	-4.72	-0.53	-1.16	1.47	0.76	1.98
112.00	-4.56	-0.72	-1.18	0.68	-1.09	-2.46
112.20	-4.72	-0.73	-1.12	1.45	-0.38	-0.17
112.40	-4.41	-0.89	-1.12	1.69	0.89	0.85
112.60	-3.93	-0.79	-1.09	-0.33	-0.04	-4.74
112.80	-3.83	-0.84	-1.06	1.57	-0.82	-0.90
113.00	-3.97	-0.67	-1.05	1.62	-0.11	-0.42
113.20	-4.27	-0.66	-1.06	1.45	-0.30	1.82
113.40	-4.10	-0.55	-1.11	1.33	-3.42	0.86
113.60	-3.90	-0.55	-1.15	1.81	-0.44	0.20
113.80	-3.85	-0.69	-1.17	1.83	-0.35	-0.14
114.00	-3.70	-0.65	-1.14	1.47	2.72	0.03
114.20	-3.69	-0.64	-1.16	2.41	-1.09	0.82
114.40	-3.99	-0.56	-1.15	2.01	0.64	0.87
114.60	-4.01	-0.52	-1.13	1.84	-0.82	1.21
114.80	-4.27	-0.54	-1.14	1.85	-0.81	0.12
115.00	-4.24	-0.52	-1.07	1.69	-0.64	0.97
115.20	-4.40	-0.41	-1.02	2.80	-0.23	5.82
115.40	-4.31	-0.44	-0.99	0.81	0.28	-1.46
115.60	-4.45	-0.47	-0.90	1.10	0.80	2.06
115.80	-4.52	-0.41	-0.76	1.00	2.34	0.77
116.00	-4.39	-0.44	-0.69	1.28	-0.66	0.35
116.20	-4.45	-0.55	-0.65	1.35	0.75	0.95
116.40	-4.41	-0.54	-0.62	1.19	1.42	-1.40
116.60	-4.17	-0.80	-0.64	-0.12	1.51	-2.51
116.80	-3.96	-0.76	-0.66	1.38	2.70	1.05
117.00	-3.89	-0.69	-0.69	0.51	-1.43	-0.46
117.20	-3.68	-0.83	-0.76	1.02	-1.27	0.68
117.40	-3.65	-0.64	-0.90	1.34	1.85	-1.81
117.60	-3.63	-0.54	-0.98	1.96	-0.02	1.95
117.80	-3.58	-0.51	-1.00	1.13	0.04	-0.04
118.00	-3.31	-0.61	-0.97	0.85	-0.80	-2.46
118.20	-3.90	-0.31	-0.95	0.76	4.88	3.39
118.40	-3.70	-0.37	-0.90	1.45	-1.56	1.85
118.60	-3.66	-0.34	-0.94	1.50	1.02	1.28
118.80	-3.89	-0.38	-0.97	2.09	-3.40	0.78
119.00	-4.13	-0.38	-0.97	1.19	1.94	1.13

119.20	-4.44	-0.29	-1.02	1.27	2.05	-0.14
119.40	-4.47	-0.30	-1.11	1.13	-0.62	0.22
119.60	-4.52	-0.45	-1.13	1.22	-0.82	-0.09
119.80	-4.04	-0.44	-1.16	1.46	0.56	0.95
120.00	-3.84	-0.51	-1.17	1.33	-0.96	0.20
120.20	-3.83	-0.49	-1.17	1.12	0.27	-0.90
120.40	-3.73	-0.69	-1.17	1.58	0.48	-0.19
120.60	-3.79	-0.61	-1.24	1.43	0.55	0.47
120.80	-3.66	-0.54	-1.29	0.33	-0.35	0.45
121.00	-3.49	-0.50	-1.34	1.22	-1.07	-1.13
121.20	-3.15	-0.58	-1.39	1.59	-1.07	0.43
121.40	-3.61	-0.26	-1.49	1.33	-0.64	0.05
121.60	-2.89	-0.29	-1.46	1.62	-1.41	1.77
121.80	-2.75	-0.23	-1.48	1.59	-0.97	0.69
122.00	-2.96	-0.14	-1.57	1.43	1.85	0.58
122.20	-3.14	-0.24	-1.58	1.64	0.43	1.08
122.40	-3.50	-0.05	-1.63	1.31	4.78	2.39
122.60	-3.71	0.06	-1.62	0.99	0.44	-0.45
122.80	-3.84	-0.02	-1.56	1.24	-0.61	-0.39
123.00	-3.51	0.04	-1.55	0.47	0.64	-0.34
123.20	-3.98	-0.02	-1.51	-1.25	0.27	-6.77
123.40	-3.64	-0.28	-1.52	0.93	-0.03	-0.93
123.60	-3.90	-0.16	-1.63	1.11	-0.27	0.70
123.80	-4.20	-0.56	-1.69	0.74	7.08	5.59
124.00	-3.73	-0.62	-1.61	0.92	-2.47	-3.28
124.20	-3.70	-0.76	-1.43	1.19	2.31	1.89
124.40	-3.09	-0.72	-1.37	0.64	-0.47	0.90
124.60	-3.09	-0.81	-1.57	1.16	0.75	0.12
124.80	-3.02	-0.87	-1.61	0.99	-0.69	-0.53
125.00	-3.09	-0.90	-1.61	1.28	-1.90	-0.69
125.20	-3.27	-0.87	-1.55	0.11	-3.38	-0.35
125.40	-2.96	-1.10	-1.48	0.70	-0.40	-1.50
125.60	-2.89	-1.12	-1.47	0.76	2.15	0.07
125.80	-2.87	-1.01	-1.37	0.98	-3.40	0.05
126.00	-3.23	-1.04	-1.32	1.33	-1.02	0.52
126.20	-3.49	-0.96	-1.26	1.20	-0.70	0.17
126.40	-3.64	-1.07	-1.18	1.20	-0.82	-0.25
126.60	-3.71	-1.19	-1.22	0.96	-0.52	-0.18
126.80	-3.74	-1.46	-1.36	0.86	1.52	1.70
127.00	-3.94	-1.48	-1.28	0.99	-1.92	1.64
127.20	-3.69	-1.64	-1.20	0.05	-3.18	-1.00
127.40	-4.08	-1.62	-1.13	-0.30	-0.79	-1.35
127.60	-3.74	-1.88	-1.00	0.08	3.28	-2.16
127.80	-3.50	-1.94	-0.98	0.55	-2.58	0.15
128.00	-3.35	-2.23	-0.94	1.20	1.67	2.23
128.20	-3.48	-2.20	-0.87	0.91	-0.39	0.36
128.40	-3.48	-2.28	-0.87	0.93	-0.34	0.58
128.60	-3.04	-2.40	-0.81	0.73	-0.46	-0.15
128.80	-2.79	-2.35	-0.71	0.98	0.33	0.45
129.00	-2.71	-2.51	-0.71	1.19	-0.33	0.44

129.20	-2.64	-2.39	-0.69	0.90	-1.05	-0.07
129.40	-2.62	-2.41	-0.63	1.03	-1.40	-0.73
129.60	-2.65	-2.31	-0.67	0.42	-2.84	-0.90
129.80	-2.83	-2.19	-0.69	0.85	-0.62	-0.77
130.00	-2.76	-2.08	-0.65	1.21	0.72	0.76
130.20	-3.07	-1.87	-0.66	1.35	-0.03	3.68
130.40	-3.06	-1.82	-0.56	-0.02	-4.12	-1.91
130.60	-3.08	-1.69	-0.48	-0.21	-0.33	-2.90
130.80	-3.60	-1.80	-0.48	-0.59	6.54	-2.76
131.00	-3.79	-1.73	-0.45	1.30	0.93	2.41
131.20	-4.14	-1.82	-0.40	0.28	-1.90	0.21
131.40	-4.14	-1.84	-0.36	1.00	1.04	1.85
131.60	-4.17	-1.94	-0.32	-0.12	1.42	-0.83
131.80	-4.16	-2.06	-0.23	0.67	-2.82	-1.69
132.00	-3.86	-2.03	-0.24	0.52	4.68	2.08
132.20	-3.70	-1.83	-0.21	0.95	0.82	0.30
132.40	-3.60	-1.90	-0.16	0.98	0.34	1.17
132.60	-3.41	-1.90	-0.14	1.16	-0.10	1.43
132.80	-3.68	-1.88	-0.16	0.44	-1.74	-1.45
133.00	-3.64	-1.87	-0.19	0.60	0.95	0.62
133.20	-3.37	-1.86	-0.21	0.73	-1.73	-0.47
133.40	-3.69	-1.77	-0.29	1.40	1.95	0.68
133.60	-3.40	-1.69	-0.35	1.18	-1.80	0.63
133.80	-3.39	-1.53	-0.39	0.57	-1.38	-1.18
134.00	-3.60	-1.54	-0.38	0.66	1.65	-0.19
134.20	-3.91	-1.55	-0.40	0.91	-1.38	0.73
134.40	-4.10	-1.37	-0.56	0.52	-0.67	-0.91
134.60	-4.40	-1.44	-0.62	1.22	-4.11	0.76
134.80	-4.19	-1.43	-0.65	0.31	0.17	-2.01
135.00	-4.53	-1.27	-0.75	1.00	-0.32	1.63
135.20	-4.51	-1.21	-0.84	0.82	1.26	2.33
135.40	-4.54	-1.37	-0.91	1.07	0.10	0.29
135.60	-4.37	-1.31	-0.99	0.83	0.64	2.34
135.80	-4.71	-1.30	-1.04	0.62	-0.56	0.99
136.00	-4.50	-1.31	-1.04	0.84	1.01	1.57
136.20	-4.25	-1.29	-1.08	0.94	1.68	0.65
136.40	-3.79	-1.30	-1.08	1.21	-0.38	0.38
136.60	-3.68	-1.26	-1.08	1.30	-0.39	0.99
136.80	-3.88	-1.27	-1.13	1.66	-0.74	0.53
137.00	-3.72	-1.16	-1.12	1.55	-0.15	0.57
137.20	-3.42	-1.14	-1.12	1.49	0.39	1.29
137.40	-3.52	-0.90	-1.09	1.26	0.46	0.44
137.60	-3.88	-0.80	-1.09	1.44	-0.94	0.53
137.80	-3.67	-0.79	-1.10	0.84	-0.89	0.16
138.00	-3.83	-0.63	-1.17	1.02	-0.28	2.60
138.20	-3.70	-0.27	-1.22	0.18	-5.30	-1.21
138.40	-3.40	-0.11	-1.32	1.11	-1.78	1.21
138.60	-3.46	-0.24	-1.36	0.79	-1.37	-0.82
138.80	-3.91	-0.30	-1.44	1.25	-1.63	0.65
139.00	-4.21	-0.47	-1.49	1.24	1.02	0.70

139.20	-3.92	-0.68	-1.41	0.82	-3.33	-0.29
139.40	-3.87	-0.59	-1.26	0.76	2.58	0.03
139.60	-3.93	-0.59	-1.06	1.09	0.72	-0.39
139.80	-3.63	-0.41	-0.92	-0.06	-1.29	-2.85
140.00	-3.81	-0.43	-0.84	1.26	0.16	-0.89
140.20	-3.97	-0.37	-0.77	1.07	-1.18	0.25
140.40	-3.86	-0.38	-0.75	0.50	-2.42	0.38
140.60	-3.82	-0.50	-0.72	0.38	0.06	-2.47
140.80	-3.57	-0.39	-0.66	1.17	-1.86	-0.27
141.00	-3.40	-0.46	-0.61	0.69	0.66	-0.53
141.20	-3.41	-0.34	-0.55	0.04	-1.35	-3.65
141.40	-3.26	-0.26	-0.55	0.02	-1.18	-0.47
141.60	-3.42	-0.22	-0.60	1.11	0.24	0.42
141.80	-3.81	-0.24	-0.59	1.57	-1.42	-0.27
142.00	-4.01	-0.36	-0.61	1.08	0.04	3.41
142.20	-3.79	-0.27	-0.59	0.69	0.65	-0.54
142.40	-4.00	-0.18	-0.63	1.26	5.69	-0.09
142.60	-4.17	-0.28	-0.64	1.00	-2.84	0.30
142.80	-4.22	-0.30	-0.63	0.97	2.65	2.64
143.00	-4.01	-0.36	-0.68	0.68	-1.78	-0.51
143.20	-4.33	-0.45	-0.64	-0.10	1.41	-4.04
143.40	-4.52	-0.77	-0.59	1.25	4.48	-0.61
143.60	-4.35	-0.77	-0.60	1.35	-1.04	2.83
143.80	-4.16	-0.96	-0.64	0.49	-1.70	-2.05
144.00	-3.92	-1.08	-0.75	0.40	0.14	-1.87
144.20	-3.67	-0.93	-0.83	0.25	-1.28	0.05
144.40	-3.59	-1.02	-0.93	0.58	0.27	-0.46
144.60	-3.36	-0.99	-1.00	1.67	3.45	1.50
144.80	-3.45	-0.91	-0.99	0.94	-0.87	-0.79
145.00	-3.49	-0.90	-0.94	1.60	-0.81	0.51
145.20	-3.45	-0.87	-0.91	1.21	-3.34	-0.33
145.40	-3.68	-0.74	-0.88	0.64	0.22	-0.73
145.60	-3.64	-0.72	-0.88	1.48	-0.24	-0.27
145.80	-3.66	-0.58	-0.86	-1.38	1.78	-5.76
146.00	-3.30	-0.76	-0.73	0.93	-1.16	0.06
146.20	-3.63	-0.70	-0.78	1.71	-1.60	0.68
146.40	-3.66	-0.72	-0.76	0.40	-3.79	-1.02
146.60	-3.99	-0.62	-0.76	0.15	2.02	-3.96
146.80	-4.23	-0.56	-0.79	0.48	-1.68	-1.50
147.00	-4.14	-0.59	-0.76	0.17	-1.03	-1.36
147.20	-4.09	-0.73	-0.76	0.52	0.21	-0.79
147.40	-4.16	-0.74	-0.81	-0.47	2.11	-2.55
147.60	-4.16	-0.67	-0.85	0.70	0.18	3.97
147.80	-4.07	-0.67	-0.78	0.37	-0.10	-2.96
148.00	-3.88	-0.74	-0.82	0.87	4.07	-0.25
148.20	-3.83	-0.78	-0.85	0.67	-1.04	0.06
148.40	-3.77	-0.79	-0.83	-0.01	-1.54	-3.12
148.60	-3.75	-0.76	-0.91	0.35	1.54	-0.78
148.80	-3.33	-0.73	-0.95	0.97	-0.76	0.02
149.00	-3.24	-0.69	-0.92	1.73	0.04	-0.77

149.20	-3.52	-0.68	-0.94	1.42	-0.10	2.03
149.40	-3.21	-0.56	-0.84	1.14	-3.45	1.89
149.60	-3.50	-0.52	-0.85	0.03	-2.25	-0.67
149.80	-3.77	-0.58	-0.92	-0.14	-1.49	-1.14
150.00	-3.67	-0.63	-0.85	0.15	-3.48	-1.15
150.20	-3.68	-0.71	-0.86	0.76	0.42	-1.52
150.40	-3.82	-0.55	-0.88	1.35	-3.52	3.23
150.60	-3.80	-0.66	-0.90	1.14	-2.72	1.61
150.80	-3.80	-0.75	-0.87	1.19	-2.43	-1.19
151.00	-3.96	-0.64	-0.91	0.17	-2.74	-1.80
151.20	-4.13	-0.53	-0.89	0.71	-1.90	-0.81
151.40	-4.29	-0.62	-0.85	1.59	-0.83	1.16
151.60	-4.12	-0.55	-0.83	1.19	-1.20	1.17
151.80	-3.96	-0.55	-0.79	1.44	0.83	1.27
152.00	-3.86	-0.56	-0.77	1.36	-0.46	-0.15
152.20	-3.70	-0.58	-0.78	1.32	-0.61	1.51
152.40	-3.69	-0.55	-0.78	0.79	-1.59	0.21
152.60	-3.45	-0.61	-0.71	0.34	-2.87	-1.33
152.80	-3.82	-0.55	-0.76	1.32	0.09	1.89
153.00	-3.56	-0.60	-0.79	0.85	-1.97	-1.34
153.20	-3.56	-0.58	-0.79	0.52	-3.37	-0.14
153.40	-3.61	-0.55	-0.79	1.81	-0.98	0.51
153.60	-3.72	-0.55	-0.84	0.82	-1.56	-0.12
153.80	-3.99	-0.59	-0.84	0.89	-4.73	-0.52
154.00	-3.99	-0.54	-0.87	1.32	-0.35	-0.28
154.20	-4.15	-0.44	-0.89	0.46	0.85	1.89
154.40	-4.38	-0.54	-0.91	0.77	-1.41	0.00
154.60	-4.26	-0.51	-0.94	1.42	0.50	-0.06
154.80	-4.31	-0.63	-1.01	1.47	1.26	2.50
155.00	-4.09	-0.62	-1.04	0.74	-1.46	0.25
155.20	-4.24	-0.66	-1.06	0.48	0.11	-1.16
155.40	-4.24	-0.52	-1.07	0.98	0.15	0.19
155.60	-4.16	-0.58	-1.05	0.61	0.48	-1.44
155.80	-4.06	-0.48	-0.97	1.16	-2.29	1.65
156.00	-3.91	-0.51	-0.98	0.88	0.74	-0.63
156.20	-3.95	-0.39	-0.98	0.76	-0.47	-1.04
156.40	-3.80	-0.45	-0.97	1.14	-1.37	-0.57
156.60	-3.49	-0.62	-1.03	1.25	-2.07	-0.55
156.80	-3.50	-0.61	-1.01	-0.24	-0.93	-3.00
157.00	-3.41	-0.59	-0.97	0.68	2.03	-0.78
157.20	-3.83	-0.55	-0.99	1.94	-2.28	5.16
157.40	-3.91	-0.50	-1.00	1.81	-1.40	0.66
157.60	-3.80	-0.54	-0.97	0.82	-1.28	1.73
157.80	-3.75	-0.46	-0.91	0.54	-4.58	0.31
158.00	-3.98	-0.38	-0.96	1.40	-0.96	1.27
158.20	-3.87	-0.59	-0.93	1.41	-1.04	0.51
158.40	-4.20	-0.58	-1.01	1.48	0.50	0.59
158.60	-4.52	-0.51	-0.96	0.90	-0.86	-0.28
158.80	-4.30	-0.39	-0.96	1.11	-0.98	2.86
159.00	-4.27	-0.49	-0.97	-0.95	-2.47	-4.47

159.20	-4.08	-0.61	-0.88	-0.45	1.65	-2.79
159.40	-4.23	-0.64	-0.85	1.12	2.27	0.95
159.60	-4.13	-0.58	-0.86	1.68	-2.63	4.38
159.80	-4.11	-0.62	-0.84	1.21	-0.92	0.48
160.00	-3.98	-0.59	-0.86	1.46	-1.03	0.15
160.20	-3.83	-0.58	-0.84	1.58	-0.27	0.37
160.40	-4.07	-0.56	-0.81	0.91	-5.01	0.22
160.60	-4.05	-0.49	-0.82	1.08	-4.06	0.26
160.80	-3.79	-0.45	-0.84	1.00	-2.94	-0.64
161.00	-3.55	-0.51	-0.81	0.71	-0.89	-1.10
161.20	-3.78	-0.49	-0.74	1.72	-0.91	0.50
161.40	-4.16	-0.45	-0.77	1.43	-1.17	0.20
161.60	-4.03	-0.27	-0.73	0.75	0.35	-0.45
161.80	-4.08	-0.33	-0.66	-0.18	1.86	0.21
162.00	-4.48	-0.33	-0.72	-0.09	-3.43	-3.59
162.20	-4.62	-0.23	-0.73	1.24	-0.33	-0.04
162.40	-4.51	-0.38	-0.71	1.30	1.21	-0.62
162.60	-4.31	-0.38	-0.72	0.85	-1.56	-1.71
162.80	-4.35	-0.29	-0.77	1.01	0.06	0.52
163.00	-4.47	-0.44	-0.76	0.91	0.21	0.08
163.20	-4.55	-0.43	-0.81	0.29	1.99	-0.43
163.40	-4.47	-0.27	-0.90	1.31	1.59	0.54
163.60	-4.11	-0.49	-0.87	1.40	-1.13	0.72
163.80	-4.12	-0.39	-0.83	1.44	-1.29	0.26
164.00	-3.94	-0.52	-0.82	1.47	-0.25	0.75
164.20	-3.94	-0.57	-0.82	1.40	-0.37	0.03
164.40	-3.88	-0.54	-0.78	1.52	0.14	0.47
164.60	-4.03	-0.51	-0.78	1.10	-1.98	-2.11
164.80	-3.91	-0.41	-0.78	0.53	-0.63	-2.38
165.00	-3.79	-0.45	-0.77	1.77	2.15	2.34
165.20	-3.96	-0.27	-0.76	1.59	-1.84	0.45
165.40	-3.97	-0.39	-0.77	1.52	-0.84	0.53
165.60	-3.98	-0.39	-0.75	1.35	-0.67	-0.26
165.80	-4.13	-0.42	-0.79	1.47	-0.36	0.68
166.00	-4.20	-0.47	-0.84	1.25	-0.71	0.06
166.20	-4.35	-0.52	-0.88	1.30	-0.06	-0.20
166.40	-4.45	-0.81	-0.90	0.66	-3.40	0.98
166.60	-4.43	-0.66	-0.95	1.78	2.23	6.30
166.80	-4.17	-0.82	-1.03	-0.05	-1.24	-3.46
167.00	-4.06	-0.85	-1.04	1.51	-0.70	0.08
167.20	-4.16	-0.98	-1.01	1.21	-0.19	0.09
167.40	-4.24	-0.99	-1.04	1.51	-3.63	2.20
167.60	-3.83	-0.95	-0.99	1.33	1.21	-0.20
167.80	-4.13	-0.94	-1.01	1.37	-0.55	0.13
168.00	-3.96	-0.91	-1.00	1.54	0.05	0.48
168.20	-3.83	-0.97	-1.05	1.46	0.14	0.23
168.40	-3.37	-0.99	-0.99	1.44	-0.83	-0.30
168.60	-3.46	-0.87	-1.02	1.69	-0.01	2.36
168.80	-3.53	-0.79	-1.05	1.08	0.92	0.14
169.00	-3.67	-0.91	-1.06	1.47	-0.30	1.52

169.20	-3.70	-0.87	-1.08	1.76	-0.62	0.44
169.40	-3.98	-0.76	-1.15	1.19	-1.52	3.58
169.60	-3.66	-0.72	-1.09	1.26	-2.42	1.53
169.80	-3.89	-0.73	-1.11	1.54	-0.64	0.42
170.00	-3.95	-0.75	-1.15	1.57	1.14	1.84
170.20	-4.01	-0.83	-1.16	1.64	-0.07	-0.62
170.40	-3.86	-0.73	-1.11	1.12	-1.68	-0.35
170.60	-4.25	-0.54	-1.19	1.04	-2.28	0.46
170.80	-3.90	-0.76	-1.17	1.44	-2.71	0.90
171.00	-3.77	-0.61	-1.13	0.92	-0.60	-0.86
171.20	-3.69	-0.66	-1.13	1.52	-0.79	0.50
171.40	-3.37	-0.53	-1.13	1.30	-1.30	0.56
171.60	-3.77	-0.52	-1.12	1.37	-1.60	2.42
171.80	-3.66	-0.44	-1.14	1.52	-0.43	0.46
172.00	-3.70	-0.49	-1.14	1.53	-1.54	0.69
172.20	-3.59	-0.55	-1.10	1.26	-1.15	2.91
172.40	-3.75	-0.55	-1.09	1.61	-1.60	0.78
172.60	-3.55	-0.54	-1.10	1.56	-1.28	0.63
172.80	-3.60	-0.46	-1.07	1.41	1.12	0.70
173.00	-3.52	-0.41	-1.04	0.12	-2.90	-1.35
173.20	-3.79	-0.45	-1.04	1.50	-0.86	-0.19
173.40	-3.95	-0.41	-1.01	1.18	-0.18	0.55
173.60	-4.19	-0.31	-1.02	1.46	1.97	6.58
173.80	-4.33	-0.46	-1.01	1.12	-2.26	0.01
174.00	-4.07	-0.45	-0.98	1.48	-2.20	0.07
174.20	-4.14	-0.50	-0.98	1.38	1.41	0.56
174.40	-4.12	-0.55	-1.00	1.35	6.12	1.71
174.60	-3.84	-0.58	-0.95	0.69	0.42	-0.44
174.80	-4.22	-0.59	-0.94	1.27	1.54	1.46
175.00	-4.02	-0.62	-0.96	0.94	-0.90	2.43
175.20	-4.04	-0.52	-0.90	0.40	0.23	-1.55
175.40	-4.16	-0.48	-0.90	0.86	1.80	0.25
175.60	-4.06	-0.45	-0.89	1.63	0.27	2.08
175.80	-3.92	-0.49	-0.84	1.13	-1.77	-0.34
176.00	-3.72	-0.45	-0.81	0.99	0.39	-1.39
176.20	-3.71	-0.54	-0.82	1.47	0.37	1.16
176.40	-3.57	-0.45	-0.83	2.10	-1.91	-0.28
176.60	-3.82	-0.55	-0.87	1.25	-0.85	1.04
176.80	-3.89	-0.25	-0.88	-1.41	-2.14	-8.22
177.00	-3.75	-0.22	-0.85	1.42	-1.17	0.11
177.20	-3.75	-0.34	-0.88	0.72	-2.38	-1.90
177.40	-4.00	-0.14	-0.90	1.04	0.57	-0.22
177.60	-3.90	-0.18	-0.87	1.62	1.56	0.83
177.80	-4.02	-0.15	-0.90	0.94	-1.82	-1.12
178.00	-3.81	-0.22	-0.86	1.57	-0.68	0.94
178.20	-4.09	-0.18	-0.84	1.44	1.24	1.52
178.40	-4.39	-0.20	-0.90	1.04	0.09	-0.21
178.60	-4.02	-0.13	-0.87	1.40	-1.42	0.11
178.80	-4.26	-0.31	-0.94	1.05	1.84	1.18
179.00	-3.95	-0.32	-0.96	0.55	-0.38	-2.21

179.20	-3.98	-0.38	-0.93	0.94	-3.09	-0.89
179.40	-3.88	-0.55	-0.94	1.22	-0.92	1.77
179.60	-3.90	-0.48	-0.93	1.89	-0.59	1.04
179.80	-4.04	-0.57	-0.99	1.43	1.30	1.77
180.00	-3.76	-0.57	-0.97	1.29	-3.28	2.80
180.20	-3.81	-0.56	-1.02	0.65	-2.01	0.25
180.40	-3.83	-0.58	-1.07	1.06	-1.36	2.89
180.60	-3.50	-0.63	-1.06	1.29	-1.78	1.10
180.80	-3.52	-0.57	-1.12	2.30	1.16	1.47
181.00	-3.84	-0.58	-1.14	1.31	1.62	1.22
181.20	-3.89	-0.58	-1.17	1.86	-0.70	1.61
181.40	-3.77	-0.52	-1.11	1.36	-3.30	0.39
181.60	-3.86	-0.64	-1.09	0.95	-0.41	0.34
181.80	-4.06	-0.61	-1.07	1.12	-2.25	-0.03
182.00	-3.99	-0.71	-1.07	0.97	1.73	-0.85
182.20	-4.07	-0.67	-1.06	0.88	-0.03	-0.12
182.40	-4.27	-0.75	-1.05	1.33	0.04	0.81
182.60	-4.15	-0.70	-1.00	0.97	-1.94	-2.17
182.80	-4.10	-0.68	-0.99	0.99	-2.12	-1.06
183.00	-4.07	-0.79	-0.99	1.35	0.52	0.38
183.20	-4.12	-0.83	-1.01	1.15	0.41	-1.28
183.40	-3.57	-0.84	-0.98	1.46	0.67	0.29
183.60	-3.57	-0.61	-0.96	1.48	3.58	0.99
183.80	-3.63	-0.60	-0.97	1.27	0.12	-1.48
184.00	-3.80	-0.57	-0.94	1.42	-0.47	0.59
184.20	-3.78	-0.50	-0.93	1.45	0.95	1.34
184.40	-3.85	-0.47	-0.97	1.51	-1.00	-0.21
184.60	-3.77	-0.44	-0.92	0.92	-0.34	5.05
184.80	-3.69	-0.38	-0.91	0.63	-2.32	-1.02
185.00	-3.73	-0.36	-0.90	1.07	-0.70	1.35
185.20	-3.89	-0.28	-0.92	1.33	-0.65	1.36
185.40	-3.87	-0.39	-0.92	1.06	-1.28	0.27
185.60	-3.96	-0.21	-0.89	1.55	-0.59	0.21
185.80	-4.14	-0.22	-0.94	1.58	-0.47	0.20
186.00	-3.97	-0.08	-0.97	0.81	0.11	-0.13
186.20	-4.20	-0.14	-1.00	1.43	-0.55	0.74
186.40	-3.95	-0.23	-0.97	1.45	-1.40	0.69
186.60	-3.76	-0.26	-0.94	0.62	3.14	2.14
186.80	-3.87	-0.23	-0.96	1.42	-0.37	1.48
187.00	-3.77	-0.24	-1.02	1.39	0.66	-1.00
187.20	-3.92	-0.28	-1.02	1.52	1.29	1.48
187.40	-4.11	-0.25	-1.03	0.78	1.06	-1.27
187.60	-3.76	-0.28	-0.95	0.63	-3.23	-0.67
187.80	-3.71	-0.14	-0.95	1.33	0.36	2.95
188.00	-3.54	-0.15	-0.96	1.76	-1.13	0.11
188.20	-3.85	-0.18	-0.94	1.14	0.96	0.00
188.40	-3.78	-0.09	-0.94	1.23	-1.23	-1.59
188.60	-3.92	-0.12	-0.98	1.64	-0.21	1.07
188.80	-3.79	-0.20	-0.97	1.55	-0.14	-0.37
189.00	-3.96	-0.17	-1.01	1.65	-0.01	-0.25

189.20	-3.90	-0.13	-0.99	1.66	-0.49	0.37
189.40	-4.03	-0.18	-1.00	1.44	0.70	0.85
189.60	-4.23	-0.16	-1.03	1.48	0.74	-0.06
189.80	-4.20	-0.08	-1.01	1.17	-1.09	-0.99
190.00	-4.22	-0.11	-1.02	1.28	-1.99	0.18
190.20	-4.08	-0.18	-1.02	1.48	-2.62	1.72
190.40	-4.03	-0.27	-1.06	1.40	-0.96	0.74
190.60	-4.03	-0.25	-1.09	2.07	1.05	2.88
190.80	-3.88	-0.21	-1.15	1.66	-2.70	1.03
191.00	-3.78	-0.26	-1.20	1.00	-0.35	0.27
191.20	-3.52	-0.28	-1.19	1.62	0.26	0.26
191.40	-3.61	-0.37	-1.22	1.58	1.13	-0.50
191.60	-3.24	-0.31	-1.18	1.20	-0.71	-1.09
191.80	-3.44	-0.21	-1.16	1.71	-2.13	1.61
192.00	-3.50	-0.14	-1.19	1.34	-0.29	0.34
192.20	-3.66	-0.04	-1.16	1.60	0.55	1.37
192.40	-3.76	-0.11	-1.13	1.16	-3.72	0.98
192.60	-3.73	-0.27	-1.13	1.47	1.48	2.97
192.80	-3.67	-0.16	-1.16	1.91	1.07	3.50
193.00	-3.53	-0.10	-1.18	1.54	-0.96	0.49
193.20	-3.91	-0.15	-1.28	1.67	-0.34	0.53
193.40	-4.02	-0.16	-1.32	1.47	-0.07	0.46
193.60	-3.73	-0.40	-1.37	0.78	-0.34	-0.95
193.80	-3.70	-0.48	-1.45	1.22	-0.49	-0.72
194.00	-3.72	-0.45	-1.43	1.56	0.26	1.38
194.20	-3.70	-0.53	-1.38	0.67	-1.62	2.44
194.40	-3.49	-0.42	-1.37	1.47	-2.99	-0.71
194.60	-3.69	-0.42	-1.34	1.28	-1.55	-0.89
194.80	-3.56	-0.24	-1.25	1.66	-0.79	0.57
195.00	-3.83	-0.23	-1.28	1.10	-1.49	0.59
195.20	-3.73	-0.41	-1.27	0.50	-0.35	-1.67
195.40	-3.64	-0.42	-1.16	1.61	-3.00	-0.41
195.60	-3.62	-0.34	-1.17	1.41	-0.28	0.80
195.80	-3.73	-0.21	-1.11	1.56	-0.08	-0.21
196.00	-3.60	-0.26	-1.08	1.58	-0.96	0.78
196.20	-3.81	-0.20	-1.07	1.95	0.77	0.33
196.40	-3.73	-0.24	-1.01	0.56	-1.96	-2.62
196.60	-3.99	-0.23	-1.03	1.25	-0.62	0.80
196.80	-4.01	-0.25	-1.00	1.52	-1.38	-1.22
197.00	-3.88	-0.13	-0.96	0.32	2.29	-0.29
197.20	-3.68	-0.27	-0.93	1.99	-3.07	0.30
197.40	-4.14	-0.16	-0.99	1.04	-0.23	-1.01
197.60	-4.10	-0.25	-1.02	0.82	3.33	-0.16
197.80	-3.97	-0.20	-1.02	1.74	-0.72	0.60
198.00	-4.11	-0.25	-1.07	1.60	0.49	3.16
198.20	-4.09	-0.24	-1.09	1.04	-0.09	-1.69
198.40	-4.09	-0.20	-1.04	1.61	2.85	-0.22
198.60	-3.83	-0.40	-1.03	-0.77	0.05	-1.99
198.80	-3.78	-0.32	-1.01	1.60	0.62	1.62
199.00	-3.75	-0.38	-0.99	0.39	-1.29	-4.71

199.20	-3.90	-0.26	-1.06	1.49	-0.91	1.49
199.40	-3.68	-0.28	-1.00	1.79	-2.86	1.45
199.60	-3.68	-0.19	-1.04	0.79	-3.44	-2.10
199.80	-3.78	-0.15	-0.99	1.53	-0.95	-0.20
200.00	-3.73	-0.18	-0.97	1.66	-0.60	-0.33
200.20	-3.70	-0.05	-0.97	1.55	-0.44	0.86
200.40	-3.83	0.05	-0.96	1.94	-1.18	4.56
200.60	-3.76	0.06	-0.94	1.38	-0.39	1.64
200.80	-3.95	-0.03	-0.91	1.87	1.05	3.97
201.00	-4.16	0.09	-0.91	0.42	-2.70	-2.86
201.20	-4.23	0.01	-0.90	0.36	0.30	-2.57
201.40	-4.12	-0.01	-0.92	0.95	-1.53	-0.62
201.60	-4.30	0.00	-0.91	1.83	-1.46	2.40
201.80	-4.15	-0.16	-0.90	1.36	-2.10	0.74
202.00	-4.28	-0.17	-0.90	1.37	-2.07	0.11
202.20	-4.13	-0.37	-0.90	1.60	2.37	1.30
202.40	-4.00	-0.31	-0.88	1.08	1.70	0.21
202.60	-4.09	-0.27	-0.88	1.20	1.27	1.01
202.80	-4.09	-0.31	-0.93	0.50	-2.36	-0.20
203.00	-3.87	-0.38	-0.99	0.72	-1.44	-0.61
203.20	-3.85	-0.40	-0.95	1.52	-3.51	3.25
203.40	-3.87	-0.50	-0.92	1.35	-0.76	0.42
203.60	-3.74	-0.46	-0.95	1.19	-0.38	-0.86
203.80	-3.79	-0.50	-0.98	1.12	-0.67	-0.83
204.00	-3.92	-0.57	-0.99	1.23	-1.30	0.58
204.20	-3.93	-0.52	-0.97	1.11	1.29	-1.27
204.40	-4.04	-0.59	-1.02	1.44	-1.51	-0.03
204.60	-3.95	-0.72	-1.06	1.11	-1.45	-2.06
204.80	-4.03	-0.59	-1.05	1.17	-1.11	1.61
205.00	-3.84	-0.56	-1.02	1.14	0.76	0.85
205.20	-3.91	-0.70	-1.06	1.39	-3.99	0.97
205.40	-4.10	-0.71	-1.04	0.28	0.97	-0.39
205.60	-4.01	-0.67	-1.01	1.51	1.35	2.43
205.80	-4.03	-0.56	-0.99	1.64	-0.88	2.55
206.00	-3.97	-0.58	-1.00	0.71	-4.56	1.12
206.20	-3.75	-0.41	-1.00	1.57	0.76	1.13
206.40	-3.90	-0.56	-1.01	1.03	2.07	1.01
206.60	-3.93	-0.66	-1.03	1.32	4.09	-1.15
206.80	-4.01	-0.56	-1.04	0.67	-0.11	-2.40
207.00	-3.86	-0.61	-1.06	1.00	-0.42	-0.35
207.20	-3.58	-0.68	-1.05	1.49	-0.81	0.47
207.40	-3.61	-0.85	-1.05	1.43	-2.26	0.36
207.60	-3.47	-0.60	-1.01	1.55	-2.30	0.81
207.80	-3.41	-0.72	-0.98	1.56	2.96	1.81
208.00	-3.57	-0.53	-0.97	1.46	0.92	0.36
208.20	-3.78	-0.60	-1.02	1.64	-0.72	1.21
208.40	-3.90	-0.69	-1.04	1.57	-3.47	3.24
208.60	-3.93	-0.64	-1.05	1.13	-0.59	-0.82
208.80	-3.71	-0.63	-1.05	1.72	-2.51	-0.45
209.00	-3.54	-0.65	-1.04	1.12	0.13	-0.10

209.20	-3.76	-0.57	-1.06	1.35	-1.19	1.07
209.40	-3.79	-0.69	-1.08	1.43	-1.80	1.77
209.60	-3.76	-0.59	-1.05	1.68	-1.56	1.38
209.80	-3.70	-0.64	-1.07	1.31	-0.76	2.21
210.00	-4.01	-0.74	-1.08	1.28	0.32	-0.86
210.20	-3.85	-0.76	-1.06	1.54	-1.37	0.29
210.40	-3.78	-0.79	-1.07	1.38	-0.78	0.02
210.60	-3.72	-0.79	-1.04	1.48	-1.03	0.14
210.80	-3.73	-0.79	-1.02	1.58	2.46	1.34
211.00	-3.45	-0.88	-1.00	1.83	1.56	2.56
211.20	-3.36	-0.83	-0.94	1.34	-1.51	-0.29
211.40	-3.54	-0.77	-0.98	1.23	-2.21	1.86
211.60	-3.68	-0.85	-0.99	0.89	-1.65	-2.04
211.80	-3.92	-0.75	-0.94	1.44	-0.81	0.19
212.00	-3.59	-0.69	-0.87	1.64	-0.83	0.29
212.20	-3.74	-0.70	-0.89	1.60	0.03	0.68
212.40	-3.59	-0.74	-0.90	0.40	-0.38	0.71
212.60	-3.60	-0.80	-0.89	1.64	2.44	2.15
212.80	-4.08	-0.70	-0.95	0.64	0.51	-1.99
213.00	-3.84	-0.77	-0.92	2.19	0.92	2.79
213.20	-3.66	-0.83	-0.92	1.03	0.91	-0.02
213.40	-3.78	-0.87	-0.92	1.14	-0.74	-0.38
213.60	-3.86	-0.76	-0.89	1.43	-0.10	0.68
213.80	-3.85	-0.85	-0.85	0.81	3.24	-0.64
214.00	-3.71	-0.90	-0.85	0.97	-0.88	0.32
214.20	-3.75	-0.86	-0.88	1.71	-1.47	2.40
214.40	-3.85	-0.84	-0.90	0.75	2.43	-0.45
214.60	-3.78	-0.71	-0.89	1.05	-1.04	0.02
214.80	-3.56	-0.77	-0.90	1.59	-0.57	0.33
215.00	-3.20	-0.89	-0.87	0.63	0.85	-0.87
215.20	-3.45	-0.57	-0.87	1.87	-0.87	0.80
215.40	-3.51	-0.65	-0.88	1.72	-0.05	0.15
215.60	-3.46	-0.63	-0.84	2.31	2.11	3.06
215.80	-3.46	-0.55	-0.82	1.61	-1.19	0.04
216.00	-3.69	-0.55	-0.83	1.68	-1.26	-0.02
216.20	-3.66	-0.55	-0.78	1.67	-1.94	-1.02
216.40	-3.68	-0.55	-0.73	1.47	-0.07	-0.21
216.60	-3.59	-0.53	-0.72	1.42	-0.55	0.96
216.80	-3.63	-0.52	-0.67	1.34	-3.35	0.96
217.00	-3.93	-0.67	-0.67	1.77	-1.85	2.42
217.20	-3.87	-0.56	-0.72	1.29	2.60	1.32
217.40	-3.66	-0.53	-0.70	1.51	-0.67	-0.23
217.60	-3.82	-0.65	-0.72	1.66	-0.68	0.10
217.80	-3.95	-0.58	-0.73	1.44	-0.44	0.63
218.00	-3.84	-0.66	-0.78	1.51	-0.34	0.08
218.20	-3.64	-0.59	-0.81	1.52	-0.72	-0.20
218.40	-3.45	-0.54	-0.77	1.35	-0.56	0.49
218.60	-3.56	-0.65	-0.76	0.73	-5.12	1.66
218.80	-3.47	-0.59	-0.78	1.20	-1.62	0.12
219.00	-3.38	-0.56	-0.76	1.28	-0.45	0.18

219.20	-3.38	-0.65	-0.75	1.64	-0.28	0.60
219.40	-3.46	-0.55	-0.78	1.84	-0.31	0.86
219.60	-3.24	-0.63	-0.74	1.14	0.63	0.48
219.80	-3.31	-0.65	-0.73	1.93	1.38	0.67
220.00	-3.38	-0.53	-0.72	1.12	-0.33	-0.80
220.20	-3.24	-0.51	-0.69	1.04	1.47	1.13
220.40	-3.44	-0.43	-0.69	1.80	-1.93	1.14
220.60	-3.53	-0.51	-0.71	1.82	-0.86	1.24
220.80	-3.64	-0.50	-0.69	1.31	-0.24	1.38
221.00	-3.69	-0.39	-0.65	1.49	-0.94	0.33
221.20	-3.76	-0.39	-0.66	1.67	-0.99	1.23
221.40	-3.49	-0.39	-0.60	0.85	0.50	-0.84
221.60	-3.64	-0.42	-0.58	0.76	-2.31	0.82
221.80	-3.65	-0.48	-0.58	0.93	-2.69	-0.03
222.00	-3.55	-0.52	-0.55	1.42	-0.52	-0.12
222.20	-3.70	-0.49	-0.52	1.55	-2.18	-0.77
222.40	-3.47	-0.45	-0.52	1.41	-1.09	0.05
222.60	-3.36	-0.54	-0.55	1.51	-0.82	-0.24
222.80	-3.54	-0.62	-0.55	1.34	0.46	1.27
223.00	-3.43	-0.65	-0.58	1.46	-0.77	-0.28
223.20	-3.40	-0.70	-0.61	1.57	-0.95	0.14
223.40	-3.33	-0.78	-0.59	1.47	-2.08	0.21
223.60	-3.31	-0.76	-0.59	0.98	-1.27	-0.13
223.80	-3.09	-0.68	-0.59	0.91	1.24	-0.23
224.00	-3.45	-0.72	-0.62	1.48	-0.41	-0.08
224.20	-3.09	-0.83	-0.63	1.80	-0.78	0.65
224.40	-3.34	-0.81	-0.66	0.55	-0.12	0.71
224.60	-3.29	-0.82	-0.63	1.16	-0.55	0.09
224.80	-3.31	-0.82	-0.63	1.45	-2.42	-0.37
225.00	-3.36	-0.87	-0.64	1.46	-1.26	-0.03
225.20	-3.35	-0.77	-0.62	1.51	-0.70	0.44
225.40	-3.36	-0.64	-0.62	1.44	-1.03	0.15
225.60	-3.55	-0.71	-0.61	1.37	-1.31	0.85
225.80	-3.24	-0.75	-0.61	0.03	0.28	-2.68
226.00	-3.23	-0.67	-0.60	1.41	-0.73	3.08
226.20	-3.31	-0.73	-0.59	1.03	-2.37	-1.83
226.40	-3.45	-0.75	-0.62	1.41	2.04	3.61
226.60	-3.41	-0.80	-0.62	1.71	-0.07	1.27
226.80	-3.12	-0.71	-0.61	0.94	-1.68	-2.05
227.00	-3.27	-0.79	-0.62	1.41	-0.71	-0.19
227.20	-3.24	-0.65	-0.59	0.80	-1.19	-1.89
227.40	-3.29	-0.73	-0.67	1.58	-0.79	-0.02
227.60	-3.21	-0.56	-0.66	1.72	-1.16	0.69
227.80	-3.30	-0.69	-0.66	1.63	-0.25	0.57
228.00	-3.43	-0.71	-0.68	1.29	-1.38	1.52
228.20	-3.31	-0.59	-0.63	1.42	-1.45	1.00
228.40	-3.49	-0.60	-0.65	0.63	-1.62	-1.59
228.60	-3.58	-0.71	-0.66	1.09	-0.56	1.59
228.80	-3.62	-0.67	-0.62	1.37	-1.92	-0.18
229.00	-3.57	-0.58	-0.64	1.10	1.52	1.25

229.20	-3.34	-0.60	-0.62	-0.21	-3.24	-2.94
229.40	-3.40	-0.57	-0.63	1.35	-0.37	0.01
229.60	-3.55	-0.52	-0.64	1.39	-0.14	0.70
229.80	-3.47	-0.64	-0.66	1.59	-3.45	1.34
230.00	-3.53	-0.68	-0.70	0.70	-2.97	2.41
230.20	-3.54	-0.70	-0.70	1.01	-1.82	-0.93
230.40	-3.36	-0.86	-0.74	1.38	0.13	0.70
230.60	-3.25	-0.87	-0.70	1.83	-2.54	0.56
230.80	-3.02	-0.88	-0.67	1.21	2.75	1.41
231.00	-2.88	-0.94	-0.68	-0.45	-0.15	-3.00
231.20	-3.23	-0.87	-0.66	1.73	-0.97	0.11
231.40	-3.16	-0.92	-0.65	1.44	-1.00	-0.46
231.60	-2.96	-1.05	-0.62	1.74	0.18	0.13
231.80	-3.31	-0.84	-0.62	1.60	0.36	2.58
232.00	-3.20	-0.91	-0.62	1.05	-1.76	-0.70
232.20	-3.36	-0.95	-0.62	1.14	-1.73	-0.02
232.40	-3.24	-0.93	-0.60	1.12	-0.41	2.94
232.60	-3.47	-0.92	-0.64	1.33	1.42	0.29
232.80	-3.42	-0.85	-0.60	1.40	-0.96	1.28
233.00	-3.42	-0.89	-0.57	1.38	-0.04	0.04
233.20	-3.40	-0.89	-0.58	1.80	1.59	3.43
233.40	-3.32	-0.81	-0.54	1.26	-4.71	1.11
233.60	-3.22	-0.94	-0.56	1.26	0.29	1.50
233.80	-3.28	-0.95	-0.51	0.88	1.50	1.05
234.00	-3.33	-0.90	-0.52	1.39	-1.29	0.25
234.20	-3.27	-0.95	-0.50	1.63	-1.20	0.89
234.40	-3.35	-0.92	-0.49	1.48	-4.18	-0.17
234.60	-3.33	-0.91	-0.49	-0.65	0.60	-5.11
234.80	-3.27	-0.92	-0.50	0.42	-1.03	-5.46
235.00	-2.83	-1.09	-0.45	1.29	-0.82	1.18
235.20	-3.14	-1.11	-0.49	0.27	2.22	-1.09
235.40	-3.06	-1.09	-0.47	0.75	-10.74	4.47
235.60	-3.11	-1.00	-0.43	0.24	-2.01	-0.54
235.80	-3.26	-1.00	-0.47	0.36	-1.95	-2.09
236.00	-3.21	-1.10	-0.45	1.34	-2.32	0.52
236.20	-3.18	-1.10	-0.42	1.39	1.65	1.18
236.40	-3.32	-1.16	-0.46	1.27	-1.00	1.34
236.60	-3.42	-1.04	-0.47	1.12	-2.54	3.41
236.80	-3.32	-1.21	-0.48	0.71	-1.10	-0.80
237.00	-3.49	-1.25	-0.50	1.70	-0.71	0.52
237.20	-3.30	-1.23	-0.51	1.64	-1.46	0.92
237.40	-3.48	-1.28	-0.56	1.66	0.05	2.08
237.60	-3.46	-1.20	-0.55	0.92	-2.22	-0.27
237.80	-3.24	-1.26	-0.56	1.17	-1.95	-0.35
238.00	-3.23	-1.26	-0.54	1.50	-0.59	-0.31
238.20	-3.25	-1.34	-0.57	1.99	-1.60	0.21
238.40	-3.22	-1.32	-0.60	1.64	-0.83	0.00
238.60	-3.21	-1.34	-0.61	1.54	-1.00	-0.04
238.80	-3.32	-1.24	-0.61	2.07	1.84	1.38
239.00	-3.04	-1.47	-0.60	1.48	1.05	-0.13

239.20	-2.92	-1.36	-0.60	1.41	1.65	2.75
239.40	-2.99	-1.35	-0.61	0.84	-2.27	-1.46
239.60	-2.93	-1.29	-0.58	1.71	0.83	-0.32
239.80	-3.18	-1.32	-0.60	1.81	-1.67	1.66
240.00	-3.26	-1.17	-0.59	0.73	-0.51	-2.96
240.20	-3.09	-1.30	-0.56	1.41	-3.82	0.19
240.40	-3.20	-1.27	-0.60	1.23	-2.64	-0.70
240.60	-3.35	-1.18	-0.56	1.42	-2.45	0.27
240.80	-3.28	-1.28	-0.57	1.53	1.14	2.07
241.00	-3.09	-1.22	-0.55	0.62	1.79	-2.82
241.20	-3.25	-1.26	-0.55	2.11	-4.20	0.71
241.40	-3.30	-1.19	-0.53	1.31	-1.34	-0.51
241.60	-3.36	-1.32	-0.56	1.47	0.02	0.88
241.80	-3.31	-1.29	-0.57	1.66	-1.65	0.74
242.00	-3.15	-1.20	-0.60	0.83	-0.74	-1.20
242.20	-3.16	-1.32	-0.60	1.11	-0.64	0.06
242.40	-3.05	-1.33	-0.62	1.53	-0.36	-1.21
242.60	-3.03	-1.29	-0.62	1.13	-1.24	-0.01
242.80	-3.03	-1.35	-0.63	1.42	-1.74	-0.60
243.00	-3.03	-1.26	-0.70	1.71	0.46	0.41
243.20	-2.97	-1.23	-0.74	1.94	1.93	2.39
243.40	-2.96	-1.29	-0.79	1.23	1.60	2.16
243.60	-2.81	-1.32	-0.79	1.39	0.24	1.14
243.80	-2.95	-1.39	-0.84	0.62	0.41	-1.88
244.00	-2.83	-1.32	-0.86	1.66	-1.15	0.26
244.20	-2.89	-1.38	-0.91	1.61	-2.12	0.68
244.40	-2.90	-1.29	-0.89	1.92	-1.15	0.92
244.60	-2.93	-1.38	-0.92	1.24	-1.49	0.73
244.80	-3.12	-1.40	-0.91	1.41	-1.11	-0.04
245.00	-3.19	-1.38	-0.95	1.49	-0.65	0.15
245.20	-3.06	-1.44	-0.94	1.23	-2.32	2.05
245.40	-2.97	-1.33	-0.94	1.49	-1.95	-0.89
245.60	-2.86	-1.32	-0.96	1.60	-1.55	0.58
245.80	-2.83	-1.35	-1.00	1.55	-1.85	1.44
246.00	-2.71	-1.46	-0.96	1.67	0.26	3.19
246.20	-2.85	-1.37	-0.96	1.93	-0.29	2.73
246.40	-2.98	-1.48	-0.99	1.12	-1.19	1.45
246.60	-2.69	-1.45	-0.92	1.20	-0.53	0.35
246.80	-2.70	-1.41	-0.91	1.56	-0.44	0.88
247.00	-2.61	-1.41	-0.89	1.71	0.40	1.45
247.20	-2.69	-1.24	-0.87	1.22	0.84	1.26
247.40	-2.78	-1.34	-0.83	1.03	0.68	-1.42
247.60	-2.89	-1.30	-0.79	1.44	1.48	1.60
247.80	-2.99	-1.35	-0.80	0.96	1.86	-0.55
248.00	-2.97	-1.33	-0.77	1.50	0.18	1.61
248.20	-2.79	-1.21	-0.73	1.02	-0.30	-1.16
248.40	-2.92	-1.21	-0.76	1.44	-0.53	0.22
248.60	-2.69	-1.18	-0.74	2.12	-0.20	1.36
248.80	-2.90	-1.19	-0.77	0.82	-4.13	-1.88
249.00	-2.98	-1.34	-0.84	2.05	2.23	4.52

249.20	-2.92	-1.32	-0.87	1.17	-1.40	0.27
249.40	-3.00	-1.37	-0.92	1.32	-0.82	0.99
249.60	-2.76	-1.44	-0.93	0.52	-1.23	-2.01
249.80	-2.69	-1.36	-0.96	1.69	-1.49	1.27
250.00	-2.80	-1.43	-0.99	0.17	-0.85	-1.97
250.20	-2.58	-1.45	-1.02	1.65	-0.65	1.41
250.40	-2.80	-1.38	-1.02	1.41	-1.43	-2.07
250.60	-2.73	-1.42	-1.01	1.14	-1.03	-0.55
250.80	-2.92	-1.50	-1.01	1.61	-0.67	1.93
251.00	-2.82	-1.38	-1.01	0.92	-5.25	-2.87
251.20	-2.74	-1.43	-0.99	1.14	-2.23	-1.03
251.40	-2.80	-1.36	-0.97	1.36	0.52	-0.93
251.60	-2.79	-1.33	-1.03	1.48	-1.00	-0.65
251.80	-2.83	-1.16	-1.00	0.88	-0.27	-0.57
252.00	-2.88	-1.25	-0.98	1.04	-2.40	1.56
252.20	-2.93	-1.13	-1.00	1.14	0.01	-0.34
252.40	-2.93	-1.06	-1.03	0.84	-1.41	0.10
252.60	-2.82	-1.04	-1.06	1.08	-0.33	0.22
252.80	-2.90	-1.17	-1.03	1.29	-0.40	1.11
253.00	-2.73	-0.99	-1.05	1.17	-0.23	0.43
253.20	-2.92	-1.05	-1.07	0.41	-1.24	-0.46
253.40	-2.71	-0.91	-1.05	0.82	-3.27	2.14
253.60	-2.70	-0.83	-1.10	0.82	-2.27	-0.63
253.80	-2.82	-0.83	-1.09	0.90	2.31	-0.44
254.00	-2.52	-0.74	-1.04	0.56	-0.57	0.55
254.20	-2.79	-0.72	-0.98	0.76	1.45	-0.40
254.40	-2.52	-0.69	-0.95	0.68	0.04	-1.81
254.60	-2.72	-0.56	-0.93	1.09	0.04	-0.24
254.80	-2.68	-0.54	-0.87	1.31	-0.90	0.42
255.00	-2.65	-0.59	-0.84	1.17	0.00	0.89
255.20	-2.71	-0.55	-0.81	0.17	1.00	-0.25
255.40	-2.58	-0.48	-0.74	1.16	-0.80	0.99
255.60	-2.67	-0.48	-0.70	0.82	-0.03	-1.48
255.80	-2.60	-0.49	-0.64	0.89	0.91	2.39
256.00	-2.63	-0.51	-0.59	1.34	2.33	0.91
256.20	-2.38	-0.59	-0.58	0.86	1.50	-0.54
256.40	-2.65	-0.65	-0.56	1.91	-0.49	4.32
256.60	-2.71	-0.67	-0.53	-0.36	-2.91	-1.66
256.80	-2.66	-0.79	-0.54	0.69	-3.24	0.73
257.00	-2.58	-0.88	-0.53	0.26	-0.61	-1.35
257.20	-2.49	-1.01	-0.57	0.65	-1.23	-0.96
257.40	-2.38	-1.06	-0.56	0.98	2.64	3.14
257.60	-2.35	-1.17	-0.58	0.88	-1.05	-1.17
257.80	-2.53	-1.25	-0.61	0.73	0.34	-0.61
258.00	-2.43	-1.30	-0.58	0.62	-1.27	-0.80
258.20	-2.28	-1.46	-0.58	0.96	-0.21	1.69
258.40	-2.27	-1.36	-0.53	0.74	-0.36	-0.52
258.60	-2.33	-1.47	-0.53	1.14	0.79	2.12
258.80	-2.37	-1.44	-0.52	0.71	-0.33	-0.66
259.00	-2.23	-1.45	-0.46	0.92	-0.93	-0.20

259.20	-2.24	-1.53	-0.43	0.46	-0.15	-0.97
259.40	-2.17	-1.52	-0.38	0.46	-0.05	-1.36
259.60	-2.15	-1.50	-0.34	0.85	-0.16	-0.09
259.80	-2.29	-1.44	-0.33	0.53	-0.22	-0.56
260.00	-2.50	-1.45	-0.31	0.98	-0.21	1.06
260.20	-2.43	-1.51	-0.28	0.46	-0.25	0.82
260.40	-2.49	-1.49	-0.28	0.28	2.35	-1.56
260.60	-2.43	-1.48	-0.23	0.08	-1.93	-2.21
260.80	-2.40	-1.44	-0.21	1.36	2.61	3.47
261.00	-2.31	-1.38	-0.20	0.90	-0.65	-0.06
261.20	-2.50	-1.30	-0.14	0.83	-3.30	-1.31
261.40	-2.50	-1.44	-0.15	0.96	0.45	0.69
261.60	-2.43	-1.22	-0.16	0.92	-1.01	-0.76
261.80	-2.48	-1.24	-0.09	0.83	0.49	0.62
262.00	-2.30	-1.21	-0.05	1.31	0.03	0.86
262.20	-2.21	-1.22	-0.08	1.60	-1.74	0.28
262.40	-2.43	-1.07	-0.04	1.05	-2.37	2.86
262.60	-2.49	-1.22	0.00	0.97	-0.88	0.72
262.80	-2.50	-1.03	-0.02	0.80	1.57	1.80
263.00	-2.35	-0.99	0.02	0.66	3.10	2.09
263.20	-2.45	-0.90	0.03	0.50	-0.34	-0.75
263.40	-2.58	-0.96	-0.01	1.30	0.55	1.34
263.60	-2.48	-0.82	0.01	0.91	2.64	4.13
263.80	-2.44	-0.85	0.04	0.63	-1.99	1.14
264.00	-2.62	-0.78	0.01	1.30	-2.21	0.73
264.20	-2.50	-0.79	0.02	1.05	-0.61	0.56
264.40	-2.65	-0.84	0.03	1.04	-1.03	-0.36
264.60	-2.56	-0.75	-0.01	1.00	-0.60	0.26
264.80	-2.54	-0.80	0.00	0.69	-0.02	-0.66
265.00	-2.53	-0.69	0.01	0.53	-3.94	2.07
265.20	-2.52	-0.77	-0.01	0.81	-1.96	2.51
265.40	-2.52	-0.68	0.00	1.17	2.86	2.70
265.60	-2.49	-0.74	0.01	0.57	-0.39	0.56
265.80	-2.61	-0.78	-0.02	0.14	3.07	-0.02
266.00	-2.59	-0.70	-0.05	1.15	-1.36	-0.81
266.20	-2.52	-0.68	-0.04	0.85	-1.60	-0.95
266.40	-2.42	-0.72	-0.06	1.38	2.05	0.84
266.60	-2.43	-0.76	-0.06	0.85	-0.38	-0.54
266.80	-2.43	-0.80	-0.11	0.78	-0.22	2.49
267.00	-2.57	-0.77	-0.12	1.10	-1.47	-0.51
267.20	-2.61	-0.79	-0.15	0.95	-0.62	-0.49
267.40	-2.73	-0.80	-0.16	1.13	-3.59	-1.71
267.60	-2.57	-0.79	-0.20	0.79	0.51	-2.02
267.80	-2.69	-0.82	-0.21	0.66	0.14	-1.75
268.00	-2.62	-0.77	-0.24	0.92	-1.03	0.55
268.20	-2.50	-0.85	-0.28	0.95	-0.50	0.02
268.40	-2.47	-0.82	-0.29	0.91	-0.47	-0.36
268.60	-2.47	-0.89	-0.31	1.15	1.56	-0.47
268.80	-2.66	-0.94	-0.34	0.49	-2.84	-0.54
269.00	-2.55	-0.77	-0.34	0.27	-1.74	-1.59

269.20	-2.52	-0.92	-0.35	0.69	-2.79	-1.49
269.40	-2.57	-0.88	-0.36	0.78	0.01	0.36
269.60	-2.45	-0.94	-0.35	1.00	-0.34	0.20
269.80	-2.41	-0.87	-0.36	1.24	-0.06	2.27
270.00	-2.33	-0.81	-0.30	0.65	1.16	0.67
270.20	-2.41	-0.88	-0.31	0.74	1.44	1.09
270.40	-2.51	-1.00	-0.33	0.76	0.90	0.39
270.60	-2.44	-0.98	-0.29	1.09	-0.41	3.60
270.80	-2.51	-0.90	-0.30	1.03	-1.90	1.29
271.00	-2.44	-0.92	-0.28	0.69	-0.80	1.93
271.20	-2.41	-1.06	-0.27	1.47	2.12	3.93
271.40	-2.41	-0.91	-0.24	0.58	-3.28	0.80
271.60	-2.37	-0.98	-0.23	0.20	-0.54	-1.08
271.80	-2.52	-0.99	-0.24	1.09	-0.98	0.24
272.00	-2.53	-0.98	-0.23	0.23	-2.30	-2.20
272.20	-2.50	-0.90	-0.21	0.48	-0.74	0.32
272.40	-2.55	-1.00	-0.20	0.45	1.63	0.21
272.60	-2.58	-0.97	-0.21	0.38	-0.72	-0.32
272.80	-2.54	-0.91	-0.19	0.13	0.57	-1.24
273.00	-2.41	-0.87	-0.20	0.68	0.06	-0.24
273.20	-2.35	-0.98	-0.17	0.82	-0.71	-0.74
273.40	-2.58	-0.92	-0.17	0.93	-0.66	0.24
273.60	-2.47	-0.97	-0.17	0.79	-2.74	0.32
273.80	-2.48	-1.07	-0.17	0.95	1.13	1.47
274.00	-2.32	-0.95	-0.15	1.79	-2.25	3.72
274.20	-2.18	-1.00	-0.12	-0.45	-1.46	-4.11
274.40	-2.42	-1.08	-0.17	1.33	-1.63	0.32
274.60	-2.27	-1.07	-0.15	0.07	0.19	-2.08
274.80	-2.42	-0.98	-0.17	0.07	-0.04	-4.04
275.00	-2.57	-1.02	-0.18	0.58	-2.28	1.54
275.20	-2.44	-1.07	-0.18	0.92	0.12	0.58
275.40	-2.56	-1.04	-0.21	0.84	-1.46	-1.70
275.60	-2.41	-1.06	-0.21	0.30	-0.33	0.19
275.80	-2.28	-1.08	-0.20	0.46	0.64	-1.96
276.00	-2.44	-0.98	-0.20	1.17	0.93	0.78
276.20	-2.52	-1.03	-0.24	0.71	-1.70	1.69
276.40	-2.58	-1.00	-0.26	0.56	-0.58	-1.61
276.60	-2.50	-0.93	-0.26	0.91	-0.52	-0.36
276.80	-2.46	-0.93	-0.27	0.54	1.35	-1.97
277.00	-2.32	-0.98	-0.27	-0.26	-1.00	-3.32
277.20	-2.37	-0.98	-0.26	0.80	0.05	-1.07
277.40	-2.31	-1.09	-0.28	1.01	0.61	-0.13
277.60	-2.34	-1.06	-0.26	0.99	-0.67	0.25
277.80	-2.26	-1.05	-0.28	1.33	1.29	1.47
278.00	-2.27	-1.05	-0.28	1.08	-0.78	0.59
278.20	-2.46	-1.00	-0.29	0.39	-2.47	-0.95
278.40	-2.31	-0.96	-0.27	0.50	0.74	0.60
278.60	-2.41	-0.95	-0.30	1.07	4.07	1.06
278.80	-2.30	-0.92	-0.27	0.51	-1.06	0.65
279.00	-2.22	-0.98	-0.27	1.01	-3.05	0.43

279.20	-2.23	-1.02	-0.26	0.91	0.40	0.28
279.40	-2.35	-0.87	-0.27	0.34	-3.23	-2.10
279.60	-2.34	-0.93	-0.28	0.88	-0.81	0.65
279.80	-2.37	-0.88	-0.26	0.31	-1.52	-0.24
280.00	-2.41	-0.83	-0.26	1.19	2.20	3.11
280.20	-2.22	-0.89	-0.26	0.26	0.27	-0.36
280.40	-2.28	-0.87	-0.24	1.14	-3.80	1.81
280.60	-2.48	-0.82	-0.24	1.27	0.60	0.42
280.80	-2.50	-0.73	-0.25	0.95	-0.58	-0.16
281.00	-2.42	-0.85	-0.22	1.11	0.40	-1.89
281.20	-2.33	-0.80	-0.23	0.92	2.36	0.59
281.40	-2.20	-0.77	-0.24	0.84	0.64	0.22
281.60	-2.30	-0.83	-0.25	1.08	-1.82	0.86
281.80	-2.02	-0.89	-0.22	1.18	-1.13	-0.30
282.00	-2.11	-0.83	-0.22	1.15	-0.50	0.45
282.20	-2.22	-0.95	-0.21	1.25	-0.09	0.50
282.40	-2.28	-0.86	-0.22	1.14	-0.63	-0.06
282.60	-2.25	-0.93	-0.22	0.68	-0.28	-0.86
282.80	-2.22	-0.96	-0.23	0.84	-1.40	-0.92
283.00	-2.41	-0.91	-0.23	0.76	0.39	-1.61
283.20	-2.17	-0.96	-0.20	0.37	2.64	-0.02
283.40	-2.18	-0.96	-0.23	0.65	1.54	0.03
283.60	-2.26	-0.88	-0.22	1.14	-3.63	-0.12
283.80	-2.24	-0.87	-0.21	1.05	-0.31	0.78
284.00	-2.27	-0.84	-0.24	1.01	-0.53	0.18
284.20	-2.37	-0.86	-0.25	0.89	1.24	0.06
284.40	-2.23	-0.95	-0.24	0.63	0.81	0.25
284.60	-2.25	-0.98	-0.21	1.07	-1.12	-0.22
284.80	-2.17	-0.97	-0.23	1.10	-0.10	0.21
285.00	-2.14	-0.87	-0.22	0.76	0.68	0.20
285.20	-2.28	-0.91	-0.25	1.19	0.22	2.81
285.40	-2.11	-0.93	-0.19	0.79	-0.79	-0.28
285.60	-2.14	-1.04	-0.21	1.14	-0.14	0.17
285.80	-2.04	-1.00	-0.22	1.26	-1.01	0.31
286.00	-2.16	-0.90	-0.23	1.26	1.24	1.19
286.20	-2.22	-0.88	-0.23	0.26	-0.75	0.80
286.40	-2.19	-0.92	-0.20	1.62	-0.12	3.42
286.60	-2.26	-0.91	-0.21	0.70	0.49	-0.05
286.80	-2.18	-0.92	-0.18	0.53	-2.22	0.22
287.00	-2.34	-0.87	-0.17	0.50	0.70	0.48
287.20	-2.48	-0.85	-0.21	0.17	-0.49	2.46
287.40	-2.15	-0.91	-0.19	0.60	0.44	-1.54
287.60	-2.33	-0.87	-0.21	0.40	-0.51	-1.46
287.80	-2.32	-0.91	-0.23	1.15	-1.18	0.10
288.00	-2.33	-0.84	-0.20	1.08	-1.42	0.77
288.20	-2.29	-0.97	-0.19	1.21	-1.79	-0.10
288.40	-2.13	-0.87	-0.20	1.11	-0.90	0.45
288.60	-2.34	-0.81	-0.21	0.90	1.50	-0.97
288.80	-2.43	-0.75	-0.21	0.72	1.75	-0.51
289.00	-2.29	-0.77	-0.18	1.09	-0.72	0.21

289.20	-2.24	-0.77	-0.17	1.96	-1.88	3.04
289.40	-2.30	-0.80	-0.19	0.82	0.68	-0.29
289.60	-2.16	-0.91	-0.16	0.64	2.95	1.24
289.80	-2.31	-0.91	-0.19	1.01	0.86	1.72
290.00	-2.31	-0.92	-0.19	1.46	-2.00	0.22
290.20	-2.33	-0.90	-0.18	1.06	-0.52	0.74
290.40	-2.35	-0.92	-0.16	1.04	-0.76	-0.81
290.60	-2.25	-0.88	-0.17	0.96	-0.93	-1.22
290.80	-2.29	-1.06	-0.21	0.79	0.97	0.77
291.00	-2.39	-0.82	-0.17	0.34	-2.50	2.64
291.20	-2.34	-0.88	-0.18	0.65	-0.11	0.29
291.40	-2.42	-0.96	-0.19	0.90	-1.46	-0.80
291.60	-2.33	-0.98	-0.19	0.91	1.03	-1.13
291.80	-2.39	-0.99	-0.22	-0.20	-0.75	-3.73
292.00	-2.33	-1.00	-0.21	1.20	-1.51	0.87
292.20	-2.45	-0.86	-0.21	0.13	1.95	-0.53
292.40	-2.36	-0.98	-0.20	0.92	-1.93	-0.56
292.60	-2.33	-0.81	-0.21	0.56	0.56	-0.88
292.80	-2.33	-0.88	-0.21	1.73	-2.49	-0.34
293.00	-2.41	-0.93	-0.20	1.12	-1.25	1.09
293.20	-2.40	-0.91	-0.21	0.88	2.37	1.51
293.40	-2.26	-0.84	-0.23	1.17	0.23	0.55
293.60	-2.33	-0.86	-0.24	0.92	-0.18	0.75
293.80	-2.11	-0.95	-0.23	1.73	-1.35	1.48
294.00	-2.22	-0.91	-0.21	1.03	-0.13	0.64
294.20	-2.18	-1.04	-0.22	0.71	-0.37	-1.91
294.40	-1.97	-0.98	-0.20	1.12	0.15	-2.56
294.60	-2.23	-1.01	-0.23	0.56	-1.33	-0.24
294.80	-2.34	-0.95	-0.22	0.86	-0.97	-1.62
295.00	-2.11	-0.91	-0.20	1.16	-0.64	0.11
295.20	-2.29	-1.01	-0.24	1.20	-1.26	0.74
295.40	-2.22	-0.93	-0.22	1.84	-1.28	0.91
295.60	-2.15	-0.91	-0.20	1.22	-1.12	-0.31
295.80	-2.21	-0.93	-0.22	1.23	-0.70	-0.13
296.00	-2.18	-1.03	-0.23	0.76	-0.48	1.98
296.20	-2.40	-1.03	-0.22	1.24	-2.03	1.64
296.40	-2.42	-1.04	-0.24	0.64	0.15	-1.62
296.60	-2.32	-0.98	-0.24	1.12	-0.70	-0.80
296.80	-2.24	-0.98	-0.26	1.14	-0.47	1.25
297.00	-2.27	-1.04	-0.26	1.10	2.45	-1.31
297.20	-2.28	-1.01	-0.23	1.51	-2.85	1.76
297.40	-2.06	-1.01	-0.21	1.45	-2.89	-2.20
297.60	-2.07	-1.01	-0.20	0.41	-0.34	-1.50
297.80	-2.19	-1.09	-0.23	1.28	-0.72	-0.13
298.00	-2.13	-1.01	-0.22	1.30	-0.30	0.36
298.20	-2.02	-1.02	-0.20	1.01	-0.53	-0.09
298.40	-2.17	-1.05	-0.20	1.42	0.44	-0.14
298.60	-2.05	-1.01	-0.18	0.99	0.82	-1.15
298.80	-2.11	-0.95	-0.17	1.53	-0.24	0.44
299.00	-2.32	-1.10	-0.19	1.06	-0.86	-0.72

299.20	-2.23	-1.06	-0.17	0.68	-1.91	1.67
299.40	-2.09	-0.93	-0.16	0.59	4.31	-1.25
299.60	-1.94	-0.94	-0.11	1.16	-0.76	-0.31
299.80	-2.17	-1.03	-0.13	0.95	-0.54	0.69
300.00	-2.12	-1.00	-0.09	1.47	2.71	2.06
300.20	-2.06	-1.00	-0.12	1.15	1.70	1.33
300.40	-1.92	-0.99	-0.10	0.86	1.16	1.51
300.60	-2.22	-0.87	-0.08	1.00	-1.20	-0.29
300.80	-2.12	-1.04	-0.09	1.21	0.01	0.23
301.00	-2.11	-0.96	-0.08	1.26	2.57	-2.00
301.20	-2.12	-0.99	-0.07	0.73	3.14	-1.80
301.40	-2.10	-0.87	-0.06	1.37	0.00	0.68
301.60	-1.96	-0.98	-0.06	1.23	-0.39	0.38
301.80	-2.25	-0.86	-0.08	1.30	-1.18	1.18
302.00	-2.24	-0.93	-0.10	1.19	0.45	1.27
302.20	-2.14	-0.86	-0.09	1.45	-3.76	5.57
302.40	-2.05	-0.95	-0.09	0.47	-1.45	0.52
302.60	-2.11	-0.95	-0.09	0.78	-1.53	0.09
302.80	-2.20	-0.83	-0.09	1.45	-0.74	1.78
303.00	-2.21	-0.86	-0.11	1.18	0.06	-0.40
303.20	-2.27	-0.87	-0.10	1.33	-0.37	0.76
303.40	-2.05	-0.92	-0.08	1.19	-1.35	-0.28
303.60	-1.96	-0.89	-0.08	-0.24	-0.59	-4.69
303.80	-2.19	-0.85	-0.07	1.72	0.38	2.54
304.00	-2.15	-0.83	-0.07	1.45	-0.91	-0.40
304.20	-2.29	-0.96	-0.10	0.59	-1.50	-0.95
304.40	-2.22	-0.81	-0.08	1.56	-1.15	0.82
304.60	-2.06	-0.82	-0.07	1.38	0.06	0.57
304.80	-2.21	-0.87	-0.09	1.49	1.69	2.30
305.00	-2.25	-0.93	-0.08	1.38	0.72	-0.94
305.20	-2.33	-0.91	-0.10	1.19	2.73	-0.22
305.40	-2.30	-0.91	-0.09	0.49	-0.34	-1.57
305.60	-2.08	-0.91	-0.07	0.94	-0.68	-0.31
305.80	-2.26	-0.88	-0.11	1.60	0.55	1.04
306.00	-2.27	-0.98	-0.11	0.99	-0.12	0.87
306.20	-2.19	-0.81	-0.09	0.93	-0.30	-0.72
306.40	-2.24	-0.90	-0.14	1.02	0.59	1.13
306.60	-2.29	-0.91	-0.13	0.98	0.25	1.87
306.80	-2.41	-0.86	-0.17	0.87	-0.63	-2.50
307.00	-2.44	-0.88	-0.16	1.43	-0.84	1.59
307.20	-2.35	-0.94	-0.17	0.62	-0.46	-1.97
307.40	-2.35	-0.91	-0.16	1.23	-1.03	0.44
307.60	-2.46	-0.93	-0.17	0.63	0.65	0.29
307.80	-2.27	-0.95	-0.16	0.36	-0.67	-2.31
308.00	-2.29	-0.87	-0.17	1.06	-0.84	-1.18
308.20	-2.27	-0.86	-0.15	2.53	-2.03	5.46
308.40	-2.31	-0.90	-0.17	1.23	-0.01	-0.80
308.60	-2.33	-0.86	-0.14	1.14	1.06	-2.12
308.80	-2.35	-1.02	-0.16	1.00	0.36	0.73
309.00	-2.39	-1.01	-0.13	1.36	-0.52	0.99

309.20	-2.27	-0.97	-0.14	1.10	-2.12	1.81
309.40	-2.26	-1.02	-0.09	0.49	0.22	-0.73
309.60	-2.30	-1.07	-0.11	0.78	0.72	-2.16
309.80	-2.38	-1.00	-0.11	1.11	-1.87	1.72
310.00	-2.26	-0.97	-0.10	0.34	-0.69	2.52
310.20	-2.43	-0.95	-0.07	0.62	4.07	-0.68
310.40	-2.30	-0.96	-0.07	1.25	-0.95	-0.63
310.60	-2.23	-1.02	-0.06	0.43	-1.00	1.30
310.80	-2.28	-1.00	-0.07	0.77	-0.69	-0.32
311.00	-2.31	-1.06	-0.07	1.47	0.47	1.02
311.20	-2.58	-1.01	-0.10	1.04	3.05	-0.55
311.40	-2.32	-0.98	-0.07	1.04	-0.79	1.07
311.60	-2.41	-1.00	-0.10	0.64	1.38	-0.71
311.80	-2.53	-0.96	-0.08	1.62	-1.74	1.28
312.00	-2.40	-1.01	-0.07	0.94	-0.01	1.13
312.20	-2.33	-0.87	-0.09	0.83	0.31	0.46
312.40	-2.42	-0.91	-0.09	1.09	1.10	0.30
312.60	-2.52	-0.96	-0.14	1.36	0.05	0.79
312.80	-2.37	-0.84	-0.12	1.31	-1.37	0.20
313.00	-2.48	-0.92	-0.11	0.76	0.30	-0.91
313.20	-2.47	-1.01	-0.13	1.05	1.25	-1.23
313.40	-2.28	-0.95	-0.10	0.34	0.81	2.59
313.60	-2.48	-0.89	-0.12	0.76	-2.14	-1.44
313.80	-2.44	-0.80	-0.12	1.27	-1.28	-0.03
314.00	-2.53	-0.87	-0.13	0.17	-0.37	-3.43
314.20	-2.50	-0.79	-0.14	1.36	-0.93	0.21
314.40	-2.67	-0.87	-0.14	1.38	-0.82	-0.05
314.60	-2.66	-0.82	-0.15	1.15	0.95	0.03
314.80	-2.67	-0.81	-0.16	0.68	-2.18	3.05
315.00	-2.54	-0.86	-0.13	1.34	-4.22	-0.55
315.20	-2.72	-0.80	-0.16	0.07	-1.36	-2.10
315.40	-2.62	-0.74	-0.13	1.38	-1.86	0.94
315.60	-2.60	-0.73	-0.14	1.45	-0.10	0.02
315.80	-2.82	-0.78	-0.17	1.37	0.90	-0.52
316.00	-2.62	-0.72	-0.16	1.00	-1.32	-3.36
316.20	-2.62	-0.76	-0.16	1.23	0.02	0.53
316.40	-2.52	-0.77	-0.18	1.83	-0.22	1.67
316.60	-2.54	-0.66	-0.20	1.07	-0.22	0.57
316.80	-2.63	-0.63	-0.20	1.37	-1.28	0.14
317.00	-2.70	-0.61	-0.21	0.94	3.30	1.47
317.20	-2.73	-0.74	-0.21	0.52	-1.92	-2.04
317.40	-2.60	-0.70	-0.22	1.36	-0.61	1.18
317.60	-2.60	-0.72	-0.26	1.51	-0.33	1.59
317.80	-2.63	-0.63	-0.28	0.83	-0.23	-2.04
318.00	-2.53	-0.63	-0.27	0.25	-2.11	-2.52
318.20	-2.52	-0.73	-0.29	0.23	-0.95	-2.19
318.40	-2.80	-0.73	-0.30	1.26	-0.96	2.47
318.60	-2.75	-0.73	-0.32	1.30	-0.43	0.03
318.80	-2.59	-0.69	-0.30	1.19	-1.00	-0.51
319.00	-2.63	-0.76	-0.31	1.37	-1.67	5.04

319.20	-2.75	-0.71	-0.34	1.30	-0.28	3.35
319.40	-2.97	-0.63	-0.37	0.57	1.51	0.51
319.60	-2.87	-0.76	-0.35	1.98	-0.81	2.27
319.80	-2.75	-0.74	-0.34	1.45	-0.86	0.31
320.00	-2.43	-0.82	-0.32	1.31	-0.64	-0.23
320.20	-2.52	-0.81	-0.33	1.58	-0.37	0.38
320.40	-2.35	-0.79	-0.32	1.91	1.12	4.86
320.60	-2.61	-0.81	-0.34	0.18	3.20	-0.32
320.80	-2.85	-0.75	-0.37	1.28	-1.03	0.14
321.00	-2.80	-0.90	-0.37	1.27	2.86	1.15
321.20	-2.89	-0.91	-0.36	1.51	-0.18	0.43
321.40	-2.72	-0.92	-0.34	1.27	2.93	2.31
321.60	-2.88	-0.98	-0.38	1.06	1.13	1.96
321.80	-2.71	-0.96	-0.34	1.04	-1.71	-0.75
322.00	-2.63	-0.92	-0.34	1.44	0.73	2.26
322.20	-2.81	-1.04	-0.34	0.75	-1.30	0.84
322.40	-2.90	-0.99	-0.34	1.16	-0.18	-0.42
322.60	-3.07	-0.99	-0.37	0.87	-2.61	0.18
322.80	-3.06	-0.98	-0.39	0.86	1.01	-0.04
323.00	-2.95	-0.95	-0.35	0.83	0.82	0.71
323.20	-2.93	-1.01	-0.34	1.35	-0.99	0.53
323.40	-2.96	-0.91	-0.35	1.42	-0.57	0.26
323.60	-3.08	-0.99	-0.33	1.36	-0.26	0.90
323.80	-2.91	-0.97	-0.31	1.03	3.92	1.40
324.00	-2.72	-0.95	-0.30	1.02	0.00	-0.47
324.20	-2.81	-1.06	-0.32	0.90	-2.07	2.92
324.40	-2.96	-1.02	-0.27	1.54	-2.66	3.83
324.60	-2.81	-0.99	-0.29	0.80	-0.67	-0.32
324.80	-2.77	-1.12	-0.26	0.33	2.98	2.35
325.00	-2.79	-1.00	-0.26	1.29	-0.92	0.04
325.20	-2.83	-1.10	-0.28	1.27	-1.74	0.81
325.40	-2.85	-1.09	-0.27	1.40	0.34	1.17
325.60	-2.75	-1.03	-0.27	1.30	-0.49	0.01
325.80	-2.87	-1.12	-0.27	1.45	-0.42	-0.26
326.00	-2.63	-1.11	-0.22	1.48	0.09	0.30
326.20	-2.87	-0.94	-0.27	1.30	-0.78	-0.56
326.40	-2.72	-0.94	-0.24	1.42	2.49	5.37
326.60	-2.95	-0.98	-0.27	0.85	1.44	0.90
326.80	-2.98	-0.94	-0.26	1.30	-2.17	1.01
327.00	-2.84	-0.93	-0.27	1.14	-1.71	-0.23
327.20	-2.87	-1.04	-0.25	1.73	-0.47	1.78
327.40	-2.89	-0.90	-0.27	1.21	-0.51	0.98
327.60	-2.88	-0.93	-0.27	0.40	0.93	-2.33
327.80	-2.80	-0.92	-0.27	1.24	-0.87	-2.93
328.00	-2.71	-0.91	-0.24	-0.26	-0.47	-3.30
328.20	-2.91	-0.99	-0.28	-0.24	-0.72	-1.35
328.40	-2.71	-0.96	-0.28	1.16	-2.13	-1.10
328.60	-2.78	-0.99	-0.27	1.49	-0.42	0.88
328.80	-2.65	-0.92	-0.26	0.41	0.68	-1.08
329.00	-2.78	-0.91	-0.27	0.78	-3.31	-1.03

329.20	-2.65	-0.97	-0.26	0.09	4.33	-0.11
329.40	-2.68	-0.94	-0.26	0.57	-1.06	-1.86
329.60	-2.67	-0.89	-0.25	0.35	-3.03	-1.47
329.80	-2.53	-0.92	-0.24	1.00	-2.28	-0.31
330.00	-2.51	-0.90	-0.25	1.18	-0.45	1.66
330.20	-2.61	-0.96	-0.26	0.58	1.85	-0.28
330.40	-2.66	-1.03	-0.25	0.57	1.26	-0.82
330.60	-2.73	-0.78	-0.25	0.97	-1.17	-1.01
330.80	-2.76	-0.99	-0.27	1.08	-1.35	2.28
331.00	-2.80	-0.87	-0.27	1.32	-0.87	-2.09
331.20	-2.60	-0.92	-0.26	-0.21	-3.79	-3.24
331.40	-2.68	-0.90	-0.27	0.78	0.27	0.20
331.60	-2.71	-0.91	-0.25	0.90	-1.23	-2.40
331.80	-2.65	-0.95	-0.26	0.92	1.22	0.58
332.00	-2.71	-0.94	-0.26	1.63	-0.87	1.43
332.20	-2.55	-0.95	-0.26	1.23	-2.50	0.66
332.40	-2.57	-0.87	-0.27	0.67	-0.45	-1.45
332.60	-2.57	-1.16	-0.29	1.40	0.19	1.47
332.80	-2.69	-1.04	-0.27	1.16	0.92	-0.36
333.00	-2.55	-1.03	-0.28	0.58	-3.06	-0.88
333.20	-2.45	-1.05	-0.27	1.15	0.82	-0.36
333.40	-2.58	-1.13	-0.29	1.63	-0.15	2.14
333.60	-2.49	-1.15	-0.28	0.79	-0.58	-1.75
333.80	-2.43	-1.09	-0.30	0.59	-2.08	-1.69
334.00	-2.52	-1.05	-0.28	0.88	-2.33	0.97
334.20	-2.55	-1.04	-0.28	1.07	-1.30	3.23
334.40	-2.60	-1.00	-0.30	0.61	2.88	-2.27
334.60	-2.51	-1.06	-0.28	0.93	-0.05	1.80
334.80	-2.30	-0.98	-0.27	0.82	2.49	3.46
335.00	-2.57	-1.07	-0.28	1.48	0.53	1.77
335.20	-2.46	-1.04	-0.26	1.58	-2.52	1.34
335.40	-2.49	-1.08	-0.30	0.49	1.15	1.36
335.60	-2.43	-1.19	-0.28	0.95	0.29	2.75
335.80	-2.36	-1.20	-0.27	1.21	0.11	2.92
336.00	-2.37	-1.11	-0.31	1.24	-4.43	0.89
336.20	-2.43	-1.09	-0.31	0.99	-1.63	1.71
336.40	-2.36	-1.03	-0.28	0.81	0.14	-0.60
336.60	-2.37	-1.15	-0.28	1.36	1.21	0.68
336.80	-2.25	-1.08	-0.25	0.47	-0.34	-1.12
337.00	-2.48	-1.08	-0.29	0.83	-1.68	-1.57
337.20	-2.33	-1.14	-0.29	1.30	-0.46	-0.12
337.40	-2.33	-1.23	-0.27	1.42	0.14	-0.14
337.60	-2.40	-1.08	-0.27	0.10	5.34	-3.09
337.80	-2.37	-1.10	-0.29	1.34	-2.69	1.45
338.00	-2.30	-1.12	-0.26	0.37	-0.67	-3.72
338.20	-2.32	-1.08	-0.26	1.27	0.66	0.47
338.40	-2.38	-1.17	-0.28	1.20	-0.53	0.02
338.60	-2.33	-1.12	-0.24	1.57	-1.40	1.68
338.80	-2.41	-1.11	-0.24	0.53	4.06	0.40
339.00	-2.32	-1.08	-0.24	0.84	-1.25	-0.67

339.20	-2.25	-1.00	-0.24	1.11	-0.88	-0.41
339.40	-2.39	-1.01	-0.24	1.46	-0.74	0.08
339.60	-2.46	-1.07	-0.25	0.29	0.39	-3.36
339.80	-2.23	-1.05	-0.23	1.22	5.33	2.75
340.00	-2.26	-1.04	-0.24	1.08	2.08	1.61
340.20	-2.37	-1.02	-0.23	0.84	-5.89	-0.46
340.40	-2.29	-0.98	-0.23	1.27	-0.83	2.13
340.60	-2.16	-0.99	-0.21	0.32	-0.97	-2.52
340.80	-2.16	-0.97	-0.21	1.23	-0.42	1.40
341.00	-2.32	-0.97	-0.24	0.70	1.31	-1.07
341.20	-2.24	-0.99	-0.24	0.35	-1.31	-1.51
341.40	-2.21	-0.97	-0.23	0.77	0.79	-0.82
341.60	-2.26	-0.92	-0.22	0.58	3.23	-0.10
341.80	-2.40	-0.87	-0.22	0.08	-1.52	0.80
342.00	-2.27	-0.90	-0.23	1.33	1.31	2.57
342.20	-2.37	-0.98	-0.25	1.70	-1.18	3.66
342.40	-2.19	-0.95	-0.20	1.03	-1.07	0.13
342.60	-2.21	-0.98	-0.23	1.70	1.97	2.41
342.80	-2.38	-0.83	-0.22	0.51	0.94	-2.03
343.00	-2.33	-0.98	-0.21	0.73	-1.35	1.24
343.20	-2.44	-0.95	-0.24	1.16	0.56	1.28
343.40	-2.22	-0.91	-0.23	1.42	-1.80	0.07
343.60	-2.43	-0.91	-0.22	1.33	-2.40	0.05
343.80	-2.27	-0.84	-0.21	1.23	1.24	0.94
344.00	-2.18	-0.84	-0.24	1.31	-1.40	-0.48
344.20	-2.35	-0.86	-0.23	0.61	2.80	-0.10
344.40	-2.19	-0.94	-0.22	0.72	0.17	1.83
344.60	-2.37	-0.87	-0.23	1.35	-1.53	2.46
344.80	-2.32	-0.92	-0.20	0.42	3.05	-3.27
345.00	-2.19	-0.92	-0.20	1.72	-0.44	0.92
345.20	-2.38	-0.87	-0.21	1.48	0.49	1.10
345.40	-2.32	-0.86	-0.23	1.51	0.33	0.45
345.60	-2.33	-1.00	-0.22	1.50	-1.20	1.63
345.80	-2.42	-0.89	-0.24	1.27	-1.29	0.49
346.00	-2.28	-0.89	-0.22	0.80	-1.63	-0.52
346.20	-2.44	-0.86	-0.22	1.27	-1.94	1.73
346.40	-2.27	-0.89	-0.22	0.91	2.18	2.36
346.60	-2.28	-0.83	-0.24	1.28	-1.31	-0.03
346.80	-2.22	-0.75	-0.23	1.49	-0.78	0.32
347.00	-2.33	-0.87	-0.25	0.66	-0.22	-0.82
347.20	-2.48	-0.87	-0.26	0.92	4.51	-1.63
347.40	-2.34	-0.84	-0.25	1.29	1.05	0.21
347.60	-2.53	-0.82	-0.23	0.80	2.04	0.88
347.80	-2.44	-0.87	-0.24	2.02	2.09	0.12
348.00	-2.40	-0.84	-0.25	0.92	-0.71	-1.21
348.20	-2.30	-0.81	-0.25	0.60	-0.42	-0.93
348.40	-2.30	-0.87	-0.24	1.55	2.48	2.42
348.60	-2.23	-0.95	-0.24	1.07	-0.03	0.12
348.80	-2.37	-0.82	-0.25	1.41	-0.74	0.67
349.00	-2.54	-0.90	-0.26	1.42	-0.67	0.59

349.20	-2.43	-0.89	-0.27	1.46	0.17	0.93
349.40	-2.51	-0.91	-0.25	1.54	-0.07	1.91
349.60	-2.39	-0.87	-0.26	2.21	1.11	2.74
349.80	-2.33	-0.85	-0.23	0.42	-1.69	-0.91
350.00	-2.32	-0.91	-0.21	1.04	-0.52	-1.68
350.20	-2.41	-0.81	-0.26	1.63	1.89	0.76
350.40	-2.45	-1.00	-0.24	0.67	-0.75	-0.36
350.60	-2.48	-0.81	-0.25	0.48	0.60	-2.37
350.80	-2.35	-0.82	-0.24	1.04	0.50	0.36
351.00	-2.34	-0.94	-0.21	0.87	-0.61	-0.25
351.20	-2.39	-0.93	-0.24	1.04	-1.42	0.38
351.40	-2.31	-1.01	-0.22	0.62	-0.60	-0.24
351.60	-2.37	-0.77	-0.22	0.54	0.98	0.36
351.80	-2.43	-0.90	-0.27	1.43	2.36	0.83
352.00	-2.39	-0.79	-0.24	1.39	1.86	1.10
352.20	-2.52	-0.88	-0.25	0.52	-2.73	-2.42
352.40	-2.36	-0.87	-0.23	1.43	-0.93	-1.25
352.60	-2.38	-0.83	-0.24	1.48	-1.74	0.39
352.80	-2.32	-0.86	-0.24	0.29	8.26	-5.76
353.00	-2.23	-0.92	-0.21	1.32	-2.01	-0.48
353.20	-2.31	-0.88	-0.25	1.30	-1.38	2.05
353.40	-2.27	-0.89	-0.21	1.28	-0.29	1.23
353.60	-2.36	-0.90	-0.22	1.28	-0.22	-0.28
353.80	-2.31	-0.88	-0.23	1.31	0.55	-0.01
354.00	-2.45	-0.84	-0.23	0.88	-2.63	0.55
354.20	-2.23	-0.86	-0.24	1.36	-2.11	0.37
354.40	-2.27	-0.93	-0.23	0.87	-0.59	0.77
354.60	-2.36	-0.79	-0.24	1.34	-1.31	3.26
354.80	-2.43	-0.83	-0.23	1.73	-2.10	2.15
355.00	-2.31	-0.86	-0.24	1.89	-2.80	-1.55
355.20	-2.36	-0.88	-0.24	1.16	-3.05	0.22
355.40	-2.27	-0.89	-0.23	1.16	0.60	-0.63
355.60	-2.31	-0.83	-0.22	0.50	2.80	0.52
355.80	-2.22	-0.83	-0.21	0.61	-0.90	0.35
356.00	-2.14	-0.77	-0.21	1.34	-0.25	0.35
356.20	-2.26	-0.84	-0.23	1.38	0.59	0.76
356.40	-2.27	-0.79	-0.21	1.30	0.01	-0.15
356.60	-2.17	-0.87	-0.22	1.35	-0.76	0.05
356.80	-2.33	-0.72	-0.23	0.41	-0.54	-2.71
357.00	-2.19	-0.71	-0.22	0.96	-2.09	1.48
357.20	-2.30	-0.81	-0.22	0.86	1.10	-0.45
357.40	-2.25	-0.81	-0.22	0.56	1.45	-1.74
357.60	-2.09	-0.85	-0.19	0.78	-1.33	-1.83
357.80	-2.31	-0.80	-0.21	1.18	-0.31	-0.50
358.00	-2.20	-0.76	-0.19	1.40	-1.14	0.93
358.20	-2.26	-0.78	-0.21	1.75	-0.36	1.54
358.40	-2.21	-0.73	-0.19	1.32	-0.63	0.02
358.60	-2.25	-0.68	-0.19	1.07	1.13	2.26
358.80	-2.20	-0.84	-0.18	0.78	2.07	0.19
359.00	-2.25	-0.78	-0.19	1.30	2.70	0.94

359.20	-2.10	-0.81	-0.16	1.67	0.09	2.55
359.40	-2.11	-0.78	-0.19	0.87	-0.89	-1.46
359.60	-2.23	-0.73	-0.19	0.70	-0.79	-1.40
359.80	-2.16	-0.75	-0.18	-1.24	-3.58	-3.93
360.00	-2.12	-0.74	-0.16	0.83	-3.19	1.22
360.20	-1.91	-0.69	-0.14	1.31	-0.48	1.39
360.40	-2.22	-0.76	-0.16	1.27	-0.27	0.16
360.60	-2.04	-0.68	-0.15	1.30	-1.51	0.14
360.80	-2.03	-0.77	-0.16	1.78	1.32	2.31
361.00	-2.20	-0.74	-0.16	0.73	2.27	-0.33
361.20	-2.08	-0.81	-0.14	0.33	-1.98	-2.60
361.40	-2.20	-0.65	-0.17	1.25	1.52	1.20
361.60	-1.98	-0.70	-0.14	0.07	2.16	-1.07
361.80	-2.15	-0.58	-0.12	0.71	1.37	0.10
362.00	-2.14	-0.64	-0.16	1.40	2.81	2.93
362.20	-2.10	-0.64	-0.13	0.46	-1.83	0.84
362.40	-2.03	-0.64	-0.14	1.16	0.70	1.25
362.60	-2.04	-0.69	-0.13	0.54	0.68	0.44
362.80	-2.07	-0.73	-0.13	1.44	1.40	1.50
363.00	-2.07	-0.59	-0.17	1.31	0.83	0.62
363.20	-2.01	-0.59	-0.13	0.77	1.18	-0.27
363.40	-1.89	-0.65	-0.14	0.84	-2.11	4.14
363.60	-2.21	-0.69	-0.16	0.26	2.17	-0.73
363.80	-2.00	-0.59	-0.15	0.70	1.18	-2.16
364.00	-2.14	-0.63	-0.16	2.61	2.85	0.30
364.20	-2.17	-0.65	-0.16	0.33	0.37	-0.92
364.40	-2.01	-0.66	-0.16	0.17	0.14	-2.72
364.60	-2.05	-0.58	-0.16	1.21	-0.59	0.49
364.80	-1.97	-0.56	-0.16	-0.13	0.81	-3.41
365.00	-1.94	-0.63	-0.16	1.03	-2.25	-0.17
365.20	-2.08	-0.67	-0.15	1.32	3.45	0.36
365.40	-2.10	-0.52	-0.15	0.87	-4.11	-1.80
365.60	-2.16	-0.51	-0.17	0.99	0.72	0.90
365.80	-2.07	-0.62	-0.17	0.53	-1.91	0.57
366.00	-2.08	-0.60	-0.16	0.58	0.17	-2.23
366.20	-2.14	-0.60	-0.17	0.89	-3.68	1.81
366.40	-2.05	-0.55	-0.15	1.11	-0.98	0.03
366.60	-2.15	-0.55	-0.17	1.01	-1.61	1.43
366.80	-2.02	-0.55	-0.15	1.41	0.42	-1.65
367.00	-2.01	-0.59	-0.18	1.10	-1.05	-0.13
367.20	-1.93	-0.62	-0.16	0.78	0.78	0.63
367.40	-2.10	-0.57	-0.16	0.66	3.56	-0.52
367.60	-1.99	-0.48	-0.15	2.02	-0.86	4.64
367.80	-2.01	-0.60	-0.16	0.62	1.32	-0.21
368.00	-2.07	-0.52	-0.13	0.79	-0.63	-0.58
368.20	-1.84	-0.70	-0.15	-0.61	-1.63	-2.47
368.40	-2.05	-0.62	-0.13	0.12	0.66	-0.68
368.60	-2.03	-0.49	-0.15	0.23	6.61	-0.79
368.80	-2.08	-0.58	-0.16	0.90	-0.59	0.73
369.00	-1.97	-0.64	-0.15	0.69	5.23	-0.59

369.20	-1.90	-0.73	-0.14	0.62	0.40	-1.48
369.40	-1.97	-0.62	-0.15	1.17	3.43	2.34
369.60	-1.95	-0.58	-0.14	0.18	-0.48	-1.20
369.80	-2.11	-0.63	-0.15	0.94	-0.03	3.84
370.00	-1.95	-0.67	-0.12	1.23	2.27	3.35
370.20	-2.00	-0.58	-0.13	0.49	-1.18	-2.73
370.40	-2.08	-0.63	-0.15	0.92	-1.11	-0.62
370.60	-1.83	-0.61	-0.12	0.81	0.58	1.85
370.80	-1.91	-0.68	-0.15	0.60	-0.93	0.84
371.00	-1.76	-0.60	-0.13	1.35	-4.09	-3.66
371.20	-1.92	-0.57	-0.15	-0.36	-0.04	-0.42
371.40	-1.85	-0.54	-0.11	0.40	0.20	-1.55
371.60	-1.95	-0.62	-0.13	0.82	-0.90	-1.50
371.80	-1.80	-0.54	-0.12	0.78	-3.08	2.15
372.00	-1.70	-0.59	-0.14	1.04	0.15	1.14
372.20	-1.93	-0.61	-0.12	0.95	0.54	0.28
372.40	-1.84	-0.58	-0.10	0.47	0.72	-2.00
372.60	-1.82	-0.54	-0.12	0.23	-1.70	-0.76
372.80	-1.79	-0.54	-0.13	0.91	2.38	3.64
373.00	-1.84	-0.61	-0.13	0.10	-0.27	1.57
373.20	-1.89	-0.63	-0.12	0.02	-1.61	-0.63
373.40	-1.82	-0.51	-0.11	0.83	-1.60	-0.08
373.60	-1.91	-0.55	-0.11	0.58	0.95	0.09
373.80	-1.71	-0.48	-0.11	1.01	-1.74	-0.91
374.00	-1.63	-0.51	-0.10	0.94	4.50	3.62
374.20	-1.75	-0.60	-0.11	-0.20	-1.39	-2.29
374.40	-1.62	-0.51	-0.10	0.81	-0.21	-0.70
374.60	-1.67	-0.60	-0.10	1.27	-0.30	0.86
374.80	-1.72	-0.59	-0.12	1.04	-0.49	0.18
375.00	-1.53	-0.46	-0.09	0.55	0.04	-0.13
375.20	-1.53	-0.50	-0.11	1.01	-3.50	0.34
375.40	-1.48	-0.52	-0.10	0.23	2.16	-0.67
375.60	-1.55	-0.46	-0.12	0.98	1.42	0.72
375.80	-1.57	-0.49	-0.13	0.72	-0.56	-0.92
376.00	-1.61	-0.54	-0.14	0.77	0.32	-1.01
376.20	-1.43	-0.54	-0.12	1.18	-1.02	-0.05
376.40	-1.48	-0.42	-0.12	0.57	-0.74	-0.61
376.60	-1.48	-0.45	-0.12	0.65	-0.21	-1.81
376.80	-1.38	-0.49	-0.11	1.16	0.83	0.21
377.00	-1.49	-0.47	-0.12	0.92	-0.24	1.42
377.20	-1.53	-0.54	-0.15	1.05	0.37	0.40
377.40	-1.39	-0.49	-0.13	0.79	-1.61	0.35
377.60	-1.52	-0.45	-0.14	0.78	0.52	-0.53
377.80	-1.42	-0.51	-0.12	0.83	-1.43	0.35
378.00	-1.26	-0.46	-0.11	0.71	0.51	2.82
378.20	-1.53	-0.47	-0.14	0.53	-2.05	-1.73
378.40	-1.36	-0.43	-0.13	0.65	0.52	-1.47
378.60	-1.33	-0.49	-0.16	1.03	0.30	-0.99
378.80	-1.40	-0.46	-0.16	-0.18	1.59	0.04
379.00	-1.37	-0.40	-0.16	0.87	-0.15	1.36

379.20	-1.35	-0.50	-0.16	0.68	0.85	0.33
379.40	-1.24	-0.39	-0.14	1.01	-2.69	0.50
379.60	-1.26	-0.51	-0.16	0.40	-3.49	-1.98
379.80	-1.40	-0.49	-0.15	0.87	-0.27	0.04
380.00	-1.37	-0.45	-0.16	1.02	0.04	0.75
380.20	-1.37	-0.38	-0.15	0.81	1.40	1.85
380.40	-1.33	-0.39	-0.16	0.77	0.88	0.66
380.60	-1.40	-0.48	-0.17	0.21	-1.41	-1.02
380.80	-1.34	-0.42	-0.16	0.38	-1.24	-0.12
381.00	-1.33	-0.24	-0.17	0.63	-0.89	-2.34
381.20	-1.30	-0.43	-0.17	0.47	3.86	0.69
381.40	-1.32	-0.29	-0.17	1.44	-0.14	-0.17
381.60	-1.33	-0.36	-0.15	1.65	-4.88	-4.25
381.80	-1.25	-0.44	-0.15	-0.83	-0.62	-4.78
382.00	-1.27	-0.35	-0.17	-0.07	2.42	-2.42
382.20	-1.34	-0.22	-0.16	-0.15	0.80	0.42
382.40	-1.28	-0.24	-0.15	0.77	4.74	1.13
382.60	-1.24	-0.31	-0.14	-0.09	0.05	-1.47
382.80	-1.33	-0.36	-0.15	0.81	0.84	1.92
383.00	-1.17	-0.34	-0.14	0.21	2.11	-1.67
383.20	-1.15	-0.30	-0.14	0.65	-1.16	-0.43
383.40	-1.15	-0.33	-0.13	0.79	1.10	-0.34
383.60	-1.22	-0.28	-0.12	0.89	0.11	0.30
383.80	-1.15	-0.30	-0.12	0.81	-0.03	0.31
384.00	-1.08	-0.26	-0.11	0.84	-0.16	0.95
384.20	-1.27	-0.26	-0.14	0.23	1.77	1.80
384.40	-1.20	-0.26	-0.10	0.43	-3.67	0.22
384.60	-1.23	-0.35	-0.12	1.73	0.23	3.82
384.80	-1.11	-0.16	-0.11	-0.05	1.45	0.34
385.00	-1.19	-0.27	-0.13	0.48	2.23	-1.99
385.20	-1.09	-0.30	-0.09	0.35	-3.66	-0.67
385.40	-1.19	-0.26	-0.11	0.86	-0.30	0.63
385.60	-1.11	-0.35	-0.09	0.80	-1.05	-1.21
385.80	-1.25	-0.26	-0.10	0.16	2.15	-1.21
386.00	-1.17	-0.20	-0.10	0.24	1.54	-0.97
386.20	-1.02	-0.30	-0.09	0.67	-0.05	-1.37
386.40	-1.16	-0.31	-0.11	0.80	-0.63	1.18
386.60	-1.15	-0.24	-0.08	-0.70	-0.57	-5.45
386.80	-0.98	-0.31	-0.09	0.63	-1.15	0.37
387.00	-1.07	-0.35	-0.11	-0.04	3.19	-4.25
387.20	-1.05	-0.23	-0.10	-1.98	2.14	-4.25
387.40	-0.89	-0.32	-0.12	-0.17	-4.06	-0.34
387.60	-0.89	-0.24	-0.11	0.28	-2.64	1.67
387.80	-1.00	-0.24	-0.11	0.69	-0.81	0.49
388.00	-1.06	-0.32	-0.12	0.99	-3.13	-0.50
388.20	-1.01	-0.32	-0.13	0.57	1.87	0.13
388.40	-1.15	-0.20	-0.13	0.45	2.59	-0.57
388.60	-0.95	-0.33	-0.15	0.94	0.48	1.27
388.80	-0.81	-0.27	-0.15	0.32	-2.89	0.96
389.00	-0.99	-0.30	-0.14	0.59	-3.51	0.52

389.20	-0.78	-0.33	-0.16	0.33	-0.81	0.75
389.40	-0.92	-0.32	-0.16	0.33	0.62	-0.20
389.60	-0.90	-0.21	-0.18	1.33	-1.73	3.59
389.80	-1.04	-0.20	-0.19	0.63	-0.04	-0.03
390.00	-1.04	-0.33	-0.18	0.59	-0.44	0.49
390.20	-0.94	-0.23	-0.19	0.64	-0.05	1.46
390.40	-0.83	-0.22	-0.19	0.72	-0.93	0.59
390.60	-0.92	-0.22	-0.21	0.51	-1.36	0.80
390.80	-0.82	-0.14	-0.19	0.88	-1.25	1.79
391.00	-0.90	-0.13	-0.24	0.41	0.27	0.08
391.20	-0.76	-0.16	-0.21	0.75	-1.78	1.68
391.40	-0.94	-0.21	-0.27	0.01	-0.30	-1.59
391.60	-0.94	-0.16	-0.23	0.69	-0.73	0.12
391.80	-0.94	-0.13	-0.24	0.75	-0.31	0.27
392.00	-0.90	-0.12	-0.21	0.73	-0.38	0.14
392.20	-0.89	-0.19	-0.24	0.68	-0.27	0.17
392.40	-0.86	-0.12	-0.24	0.67	-0.33	0.30
392.60	-0.86	-0.12	-0.23	0.57	-0.63	-0.35
392.80	-0.87	-0.19	-0.23	0.19	-1.98	-4.27
393.00	-0.84	-0.10	-0.21	-0.17	-0.82	-2.04
393.20	-0.81	-0.14	-0.21	0.16	-2.10	-0.10
393.40	-0.80	-0.13	-0.19	0.83	1.54	-0.33
393.60	-0.92	-0.11	-0.24	0.46	-0.15	-0.84
393.80	-0.89	-0.14	-0.21	0.67	-1.53	-0.64
394.00	-0.82	-0.09	-0.20	0.67	2.54	1.05
394.20	-0.86	-0.11	-0.22	0.41	-1.97	1.26
394.40	-0.86	-0.19	-0.21	0.59	0.83	0.40
394.60	-0.87	-0.14	-0.23	0.35	1.69	0.73
394.80	-0.87	-0.15	-0.23	0.71	2.90	0.04
395.00	-0.76	-0.09	-0.19	0.53	-12.89	-3.56
395.20	-0.96	-0.18	-0.21	-0.40	1.11	-2.74
395.40	-0.81	-0.17	-0.21	1.18	-1.91	1.55
395.60	-0.77	-0.13	-0.20	-0.21	2.79	-1.53
395.80	-0.87	-0.16	-0.20	0.41	-0.70	0.71
396.00	-0.83	-0.12	-0.19	0.09	0.61	-3.47
396.20	-0.76	-0.11	-0.20	0.78	4.30	2.25
396.40	-0.84	-0.14	-0.17	-0.54	-1.22	2.98
396.60	-0.85	-0.13	-0.18	0.21	2.01	-0.43
396.80	-0.90	-0.09	-0.18	-0.11	-1.37	-1.57
397.00	-0.86	-0.09	-0.17	0.47	-1.05	1.01
397.20	-0.74	-0.08	-0.19	0.79	-0.17	1.42
397.40	-0.88	-0.17	-0.19	0.23	-0.32	-1.21
397.60	-0.92	-0.17	-0.20	0.51	-0.76	-0.37
397.80	-0.87	-0.08	-0.17	0.94	3.20	-0.04
398.00	-0.86	-0.12	-0.19	0.21	1.23	0.53
398.20	-0.93	-0.20	-0.18	0.36	0.66	-2.32
398.40	-0.81	-0.11	-0.15	0.32	-0.54	0.75
398.60	-0.79	-0.05	-0.16	0.78	0.49	0.11
398.80	-0.84	-0.12	-0.16	-0.47	1.53	-3.15
399.00	-0.74	-0.11	-0.16	-0.01	0.95	0.69

399.20	-0.72	-0.11	-0.15	0.61	1.06	-0.93
399.40	-0.72	-0.20	-0.15	-0.19	0.68	-0.42
399.60	-0.67	-0.01	-0.17	0.38	-0.61	-0.95
399.80	-0.73	-0.10	-0.17	1.13	-1.39	2.04
400.00	-0.84	-0.16	-0.16	0.79	-0.41	1.38
400.20	-0.64	-0.15	-0.15	-0.05	0.46	-2.64
400.40	-0.85	-0.10	-0.17	0.25	1.11	-0.98
400.60	-0.79	-0.14	-0.17	0.37	-5.16	0.52
400.80	-0.81	-0.06	-0.17	0.91	0.32	1.06
401.00	-0.71	-0.09	-0.17	0.34	-1.72	-1.72
401.20	-0.87	-0.07	-0.19	0.61	-0.81	0.19
401.40	-0.71	-0.11	-0.17	0.57	-0.36	-0.16
401.60	-0.93	-0.09	-0.18	0.58	2.18	1.86
401.80	-0.95	-0.09	-0.19	0.75	-2.25	1.13
402.00	-0.66	-0.10	-0.18	0.25	-1.46	2.48
402.20	-0.96	-0.07	-0.19	-0.10	-1.52	-1.66
402.40	-0.84	-0.05	-0.19	0.16	-4.97	-0.02
402.60	-0.78	-0.19	-0.19	0.15	-1.28	-0.61
402.80	-0.77	-0.08	-0.19	0.59	-1.27	-3.09
403.00	-0.83	-0.13	-0.20	0.62	-0.32	0.89
403.20	-0.81	-0.16	-0.19	0.43	-0.85	-1.00
403.40	-0.80	-0.08	-0.21	0.80	-2.65	1.38
403.60	-0.75	-0.10	-0.19	0.36	-0.55	-0.42
403.80	-0.86	-0.12	-0.21	1.48	-3.75	0.59
404.00	-0.89	-0.14	-0.21	0.58	-4.35	0.23
404.20	-0.87	-0.07	-0.21	-0.30	6.24	1.06
404.40	-0.99	-0.08	-0.25	0.29	-1.99	-0.14
404.60	-0.81	-0.10	-0.22	0.70	-2.90	1.20
404.80	-0.61	-0.08	-0.20	-0.22	0.15	-1.01
405.00	-0.78	-0.01	-0.23	0.83	-3.20	-0.93
405.20	-0.86	-0.16	-0.26	1.11	0.56	0.87
405.40	-0.87	-0.04	-0.25	0.54	-1.91	-1.56
405.60	-0.74	-0.08	-0.22	0.29	-0.73	-1.50
405.80	-0.88	-0.07	-0.24	0.24	-2.77	-1.31
406.00	-0.83	-0.12	-0.25	0.44	2.35	0.38
406.20	-0.75	-0.03	-0.22	0.13	-2.06	2.53
406.40	-0.82	-0.07	-0.27	0.26	-0.81	-0.33
406.60	-0.87	-0.04	-0.28	0.55	0.45	-0.15
406.80	-0.68	-0.06	-0.25	0.52	-0.02	0.52
407.00	-0.71	-0.04	-0.26	0.60	-3.42	-0.69
407.20	-0.52	-0.14	-0.24	0.36	-3.13	-0.84
407.40	-0.76	-0.14	-0.26	0.62	-0.13	1.09
407.60	-0.81	-0.07	-0.25	1.22	4.82	0.77
407.80	-0.66	-0.09	-0.25	0.84	-1.36	-0.02
408.00	-0.62	-0.02	-0.26	0.52	-0.57	-0.39
408.20	-0.69	-0.06	-0.26	-0.20	-1.39	-1.98
408.40	-0.75	-0.08	-0.28	0.66	-0.12	-0.03
408.60	-0.80	-0.08	-0.28	0.63	-1.05	-2.07
408.80	-0.76	-0.18	-0.28	0.72	-0.07	0.89
409.00	-0.68	-0.16	-0.26	0.12	-2.59	-1.93

409.20	-0.80	-0.13	-0.28	0.59	0.53	0.64
409.40	-0.65	0.01	-0.27	0.44	-0.27	-1.16
409.60	-0.67	-0.11	-0.27	0.59	-0.22	1.01
409.80	-0.67	-0.21	-0.25	0.24	2.92	-1.22
410.00	-0.54	-0.10	-0.23	0.80	0.94	4.47
410.20	-0.82	-0.11	-0.26	0.61	0.58	-0.53
410.40	-0.72	-0.11	-0.28	0.50	-8.25	0.57
410.60	-0.65	-0.24	-0.24	0.38	-0.46	1.94
410.80	-0.71	-0.14	-0.29	0.07	-0.19	-1.24
411.00	-0.75	-0.15	-0.28	0.03	-0.04	-0.41
411.20	-0.66	-0.11	-0.27	-0.11	6.51	2.12
411.40	-0.69	-0.28	-0.28	0.69	-2.67	0.10
411.60	-0.63	-0.19	-0.25	0.25	0.66	-2.11
411.80	-0.59	-0.20	-0.27	-0.30	-0.31	-5.50
412.00	-0.57	-0.27	-0.26	-0.21	-0.74	-1.81
412.20	-0.67	-0.26	-0.29	-0.46	-1.41	-0.89
412.40	-0.69	-0.16	-0.26	0.48	-1.42	-1.62
412.60	-0.84	-0.21	-0.27	0.69	1.02	0.95
412.80	-0.66	-0.22	-0.26	0.03	1.56	-1.61
413.00	-0.77	-0.22	-0.28	1.11	-1.91	2.28
413.20	-0.69	-0.24	-0.26	0.45	-2.40	0.54
413.40	-0.70	-0.31	-0.28	0.60	-0.83	0.70
413.60	-0.58	-0.22	-0.27	0.62	0.06	0.06
413.80	-0.73	-0.12	-0.26	0.52	1.69	0.43
414.00	-0.79	-0.24	-0.27	0.51	-0.16	0.12
414.20	-0.78	-0.19	-0.25	0.44	-0.50	0.00
414.40	-0.72	-0.22	-0.27	0.59	-0.20	0.78
414.60	-0.81	-0.15	-0.28	0.57	-0.46	0.03
414.80	-0.59	-0.20	-0.24	0.62	0.34	0.02
415.00	-0.68	-0.21	-0.27	0.39	1.70	1.05
415.20	-0.77	-0.19	-0.28	0.54	-0.54	-0.72
415.40	-0.86	-0.21	-0.27	0.14	1.76	0.36
415.60	-0.55	-0.06	-0.25	-0.07	0.35	-1.87
415.80	-0.80	-0.21	-0.26	0.51	1.62	0.32
416.00	-0.85	-0.19	-0.26	0.65	3.06	-0.23
416.20	-0.71	-0.21	-0.26	0.78	1.14	1.26
416.40	-0.80	-0.24	-0.27	0.27	1.78	-1.66
416.60	-0.72	-0.01	-0.25	0.70	0.27	-0.36
416.80	-0.79	-0.20	-0.26	0.23	-1.37	2.72
417.00	-0.64	-0.14	-0.24	0.44	0.74	-0.46
417.20	-0.67	-0.10	-0.24	0.33	2.00	1.13
417.40	-0.88	-0.19	-0.25	0.77	-1.33	-0.06
417.60	-0.85	-0.13	-0.24	1.00	-0.24	2.22
417.80	-0.74	-0.09	-0.21	0.16	-1.60	-1.72
418.00	-0.75	-0.04	-0.23	0.18	-0.01	-1.74
418.20	-0.75	-0.06	-0.24	-0.47	2.30	0.74
418.40	-0.72	-0.19	-0.23	0.50	-1.91	0.89
418.60	-0.72	-0.22	-0.20	0.18	-1.02	-1.08
418.80	-0.67	-0.10	-0.20	0.63	0.03	0.55
419.00	-0.75	-0.15	-0.22	-0.05	0.94	0.84

419.20	-0.75	-0.07	-0.20	0.70	-1.38	0.75
419.40	-0.80	-0.10	-0.19	0.68	1.87	0.86
419.60	-0.75	-0.04	-0.17	-1.01	-4.84	-0.05
419.80	-0.85	-0.19	-0.19	0.12	-1.17	0.26
420.00	-0.65	-0.12	-0.18	1.05	-1.83	-0.57
420.20	-0.87	-0.09	-0.19	0.47	-1.43	-2.81
420.40	-0.84	-0.13	-0.16	0.26	-0.29	-0.51
420.60	-0.76	-0.06	-0.19	0.18	0.53	-2.37
420.80	-1.00	-0.20	-0.16	0.35	-0.17	0.58
421.00	-0.90	-0.08	-0.15	0.04	-3.20	-1.40
421.20	-0.85	-0.01	-0.15	0.37	-1.00	0.21
421.40	-0.85	-0.23	-0.12	0.37	-2.90	-1.45
421.60	-0.93	-0.09	-0.14	0.98	0.46	1.46
421.80	-0.70	-0.16	-0.12	0.73	-2.26	-4.94
422.00	-0.80	-0.11	-0.11	0.08	0.35	0.15
422.20	-0.88	-0.25	-0.12	0.61	-0.39	0.45
422.40	-0.74	-0.21	-0.10	-0.59	0.47	0.15
422.60	-0.73	-0.18	-0.09	0.40	-1.95	-2.23
422.80	-0.77	-0.17	-0.11	-0.01	0.87	-3.99
423.00	-1.04	-0.15	-0.10	0.56	5.22	5.09
423.20	-0.93	-0.14	-0.10	1.96	-3.89	1.37
423.40	-0.97	-0.11	-0.11	0.46	-1.85	-0.19
423.60	-0.82	-0.15	-0.11	-0.27	-0.59	-3.05
423.80	-0.96	-0.04	-0.12	-0.27	-2.39	-4.20
424.00	-0.95	-0.06	-0.10	1.03	-2.12	2.66
424.20	-1.01	-0.11	-0.12	0.03	2.89	-0.42
424.40	-0.86	-0.13	-0.09	1.12	-0.16	0.73
424.60	-0.94	-0.19	-0.11	-0.24	0.47	-1.34
424.80	-0.88	-0.19	-0.08	0.23	-0.92	-2.02
425.00	-0.90	-0.23	-0.09	0.44	-1.26	2.32
425.20	-0.97	-0.11	-0.11	0.62	1.30	1.64
425.40	-1.03	-0.24	-0.12	0.27	1.95	1.67
425.60	-0.96	-0.15	-0.13	0.38	-0.76	2.03
425.80	-1.01	-0.10	-0.09	1.39	1.39	2.62
426.00	-0.77	-0.13	-0.09	0.51	-0.76	2.29
426.20	-0.97	-0.09	-0.11	0.72	-1.72	2.47
426.40	-0.91	-0.10	-0.11	0.81	1.66	0.51
426.60	-0.85	-0.09	-0.11	0.40	4.98	6.96
426.80	-1.01	-0.29	-0.12	-0.28	-0.72	-0.38
427.00	-0.92	-0.24	-0.12	0.90	-0.63	3.02
427.20	-1.01	-0.13	-0.11	0.18	-2.83	-1.30
427.40	-1.01	-0.19	-0.13	0.21	0.86	-0.79
427.60	-0.97	-0.18	-0.11	0.78	-1.76	2.97
427.80	-1.01	-0.16	-0.11	-0.02	1.90	-0.36
428.00	-1.08	-0.19	-0.11	0.51	4.36	-4.21
428.20	-0.90	-0.17	-0.11	0.29	2.19	0.79
428.40	-0.94	-0.18	-0.10	0.19	-5.18	-1.08
428.60	-1.06	-0.25	-0.13	0.97	-1.13	-0.11
428.80	-1.07	-0.13	-0.11	0.31	-0.47	0.84
429.00	-1.05	-0.26	-0.13	0.50	0.38	2.09

429.20	-1.12	-0.16	-0.13	0.68	0.36	-2.14
429.40	-1.09	-0.24	-0.12	-0.99	2.96	0.25
429.60	-1.08	-0.24	-0.13	0.98	-1.77	0.83
429.80	-1.07	-0.25	-0.13	0.94	-0.14	2.36
430.00	-1.01	-0.25	-0.13	1.21	1.97	4.11
430.20	-0.86	-0.20	-0.11	1.46	-1.00	4.40
430.40	-1.06	-0.33	-0.12	1.17	0.26	1.12
430.60	-1.17	-0.21	-0.15	-0.16	1.22	-0.78
430.80	-1.22	-0.22	-0.13	0.81	-0.35	3.10
431.00	-0.98	-0.29	-0.15	0.00	0.17	1.37
431.20	-0.91	-0.24	-0.14	0.09	-2.55	-2.50
431.40	-0.97	-0.23	-0.15	0.84	3.86	0.14
431.60	-1.07	-0.19	-0.16	1.18	0.19	2.80
431.80	-0.88	-0.22	-0.12	0.01	1.14	-0.70
432.00	-1.01	-0.22	-0.15	0.27	-0.04	-0.94
432.20	-1.11	-0.20	-0.16	0.27	2.42	1.36
432.40	-0.98	-0.27	-0.18	0.56	1.99	0.25
432.60	-1.02	-0.17	-0.14	1.50	3.40	2.95
432.80	-1.13	-0.14	-0.20	0.39	-1.65	2.28
433.00	-1.08	-0.27	-0.16	0.52	-3.01	-1.50
433.20	-0.94	-0.15	-0.17	0.63	-1.17	0.71
433.40	-0.96	-0.25	-0.17	1.04	0.14	-0.37
433.60	-1.07	-0.18	-0.17	-0.98	0.40	-6.30
433.80	-1.08	-0.28	-0.18	-0.09	-0.76	-2.78
434.00	-1.03	-0.22	-0.19	1.07	-1.27	2.51
434.20	-1.01	-0.20	-0.20	0.12	1.82	-4.20
434.40	-0.92	-0.32	-0.19	0.38	-0.58	3.52
434.60	-0.79	-0.22	-0.17	0.89	-3.97	2.01
434.80	-1.18	-0.27	-0.21	0.07	2.95	-3.62
435.00	-1.00	-0.22	-0.19	1.03	-1.35	1.58
435.20	-1.04	-0.20	-0.18	0.45	-1.59	1.63
435.40	-1.03	-0.30	-0.19	0.32	0.05	0.66
435.60	-0.92	-0.25	-0.17	0.55	-2.31	1.35
435.80	-0.95	-0.26	-0.19	0.37	-0.85	1.10
436.00	-0.77	-0.24	-0.16	0.73	0.16	-0.09
436.20	-1.01	-0.22	-0.20	0.56	-2.00	0.86
436.40	-1.01	-0.16	-0.18	0.39	-2.94	-0.14
436.60	-1.00	-0.23	-0.17	0.66	0.38	-0.90
436.80	-1.05	-0.27	-0.16	0.61	-1.29	0.71
437.00	-0.97	-0.14	-0.17	0.68	0.57	1.00
437.20	-0.89	-0.15	-0.16	0.44	-2.29	-1.94
437.40	-0.91	-0.20	-0.15	0.45	-3.47	-1.85
437.60	-1.05	-0.16	-0.17	-0.06	-2.39	0.35
437.80	-0.92	-0.18	-0.16	0.12	-0.44	-0.24
438.00	-0.90	-0.18	-0.15	1.43	-2.07	1.41
438.20	-1.01	-0.24	-0.17	0.60	-1.01	1.72
438.40	-1.08	-0.23	-0.16	1.80	1.10	-0.66
438.60	-0.96	-0.29	-0.13	-0.51	-2.46	-2.17
438.80	-0.98	-0.31	-0.16	0.75	0.01	-0.55
439.00	-1.11	-0.31	-0.13	0.75	0.44	1.03

439.20	-0.97	-0.24	-0.16	0.24	-1.48	0.68
439.40	-0.89	-0.28	-0.14	0.58	1.00	-0.16
439.60	-0.95	-0.20	-0.14	0.73	-1.34	0.74
439.80	-0.98	-0.23	-0.15	0.23	0.49	0.89
440.00	-1.09	-0.14	-0.14	0.81	0.87	0.66
440.20	-1.04	-0.22	-0.14	0.52	-4.71	-2.32
440.40	-1.02	-0.23	-0.13	1.12	-3.33	1.44
440.60	-1.17	-0.32	-0.12	0.11	-4.15	2.35
440.80	-0.95	-0.24	-0.13	0.17	0.50	-1.01
441.00	-1.08	-0.28	-0.13	-0.10	-1.52	1.55
441.20	-1.12	-0.18	-0.09	0.79	-0.46	-1.14
441.40	-1.19	-0.19	-0.10	0.90	-0.75	1.67
441.60	-1.30	-0.18	-0.10	0.68	-1.29	-0.17
441.80	-1.14	-0.24	-0.09	0.81	-1.53	-0.52
442.00	-1.13	-0.19	-0.09	0.95	2.51	0.76
442.20	-1.13	-0.18	-0.11	0.73	-2.05	0.74
442.40	-1.19	-0.30	-0.09	0.57	1.01	0.03
442.60	-1.11	-0.27	-0.10	1.53	-0.10	4.86
442.80	-1.16	-0.16	-0.08	-0.35	-1.79	-5.00
443.00	-1.20	-0.16	-0.10	0.70	1.50	0.94
443.20	-1.30	-0.19	-0.09	0.64	-1.45	-0.91
443.40	-1.35	-0.14	-0.11	0.83	-1.25	-0.81
443.60	-1.26	-0.28	-0.12	0.74	0.41	-0.50
443.80	-1.28	-0.18	-0.12	0.78	-0.18	1.30
444.00	-1.45	-0.25	-0.12	-0.01	0.05	-0.54
444.20	-1.30	-0.23	-0.10	0.13	1.08	-2.51
444.40	-1.27	-0.26	-0.11	1.11	-0.27	1.05
444.60	-1.40	-0.21	-0.14	1.22	-0.90	1.78
444.80	-1.34	-0.32	-0.15	0.66	0.66	0.56
445.00	-1.34	-0.31	-0.13	0.43	-0.56	0.20
445.20	-1.36	-0.27	-0.14	0.70	-1.38	-0.50
445.40	-1.30	-0.36	-0.13	0.82	-1.91	0.05
445.60	-1.36	-0.28	-0.15	0.75	-2.04	0.57
445.80	-1.37	-0.36	-0.14	0.72	-0.81	-0.50
446.00	-1.37	-0.32	-0.18	0.90	0.90	0.50
446.20	-1.29	-0.31	-0.16	0.61	-2.65	-1.23
446.40	-1.41	-0.39	-0.16	0.37	-0.46	0.19
446.60	-1.25	-0.37	-0.16	0.89	0.63	0.73
446.80	-1.24	-0.43	-0.17	0.90	-1.94	0.05
447.00	-1.36	-0.31	-0.15	0.57	0.75	0.58
447.20	-1.17	-0.36	-0.14	0.29	0.89	0.51
447.40	-1.29	-0.41	-0.16	0.21	0.62	1.28
447.60	-1.38	-0.36	-0.17	0.04	1.79	-1.44
447.80	-1.35	-0.35	-0.14	0.44	0.29	-0.62
448.00	-1.25	-0.32	-0.13	1.01	-1.57	2.62
448.20	-1.33	-0.45	-0.13	0.25	-2.91	-0.09
448.40	-1.30	-0.40	-0.12	-0.05	1.00	-2.10
448.60	-1.43	-0.38	-0.14	1.06	1.24	-1.27
448.80	-1.41	-0.32	-0.15	0.99	-1.07	0.94
449.00	-1.37	-0.27	-0.12	0.94	3.53	-2.19

449.20	-1.32	-0.48	-0.13	0.67	-1.87	1.02
449.40	-1.32	-0.36	-0.10	0.79	1.04	0.67
449.60	-1.24	-0.35	-0.10	-0.30	3.00	-5.14
449.80	-1.45	-0.36	-0.12	0.45	3.60	0.68
450.00	-1.34	-0.38	-0.10	0.61	1.61	-0.55
450.20	-1.43	-0.41	-0.10	0.88	-0.20	0.70
450.40	-1.40	-0.44	-0.08	0.54	-1.25	1.40
450.60	-1.32	-0.41	-0.11	-0.34	-1.21	-4.94
450.80	-1.33	-0.41	-0.11	0.84	-0.09	-0.55
451.00	-1.50	-0.43	-0.12	0.86	0.69	0.08
451.20	-1.42	-0.32	-0.10	0.88	1.62	0.79
451.40	-1.27	-0.39	-0.09	0.85	-3.05	1.33
451.60	-1.33	-0.40	-0.06	0.38	-1.12	-1.03
451.80	-1.36	-0.41	-0.09	0.37	2.06	-5.61
452.00	-1.34	-0.37	-0.09	0.27	-3.40	-2.61
452.20	-1.48	-0.48	-0.10	0.74	-0.88	-0.53
452.40	-1.54	-0.40	-0.12	0.52	-0.78	-1.98
452.60	-1.42	-0.41	-0.11	0.75	0.01	2.43
452.80	-1.56	-0.29	-0.11	0.71	-2.42	0.66
453.00	-1.51	-0.37	-0.12	0.66	-3.09	-1.97
453.20	-1.47	-0.50	-0.09	0.14	-2.67	-0.65
453.40	-1.53	-0.47	-0.09	0.52	-2.46	-2.07
453.60	-1.43	-0.42	-0.10	2.11	-0.89	4.54
453.80	-1.41	-0.43	-0.10	0.49	-0.20	0.49
454.00	-1.48	-0.41	-0.09	0.85	4.67	0.55
454.20	-1.31	-0.52	-0.08	0.84	1.19	0.35
454.40	-1.24	-0.48	-0.10	0.64	0.40	0.10
454.60	-1.57	-0.48	-0.13	0.60	-1.21	-2.38
454.80	-1.44	-0.46	-0.11	0.87	-0.09	-0.71
455.00	-1.47	-0.39	-0.09	0.50	-0.04	1.20
455.20	-1.46	-0.34	-0.09	1.20	0.63	1.44
455.40	-1.40	-0.36	-0.11	0.18	0.68	-3.26
455.60	-1.53	-0.37	-0.13	0.02	-0.02	-2.43
455.80	-1.41	-0.43	-0.10	0.38	0.84	-1.16
456.00	-1.29	-0.48	-0.11	1.13	-2.19	1.84
456.20	-1.39	-0.34	-0.12	0.40	-0.82	-0.50
456.40	-1.40	-0.44	-0.13	1.20	-0.58	1.40
456.60	-1.26	-0.47	-0.12	0.72	0.05	-0.05
456.80	-1.40	-0.26	-0.12	0.64	-0.30	-0.48
457.00	-1.64	-0.36	-0.13	0.51	-1.13	-1.43
457.20	-1.41	-0.32	-0.14	0.18	-0.50	-1.48
457.40	-1.54	-0.42	-0.13	0.78	-0.35	-1.44
457.60	-1.45	-0.33	-0.14	0.72	0.10	0.90
457.80	-1.45	-0.38	-0.15	0.89	-0.66	-0.44
458.00	-1.40	-0.40	-0.17	0.81	0.49	1.45
458.20	-1.38	-0.33	-0.17	0.33	-3.37	2.06
458.40	-1.45	-0.43	-0.16	0.83	-0.91	-0.32
458.60	-1.17	-0.39	-0.15	0.54	-0.73	0.18
458.80	-1.23	-0.41	-0.16	1.52	3.51	4.40
459.00	-1.41	-0.49	-0.19	0.12	-0.07	-2.75

459.20	-1.46	-0.37	-0.17	0.86	-0.38	-0.37
459.40	-1.56	-0.32	-0.19	1.25	-0.19	1.14
459.60	-1.50	-0.37	-0.17	0.26	1.94	3.93
459.80	-1.27	-0.37	-0.14	0.33	-1.81	-3.25
460.00	-1.58	-0.36	-0.21	0.44	-0.67	-0.84
460.20	-1.46	-0.49	-0.19	0.85	-1.44	0.03
460.40	-1.26	-0.35	-0.16	0.27	-1.19	0.04
460.60	-1.50	-0.36	-0.19	1.67	-0.63	1.86
460.80	-1.52	-0.28	-0.18	0.09	-0.96	-0.66
461.00	-1.51	-0.35	-0.19	1.61	-0.69	1.93
461.20	-1.43	-0.40	-0.16	0.64	-0.29	-0.76
461.40	-1.52	-0.39	-0.18	0.90	-0.14	-0.62
461.60	-1.50	-0.33	-0.19	0.40	-3.57	-1.56
461.80	-1.50	-0.35	-0.19	0.70	4.83	3.00
462.00	-1.31	-0.46	-0.16	1.11	-0.66	0.86
462.20	-1.25	-0.42	-0.15	0.31	0.05	-1.61
462.40	-1.40	-0.31	-0.18	0.45	-0.29	0.27
462.60	-1.30	-0.35	-0.19	0.77	0.09	0.53
462.80	-1.50	-0.40	-0.19	0.75	2.05	1.12
463.00	-1.31	-0.35	-0.16	0.71	-3.69	-0.20
463.20	-1.46	-0.37	-0.20	0.21	1.99	4.59
463.40	-1.45	-0.38	-0.16	0.72	1.26	0.79
463.60	-1.35	-0.30	-0.19	0.50	-1.05	0.58
463.80	-1.42	-0.32	-0.16	0.83	-3.10	1.81
464.00	-1.32	-0.45	-0.18	0.11	-1.17	-1.08
464.20	-1.38	-0.39	-0.17	1.41	1.59	1.10
464.40	-1.30	-0.42	-0.16	0.49	-3.22	-0.09
464.60	-1.45	-0.42	-0.17	0.86	-0.17	-0.58
464.80	-1.35	-0.31	-0.17	0.55	-0.06	-0.09
465.00	-1.53	-0.49	-0.19	0.73	-0.74	0.04
465.20	-1.33	-0.35	-0.15	0.88	-0.68	0.59
465.40	-1.34	-0.33	-0.16	0.61	-0.90	0.16
465.60	-1.20	-0.36	-0.15	0.76	-0.01	2.04
465.80	-1.13	-0.48	-0.15	0.53	0.31	0.15
466.00	-1.43	-0.38	-0.19	0.08	-1.28	-3.14
466.20	-1.14	-0.37	-0.15	0.66	-0.48	-0.17
466.40	-1.27	-0.32	-0.16	-0.28	1.57	-1.48
466.60	-1.26	-0.40	-0.18	3.33	-4.34	5.73
466.80	-1.32	-0.49	-0.17	0.57	0.09	0.81
467.00	-1.36	-0.53	-0.16	1.18	-2.39	2.63
467.20	-1.38	-0.39	-0.16	0.65	-2.03	-0.91
467.40	-1.33	-0.38	-0.16	0.48	-0.50	1.06
467.60	-1.20	-0.37	-0.18	0.95	1.33	0.74
467.80	-1.45	-0.44	-0.18	0.04	-0.23	-0.76
468.00	-1.42	-0.43	-0.21	0.11	2.26	0.63
468.20	-1.39	-0.43	-0.19	0.60	-2.08	1.41
468.40	-1.57	-0.35	-0.19	0.34	-3.05	-1.41
468.60	-1.41	-0.41	-0.17	0.73	0.45	0.94
468.80	-1.32	-0.48	-0.18	0.67	-3.05	2.15
469.00	-1.20	-0.44	-0.16	0.72	-1.78	0.59

469.20	-1.27	-0.43	-0.18	0.63	-1.04	-0.99
469.40	-1.25	-0.51	-0.18	1.02	-0.72	0.91
469.60	-1.12	-0.40	-0.17	0.78	-0.59	0.09
469.80	-1.16	-0.36	-0.16	0.89	-0.33	0.46
470.00	-1.35	-0.33	-0.17	0.59	0.39	-0.29
470.20	-1.24	-0.37	-0.16	-0.33	0.91	-3.65
470.40	-1.28	-0.38	-0.16	0.45	3.23	0.30
470.60	-1.15	-0.46	-0.16	1.02	-0.73	0.74
470.80	-1.21	-0.36	-0.19	0.77	-1.60	-1.45
471.00	-1.19	-0.43	-0.16	0.85	-0.05	0.28
471.20	-1.20	-0.41	-0.18	0.59	0.08	-0.24
471.40	-1.16	-0.47	-0.16	0.67	-0.08	0.44
471.60	-1.34	-0.38	-0.20	1.44	-0.82	3.37
471.80	-1.06	-0.33	-0.18	0.70	-0.20	-0.53
472.00	-1.24	-0.41	-0.18	0.80	-0.42	0.43
472.20	-1.30	-0.38	-0.21	0.81	2.72	0.09
472.40	-1.22	-0.32	-0.15	0.70	-0.09	0.13
472.60	-1.27	-0.35	-0.18	0.71	-0.67	0.19
472.80	-1.35	-0.41	-0.17	0.48	-1.11	0.40
473.00	-1.25	-0.24	-0.17	-0.01	3.12	3.87
473.20	-1.31	-0.38	-0.19	0.36	0.92	-0.45
473.40	-1.23	-0.32	-0.18	0.60	0.12	-0.43
473.60	-1.30	-0.30	-0.18	0.61	-0.92	-0.58
473.80	-1.27	-0.27	-0.18	0.68	-4.44	-2.20
474.00	-1.19	-0.29	-0.18	0.62	-1.61	0.99
474.20	-1.40	-0.27	-0.22	0.62	-0.25	-0.39
474.40	-1.27	-0.35	-0.21	0.55	-0.83	-0.25
474.60	-1.39	-0.36	-0.20	0.43	-1.64	-1.72
474.80	-1.51	-0.37	-0.24	0.84	-1.54	-0.83
475.00	-1.47	-0.42	-0.24	0.69	-1.82	0.10
475.20	-1.49	-0.35	-0.20	0.75	-0.54	-0.81
475.40	-1.22	-0.33	-0.20	0.71	-1.27	0.29
475.60	-1.52	-0.36	-0.23	1.43	1.05	1.40
475.80	-1.39	-0.32	-0.21	0.74	-1.41	0.68
476.00	-1.33	-0.29	-0.22	0.43	-2.88	-2.33
476.20	-1.31	-0.27	-0.18	0.69	-3.61	1.65
476.40	-1.20	-0.44	-0.20	0.83	-0.36	0.57
476.60	-1.40	-0.37	-0.23	0.65	-0.35	0.67
476.80	-1.15	-0.38	-0.22	0.82	-1.96	0.77
477.00	-1.22	-0.26	-0.23	-0.01	1.56	-1.37
477.20	-1.27	-0.36	-0.23	-0.77	-3.63	-0.37
477.40	-1.29	-0.40	-0.23	0.97	-0.76	3.30
477.60	-1.27	-0.42	-0.23	0.56	-2.69	1.35
477.80	-1.38	-0.36	-0.22	0.35	-2.41	-2.72
478.00	-1.16	-0.46	-0.21	0.44	0.16	0.45
478.20	-1.10	-0.34	-0.23	0.82	0.00	0.29
478.40	-1.42	-0.28	-0.22	0.65	0.82	0.81
478.60	-1.33	-0.35	-0.21	0.46	-2.92	-0.03
478.80	-1.34	-0.36	-0.25	0.32	0.23	0.29
479.00	-1.28	-0.31	-0.22	0.82	-0.23	2.56

479.20	-1.30	-0.35	-0.24	-0.18	2.42	-2.62
479.40	-1.30	-0.40	-0.23	1.02	0.12	0.15
479.60	-1.21	-0.34	-0.23	0.65	-0.22	-1.36
479.80	-1.19	-0.38	-0.21	0.46	-0.08	-1.71
480.00	-1.40	-0.31	-0.21	0.77	-1.24	2.54
480.20	-1.37	-0.34	-0.25	0.39	1.15	-0.96
480.40	-1.25	-0.40	-0.25	0.89	0.22	0.03
480.60	-1.10	-0.15	-0.23	0.31	1.39	-0.23
480.80	-1.44	-0.26	-0.24	0.27	-0.57	2.60
481.00	-1.14	-0.20	-0.21	0.83	-0.86	-0.94
481.20	-1.23	-0.22	-0.24	0.73	0.29	1.37
481.40	-1.26	-0.24	-0.23	0.56	-1.24	-0.67
481.60	-1.27	-0.36	-0.25	0.62	-0.30	-0.32
481.80	-1.21	-0.27	-0.24	0.73	0.10	-0.09
482.00	-1.23	-0.39	-0.24	0.74	-0.42	1.21
482.20	-1.24	-0.24	-0.24	0.89	-0.33	-0.09
482.40	-1.35	-0.40	-0.23	0.15	-0.40	-0.79
482.60	-1.24	-0.25	-0.23	0.56	-0.36	-0.16
482.80	-1.26	-0.37	-0.23	0.63	0.91	-0.84
483.00	-1.09	-0.34	-0.22	0.80	-0.55	1.95
483.20	-1.27	-0.40	-0.23	0.68	1.72	-0.29
483.40	-1.28	-0.34	-0.22	1.25	3.66	2.25
483.60	-1.10	-0.33	-0.21	-0.84	-1.37	-2.74
483.80	-1.31	-0.35	-0.24	0.58	1.09	-1.71
484.00	-1.20	-0.38	-0.23	0.13	2.37	-3.65
484.20	-1.32	-0.30	-0.23	0.16	0.72	-0.47
484.40	-1.06	-0.30	-0.19	0.28	-0.76	-0.82
484.60	-1.26	-0.35	-0.21	0.62	-1.04	-0.51
484.80	-1.07	-0.39	-0.18	0.46	0.93	0.07
485.00	-1.20	-0.30	-0.20	0.65	-2.27	-1.52
485.20	-1.29	-0.26	-0.19	1.05	-1.62	0.03
485.40	-1.15	-0.22	-0.19	0.38	2.02	-0.21
485.60	-1.27	-0.46	-0.21	0.19	0.38	1.22
485.80	-1.10	-0.26	-0.17	0.44	0.22	1.26
486.00	-1.23	-0.30	-0.18	0.49	0.56	-0.54
486.20	-1.28	-0.37	-0.21	0.23	-0.55	-1.67
486.40	-1.20	-0.24	-0.17	0.12	-2.76	-1.01
486.60	-1.28	-0.34	-0.20	0.59	-0.03	0.62
486.80	-1.23	-0.30	-0.17	0.53	-2.41	3.73
487.00	-1.21	-0.27	-0.17	-0.09	-4.46	0.61
487.20	-1.10	-0.37	-0.15	0.96	-0.60	1.43
487.40	-1.37	-0.28	-0.17	0.97	1.97	2.10
487.60	-1.21	-0.29	-0.18	0.29	8.83	2.24
487.80	-1.23	-0.44	-0.16	1.46	0.35	2.40
488.00	-1.15	-0.39	-0.16	0.47	-3.14	2.75
488.20	-1.04	-0.27	-0.15	0.65	-0.48	0.37
488.40	-1.26	-0.35	-0.17	0.59	0.37	0.33
488.60	-1.19	-0.40	-0.17	-0.04	-0.26	-1.99
488.80	-1.14	-0.40	-0.17	0.38	0.80	-1.08
489.00	-1.22	-0.46	-0.19	0.79	1.86	0.26

489.20	-1.11	-0.25	-0.15	-0.53	1.44	-3.34
489.40	-1.07	-0.38	-0.15	0.01	1.50	-0.70
489.60	-1.25	-0.38	-0.17	0.30	-2.70	0.81
489.80	-1.17	-0.31	-0.16	0.46	-0.86	1.13
490.00	-1.27	-0.27	-0.16	0.48	-0.41	-0.33
490.20	-1.10	-0.33	-0.16	0.28	3.47	-3.15
490.40	-1.26	-0.34	-0.19	0.73	0.08	0.44
490.60	-1.08	-0.38	-0.17	0.55	0.11	2.40
490.80	-1.16	-0.34	-0.16	0.12	-0.33	-2.33
491.00	-1.33	-0.29	-0.18	0.63	2.50	1.48
491.20	-1.22	-0.43	-0.18	0.85	1.10	3.76
491.40	-1.17	-0.39	-0.17	0.52	-0.59	0.23
491.60	-1.13	-0.44	-0.18	0.44	-1.15	-1.21
491.80	-1.13	-0.35	-0.19	0.27	1.15	0.22
492.00	-1.12	-0.30	-0.19	0.41	-1.55	-0.71
492.20	-1.15	-0.33	-0.21	0.47	-2.78	-0.02
492.40	-1.07	-0.34	-0.21	0.71	-1.98	0.72
492.60	-1.24	-0.40	-0.19	0.28	-4.32	-1.94
492.80	-1.20	-0.31	-0.20	0.42	-2.11	-0.89
493.00	-1.03	-0.41	-0.18	0.50	-0.04	1.17
493.20	-1.15	-0.26	-0.19	-0.03	-0.06	-1.90
493.40	-0.99	-0.30	-0.18	0.48	-0.65	-1.57
493.60	-1.17	-0.27	-0.19	0.81	2.22	0.15
493.80	-1.10	-0.27	-0.20	0.60	2.10	-0.62
494.00	-1.12	-0.31	-0.20	0.75	-0.03	0.45
494.20	-1.04	-0.30	-0.19	-0.56	-0.88	-2.17
494.40	-1.09	-0.32	-0.19	-0.14	-0.78	-3.31
494.60	-1.12	-0.35	-0.19	0.53	0.95	0.01
494.80	-1.16	-0.31	-0.18	0.45	-0.10	-0.15
495.00	-1.13	-0.30	-0.19	0.47	-1.02	0.12
495.20	-1.19	-0.41	-0.19	0.60	0.12	0.47
495.40	-1.15	-0.32	-0.19	0.62	-1.40	-0.75
495.60	-1.15	-0.30	-0.19	0.68	0.88	0.65
495.80	-1.18	-0.26	-0.21	0.49	-0.61	-0.03
496.00	-1.10	-0.29	-0.19	0.77	0.37	-0.34
496.20	-1.04	-0.30	-0.19	0.09	-1.01	0.21
496.40	-1.15	-0.38	-0.19	0.45	0.42	2.16
496.60	-1.17	-0.30	-0.21	0.58	0.12	1.11
496.80	-1.01	-0.21	-0.22	0.56	-1.59	-1.96
497.00	-1.09	-0.33	-0.21	0.25	-0.02	-0.09
497.20	-1.24	-0.41	-0.23	0.70	0.27	-0.05
497.40	-0.94	-0.30	-0.19	0.43	0.27	1.26
497.60	-1.00	-0.17	-0.20	0.05	-0.28	-2.13
497.80	-1.07	-0.31	-0.21	0.07	0.76	-1.83
498.00	-1.13	-0.29	-0.21	0.32	0.98	0.02
498.20	-1.04	-0.26	-0.20	-0.19	-1.04	0.91
498.40	-1.06	-0.20	-0.22	0.22	-0.71	-0.48
498.60	-1.02	-0.26	-0.23	0.14	1.97	0.29
498.80	-1.06	-0.25	-0.22	0.13	0.52	-2.33
499.00	-1.12	-0.30	-0.21	-0.36	-0.58	0.54

499.20	-0.97	-0.24	-0.20	0.57	-1.81	1.13
499.40	-0.97	-0.27	-0.21	0.25	-0.70	-1.06
499.60	-1.12	-0.20	-0.24	-0.68	5.79	-3.07
499.80	-0.93	-0.25	-0.21	0.00	-0.61	-0.48
500.00	-1.06	-0.27	-0.22	0.60	-1.70	-1.24
500.20	-0.97	-0.23	-0.22	0.32	-0.58	-0.86
500.40	-1.13	-0.24	-0.24	-0.22	0.42	0.07
500.60	-0.88	-0.35	-0.21	1.07	2.79	1.50
500.80	-1.01	-0.31	-0.23	-0.35	-0.69	-0.20
501.00	-0.92	-0.30	-0.21	-0.10	-0.11	-1.01
501.20	-0.94	-0.28	-0.22	0.61	1.40	1.42
501.40	-1.00	-0.29	-0.23	0.46	1.03	0.50
501.60	-0.90	-0.32	-0.23	0.29	0.06	-0.14
501.80	-1.07	-0.28	-0.25	0.49	0.14	0.43
502.00	-1.01	-0.18	-0.22	0.25	-0.55	-0.35
502.20	-0.92	-0.18	-0.24	0.48	-0.47	0.19
502.40	-0.96	-0.23	-0.21	0.27	0.23	-0.60
502.60	-0.86	-0.31	-0.21	0.35	-1.87	0.67
502.80	-0.84	-0.22	-0.22	0.19	0.27	-0.65
503.00	-0.94	-0.19	-0.22	0.60	-0.24	0.68
503.20	-0.90	-0.31	-0.21	0.70	-0.23	0.51
503.40	-0.92	-0.22	-0.23	0.98	-0.45	1.10
503.60	-0.95	-0.28	-0.21	1.01	0.41	1.36
503.80	-0.92	-0.36	-0.23	0.40	3.83	-1.25
504.00	-0.95	-0.20	-0.22	-0.01	-0.06	-0.28
504.20	-0.84	-0.33	-0.22	0.39	-0.27	0.03
504.40	-0.90	-0.23	-0.24	0.34	-0.43	-0.15
504.60	-0.79	-0.24	-0.23	0.36	-0.53	-0.29
504.80	-0.76	-0.23	-0.21	0.24	-0.47	-0.40
505.00	-0.80	-0.36	-0.22	0.43	-0.18	0.17
505.20	-0.82	-0.31	-0.21	0.16	-2.16	0.92
505.40	-0.80	-0.20	-0.20	0.40	0.72	-0.51
505.60	-0.90	-0.21	-0.20	0.43	0.53	0.10
505.80	-0.72	-0.16	-0.19	0.54	-1.30	-1.01
506.00	-0.69	-0.27	-0.20	0.67	2.20	1.21
506.20	-0.84	-0.26	-0.19	0.96	1.32	1.03
506.40	-0.82	-0.28	-0.20	-0.02	-2.41	-2.09
506.60	-0.72	-0.24	-0.20	0.71	-1.48	1.83
506.80	-0.71	-0.12	-0.19	1.09	-0.37	2.12
507.00	-0.81	-0.17	-0.18	0.24	-1.92	-2.29
507.20	-0.78	-0.16	-0.21	0.81	0.86	1.69
507.40	-0.73	-0.23	-0.19	0.90	1.28	1.98
507.60	-0.76	-0.22	-0.19	0.43	-2.43	-2.85
507.80	-0.81	-0.24	-0.20	0.65	-2.04	0.36
508.00	-0.88	-0.20	-0.20	-1.08	1.06	-2.93
508.20	-0.65	-0.25	-0.18	-0.62	-0.80	-3.97
508.40	-0.58	-0.17	-0.16	1.41	-0.48	3.68
508.60	-0.72	-0.24	-0.18	-0.52	-0.42	-2.45
508.80	-0.66	-0.27	-0.18	0.51	-0.54	0.58
509.00	-0.56	-0.17	-0.17	0.85	-0.78	1.23

509.20	-0.81	-0.14	-0.18	-0.96	-3.25	-5.85
509.40	-0.70	-0.15	-0.17	0.03	1.70	0.92
509.60	-0.65	-0.28	-0.18	0.28	1.57	-0.62
509.80	-0.71	-0.36	-0.16	0.09	1.20	0.20
510.00	-0.73	-0.13	-0.17	0.62	-0.52	0.20
510.20	-0.72	-0.20	-0.16	0.27	-0.69	3.10
510.40	-0.66	-0.22	-0.17	0.15	2.97	0.26
510.60	-0.63	-0.22	-0.17	0.72	-0.37	-1.87
510.80	-0.56	-0.28	-0.15	0.11	-0.87	0.51
511.00	-0.71	-0.21	-0.17	0.26	-1.05	-0.40
511.20	-0.66	-0.27	-0.16	0.10	0.75	-1.65
511.40	-0.69	-0.14	-0.14	0.23	-3.20	-1.52
511.60	-0.71	-0.23	-0.16	0.95	-2.54	-0.46
511.80	-0.62	-0.16	-0.16	0.89	0.09	1.44
512.00	-0.60	-0.29	-0.13	0.87	0.03	0.90
512.20	-0.63	-0.30	-0.12	-0.04	-5.95	0.83
512.40	-0.79	-0.30	-0.12	0.49	-1.96	-1.74
512.60	-0.63	-0.41	-0.14	0.80	1.63	1.32
512.80	-0.71	-0.25	-0.15	-0.16	-2.67	-3.65
513.00	-0.60	-0.21	-0.15	0.50	1.37	-1.42
513.20	-0.52	-0.29	-0.14	0.58	0.11	0.80
513.40	-0.65	-0.42	-0.11	0.47	-1.39	-2.00
513.60	-0.53	-0.29	-0.13	0.41	-0.21	0.19
513.80	-0.55	-0.32	-0.13	0.08	0.68	-0.08
514.00	-0.65	-0.26	-0.15	0.74	0.38	1.38
514.20	-0.55	-0.27	-0.15	-0.08	0.77	-1.87
514.40	-0.47	-0.25	-0.12	0.32	-2.60	-0.83
514.60	-0.59	-0.20	-0.13	0.58	-0.37	1.02
514.80	-0.59	-0.28	-0.16	0.29	-0.32	0.29
515.00	-0.69	-0.23	-0.15	0.17	-0.05	-0.26
515.20	-0.67	-0.29	-0.16	0.14	0.20	-0.24
515.40	-0.56	-0.28	-0.16	0.12	0.52	-0.07
515.60	-0.50	-0.24	-0.17	0.18	0.07	-0.18
515.80	-0.40	-0.29	-0.15	0.01	-0.32	-0.10
516.00	-0.53	-0.20	-0.15	0.27	-1.34	-0.95
516.20	-0.50	-0.21	-0.17	0.27	-2.83	-1.26
516.40	-0.47	-0.32	-0.17	0.27	-1.33	-0.75
516.60	-0.53	-0.21	-0.17	0.21	1.21	0.64
516.80	-0.59	-0.30	-0.18	0.60	0.44	-0.67
517.00	-0.53	-0.26	-0.18	0.20	1.61	-0.69
517.20	-0.42	-0.27	-0.17	0.02	0.15	-0.89
517.40	-0.48	-0.22	-0.17	0.29	0.39	-1.36
517.60	-0.37	-0.22	-0.17	-0.22	-0.29	-1.24
517.80	-0.29	-0.16	-0.15	-0.43	-4.14	-2.68
518.00	-0.46	-0.27	-0.17	-0.18	-0.44	-2.17
518.20	-0.60	-0.18	-0.17	0.25	-0.47	-0.85
518.40	-0.42	-0.18	-0.17	0.40	0.84	-1.23
518.60	-0.32	-0.18	-0.17	0.11	-2.44	1.09
518.80	-0.46	-0.15	-0.18	-0.15	-1.53	-1.24
519.00	-0.42	-0.11	-0.16	0.95	-0.98	-2.34

519.20	-0.44	-0.12	-0.16	0.06	2.43	-1.04
519.40	-0.45	-0.16	-0.18	0.55	-0.14	2.31
519.60	-0.44	-0.19	-0.16	-0.15	0.21	-0.98
519.80	-0.40	-0.14	-0.15	0.69	0.39	0.60
520.00	-0.56	-0.13	-0.17	-0.12	-3.67	-2.48
520.20	-0.42	-0.10	-0.17	0.88	0.08	-0.28
520.40	-0.29	-0.24	-0.15	0.13	2.02	-2.14
520.60	-0.34	-0.12	-0.15	0.33	-2.32	1.78
520.80	-0.24	-0.20	-0.13	0.01	-0.16	-0.14
521.00	-0.23	-0.19	-0.17	0.49	-1.81	0.77
521.20	-0.24	-0.11	-0.15	0.49	-0.71	2.45
521.40	-0.34	-0.04	-0.15	-0.07	-0.11	0.25
521.60	-0.13	-0.11	-0.14	0.07	0.31	0.05
521.80	-0.29	-0.08	-0.14	0.10	-0.03	0.51
522.00	-0.10	-0.07	-0.12	0.14	0.25	-0.20
522.20	-0.19	-0.15	-0.13	0.06	-0.09	-0.08
522.40	-0.19	-0.12	-0.12	0.17	0.10	-0.50
522.60	-0.24	-0.07	-0.13	0.14	0.44	-0.25
522.80	-0.12	-0.14	-0.13	0.11	1.99	-1.01
523.00	-0.22	-0.08	-0.12	0.06	0.17	-0.35
523.20	-0.26	-0.03	-0.10	0.14	0.50	-0.48
523.40	-0.23	-0.18	-0.08	-0.06	-0.57	0.34
523.60	-0.13	-0.11	-0.11	0.04	-1.12	0.49
523.80	-0.06	-0.16	-0.09	0.12	0.56	0.58
524.00	-0.14	-0.17	-0.10	0.05	-1.27	-0.75
524.20	-0.06	-0.14	-0.07	0.13	0.52	0.01
524.40	0.02	-0.15	-0.08	0.14	-0.94	-0.67
524.60	-0.12	-0.13	-0.07	0.07	-0.89	0.24
524.80	-0.13	-0.14	-0.07	0.03	1.09	0.33
525.00	-0.10	-0.16	-0.08	0.38	2.38	0.08
525.20	-0.13	-0.23	-0.06	0.05	0.18	-0.96
525.40	-0.16	-0.06	-0.06	-0.63	0.15	-2.67
525.60	0.05	-0.10	-0.03	-0.47	2.71	-1.12
525.80	-0.03	-0.08	-0.06	0.03	-4.51	-3.36
526.00	0.01	-0.10	-0.03	0.03	-1.02	-0.51
526.20	-0.03	-0.12	-0.03	0.08	-1.28	1.13
526.40	-0.06	-0.16	-0.04	0.16	1.34	-0.78
526.60	0.03	-0.08	-0.02	-0.56	1.49	-1.16
526.80	-0.13	-0.21	-0.05	0.12	1.20	-3.18
527.00	-0.26	-0.06	-0.06	-0.91	2.38	-0.62
527.20	-0.09	-0.21	-0.02	0.66	1.59	1.43
527.40	-0.11	-0.21	-0.03	-0.60	-1.20	-1.63
527.60	-0.12	-0.13	-0.02	0.42	-1.92	-0.09
527.80	-0.18	-0.19	-0.04	0.35	4.56	-1.59
528.00	-0.13	-0.19	-0.05	0.25	-2.16	0.03
528.20	-0.22	-0.11	-0.03	0.27	0.51	-0.75
528.40	-0.14	-0.12	-0.03	-0.33	-2.49	-0.45
528.60	0.01	-0.26	-0.03	0.19	-1.11	-1.05
528.80	-0.07	-0.15	-0.06	-0.06	-0.24	-0.63
529.00	0.07	-0.15	-0.05	0.31	-2.83	0.56

529.20	-0.03	-0.21	-0.04	-0.72	0.04	-4.56
529.40	0.03	-0.12	-0.03	0.38	-1.11	0.31
529.60	-0.23	-0.15	-0.05	0.24	-0.34	1.46
529.80	-0.17	-0.15	-0.02	-0.37	2.73	-6.27
530.00	-0.24	-0.15	-0.04	-0.23	-2.96	-1.91
530.20	-0.21	-0.19	-0.05	0.34	1.37	1.18
530.40	-0.13	-0.16	-0.03	0.08	0.13	0.38
530.60	-0.30	-0.19	-0.03	-0.02	-1.30	1.42
530.80	-0.20	-0.11	-0.05	-1.42	-1.10	-2.76
531.00	-0.04	-0.04	-0.03	-0.21	-0.16	-1.36
531.20	-0.25	-0.17	-0.02	-0.52	-1.45	0.43
531.40	-0.42	-0.11	-0.04	-0.23	1.87	-0.26
531.60	-0.16	-0.12	-0.04	-0.29	2.55	-0.69
531.80	-0.14	-0.08	-0.03	0.18	1.00	-0.56
532.00	-0.07	-0.17	-0.03	-0.50	1.87	1.10
532.20	-0.19	-0.11	-0.05	-0.72	-0.33	-2.02
532.40	-0.17	-0.14	-0.03	-0.50	0.77	-1.42
532.60	-0.26	-0.23	-0.05	-0.11	0.47	0.14
532.80	-0.02	-0.23	-0.06	0.15	0.56	-0.78
533.00	-0.11	-0.05	-0.05	0.22	1.26	-0.56
533.20	-0.17	-0.08	-0.07	0.18	-0.43	0.11
533.40	-0.15	-0.20	-0.05	-0.16	0.98	-1.21
533.60	-0.24	-0.16	-0.07	0.11	0.61	-0.22
533.80	-0.23	-0.23	-0.07	0.06	-0.74	-1.05
534.00	-0.17	-0.11	-0.11	0.24	-0.49	0.64
534.20	-0.12	-0.17	-0.10	0.31	0.03	0.86
534.40	-0.13	-0.10	-0.11	-0.20	0.05	-0.69
534.60	-0.13	-0.06	-0.09	0.12	0.02	0.21
534.80	-0.22	-0.17	-0.11	0.25	-0.69	-0.24
535.00	-0.06	-0.18	-0.10	-0.31	-0.52	-1.40
535.20	-0.11	-0.12	-0.10	0.03	-0.08	0.19
535.40	-0.09	-0.17	-0.09	0.04	-0.29	0.08
535.60	-0.15	-0.22	-0.10	0.19	0.06	0.45
535.80	-0.14	-0.14	-0.10	-0.01	0.26	-0.03
536.00	-0.19	-0.14	-0.09	0.20	0.24	0.09
536.20	-0.05	-0.11	-0.10	0.05	0.73	1.01
536.40	0.02	-0.13	-0.10	0.17	1.42	0.09
536.60	-0.20	-0.25	-0.10	0.05	-0.46	0.04
536.80	-0.07	-0.15	-0.12	0.13	1.65	0.37
537.00	-0.13	-0.19	-0.13	0.10	0.05	-0.03
537.20	-0.06	-0.10	-0.09	0.35	0.16	-1.65
537.40	-0.07	-0.12	-0.10	0.18	0.20	0.36
537.60	0.00	-0.12	-0.10	0.05	0.01	-0.21
537.80	-0.07	-0.14	-0.09	0.05	0.64	0.28
538.00	-0.04	-0.15	-0.09	0.29	1.49	1.72
538.20	-0.06	-0.15	-0.09	0.28	4.48	0.31
538.40	0.03	-0.16	-0.08	0.15	0.70	-0.40
538.60	-0.13	-0.07	-0.08	0.00	1.05	-0.34
538.80	0.06	-0.16	-0.07	0.13	1.46	-0.93
539.00	0.14	-0.07	-0.08	0.42	1.87	-0.72

539.20	0.04	-0.12	-0.10	-0.34	-0.50	-2.46
539.40	0.01	-0.16	-0.09	0.27	-1.60	-0.20
539.60	-0.05	-0.17	-0.06	0.37	0.77	2.54
539.80	0.04	-0.21	-0.08	-0.38	-0.29	-0.79
540.00	0.18	-0.22	-0.06	0.03	2.34	-1.07
540.20	0.08	-0.05	-0.08	0.09	0.10	-1.70
540.40	0.23	-0.20	-0.07	0.21	-4.94	1.45
540.60	0.13	-0.22	-0.04	0.05	1.67	-0.55
540.80	0.14	-0.27	-0.05	0.15	-2.40	-1.29
541.00	0.00	-0.21	-0.04	-0.36	0.83	1.25
541.20	0.07	-0.26	-0.06	0.37	-2.57	-0.24
541.40	0.22	-0.33	-0.05	0.59	-0.22	0.35
541.60	0.22	-0.22	-0.04	-1.06	-2.21	-4.62
541.80	0.08	-0.26	-0.03	-0.11	1.30	3.34
542.00	0.04	-0.24	-0.03	-0.14	-0.70	0.44
542.20	0.04	-0.20	-0.03	0.84	0.39	5.37
542.40	-0.01	-0.25	-0.04	0.75	-0.16	-1.27
542.60	0.27	-0.26	0.01	-0.21	0.31	-0.90
542.80	-0.06	-0.17	-0.03	-0.21	4.22	0.33
543.00	-0.03	-0.34	-0.03	-0.16	-0.22	-2.55
543.20	0.16	-0.27	-0.03	0.85	-1.90	1.19
543.40	0.09	-0.31	-0.03	0.08	-0.14	0.66
543.60	0.12	-0.24	-0.03	-0.98	-0.83	-6.13
543.80	0.15	-0.23	-0.02	-0.34	3.66	0.16
544.00	0.32	-0.25	0.01	-0.33	-7.20	-0.46
544.20	0.14	-0.23	-0.02	-0.69	1.38	-3.24
544.40	0.27	-0.18	-0.01	0.35	-0.59	0.52
544.60	0.30	-0.28	0.01	-2.03	2.66	1.19
544.80	0.08	-0.21	-0.01	-0.15	1.29	-0.72
545.00	0.23	-0.26	0.01	0.34	4.53	-2.83
545.20	0.25	-0.29	0.00	-1.16	0.91	-3.19
545.40	0.19	-0.31	0.00	-0.06	0.32	-2.10
545.60	0.34	-0.39	0.00	0.41	2.53	1.88
545.80	0.26	-0.31	-0.01	0.46	-0.18	2.91
546.00	0.26	-0.24	0.00	1.30	3.33	0.79
546.20	0.28	-0.32	0.01	0.06	-1.25	-0.88
546.40	0.10	-0.24	-0.01	-0.19	1.41	-3.24
546.60	0.04	-0.26	0.00	-0.24	5.01	-1.08
546.80	0.07	-0.22	-0.01	0.59	-3.09	1.02
547.00	0.20	-0.27	0.00	0.01	2.23	-1.87
547.20	0.29	-0.28	0.00	0.74	0.16	1.47
547.40	0.06	-0.33	-0.01	-0.07	-5.72	2.81
547.60	0.19	-0.27	0.00	1.04	-1.68	0.52
547.80	0.16	-0.24	-0.01	-0.10	0.55	-2.27
548.00	0.22	-0.17	0.00	0.60	0.89	1.65
548.20	0.30	-0.31	-0.02	-0.12	2.38	1.04
548.40	0.09	-0.27	-0.02	0.44	0.63	1.66
548.60	0.19	-0.25	-0.01	0.47	-0.80	2.39
548.80	0.16	-0.31	-0.03	-0.32	2.12	-1.22
549.00	0.19	-0.24	0.00	0.40	-2.00	0.97

549.20	0.25	-0.18	0.00	0.23	-2.21	-2.05
549.40	0.10	-0.25	-0.01	0.13	1.92	-1.34
549.60	0.29	-0.23	0.00	-0.03	-0.85	-0.42
549.80	0.12	-0.23	0.00	-0.03	2.83	-2.09
550.00	0.12	-0.25	-0.02	0.60	-0.03	0.23
550.20	0.12	-0.29	-0.03	-0.44	-0.24	0.61
550.40	0.12	-0.26	0.00	-0.16	-0.43	-2.11
550.60	0.20	-0.27	-0.02	0.57	1.16	0.64
550.80	0.15	-0.26	-0.01	-0.27	-1.42	-0.61
551.00	0.24	-0.24	-0.02	0.16	-0.18	1.42
551.20	0.16	-0.25	-0.03	0.01	-0.37	-1.23
551.40	0.10	-0.25	-0.03	0.26	-1.75	-0.15
551.60	0.31	-0.23	-0.02	0.33	-2.78	-2.49
551.80	0.22	-0.32	-0.02	0.38	1.02	-2.22
552.00	0.22	-0.27	0.01	0.31	-0.02	0.78
552.20	-0.04	-0.26	-0.02	0.23	-2.15	-2.64
552.40	0.10	-0.28	-0.03	0.51	2.32	1.28
552.60	0.12	-0.21	0.00	-0.14	0.74	1.35
552.80	0.13	-0.33	-0.02	0.00	-0.10	-0.83
553.00	0.25	-0.23	-0.02	-0.16	-1.28	-1.20
553.20	0.28	-0.28	-0.01	-0.71	-1.00	-3.27
553.40	0.20	-0.26	-0.02	-0.38	0.58	-1.05
553.60	0.24	-0.24	-0.05	-0.22	-0.05	-0.88
553.80	0.19	-0.27	-0.04	-0.18	1.46	3.34
554.00	0.25	-0.36	0.00	0.18	0.79	-0.41
554.20	0.15	-0.24	-0.04	0.02	0.56	-0.79
554.40	0.13	-0.24	-0.02	0.20	-2.41	0.10
554.60	0.24	-0.23	-0.02	0.13	0.28	-0.95
554.80	0.08	-0.26	-0.03	-0.13	0.47	-0.67
555.00	0.15	-0.26	-0.03	0.13	-2.04	-1.76
555.20	0.28	-0.23	-0.04	0.17	6.00	0.24
555.40	0.21	-0.33	-0.03	-0.12	2.87	-0.14
555.60	0.15	-0.32	-0.03	0.24	0.05	0.30
555.80	0.22	-0.21	-0.02	-0.22	4.67	3.05
556.00	0.04	-0.16	-0.05	-0.06	0.54	-1.20
556.20	0.16	-0.31	-0.05	-0.19	0.18	-1.73
556.40	0.08	-0.29	-0.03	0.05	0.02	-2.92
556.60	0.25	-0.26	-0.03	-0.07	-1.85	-4.90
556.80	0.07	-0.25	-0.05	0.08	-2.11	-1.83
557.00	0.09	-0.22	-0.07	-0.30	2.11	-1.06
557.20	0.12	-0.27	-0.04	0.37	5.61	1.33
557.40	0.22	-0.17	-0.03	-0.18	0.27	-0.64
557.60	0.13	-0.20	-0.05	-0.17	-0.42	-1.87
557.80	0.05	-0.23	-0.05	-0.01	1.29	1.17
558.00	0.05	-0.21	-0.06	-0.07	-0.60	-0.41
558.20	0.09	-0.11	-0.04	0.25	-0.02	0.15
558.40	0.09	-0.17	-0.03	0.19	0.11	0.12
558.60	0.05	-0.13	-0.06	0.51	-0.45	1.96
558.80	-0.02	-0.23	-0.05	0.15	0.34	-0.12
559.00	-0.05	-0.20	-0.04	0.18	0.43	-0.39

559.20	0.03	-0.21	-0.04	0.23	0.05	-0.36
559.40	-0.08	-0.16	-0.06	-0.05	-0.25	-0.52
559.60	-0.06	-0.15	-0.04	0.18	0.12	-0.25
559.80	0.00	-0.13	-0.05	0.09	-0.60	-0.49
560.00	-0.03	-0.18	-0.07	0.14	0.30	-0.52
560.20	-0.04	-0.18	-0.05	0.18	-0.22	0.24
560.40	-0.07	-0.12	-0.05	0.32	0.05	0.01
560.60	0.03	-0.18	-0.05	0.28	-0.19	-0.08
560.80	-0.16	-0.24	-0.05	0.02	0.24	0.49
561.00	-0.07	-0.23	-0.07	0.18	-1.41	0.34
561.20	-0.16	-0.21	-0.08	0.18	-1.19	-0.72
561.40	-0.14	-0.12	-0.08	0.12	2.00	0.96
561.60	-0.19	-0.15	-0.09	0.65	0.35	0.55
561.80	-0.32	-0.23	-0.09	-0.06	-0.50	-0.80
562.00	-0.19	-0.11	-0.09	-0.39	-1.66	-2.06
562.20	-0.20	-0.11	-0.08	0.48	-0.91	2.34
562.40	-0.14	-0.19	-0.07	-0.15	0.22	-1.69
562.60	-0.23	-0.20	-0.10	-0.07	0.66	-0.47
562.80	-0.10	-0.11	-0.06	0.52	0.02	1.44
563.00	-0.18	-0.09	-0.11	0.37	0.15	-0.20
563.20	-0.26	-0.14	-0.10	0.67	-1.31	1.02
563.40	-0.39	-0.22	-0.11	-0.04	-0.01	-1.02
563.60	-0.27	-0.05	-0.11	-0.43	2.54	-0.82
563.80	-0.34	-0.08	-0.13	0.69	-1.23	2.44
564.00	-0.37	-0.16	-0.13	0.40	0.53	1.19
564.20	-0.26	-0.20	-0.12	0.12	1.49	-0.20
564.40	-0.29	-0.10	-0.12	0.30	0.44	0.77
564.60	-0.28	-0.19	-0.12	0.18	2.07	0.09
564.80	-0.35	-0.16	-0.13	-0.18	-0.06	0.43
565.00	-0.19	-0.10	-0.15	0.12	2.97	0.99
565.20	-0.26	-0.17	-0.13	-0.22	1.00	0.08
565.40	-0.28	-0.07	-0.14	0.38	2.08	1.58
565.60	-0.28	-0.10	-0.15	1.32	0.98	2.06
565.80	-0.35	-0.17	-0.16	0.21	-1.34	-4.56
566.00	-0.23	0.00	-0.14	1.47	1.28	3.11
566.20	-0.21	-0.12	-0.15	0.79	0.70	-0.26
566.40	-0.26	-0.10	-0.14	-1.07	-0.50	-5.03
566.60	-0.21	-0.10	-0.15	0.37	0.44	0.65
566.80	-0.41	-0.05	-0.16	0.08	-0.34	-0.26
567.00	-0.18	-0.14	-0.13	-0.30	0.55	-1.55
567.20	-0.23	-0.12	-0.12	-0.14	2.14	-0.68
567.40	-0.39	-0.06	-0.15	0.68	2.82	0.77
567.60	-0.29	-0.07	-0.16	0.15	-0.64	-1.51
567.80	-0.32	-0.13	-0.15	0.53	0.40	2.38
568.00	-0.34	-0.09	-0.14	0.44	1.62	0.65
568.20	-0.25	-0.03	-0.14	0.24	0.03	2.16
568.40	-0.30	-0.07	-0.13	-0.77	2.48	-3.05
568.60	-0.21	-0.18	-0.13	0.11	-2.32	-0.56
568.80	-0.19	-0.11	-0.13	0.18	0.31	-1.04
569.00	-0.10	-0.01	-0.10	0.24	0.36	-1.15

569.20	-0.14	-0.09	-0.11	0.24	-0.10	-1.47
569.40	-0.15	-0.03	-0.11	0.98	-1.52	4.24
569.60	-0.26	-0.09	-0.13	0.23	-1.00	-1.21
569.80	-0.14	-0.05	-0.13	-0.63	1.29	-2.34
570.00	-0.09	-0.08	-0.10	-0.40	2.66	-0.06
570.20	-0.20	-0.06	-0.12	0.59	1.64	0.33
570.40	-0.13	-0.03	-0.12	0.20	0.81	-1.24
570.60	-0.07	-0.06	-0.11	-0.22	-3.37	-1.52
570.80	-0.36	-0.12	-0.12	0.28	-0.42	-1.82
571.00	-0.27	-0.08	-0.12	0.23	0.81	-0.22
571.20	-0.26	-0.07	-0.10	0.33	-1.31	0.28
571.40	-0.25	0.00	-0.09	0.31	2.78	0.85
571.60	-0.31	-0.06	-0.10	0.58	2.72	2.11
571.80	-0.17	-0.14	-0.09	0.09	0.26	-0.86
572.00	-0.24	-0.07	-0.10	0.51	5.87	0.92
572.20	-0.17	-0.11	-0.09	-0.36	-0.57	-1.63
572.40	-0.33	-0.06	-0.10	0.26	-1.29	-0.65
572.60	-0.04	-0.04	-0.07	-0.64	-0.84	-1.45
572.80	-0.29	-0.07	-0.09	-0.69	-0.52	-2.44
573.00	-0.28	-0.08	-0.09	-0.17	2.29	0.04
573.20	-0.12	0.03	-0.09	0.02	-0.08	-0.09
573.40	-0.24	-0.01	-0.09	-0.04	1.16	-0.10
573.60	-0.18	-0.14	-0.09	-0.10	2.03	0.57
573.80	-0.24	-0.06	-0.08	-0.19	-0.09	-1.06
574.00	-0.31	0.02	-0.08	0.37	-1.49	-1.62
574.20	-0.23	-0.06	-0.07	0.17	0.96	0.01
574.40	-0.34	0.02	-0.09	0.09	1.58	0.94
574.60	-0.33	0.02	-0.07	0.06	-0.48	-0.17
574.80	-0.30	-0.03	-0.10	0.54	-0.28	1.22
575.00	-0.29	-0.10	-0.07	-0.17	-0.05	-1.03
575.20	-0.26	-0.06	-0.08	0.19	0.08	0.12
575.40	-0.24	-0.06	-0.10	0.11	-0.38	-0.15
575.60	-0.31	-0.08	-0.09	0.13	-0.53	-0.20
575.80	-0.19	-0.04	-0.09	0.18	0.04	0.05
576.00	-0.33	-0.09	-0.09	0.11	-0.60	-0.13
576.20	-0.32	-0.05	-0.11	0.07	1.14	0.63
576.40	-0.28	-0.06	-0.09	0.07	1.96	1.11
576.60	-0.26	-0.04	-0.07	0.18	-0.54	-0.15
576.80	-0.40	-0.08	-0.10	-0.27	0.40	-1.53
577.00	-0.41	-0.04	-0.10	-0.89	-1.58	-5.04
577.20	-0.35	-0.08	-0.11	1.08	0.07	0.69
577.40	-0.30	-0.04	-0.13	-0.27	4.67	0.17
577.60	-0.20	-0.15	-0.09	-0.01	4.16	-1.01
577.80	-0.36	-0.09	-0.10	0.43	-2.85	-0.51
578.00	-0.52	0.03	-0.11	0.09	-1.05	-1.70
578.20	-0.39	-0.02	-0.13	0.62	-2.61	-1.90
578.40	-0.39	-0.17	-0.13	-0.58	-2.61	-3.31
578.60	-0.36	-0.10	-0.11	-0.32	1.67	-2.47
578.80	-0.49	-0.27	-0.12	-0.02	-0.78	-3.21
579.00	-0.55	-0.09	-0.11	-0.28	4.79	-0.69

579.20	-0.39	-0.14	-0.09	0.42	-2.60	-0.24
579.40	-0.65	-0.13	-0.10	0.30	0.61	-1.54
579.60	-0.35	-0.08	-0.12	-0.09	0.78	-0.48
579.80	-0.42	-0.10	-0.13	0.05	-0.45	-2.91
580.00	-0.46	-0.10	-0.10	-0.83	2.80	-1.99
580.20	-0.51	-0.19	-0.12	-0.29	-0.14	-2.41
580.40	-0.57	-0.16	-0.13	-0.65	-0.91	-2.70
580.60	-0.47	-0.24	-0.11	0.59	3.02	0.63
580.80	-0.41	-0.21	-0.12	0.14	-0.01	-2.81
581.00	-0.62	-0.13	-0.14	0.56	1.22	0.18
581.20	-0.52	-0.28	-0.14	0.00	1.25	0.04
581.40	-0.63	-0.27	-0.15	0.12	-1.98	-0.95
581.60	-0.54	-0.22	-0.13	0.42	-0.48	-1.66
581.80	-0.59	-0.17	-0.16	0.07	1.05	1.19
582.00	-0.65	-0.26	-0.14	0.33	-0.85	-0.76
582.20	-0.60	-0.24	-0.15	0.62	-0.75	1.05
582.40	-0.44	-0.15	-0.12	0.25	-0.57	-0.37
582.60	-0.66	-0.29	-0.13	0.09	-0.91	0.22
582.80	-0.59	-0.24	-0.13	-0.02	-0.69	-1.21
583.00	-0.57	-0.20	-0.16	-0.17	0.31	-0.24
583.20	-0.64	-0.24	-0.15	0.04	-1.70	-2.97
583.40	-0.49	-0.21	-0.16	0.16	1.33	-0.40
583.60	-0.65	-0.21	-0.16	0.20	0.14	-0.51
583.80	-0.67	-0.22	-0.18	0.66	-0.20	0.93
584.00	-0.73	-0.19	-0.17	-0.20	-0.73	-1.70
584.20	-0.69	-0.19	-0.18	0.46	-2.12	-1.65
584.40	-0.55	-0.26	-0.16	-0.19	-0.20	-1.10
584.60	-0.76	-0.24	-0.17	0.36	0.93	0.11
584.80	-0.62	-0.25	-0.19	0.48	0.21	-0.33
585.00	-0.72	-0.17	-0.17	-0.30	0.65	-2.80
585.20	-0.68	-0.26	-0.17	0.45	1.87	-0.31
585.40	-0.52	-0.26	-0.17	0.65	3.53	0.88
585.60	-0.60	-0.22	-0.19	0.28	-1.36	-0.89
585.80	-0.62	-0.30	-0.17	0.18	0.79	-0.61
586.00	-0.66	-0.28	-0.18	-0.30	0.44	-1.47
586.20	-0.70	-0.37	-0.20	0.02	0.54	-0.74
586.40	-0.67	-0.30	-0.21	0.53	1.37	-0.56
586.60	-0.75	-0.28	-0.18	-0.77	-1.48	-1.72
586.80	-0.56	-0.32	-0.19	0.06	0.59	2.10
587.00	-0.74	-0.25	-0.19	0.47	1.32	0.71
587.20	-0.80	-0.30	-0.21	0.86	0.16	1.21
587.40	-0.59	-0.27	-0.17	-0.27	-1.11	-2.55
587.60	-0.50	-0.29	-0.16	0.01	-1.39	-1.45
587.80	-0.57	-0.36	-0.17	0.69	-0.23	-1.01
588.00	-0.62	-0.29	-0.18	-0.05	6.72	1.18
588.20	-0.72	-0.26	-0.19	0.12	8.62	3.65
588.40	-0.68	-0.27	-0.18	-0.20	0.14	-1.94
588.60	-0.67	-0.26	-0.18	0.42	1.61	0.13
588.80	-0.65	-0.25	-0.20	0.75	-1.23	-1.01
589.00	-0.60	-0.19	-0.18	0.31	0.28	1.95

589.20	-0.62	-0.32	-0.19	1.24	5.38	1.94
589.40	-0.65	-0.31	-0.18	0.29	1.10	0.36
589.60	-0.53	-0.19	-0.15	-0.96	-2.78	-5.59
589.80	-0.72	-0.34	-0.19	-0.40	-0.36	-2.53
590.00	-0.64	-0.23	-0.19	-0.03	-0.02	-0.39
590.20	-0.68	-0.26	-0.19	0.69	-3.07	-0.92
590.40	-0.62	-0.34	-0.17	0.75	0.40	-0.05
590.60	-0.55	-0.26	-0.18	0.46	-0.78	-0.07
590.80	-0.63	-0.24	-0.16	0.50	0.83	0.78
591.00	-0.50	-0.32	-0.14	-0.08	-1.08	-0.65
591.20	-0.51	-0.24	-0.16	0.06	-4.69	-4.64
591.40	-0.58	-0.35	-0.18	1.48	-2.32	1.04
591.60	-0.74	-0.32	-0.19	-0.19	-1.16	0.09
591.80	-0.67	-0.32	-0.18	0.24	-1.34	-1.11
592.00	-0.57	-0.30	-0.19	0.52	1.50	2.22
592.20	-0.69	-0.26	-0.19	0.87	-2.54	0.04
592.40	-0.64	-0.30	-0.20	-0.10	0.14	-0.22
592.60	-0.60	-0.30	-0.18	0.17	-1.76	-1.70
592.80	-0.70	-0.32	-0.21	0.33	1.04	-0.74
593.00	-0.51	-0.28	-0.17	-0.55	-3.33	-0.36
593.20	-0.66	-0.30	-0.18	0.37	0.05	0.19
593.40	-0.59	-0.21	-0.17	-0.09	1.82	-0.85
593.60	-0.58	-0.29	-0.20	-0.28	-0.50	-2.14
593.80	-0.66	-0.22	-0.16	-0.11	-2.89	-2.34
594.00	-0.62	-0.30	-0.20	0.71	-0.60	0.48
594.20	-0.59	-0.24	-0.18	0.70	-1.40	2.48
594.40	-0.64	-0.35	-0.19	0.18	-2.29	0.11
594.60	-0.46	-0.21	-0.18	0.38	1.22	-1.35
594.80	-0.61	-0.33	-0.17	0.26	1.32	-0.35
595.00	-0.62	-0.22	-0.19	0.38	0.59	-0.71
595.20	-0.66	-0.20	-0.15	-0.04	0.87	0.35
595.40	-0.75	-0.26	-0.18	0.04	-0.82	1.25
595.60	-0.75	-0.23	-0.19	-0.48	0.98	-4.15
595.80	-0.72	-0.33	-0.16	0.72	2.35	-1.85
596.00	-0.79	-0.36	-0.17	0.57	0.71	-0.40
596.20	-0.56	-0.27	-0.17	0.23	1.97	-0.29
596.40	-0.59	-0.31	-0.17	1.02	-1.28	-0.14
596.60	-0.69	-0.20	-0.19	-0.81	3.61	-1.17
596.80	-0.70	-0.24	-0.15	0.49	1.48	0.47
597.00	-0.73	-0.19	-0.17	0.11	-2.16	-0.19
597.20	-0.55	-0.23	-0.16	0.29	0.98	1.33
597.40	-0.68	-0.20	-0.20	0.16	-0.04	-1.66
597.60	-0.63	-0.28	-0.15	0.72	-1.10	0.91
597.80	-0.66	-0.33	-0.15	-0.42	0.75	-2.07
598.00	-0.60	-0.19	-0.17	-0.02	-0.47	-0.53
598.20	-0.38	-0.24	-0.16	0.28	0.11	0.05
598.40	-0.63	-0.28	-0.15	0.22	-0.08	0.02
598.60	-0.61	-0.16	-0.15	0.12	-0.25	-0.25
598.80	-0.66	-0.25	-0.19	0.11	1.32	0.70
599.00	-0.61	-0.31	-0.17	-0.15	0.84	-0.98

599.20	-0.60	-0.36	-0.13	0.31	-1.13	-0.50
599.40	-0.71	-0.20	-0.17	0.09	0.09	-0.45
599.60	-0.67	-0.32	-0.15	0.36	0.13	-1.09
599.80	-0.73	-0.26	-0.17	-0.10	-0.13	-2.15
600.00	-0.90	-0.21	-0.16	-0.02	2.18	-0.97
600.20	-0.72	-0.22	-0.16	0.80	-0.32	3.06
600.40	-0.65	-0.27	-0.16	0.22	0.08	-0.24
600.60	-0.57	-0.24	-0.18	-0.19	1.53	-0.58
600.80	-0.59	-0.18	-0.17	0.63	-0.53	0.66
601.00	-0.56	-0.25	-0.15	0.02	-0.18	-3.10
601.20	-0.67	-0.25	-0.17	0.22	1.40	-0.18
601.40	-0.72	-0.30	-0.17	0.18	-2.04	0.35
601.60	-0.60	-0.21	-0.17	0.54	2.06	-2.29
601.80	-0.65	-0.23	-0.14	-0.38	-1.55	-1.71
602.00	-0.64	-0.26	-0.17	-0.05	0.67	-1.49
602.20	-0.63	-0.24	-0.18	0.06	-0.70	-0.53
602.40	-0.70	-0.33	-0.19	0.14	0.23	-0.74
602.60	-0.59	-0.22	-0.17	0.43	0.29	0.46
602.80	-0.66	-0.30	-0.19	0.66	-0.30	1.19
603.00	-0.85	-0.25	-0.18	0.15	0.18	-0.17
603.20	-0.83	-0.26	-0.18	0.14	-0.26	-0.63
603.40	-0.71	-0.22	-0.18	0.18	-0.29	-0.06
603.60	-0.67	-0.30	-0.18	0.18	-0.88	-1.50
603.80	-0.65	-0.26	-0.18	0.31	-0.39	-0.03
604.00	-0.57	-0.28	-0.17	0.04	0.39	-0.26
604.20	-0.62	-0.21	-0.17	0.32	-2.08	0.31
604.40	-0.68	-0.28	-0.19	0.11	1.03	0.57
604.60	-0.63	-0.26	-0.19	0.29	-0.45	0.46
604.80	-0.69	-0.24	-0.19	0.43	2.17	1.47
605.00	-0.63	-0.31	-0.17	-0.15	-1.76	-0.03
605.20	-0.77	-0.30	-0.19	0.25	0.12	-1.14
605.40	-0.72	-0.24	-0.22	0.38	-1.30	0.32
605.60	-0.64	-0.26	-0.18	-0.62	0.39	-4.19
605.80	-0.64	-0.18	-0.18	0.86	-0.21	2.64
606.00	-0.59	-0.38	-0.20	0.29	-0.29	-0.44
606.20	-0.72	-0.25	-0.18	-0.71	2.31	-1.69
606.40	-0.58	-0.30	-0.16	-1.15	-7.91	-0.69
606.60	-0.76	-0.21	-0.19	-0.34	-0.90	-2.73
606.80	-0.83	-0.22	-0.20	-0.18	-0.48	1.30
607.00	-0.66	-0.33	-0.17	-0.58	2.00	-1.92
607.20	-0.76	-0.42	-0.19	0.52	-1.32	3.43
607.40	-0.67	-0.29	-0.18	-0.88	-0.27	-3.03
607.60	-0.72	-0.22	-0.19	0.52	1.54	1.82
607.80	-0.69	-0.31	-0.17	0.71	0.66	0.94
608.00	-0.75	-0.21	-0.18	-0.39	1.01	-2.73
608.20	-0.65	-0.24	-0.18	0.32	-2.34	1.70
608.40	-0.65	-0.36	-0.19	-0.33	-1.28	-2.02
608.60	-0.60	-0.24	-0.18	0.34	-0.15	-2.67
608.80	-0.58	-0.32	-0.17	0.18	3.17	-0.17
609.00	-0.64	-0.29	-0.19	0.41	-0.71	1.48

609.20	-0.79	-0.37	-0.20	0.45	3.14	-1.80
609.40	-0.70	-0.24	-0.19	0.42	-0.78	-0.95
609.60	-0.73	-0.29	-0.22	-0.39	1.68	-2.96
609.80	-0.65	-0.23	-0.20	-0.06	-0.43	-1.30
610.00	-0.73	-0.27	-0.17	0.78	0.93	1.62
610.20	-0.64	-0.29	-0.19	0.72	-0.32	-1.94
610.40	-0.76	-0.34	-0.21	-0.04	1.35	-1.33
610.60	-0.58	-0.29	-0.20	-0.37	1.69	1.87
610.80	-0.62	-0.33	-0.19	0.22	1.70	0.04
611.00	-0.67	-0.29	-0.18	0.06	-2.40	-1.66
611.20	-0.64	-0.28	-0.17	0.00	2.26	-3.33
611.40	-0.61	-0.28	-0.17	-0.01	-3.53	-0.72
611.60	-0.61	-0.31	-0.19	0.62	-1.97	1.40
611.80	-0.79	-0.24	-0.23	0.36	-1.97	-0.19
612.00	-0.77	-0.28	-0.22	0.62	-0.65	2.29
612.20	-0.60	-0.25	-0.17	0.67	-0.11	1.55
612.40	-0.72	-0.30	-0.21	0.05	-3.14	-0.84
612.60	-0.71	-0.28	-0.18	0.85	1.58	-0.40
612.80	-0.80	-0.20	-0.20	-0.13	-7.52	-2.89
613.00	-0.68	-0.31	-0.18	-0.68	-1.24	-1.85
613.20	-0.70	-0.16	-0.20	0.51	-1.38	1.54
613.40	-0.64	-0.37	-0.19	0.32	-0.28	-0.44
613.60	-0.72	-0.23	-0.19	0.05	0.82	-1.38
613.80	-0.72	-0.30	-0.20	-0.42	0.12	-1.16
614.00	-0.60	-0.25	-0.19	0.22	2.63	0.44
614.20	-0.72	-0.28	-0.21	-0.01	-0.56	0.88
614.40	-0.62	-0.28	-0.20	0.82	1.40	1.02
614.60	-0.75	-0.27	-0.17	0.51	3.63	-0.43
614.80	-0.65	-0.20	-0.16	0.58	4.92	-1.73
615.00	-0.68	-0.24	-0.20	0.48	0.34	0.95
615.20	-0.81	-0.30	-0.19	-0.38	1.28	-0.86
615.40	-0.67	-0.26	-0.17	0.92	0.16	2.04
615.60	-0.47	-0.24	-0.17	0.14	-0.92	-0.43
615.80	-0.77	-0.23	-0.20	0.88	0.84	1.82
616.00	-0.48	-0.23	-0.17	-0.01	2.64	-0.76
616.20	-0.63	-0.31	-0.19	-0.16	2.60	-0.25
616.40	-0.78	-0.35	-0.18	0.44	2.98	1.75
616.60	-0.78	-0.32	-0.18	0.31	2.86	0.45
616.80	-0.67	-0.30	-0.17	-0.17	0.29	-3.75
617.00	-0.58	-0.39	-0.13	0.05	-2.44	-0.26
617.20	-0.71	-0.27	-0.18	-0.17	-1.81	-2.07
617.40	-0.64	-0.27	-0.16	0.21	1.53	-0.80
617.60	-0.68	-0.23	-0.17	0.07	-0.96	-2.18
617.80	-0.70	-0.25	-0.16	-0.16	1.39	-1.41
618.00	-0.83	-0.22	-0.17	0.71	-1.19	0.86
618.20	-0.90	-0.25	-0.17	0.05	0.76	2.76
618.40	-0.79	-0.30	-0.16	0.56	2.43	-0.74
618.60	-0.74	-0.14	-0.15	0.63	0.05	-0.75
618.80	-0.60	-0.29	-0.17	1.37	-1.41	4.36
619.00	-0.73	-0.28	-0.16	0.25	0.65	1.65

619.20	-0.87	-0.34	-0.16	0.28	-0.09	0.27
619.40	-0.75	-0.38	-0.16	0.02	0.50	-1.18
619.60	-0.83	-0.35	-0.16	-0.38	0.88	-1.18
619.80	-0.87	-0.33	-0.17	-1.30	-3.68	-0.09
620.00	-0.78	-0.40	-0.16	0.52	-1.85	-0.70
620.20	-0.88	-0.42	-0.17	0.10	-1.39	0.68
620.40	-0.78	-0.22	-0.17	0.13	-1.55	1.16
620.60	-0.83	-0.29	-0.16	0.05	-1.41	-1.32
620.80	-0.61	-0.25	-0.15	0.62	-1.08	1.43
621.00	-0.76	-0.29	-0.18	1.09	-1.60	1.31
621.20	-0.71	-0.29	-0.15	0.58	-6.98	-4.32
621.40	-0.78	-0.34	-0.17	0.35	2.09	0.46
621.60	-0.74	-0.27	-0.15	-0.64	0.23	-1.72
621.80	-0.87	-0.29	-0.18	1.17	-3.84	3.23
622.00	-0.74	-0.23	-0.14	0.15	0.92	-1.47
622.20	-0.88	-0.29	-0.19	0.59	-3.61	0.89
622.40	-0.78	-0.31	-0.15	0.76	3.01	3.15
622.60	-0.76	-0.25	-0.14	-0.07	-0.54	-0.70
622.80	-0.69	-0.27	-0.17	0.33	1.60	0.81
623.00	-0.65	-0.31	-0.18	0.94	-0.91	1.69
623.20	-0.73	-0.32	-0.16	0.68	-2.18	1.30
623.40	-0.80	-0.25	-0.19	0.38	0.51	-0.40
623.60	-0.57	-0.37	-0.14	0.43	-0.14	0.15
623.80	-0.80	-0.29	-0.16	0.48	-0.61	0.07
624.00	-0.88	-0.30	-0.17	-0.03	-1.63	0.00
624.20	-0.73	-0.37	-0.15	0.48	-1.79	-1.12
624.40	-0.75	-0.27	-0.16	0.23	-0.68	0.38
624.60	-0.77	-0.25	-0.18	0.05	0.56	4.93
624.80	-0.75	-0.36	-0.15	0.17	0.48	-1.75
625.00	-0.78	-0.32	-0.18	0.24	-0.53	0.47
625.20	-0.62	-0.40	-0.17	0.27	1.58	-1.91
625.40	-0.74	-0.29	-0.16	-0.41	3.10	-0.22
625.60	-0.80	-0.34	-0.19	-0.65	1.13	-3.14
625.80	-0.77	-0.18	-0.16	0.39	0.09	-4.38
626.00	-0.67	-0.27	-0.17	-0.43	-0.48	-2.77
626.20	-0.65	-0.32	-0.18	-0.17	0.34	-2.01
626.40	-0.68	-0.28	-0.20	0.87	2.67	1.30
626.60	-0.57	-0.30	-0.17	0.39	1.46	0.14
626.80	-0.62	-0.34	-0.17	0.26	-1.19	0.72
627.00	-0.65	-0.32	-0.19	0.19	-0.36	0.16
627.20	-0.78	-0.38	-0.18	-0.14	-1.19	-1.08
627.40	-0.61	-0.29	-0.16	-0.07	-3.13	0.75
627.60	-0.60	-0.23	-0.19	0.40	-0.78	-1.60
627.80	-0.63	-0.46	-0.15	0.16	-0.84	-1.05
628.00	-0.57	-0.40	-0.17	0.45	-3.92	-1.02
628.20	-0.45	-0.31	-0.17	0.21	0.65	1.57
628.40	-0.62	-0.39	-0.18	0.30	-0.27	0.29
628.60	-0.58	-0.33	-0.17	-0.10	1.19	-1.85
628.80	-0.65	-0.25	-0.18	0.05	0.72	-0.45
629.00	-0.63	-0.17	-0.16	0.09	-0.81	0.79

629.20	-0.47	-0.30	-0.18	0.18	0.27	0.40
629.40	-0.47	-0.15	-0.18	0.33	1.11	0.30
629.60	-0.65	-0.29	-0.18	0.07	-5.23	0.60
629.80	-0.56	-0.19	-0.18	0.26	-1.56	-0.22
630.00	-0.61	-0.28	-0.18	0.16	-0.51	-0.04
630.20	-0.64	-0.24	-0.19	-0.04	-0.89	-0.58
630.40	-0.59	-0.24	-0.18	0.30	0.20	-0.14
630.60	-0.77	-0.19	-0.19	1.13	-2.23	1.13
630.80	-0.54	-0.24	-0.17	0.32	3.06	1.63
631.00	-0.58	-0.23	-0.17	-0.18	-1.06	-0.87
631.20	-0.60	-0.29	-0.17	0.69	-1.90	0.60
631.40	-0.45	-0.17	-0.17	0.72	2.90	1.32
631.60	-0.55	-0.23	-0.17	0.29	-0.57	0.02
631.80	-0.68	-0.21	-0.19	-0.18	-1.90	-1.94
632.00	-0.56	-0.24	-0.17	-0.01	2.03	-1.13
632.20	-0.62	-0.23	-0.19	-0.14	-0.67	-1.89
632.40	-0.35	-0.21	-0.15	0.97	2.53	5.16
632.60	-0.44	-0.23	-0.20	0.23	-1.56	-1.53
632.80	-0.65	-0.15	-0.20	0.51	-0.67	-1.22
633.00	-0.21	-0.22	-0.17	0.12	-0.90	0.80
633.20	-0.42	-0.14	-0.18	0.34	-4.24	-2.95
633.40	-0.46	-0.12	-0.18	0.54	0.79	-1.78
633.60	-0.45	-0.14	-0.15	0.10	1.57	1.00
633.80	-0.32	-0.13	-0.13	0.32	0.19	0.06
634.00	-0.44	-0.15	-0.19	-0.35	-0.13	0.24
634.20	-0.50	-0.15	-0.18	0.49	-0.03	-0.81
634.40	-0.34	-0.14	-0.17	0.58	0.62	-0.04
634.60	-0.48	-0.19	-0.17	0.79	0.07	1.67
634.80	-0.48	-0.16	-0.17	-0.66	-0.02	-3.09
635.00	-0.25	-0.17	-0.17	-0.13	1.63	-1.16
635.20	-0.55	-0.16	-0.16	-0.78	-0.24	-3.99
635.40	-0.34	-0.18	-0.16	0.40	2.74	2.57
635.60	-0.38	-0.08	-0.15	0.07	-0.31	0.25
635.80	-0.19	-0.19	-0.15	0.44	3.25	-2.02
636.00	-0.36	-0.07	-0.12	-0.03	-1.11	-1.91
636.20	-0.34	-0.18	-0.14	-0.44	0.85	-1.91
636.40	-0.24	-0.12	-0.14	0.01	2.07	-2.55
636.60	-0.21	-0.12	-0.13	0.10	1.14	-0.78
636.80	-0.14	-0.13	-0.12	0.48	1.23	-1.14
637.00	-0.28	-0.30	-0.13	1.45	0.31	4.00
637.20	-0.33	-0.14	-0.15	0.50	1.12	1.49
637.40	-0.37	-0.21	-0.13	-0.86	1.64	-4.25
637.60	-0.23	-0.20	-0.13	-0.43	1.99	-2.04
637.80	-0.19	-0.20	-0.11	0.56	-0.94	-1.34
638.00	-0.27	-0.20	-0.12	-0.28	-0.13	0.37
638.20	-0.10	-0.09	-0.11	0.13	2.04	-0.13
638.40	-0.23	-0.13	-0.11	0.69	3.39	1.26
638.60	-0.03	-0.18	-0.09	0.21	-3.11	-2.85
638.80	-0.39	-0.14	-0.12	1.36	-1.09	1.26
639.00	-0.18	-0.09	-0.09	0.55	1.43	0.60

639.20	-0.24	-0.08	-0.10	-0.67	-0.56	-5.08
639.40	-0.15	-0.15	-0.08	0.63	2.37	-0.52
639.60	-0.20	-0.15	-0.09	-0.59	-0.20	-2.60
639.80	-0.13	-0.13	-0.11	-0.28	-0.53	-2.08
640.00	-0.20	-0.11	-0.09	0.10	-1.04	-1.01
640.20	-0.27	-0.12	-0.09	0.35	0.29	-0.51
640.40	-0.30	-0.11	-0.11	0.36	-1.74	-0.94
640.60	-0.29	-0.09	-0.10	0.24	-0.17	0.07
640.80	-0.34	-0.16	-0.10	0.18	-0.26	-0.20
641.00	-0.11	-0.16	-0.09	0.30	-0.40	0.17
641.20	-0.19	-0.10	-0.09	0.22	-0.27	0.31
641.40	-0.37	-0.14	-0.10	0.21	-0.50	0.87
641.60	-0.27	-0.19	-0.07	0.17	-0.36	-0.03
641.80	-0.15	-0.14	-0.08	0.33	0.74	-0.37
642.00	-0.27	0.03	-0.09	0.57	-0.38	-1.25
642.20	-0.14	-0.08	-0.08	0.08	6.26	-2.30
642.40	-0.12	-0.08	-0.09	0.83	1.11	0.22
642.60	-0.17	-0.13	-0.09	0.03	-1.11	-0.05
642.80	-0.12	-0.15	-0.07	0.12	-0.15	0.27
643.00	-0.07	-0.23	-0.07	-0.37	-1.46	-1.90
643.20	-0.16	-0.12	-0.10	-0.04	0.78	-0.95
643.40	-0.31	-0.16	-0.10	0.23	-0.37	0.35
643.60	-0.06	-0.18	-0.05	-0.13	-1.20	1.24
643.80	-0.13	-0.08	-0.08	0.28	0.92	-0.94
644.00	-0.08	-0.17	-0.07	0.38	0.49	0.60
644.20	-0.10	-0.13	-0.07	0.23	-0.02	-1.58
644.40	-0.16	-0.11	-0.08	0.41	0.25	-0.56
644.60	-0.07	-0.16	-0.08	0.18	3.01	0.61
644.80	-0.14	-0.05	-0.08	0.17	0.16	-0.84
645.00	-0.10	-0.07	-0.05	-0.52	0.26	-2.40
645.20	-0.10	-0.07	-0.08	0.43	0.69	0.19
645.40	-0.24	-0.09	-0.09	0.49	-3.55	-3.17
645.60	-0.23	-0.10	-0.08	0.07	2.38	-1.06
645.80	-0.01	-0.05	-0.04	-0.05	-2.31	0.75
646.00	-0.30	-0.05	-0.06	0.37	-2.45	0.61
646.20	-0.25	-0.11	-0.06	0.11	0.26	-3.04
646.40	-0.11	-0.09	-0.05	0.57	-2.85	0.97
646.60	-0.10	-0.11	-0.07	0.10	-0.69	-0.78
646.80	-0.20	-0.17	-0.05	0.46	-0.21	-2.05
647.00	-0.08	-0.12	-0.04	-0.05	0.53	-0.16
647.20	-0.11	-0.13	-0.06	-0.59	-3.53	-1.95
647.40	-0.11	0.01	-0.06	0.78	-2.45	1.28
647.60	-0.01	-0.01	-0.06	0.42	1.92	-0.31
647.80	-0.05	-0.12	-0.06	-0.22	0.38	1.64
648.00	-0.20	-0.14	-0.06	0.76	-1.35	0.51
648.20	-0.24	-0.19	-0.08	0.16	1.41	-0.70
648.40	-0.04	-0.14	-0.06	0.83	-1.34	-0.91
648.60	0.01	-0.07	-0.05	0.30	-0.30	2.27
648.80	-0.02	-0.08	-0.05	0.51	1.32	-0.37
649.00	-0.24	-0.01	-0.06	0.02	-5.44	-2.89

649.20	-0.17	-0.07	-0.08	-0.32	2.81	-2.51
649.40	-0.21	-0.13	-0.07	-0.10	1.67	-0.09
649.60	-0.08	-0.07	-0.07	-0.12	-1.39	-0.69
649.80	-0.07	-0.10	-0.08	-0.08	2.43	0.39
650.00	-0.14	-0.10	-0.07	0.32	-0.97	-0.40
650.20	-0.13	-0.02	-0.09	0.48	0.50	-0.77
650.40	-0.17	-0.11	-0.09	0.32	0.34	0.08
650.60	-0.09	-0.14	-0.06	0.41	1.66	2.99
650.80	-0.11	-0.08	-0.06	0.50	1.87	-0.24
651.00	-0.05	-0.09	-0.06	0.01	-2.10	-1.26
651.20	0.09	-0.05	-0.06	0.31	2.09	1.51
651.40	-0.04	-0.03	-0.05	0.39	-0.34	-2.06
651.60	0.00	-0.04	-0.05	0.23	1.36	1.52
651.80	-0.02	-0.02	-0.08	0.13	-0.87	-2.19
652.00	-0.17	-0.09	-0.07	0.37	1.12	-0.13
652.20	0.01	-0.01	-0.08	0.07	0.12	-0.06
652.40	-0.01	-0.12	-0.05	0.14	-0.90	0.11
652.60	0.00	-0.09	-0.05	-0.35	-0.53	-1.48
652.80	-0.03	-0.05	-0.05	-0.08	-0.53	0.09
653.00	-0.01	-0.04	-0.05	0.05	0.89	-0.23
653.20	0.00	-0.18	-0.04	0.23	-1.49	-1.69
653.40	-0.06	-0.04	-0.05	0.08	3.65	-0.17
653.60	0.07	-0.19	-0.06	0.25	-0.63	-1.08
653.80	0.03	-0.12	-0.05	-0.02	-1.25	-0.44
654.00	-0.03	-0.02	-0.04	-0.63	2.05	-2.36
654.20	0.06	-0.17	-0.02	-0.15	-0.49	0.31
654.40	-0.04	-0.06	-0.05	0.43	-0.16	-0.12
654.60	-0.03	-0.19	-0.05	1.15	-4.74	-1.13
654.80	0.13	-0.09	-0.02	-0.74	-1.05	-4.79
655.00	0.17	0.01	-0.02	0.59	3.04	0.40
655.20	0.05	-0.01	-0.04	0.12	-0.73	-0.24
655.40	0.16	-0.09	-0.02	-0.29	2.63	-1.83
655.60	0.04	-0.09	-0.03	-0.35	-0.65	-1.77
655.80	0.03	-0.09	-0.03	0.30	1.38	-0.32
656.00	0.17	-0.12	0.00	0.57	0.86	-2.01
656.20	0.04	-0.13	-0.01	0.34	1.88	-0.38
656.40	0.21	-0.05	-0.02	-0.37	1.93	-0.74
656.60	0.18	-0.07	-0.01	-0.56	1.01	-1.70
656.80	0.24	-0.04	0.01	0.48	0.37	1.14
657.00	0.11	-0.10	-0.01	0.54	-1.09	2.28
657.20	-0.09	-0.02	-0.03	0.46	0.79	1.75
657.40	0.05	-0.01	-0.01	0.05	-4.07	-2.22
657.60	0.36	0.03	0.00	0.27	0.25	0.37
657.80	0.20	-0.14	-0.01	-0.16	0.16	1.25
658.00	0.13	-0.12	0.00	0.48	1.99	-1.99
658.20	0.14	0.03	-0.03	0.59	0.31	0.99
658.40	0.10	-0.10	-0.02	0.83	-3.06	3.81
658.60	0.16	-0.05	0.01	0.29	2.61	-1.83
658.80	0.13	-0.11	0.01	0.70	1.98	0.39
659.00	0.18	-0.14	0.01	-0.49	1.10	-0.80

659.20	0.06	-0.07	0.00	0.54	0.59	0.35
659.40	0.24	-0.06	0.01	-0.32	1.60	-0.17
659.60	0.11	-0.05	0.01	-0.84	0.90	-3.21
659.80	0.09	-0.15	0.01	-2.46	2.18	-8.16
660.00	0.13	-0.07	-0.01	0.37	-0.44	-1.30
660.20	0.09	-0.05	0.01	-0.05	-2.55	-3.53
660.40	0.17	0.02	0.02	1.10	-1.19	-2.18
660.60	0.05	-0.10	0.01	-0.53	-1.98	-5.97
660.80	0.18	-0.13	0.02	0.50	-3.97	-1.99
661.00	-0.03	-0.11	-0.01	0.17	-2.13	-0.77
661.20	0.08	-0.06	0.02	0.20	-2.90	1.83
661.40	0.10	-0.03	0.01	0.35	3.73	0.01
661.60	0.08	-0.14	0.04	0.00	2.80	-0.58
661.80	0.07	-0.10	0.04	-0.07	-3.18	-3.12
662.00	0.21	-0.17	0.02	0.48	-4.48	-1.76
662.20	0.27	-0.13	0.02	0.75	-0.63	3.07
662.40	-0.05	-0.23	-0.01	0.24	1.95	-1.30
662.60	0.04	-0.08	0.01	0.09	-2.43	-1.91
662.80	0.05	-0.06	0.03	-0.77	-2.07	-4.38
663.00	-0.08	-0.10	0.01	1.39	1.33	2.69
663.20	0.13	-0.10	0.03	0.40	-1.75	-2.30
663.40	0.02	0.01	0.00	0.28	-1.52	0.10
663.60	0.18	-0.05	0.01	0.09	-0.94	-1.53
663.80	0.03	-0.05	-0.01	0.15	-0.51	-0.35
664.00	0.14	-0.09	0.02	0.19	-8.05	-0.94
664.20	0.08	-0.07	0.00	0.55	1.63	-0.64
664.40	0.01	-0.07	0.01	0.38	0.75	0.31
664.60	-0.07	-0.12	-0.02	0.10	-2.20	-0.01
664.80	0.08	-0.05	0.00	-0.12	-2.11	-2.28
665.00	-0.02	-0.03	0.00	1.11	-1.06	2.26
665.20	-0.07	-0.13	-0.04	0.83	0.12	-1.00
665.40	-0.14	-0.12	0.00	-0.04	0.27	-2.05
665.60	0.02	-0.13	-0.02	-0.07	0.09	-0.90
665.80	-0.10	0.02	-0.02	-0.33	5.69	0.13
666.00	0.06	-0.13	-0.02	0.05	1.99	-0.79
666.20	-0.03	-0.05	-0.03	0.94	-0.54	1.75
666.40	0.07	-0.05	-0.01	0.99	0.13	1.93
666.60	-0.03	0.04	-0.03	0.45	-1.27	0.12
666.80	-0.03	0.01	-0.01	-0.06	-0.18	-0.34
667.00	-0.05	-0.15	-0.02	0.19	-3.05	-0.55
667.20	-0.14	-0.12	-0.02	0.47	-0.95	0.46
667.40	-0.14	0.00	-0.06	0.10	0.65	1.50
667.60	-0.06	-0.06	-0.03	-0.30	4.16	-2.05
667.80	0.08	-0.02	-0.03	0.42	-0.69	1.51
668.00	-0.16	-0.01	-0.05	0.81	1.27	1.23
668.20	0.00	-0.04	-0.05	0.34	-2.82	2.80
668.40	-0.06	0.00	-0.05	0.14	-0.18	-2.10
668.60	0.00	-0.11	-0.01	0.00	-1.77	-1.25
668.80	-0.10	-0.02	-0.06	0.11	3.47	-0.42
669.00	-0.06	-0.08	-0.04	-0.28	-6.75	4.11

669.20	-0.03	-0.09	-0.04	-1.22	0.21	-6.51
669.40	-0.07	-0.06	-0.06	0.06	-0.93	0.12
669.60	-0.09	-0.10	-0.04	0.32	13.78	8.27
669.80	-0.23	-0.12	-0.06	0.60	0.71	-1.67
670.00	-0.12	-0.12	-0.06	1.58	0.01	-0.11
670.20	-0.18	-0.10	-0.06	1.21	3.17	4.98
670.40	-0.08	-0.13	-0.04	-0.23	-4.59	-0.61
670.60	-0.04	-0.07	-0.07	0.40	-1.19	0.13
670.80	-0.17	-0.09	-0.07	0.08	0.57	-0.90
671.00	-0.15	-0.01	-0.05	-0.49	1.28	-3.19
671.20	-0.16	-0.11	-0.05	0.65	-2.94	0.56
671.40	-0.19	-0.03	-0.07	0.32	1.00	-1.94
671.60	-0.09	0.00	-0.05	0.80	0.54	-0.56
671.80	-0.07	0.00	-0.06	-0.54	2.92	0.02
672.00	-0.12	0.01	-0.07	-0.12	0.90	-3.78
672.20	-0.15	-0.05	-0.06	0.15	-0.90	0.77
672.40	-0.19	-0.05	-0.05	0.23	0.34	0.14
672.60	-0.12	0.02	-0.06	0.90	0.76	1.15
672.80	-0.18	-0.02	-0.09	-0.46	1.20	-3.04
673.00	-0.19	-0.02	-0.07	-0.27	0.29	-1.26
673.20	-0.07	-0.13	-0.07	-0.44	-0.32	-2.09
673.40	-0.05	-0.06	-0.06	0.22	-0.44	-0.02
673.60	-0.19	-0.04	-0.07	0.02	0.24	-0.57
673.80	-0.04	-0.03	-0.05	0.22	-0.31	-0.15
674.00	-0.25	-0.14	-0.07	0.23	0.00	0.02
674.20	-0.17	-0.02	-0.07	-0.14	-0.38	-1.07
674.40	-0.27	-0.15	-0.07	0.16	-0.40	-0.20
674.60	-0.14	-0.05	-0.08	0.20	-0.04	0.02
674.80	-0.11	-0.01	-0.06	0.29	0.34	-0.49
675.00	-0.27	-0.05	-0.09	0.08	0.26	-1.05
675.20	-0.04	-0.05	-0.06	-0.72	1.34	-2.77
675.40	-0.02	-0.08	-0.05	0.42	0.42	-0.25
675.60	-0.27	0.11	-0.08	0.35	0.04	0.18
675.80	-0.12	-0.03	-0.09	0.21	-0.76	0.74
676.00	-0.22	-0.10	-0.08	0.49	-0.61	-0.78
676.20	-0.28	-0.12	-0.08	0.35	1.49	0.69
676.40	-0.15	-0.06	-0.08	0.38	0.97	0.05
676.60	-0.09	-0.05	-0.08	0.29	-2.87	-0.77
676.80	-0.16	0.04	-0.09	0.28	1.41	2.22
677.00	-0.21	-0.05	-0.09	-0.07	-0.32	-1.12
677.20	-0.19	-0.07	-0.08	0.11	0.15	-0.57
677.40	-0.16	-0.03	-0.09	0.32	1.02	1.69
677.60	-0.16	-0.10	-0.07	0.61	4.15	0.16
677.80	-0.20	-0.01	-0.12	0.24	0.61	1.66
678.00	-0.23	-0.08	-0.10	-0.60	-4.46	-4.50
678.20	-0.23	-0.06	-0.08	1.19	-1.44	3.28
678.40	-0.24	-0.04	-0.10	-0.36	-4.13	-2.02
678.60	-0.19	-0.06	-0.10	-0.32	-0.53	-2.22
678.80	-0.16	-0.05	-0.09	1.19	6.32	1.49
679.00	-0.23	-0.06	-0.09	0.73	-1.67	1.07

679.20	-0.27	-0.06	-0.11	0.46	0.71	1.55
679.40	-0.11	-0.08	-0.08	-0.08	2.11	-0.22
679.60	-0.39	0.05	-0.11	0.80	-1.90	0.48
679.80	-0.25	0.00	-0.09	0.17	1.67	-2.97
680.00	-0.26	-0.13	-0.08	0.09	0.10	0.27
680.20	-0.29	0.00	-0.09	0.11	-2.25	-0.21
680.40	-0.18	-0.08	-0.09	0.50	-0.62	-0.09
680.60	-0.17	-0.03	-0.09	0.06	0.00	-0.52
680.80	-0.08	-0.12	-0.10	0.21	1.67	0.82
681.00	-0.12	-0.07	-0.09	0.63	-1.59	-0.02
681.20	-0.10	-0.02	-0.07	0.73	-3.48	0.54
681.40	-0.15	-0.05	-0.06	1.07	-0.24	-0.88
681.60	-0.20	-0.03	-0.07	-1.10	-1.64	-2.89
681.80	-0.31	0.00	-0.10	0.44	-1.10	1.13
682.00	-0.27	-0.06	-0.09	0.01	-1.98	-1.98
682.20	-0.06	-0.04	-0.07	0.99	-0.81	4.93
682.40	-0.21	-0.01	-0.08	0.61	-3.21	-2.29
682.60	-0.11	-0.07	-0.08	-0.53	-2.47	-4.87
682.80	-0.19	-0.05	-0.09	-0.80	-1.41	-1.88
683.00	-0.18	-0.08	-0.09	1.22	5.15	-2.89
683.20	-0.29	-0.06	-0.09	-0.17	-4.61	-2.04
683.40	-0.19	-0.02	-0.10	1.13	0.89	1.01
683.60	-0.27	-0.10	-0.09	-0.81	-0.57	-2.80
683.80	-0.26	-0.05	-0.11	0.06	-0.88	0.35
684.00	-0.10	-0.17	-0.07	-0.29	1.73	-3.25
684.20	-0.27	-0.18	-0.09	0.18	-1.03	0.26
684.40	-0.21	-0.05	-0.10	0.23	-0.50	0.10
684.60	-0.16	-0.07	-0.06	0.33	-0.17	0.08
684.80	-0.29	-0.06	-0.09	0.35	0.10	-0.02
685.00	-0.26	-0.05	-0.10	0.24	-0.37	-0.32
685.20	-0.25	0.02	-0.08	0.43	-0.71	-0.46
685.40	-0.25	-0.03	-0.09	-0.17	-0.79	-0.09
685.60	-0.37	-0.17	-0.07	0.02	-0.83	-1.42
685.80	-0.31	0.03	-0.08	0.06	-0.09	-0.03
686.00	-0.35	-0.09	-0.09	0.47	0.19	-0.72
686.20	-0.36	-0.05	-0.10	0.72	-2.50	-1.12
686.40	-0.30	-0.10	-0.08	-0.14	0.44	1.95
686.60	-0.17	0.01	-0.09	0.72	-4.72	0.17
686.80	-0.28	-0.10	-0.08	-0.65	2.05	-3.20
687.00	-0.20	-0.07	-0.09	0.94	1.95	1.81
687.20	-0.28	-0.08	-0.08	0.60	-1.69	3.45
687.40	-0.27	-0.15	-0.09	0.42	-0.41	0.12
687.60	-0.25	0.01	-0.09	-0.03	-2.58	0.01
687.80	-0.30	-0.07	-0.10	0.97	0.66	3.12
688.00	-0.29	0.00	-0.10	0.44	-0.03	0.23
688.20	-0.38	-0.16	-0.09	0.26	-0.16	-0.53
688.40	-0.31	-0.14	-0.10	0.45	-0.10	0.27
688.60	-0.15	-0.02	-0.08	0.28	-0.37	0.27
688.80	-0.25	-0.09	-0.08	0.31	1.76	0.99
689.00	-0.34	-0.03	-0.10	0.37	-0.41	-0.05

689.20	-0.33	-0.07	-0.10	0.47	3.19	0.67
689.40	-0.34	-0.04	-0.10	0.51	-2.15	0.13
689.60	-0.34	-0.13	-0.12	0.55	1.70	-0.92
689.80	-0.40	-0.11	-0.10	0.57	0.43	-0.52
690.00	-0.35	-0.05	-0.11	0.72	0.54	3.77
690.20	-0.26	-0.14	-0.09	0.15	0.83	0.38
690.40	-0.45	-0.06	-0.11	-1.96	0.95	-6.20
690.60	-0.33	0.00	-0.10	0.22	-0.80	-1.33
690.80	-0.44	-0.08	-0.12	0.10	-0.56	0.78
691.00	-0.27	-0.10	-0.09	0.72	1.09	1.35
691.20	-0.42	-0.17	-0.11	0.28	1.06	-0.49
691.40	-0.42	-0.02	-0.12	0.57	1.85	1.63
691.60	-0.35	-0.13	-0.10	0.48	-2.12	-0.34
691.80	-0.32	-0.21	-0.11	0.37	0.15	0.08
692.00	-0.27	-0.05	-0.10	-0.12	0.19	-2.69
692.20	-0.32	-0.13	-0.10	0.85	1.68	2.59
692.40	-0.32	-0.03	-0.12	-0.83	3.88	-1.63
692.60	-0.41	-0.01	-0.11	0.39	1.72	-0.60
692.80	-0.27	-0.08	-0.10	-0.07	4.25	-0.28
693.00	-0.29	-0.11	-0.10	1.20	-2.89	1.86
693.20	-0.34	-0.09	-0.12	0.62	1.08	-1.24
693.40	-0.36	-0.01	-0.12	0.13	0.18	-2.28
693.60	-0.30	-0.02	-0.11	0.52	0.66	1.43
693.80	-0.29	-0.12	-0.11	0.07	0.64	-0.68
694.00	-0.20	-0.14	-0.10	-0.20	1.76	0.96
694.20	-0.33	-0.08	-0.12	-0.20	1.56	-1.18
694.40	-0.15	0.00	-0.09	-0.05	-1.80	-2.25
694.60	-0.30	-0.19	-0.12	0.86	-1.74	0.21
694.80	-0.27	-0.17	-0.10	0.47	-1.72	-2.95
695.00	-0.35	-0.14	-0.12	0.99	-3.21	1.15
695.20	-0.29	-0.16	-0.10	-0.11	-2.33	0.06
695.40	-0.49	-0.16	-0.13	0.09	-0.60	-2.01
695.60	-0.37	-0.07	-0.10	-1.96	2.28	-10.54
695.80	-0.26	-0.13	-0.13	2.89	-0.56	6.87
696.00	-0.21	-0.09	-0.09	-0.58	2.16	-5.21
696.20	-0.28	-0.11	-0.12	-0.83	-1.02	-3.10
696.40	-0.20	-0.13	-0.11	0.82	0.23	-1.29
696.60	-0.16	-0.07	-0.11	1.11	-1.46	1.59
696.80	-0.28	-0.12	-0.11	1.49	0.57	4.08
697.00	-0.37	-0.17	-0.11	0.27	0.67	-2.56
697.20	-0.33	-0.10	-0.12	0.51	1.32	-2.07
697.40	-0.24	-0.13	-0.10	0.18	-0.50	-0.01
697.60	-0.23	-0.10	-0.10	0.33	0.14	0.94
697.80	-0.34	-0.08	-0.12	0.80	-0.29	-1.30
698.00	-0.12	-0.03	-0.09	-0.14	0.53	-2.42
698.20	-0.26	-0.05	-0.13	-0.16	-2.34	-2.87
698.40	-0.27	-0.11	-0.12	0.59	-2.44	-1.89
698.60	-0.43	-0.06	-0.15	0.34	-1.96	-2.57
698.80	-0.30	-0.03	-0.12	0.48	-1.14	-1.34
699.00	-0.19	-0.01	-0.10	0.06	-1.86	-3.51

699.20	-0.32	-0.05	-0.13	0.89	-0.81	0.49
699.40	-0.32	-0.02	-0.12	0.38	2.52	0.05
699.60	-0.37	-0.07	-0.10	0.31	-0.49	-0.90
699.80	-0.18	-0.07	-0.10	0.51	-2.20	-0.09
700.00	-0.31	-0.08	-0.11	0.92	-1.34	3.32
700.20	-0.28	-0.04	-0.10	-0.25	1.56	-2.71
700.40	-0.24	-0.07	-0.10	0.29	-1.31	-3.73
700.60	-0.31	-0.06	-0.10	-0.11	-0.14	-0.77
700.80	-0.20	-0.02	-0.10	0.64	1.19	0.20
701.00	-0.26	-0.10	-0.11	0.03	0.71	-1.52
701.20	-0.20	-0.04	-0.11	0.27	-0.68	-0.25
701.40	-0.21	-0.06	-0.10	1.01	-0.56	2.13
701.60	-0.31	-0.04	-0.10	0.28	0.05	0.26
701.80	-0.21	-0.05	-0.10	0.46	-0.12	0.28
702.00	-0.15	-0.03	-0.12	0.01	1.59	-0.71
702.20	-0.31	-0.04	-0.12	-0.01	-0.27	-1.02
702.40	-0.31	-0.12	-0.10	0.80	-0.76	0.38
702.60	-0.25	-0.08	-0.12	0.39	-1.24	-0.48
702.80	-0.13	0.00	-0.07	0.45	-0.56	0.74
703.00	-0.23	0.05	-0.10	0.42	0.04	-0.62
703.20	-0.25	-0.04	-0.11	1.22	0.40	2.72
703.40	-0.15	-0.02	-0.08	0.48	0.60	0.66
703.60	-0.11	-0.09	-0.12	0.07	2.08	0.60
703.80	-0.41	-0.08	-0.10	-0.18	1.52	-0.38
704.00	-0.04	-0.01	-0.08	-0.27	-4.93	-1.92
704.20	-0.09	-0.07	-0.07	0.13	0.79	-1.44
704.40	-0.19	-0.05	-0.10	0.14	-1.18	-1.61
704.60	-0.26	-0.13	-0.10	0.57	-2.47	-1.24
704.80	-0.15	-0.10	-0.08	0.44	0.45	1.44
705.00	-0.33	-0.12	-0.10	0.36	-2.01	0.07
705.20	-0.20	-0.08	-0.10	0.39	-1.29	-0.46
705.40	-0.11	-0.09	-0.07	0.35	1.13	0.33
705.60	-0.06	-0.12	-0.07	0.34	-0.25	-0.61
705.80	-0.24	-0.06	-0.08	0.08	0.62	-1.53
706.00	-0.12	-0.10	-0.07	0.37	-0.63	1.32
706.20	-0.25	-0.16	-0.09	0.03	0.02	0.36
706.40	-0.24	-0.03	-0.08	0.92	-0.42	2.15
706.60	-0.30	0.01	-0.09	-0.29	-1.58	-1.58
706.80	-0.25	-0.13	-0.08	0.84	-1.52	2.36
707.00	-0.07	-0.08	-0.09	-0.22	2.37	-1.89
707.20	-0.16	-0.08	-0.07	0.86	-2.50	1.29
707.40	-0.27	-0.06	-0.07	0.61	-2.23	2.03
707.60	-0.27	-0.15	-0.10	2.19	-0.70	6.29
707.80	-0.26	0.02	-0.08	0.70	0.48	0.44
708.00	-0.16	-0.03	-0.08	0.43	-0.32	-1.39
708.20	-0.11	-0.07	-0.07	0.26	-2.31	-1.20
708.40	-0.21	-0.05	-0.06	0.56	-1.04	-0.77
708.60	-0.26	-0.07	-0.06	0.52	2.60	0.98
708.80	-0.18	-0.09	-0.06	0.78	4.56	-0.96
709.00	-0.09	-0.01	-0.07	0.42	-2.42	0.94

709.20	-0.17	-0.07	-0.07	0.41	2.65	-0.26
709.40	-0.15	-0.11	-0.04	1.01	-2.59	0.57
709.60	-0.16	-0.13	-0.07	0.95	1.05	0.56
709.80	-0.09	-0.13	-0.05	0.19	-0.80	-0.41
710.00	-0.19	0.05	-0.06	-0.14	-1.45	-1.62
710.20	-0.23	-0.03	-0.05	0.21	0.75	0.59
710.40	-0.32	-0.08	-0.08	0.52	1.31	-0.39
710.60	-0.19	-0.05	-0.08	0.51	-0.88	0.05
710.80	-0.18	-0.06	-0.07	0.24	1.81	-1.53
711.00	0.05	-0.08	-0.04	-0.10	4.59	-1.10
711.20	-0.12	-0.10	-0.07	0.34	-0.94	-1.79
711.40	-0.12	-0.05	-0.06	0.49	1.49	-0.81
711.60	-0.20	-0.21	-0.06	0.24	1.83	-0.51
711.80	-0.16	-0.02	-0.07	0.88	3.05	-0.16
712.00	-0.23	-0.09	-0.06	0.39	-5.65	-3.24
712.20	-0.21	-0.08	-0.07	1.62	3.06	2.45
712.40	-0.13	-0.09	-0.08	0.27	1.17	-0.06
712.60	-0.07	-0.12	-0.06	0.15	-0.47	0.65
712.80	-0.19	-0.11	-0.06	-0.23	-1.72	-2.85
713.00	-0.18	-0.14	-0.07	0.55	-0.71	-0.61
713.20	-0.12	-0.17	-0.06	0.27	0.66	1.03
713.40	-0.10	-0.06	-0.06	0.33	-0.86	0.26
713.60	-0.38	-0.04	-0.08	0.22	1.33	1.04
713.80	-0.19	-0.07	-0.06	0.74	-1.26	1.14
714.00	-0.26	-0.13	-0.05	-0.36	1.25	-2.07
714.20	-0.23	-0.22	-0.05	0.29	0.27	0.04
714.40	-0.11	-0.13	-0.05	0.26	-0.02	-0.40
714.60	-0.14	-0.03	-0.06	0.43	1.25	-0.33
714.80	-0.11	-0.10	-0.05	0.21	-0.48	-2.45
715.00	-0.14	-0.11	-0.05	0.64	1.62	-1.70
715.20	-0.03	-0.06	-0.06	0.38	2.74	-0.34
715.40	-0.21	-0.13	-0.08	0.43	0.33	-0.23
715.60	-0.21	-0.19	-0.05	0.01	3.91	1.19
715.80	-0.01	-0.16	-0.05	0.23	-0.09	-1.03
716.00	-0.21	-0.19	-0.08	0.46	0.69	-0.29
716.20	-0.17	-0.12	-0.06	0.29	-0.22	-0.10
716.40	-0.12	-0.05	-0.07	0.46	0.52	-0.27
716.60	-0.09	-0.15	-0.06	0.34	1.09	-0.22
716.80	-0.07	-0.13	-0.05	0.12	1.58	-0.42
717.00	-0.22	-0.09	-0.08	1.24	-0.60	2.31
717.20	-0.23	-0.07	-0.06	0.77	0.66	0.66
717.40	-0.09	-0.14	-0.06	0.31	-1.24	0.34
717.60	-0.30	-0.15	-0.06	0.44	1.27	-0.57
717.80	-0.15	-0.24	-0.07	0.43	3.05	-0.69
718.00	-0.22	-0.14	-0.07	0.13	-1.62	0.50
718.20	-0.16	-0.07	-0.06	-0.12	0.46	-2.45
718.40	-0.14	-0.15	-0.05	-0.02	2.14	-0.58
718.60	-0.25	-0.11	-0.05	0.29	0.17	-1.40
718.80	-0.22	-0.09	-0.06	0.16	0.03	-0.65
719.00	-0.09	-0.10	-0.07	-0.24	-0.21	-2.09

719.20	-0.14	-0.10	-0.06	0.46	-1.16	-0.21
719.40	-0.10	-0.06	-0.05	0.33	-0.01	-0.30
719.60	-0.13	-0.12	-0.06	0.14	0.07	-0.80
719.80	-0.14	-0.09	-0.06	0.83	-0.07	1.28
720.00	-0.08	0.00	-0.07	0.92	0.43	2.39
720.20	-0.19	-0.12	-0.05	0.08	-0.16	-0.06
720.40	0.02	-0.18	-0.03	0.18	1.63	0.10
720.60	0.00	-0.09	-0.04	0.25	-0.26	-1.08
720.80	-0.22	-0.10	-0.07	0.51	0.40	0.27
721.00	-0.14	-0.13	-0.04	2.00	1.23	4.12
721.20	-0.14	-0.12	-0.07	0.58	-0.18	-0.25
721.40	-0.08	-0.20	-0.05	-0.19	-0.45	-1.68
721.60	-0.11	-0.15	-0.05	0.46	0.05	0.62
721.80	-0.07	-0.05	-0.06	-0.50	-1.21	-2.42
722.00	-0.14	-0.05	-0.07	0.44	1.41	-1.45
722.20	-0.06	-0.01	-0.07	0.33	-2.35	-1.10
722.40	-0.04	-0.10	-0.04	0.04	-5.36	-1.78
722.60	-0.15	-0.16	-0.08	1.26	-1.50	-1.29
722.80	-0.23	-0.13	-0.08	0.29	-1.57	-2.21
723.00	-0.14	-0.13	-0.03	0.78	-2.13	0.49
723.20	0.00	-0.13	-0.03	-0.03	2.11	0.05
723.40	-0.20	-0.05	-0.07	-1.05	1.82	-4.38
723.60	-0.14	-0.19	-0.07	-0.05	0.24	-3.18
723.80	0.08	-0.17	-0.05	-1.18	1.37	-7.24
724.00	-0.07	-0.13	-0.06	-0.45	-1.28	-2.18
724.20	-0.10	-0.16	-0.05	1.24	-2.30	0.32
724.40	-0.26	-0.13	-0.05	0.21	5.29	1.39
724.60	-0.03	-0.08	-0.05	0.78	1.88	-0.29
724.80	-0.19	0.03	-0.07	0.49	-1.55	-1.23
725.00	-0.11	-0.05	-0.07	0.79	-2.64	3.13
725.20	-0.19	-0.10	-0.07	1.12	2.86	4.73
725.40	-0.21	-0.07	-0.06	0.58	-0.46	-1.07
725.60	-0.10	-0.17	-0.07	0.35	1.65	-1.10
725.80	-0.19	-0.14	-0.06	0.78	0.34	1.45
726.00	-0.20	-0.16	-0.06	0.25	-2.10	-0.81
726.20	-0.24	-0.08	-0.07	0.82	1.12	0.84
726.40	-0.18	-0.11	-0.07	-0.15	0.28	-1.76
726.60	-0.27	-0.09	-0.08	0.43	-0.11	-0.88
726.80	-0.24	-0.09	-0.06	-0.02	-3.32	-1.31
727.00	-0.33	-0.09	-0.09	0.03	-0.01	-2.81
727.20	-0.20	-0.17	-0.07	0.22	-0.06	-0.33
727.40	-0.13	-0.10	-0.06	0.57	1.77	1.08
727.60	-0.13	-0.07	-0.07	-0.37	3.50	-0.60
727.80	-0.02	-0.12	-0.03	0.29	-1.07	1.24
728.00	-0.01	-0.12	-0.06	0.69	-0.19	0.71
728.20	-0.12	-0.19	-0.06	0.01	1.47	-1.72
728.40	-0.16	-0.08	-0.06	0.02	2.12	-0.77
728.60	-0.15	-0.08	-0.08	-0.12	2.05	-0.87
728.80	-0.04	-0.09	-0.06	0.22	0.18	0.44
729.00	0.08	-0.12	-0.05	0.26	0.82	-0.40

729.20	-0.07	-0.19	-0.07	0.65	0.35	-0.80
729.40	-0.09	-0.18	-0.06	-0.81	2.13	-3.59
729.60	-0.15	-0.19	-0.07	0.75	0.03	-1.49
729.80	-0.03	0.00	-0.06	0.54	0.21	0.51
730.00	-0.05	-0.14	-0.05	-0.49	2.70	-5.38
730.20	-0.10	-0.16	-0.06	1.21	-0.60	1.06
730.40	-0.06	-0.05	-0.06	1.12	3.84	1.80
730.60	-0.13	-0.17	-0.07	-0.15	0.10	-1.81
730.80	-0.02	-0.05	-0.06	0.02	1.58	-2.31
731.00	-0.18	-0.21	-0.07	0.37	0.78	-0.79
731.20	0.03	-0.14	-0.06	1.35	0.36	2.49
731.40	-0.05	-0.06	-0.07	0.41	0.33	0.44
731.60	-0.01	-0.10	-0.05	0.08	-0.06	-1.03
731.80	-0.02	-0.09	-0.06	0.46	0.11	-0.15
732.00	0.05	-0.10	-0.04	0.34	-0.53	-0.15
732.20	0.03	-0.11	-0.04	0.36	0.43	2.05
732.40	-0.17	-0.11	-0.07	0.15	1.54	0.22
732.60	0.03	-0.13	-0.05	-0.09	-0.55	0.42
732.80	-0.09	-0.11	-0.07	0.13	2.49	-0.81
733.00	-0.09	-0.13	-0.06	0.24	1.16	-1.44
733.20	-0.16	-0.10	-0.06	0.41	1.86	0.48
733.40	-0.15	-0.07	-0.08	-0.05	-0.20	-2.78
733.60	-0.03	0.01	-0.05	-0.11	-1.53	-4.63
733.80	-0.06	-0.05	-0.05	0.29	3.07	0.77
734.00	-0.02	-0.09	-0.06	0.89	-0.69	1.43
734.20	-0.12	-0.12	-0.05	-0.73	-1.07	-2.86
734.40	-0.08	-0.18	-0.07	1.65	-2.27	4.28
734.60	0.10	-0.05	-0.07	0.23	3.10	-0.79
734.80	0.07	-0.12	-0.06	-0.29	1.73	-1.98
735.00	-0.12	-0.04	-0.07	0.69	3.09	1.20
735.20	0.11	-0.12	-0.05	0.24	-2.34	-1.78
735.40	0.06	-0.05	-0.06	0.07	-0.35	-0.85
735.60	-0.02	-0.11	-0.06	0.22	-0.64	-0.44
735.80	0.08	-0.10	-0.06	-0.45	-0.41	-2.45
736.00	-0.12	-0.13	-0.06	0.32	-0.29	-0.15
736.20	-0.11	-0.06	-0.06	0.30	-0.22	0.05
736.40	0.03	-0.12	-0.05	0.44	0.52	-0.47
736.60	-0.13	-0.14	-0.05	0.50	1.15	-0.64
736.80	-0.02	-0.15	-0.04	0.46	0.35	-0.03
737.00	0.03	-0.05	-0.07	0.39	-1.54	-0.70
737.20	-0.01	-0.10	-0.05	0.28	0.29	-0.23
737.40	0.02	-0.20	-0.05	0.22	0.60	0.59
737.60	0.00	0.00	-0.06	0.32	-0.12	-0.16
737.80	-0.15	-0.03	-0.05	0.31	-0.16	-0.83
738.00	-0.14	-0.18	-0.04	0.26	-0.53	-0.31
738.20	-0.19	-0.02	-0.03	0.11	-0.44	-2.91
738.40	-0.16	-0.06	-0.05	0.42	0.57	0.25
738.60	-0.05	-0.14	-0.03	0.06	-0.34	-1.45
738.80	0.02	-0.08	-0.02	0.46	-4.87	-6.95
739.00	0.19	-0.08	-0.02	-0.32	-2.05	-0.39

739.20	0.01	-0.15	-0.01	0.14	-12.83	-3.12
739.40	-0.04	-0.12	-0.02	-0.26	0.85	-2.12
739.60	-0.17	-0.12	-0.06	0.50	3.32	-0.12
739.80	0.06	-0.13	-0.01	0.20	-0.05	-0.82
740.00	0.01	-0.11	-0.01	0.45	0.87	-0.94
740.20	0.15	-0.10	0.00	0.48	2.60	-1.41
740.40	0.01	-0.09	-0.01	-0.49	-0.04	-2.39
740.60	-0.06	-0.02	-0.01	0.17	-2.47	-0.34
740.80	-0.06	-0.21	-0.02	0.38	1.95	-0.33
741.00	-0.03	-0.19	-0.02	0.50	0.69	-2.89
741.20	0.02	-0.20	-0.01	-1.19	-5.02	-3.48
741.40	0.06	-0.14	-0.01	0.00	2.66	-0.43
741.60	0.01	-0.11	0.00	0.18	2.85	-5.14
741.80	-0.25	-0.15	-0.05	-0.06	0.76	-0.56
742.00	-0.01	-0.07	-0.01	-0.05	-5.60	-0.48
742.20	-0.15	-0.18	-0.04	-0.04	2.89	-0.60
742.40	-0.25	-0.09	-0.05	-0.11	2.57	-1.05
742.60	-0.14	-0.16	-0.02	0.19	-0.29	2.43
742.80	-0.10	-0.18	-0.03	-0.69	-0.19	-4.76
743.00	-0.05	-0.08	-0.05	0.17	2.28	-0.53
743.20	0.02	-0.04	-0.03	-0.09	1.14	-1.49
743.40	-0.02	-0.18	-0.02	-0.07	1.58	5.96
743.60	-0.11	-0.05	-0.02	0.99	2.97	0.74
743.80	-0.04	-0.05	-0.04	1.05	-0.34	1.04
744.00	-0.07	-0.19	-0.03	0.02	-6.96	-0.38
744.20	-0.12	0.02	-0.02	0.25	2.48	0.82
744.40	-0.13	-0.10	-0.04	1.12	2.18	2.79
744.60	-0.09	-0.12	-0.04	0.89	-0.59	0.55
744.80	-0.14	-0.08	-0.04	-0.31	-0.24	-3.23
745.00	-0.09	-0.20	-0.02	0.60	1.20	1.35
745.20	-0.10	-0.10	-0.05	-0.08	-2.15	-0.26
745.40	-0.27	-0.16	-0.03	0.10	0.17	-0.57
745.60	-0.13	-0.18	-0.05	1.09	1.88	2.16
745.80	0.12	-0.13	-0.04	-0.23	-0.65	-4.97
746.00	-0.06	-0.12	-0.05	0.29	-4.33	-1.83
746.20	-0.09	-0.17	-0.03	-0.68	-1.89	1.24
746.40	-0.17	-0.02	-0.05	-0.24	0.50	-2.27
746.60	-0.17	-0.20	-0.03	0.27	0.27	0.38
746.80	-0.08	-0.26	-0.05	0.81	4.40	1.70
747.00	-0.11	-0.15	-0.06	0.62	3.08	0.42
747.20	0.03	-0.12	-0.05	0.39	-1.27	-0.07
747.40	-0.15	-0.12	-0.06	0.87	0.92	1.41
747.60	-0.12	-0.14	-0.04	-0.09	1.74	-0.98
747.80	-0.12	-0.10	-0.05	0.04	0.09	0.21
748.00	-0.08	-0.11	-0.06	0.59	-3.84	-0.20
748.20	-0.10	-0.08	-0.06	-1.44	3.81	-6.32
748.40	-0.15	-0.16	-0.03	-0.12	-0.27	-1.68
748.60	-0.13	-0.08	-0.04	0.17	0.80	0.40
748.80	-0.17	-0.08	-0.03	0.39	-0.95	-0.92
749.00	-0.20	-0.15	-0.05	0.11	-2.39	0.37

749.20	-0.14	-0.16	-0.06	0.37	-0.45	-0.19
749.40	-0.31	-0.10	-0.06	0.28	-1.18	0.26
749.60	-0.11	-0.11	-0.05	0.33	0.03	0.03
749.80	-0.20	-0.19	-0.05	0.34	-0.92	0.04
750.00	-0.13	-0.03	-0.05	0.22	-0.05	0.23
750.20	-0.17	-0.20	-0.06	0.52	0.31	-0.30
750.40	-0.08	-0.25	-0.04	0.31	-0.61	-0.37
750.60	-0.09	-0.12	-0.05	0.29	-1.45	-0.22
750.80	-0.18	-0.06	-0.05	0.25	-0.83	0.14
751.00	-0.16	-0.16	-0.04	-0.01	-0.19	-0.91
751.20	-0.10	-0.08	-0.05	0.38	1.16	0.96
751.40	-0.13	-0.10	-0.06	0.44	0.62	1.22
751.60	-0.04	-0.14	-0.04	0.28	1.86	-4.40
751.80	-0.15	-0.13	-0.02	0.20	3.46	2.56
752.00	-0.01	-0.11	-0.04	0.49	-0.52	1.22
752.20	-0.17	-0.19	-0.07	-0.35	-1.09	-1.96
752.40	-0.06	-0.08	-0.06	-0.03	-0.10	-0.49
752.60	-0.06	-0.15	-0.05	1.17	1.78	1.36
752.80	-0.19	-0.13	-0.04	0.65	0.16	1.92
753.00	-0.16	-0.14	-0.06	0.78	-0.26	1.68
753.20	-0.15	-0.07	-0.05	0.40	-0.80	0.11
753.40	-0.12	-0.12	-0.05	0.25	0.84	-1.09
753.60	-0.24	-0.10	-0.06	0.13	-0.75	-0.48
753.80	-0.13	-0.07	-0.08	0.58	-0.51	0.70
754.00	-0.05	-0.05	-0.05	0.25	-0.98	-0.93
754.20	0.00	-0.16	-0.05	-0.02	0.19	-1.27
754.40	-0.14	-0.03	-0.06	0.36	-1.06	-0.41
754.60	-0.11	-0.18	-0.05	0.34	-2.01	-1.28
754.80	-0.03	-0.23	-0.03	0.16	-0.55	1.09
755.00	-0.11	-0.07	-0.06	-0.13	-0.80	-3.51
755.20	-0.03	-0.11	-0.05	0.56	3.11	2.19
755.40	-0.14	-0.16	-0.04	-0.94	-0.89	-1.66
755.60	-0.15	-0.05	-0.05	0.83	3.91	4.93
755.80	-0.09	-0.05	-0.06	0.05	-2.71	-3.37
756.00	-0.14	-0.08	-0.05	-1.06	-9.32	-11.62
756.20	0.04	-0.16	-0.05	0.65	3.64	4.17
756.40	0.02	-0.17	-0.03	-0.89	-4.40	-3.37
756.60	-0.02	-0.14	-0.05	-0.62	1.20	-1.81
756.80	-0.11	-0.11	-0.06	0.31	1.89	-0.10
757.00	0.02	-0.10	-0.03	0.41	-1.72	-1.15
757.20	-0.04	-0.06	-0.06	0.22	-0.13	0.01
757.40	0.07	-0.16	-0.06	0.27	0.04	-0.02
757.60	0.01	-0.13	-0.06	0.10	0.15	-0.74
757.80	0.01	-0.05	-0.03	0.28	0.00	-0.06
758.00	0.09	-0.12	-0.04	0.30	-0.46	-0.07
758.20	0.21	-0.08	-0.03	0.28	-0.57	-0.22
758.40	0.13	-0.06	-0.04	0.59	1.67	-1.20
758.60	0.16	-0.18	0.00	0.72	3.06	0.38
758.80	-0.05	-0.15	-0.05	-0.35	-0.39	-1.40
759.00	-0.05	-0.03	-0.04	0.56	4.98	-3.29

759.20	0.02	-0.12	-0.04	0.17	-1.06	-1.75
759.40	0.00	-0.13	-0.03	0.04	5.13	1.10
759.60	0.21	-0.06	-0.01	0.18	1.66	0.49
759.80	0.13	-0.09	-0.05	-0.07	0.40	-4.33
760.00	0.21	-0.03	-0.04	1.22	-6.79	0.20
760.20	0.19	-0.07	-0.02	-0.21	-1.97	-0.89
760.40	0.25	-0.10	-0.02	0.16	0.53	0.97
760.60	0.05	-0.15	-0.03	-0.42	1.06	-4.28
760.80	0.12	-0.13	-0.03	-0.28	-1.55	-7.77
761.00	0.13	-0.11	-0.02	0.45	6.59	1.45
761.20	0.12	-0.07	-0.02	2.01	1.94	1.84
761.40	0.11	-0.02	-0.04	-1.75	0.31	-7.31
761.60	0.05	-0.19	-0.02	-0.66	4.40	-1.69
761.80	0.20	-0.12	0.00	-1.03	0.79	-5.49
762.00	0.27	-0.01	-0.02	0.67	5.17	3.80
762.20	0.20	-0.11	-0.01	0.28	-0.08	-0.21
762.40	0.26	-0.01	-0.01	1.15	-1.55	-0.25
762.60	0.30	-0.14	0.00	0.41	1.67	0.33
762.80	0.20	-0.15	-0.01	-0.37	-1.08	-2.40
763.00	0.22	-0.07	0.00	-0.51	-1.50	-5.51
763.20	0.21	-0.10	-0.01	0.65	0.72	1.07
763.40	0.23	-0.23	0.01	0.80	1.76	-0.51
763.60	0.39	0.04	0.00	1.04	-1.47	-0.11
763.80	0.19	-0.21	0.00	-1.29	3.99	-5.73
764.00	0.28	-0.08	0.02	0.92	0.67	0.34
764.20	0.12	-0.10	-0.03	-0.02	0.36	-0.81
764.40	0.26	-0.21	0.02	-0.46	-7.20	-1.92
764.60	0.25	-0.08	0.00	-0.50	0.25	-3.91
764.80	0.18	-0.16	-0.01	-0.05	0.21	-2.85
765.00	0.22	-0.24	0.01	-0.59	2.57	-3.97
765.20	0.09	-0.12	-0.01	0.49	4.50	1.52
765.40	0.19	-0.11	0.01	0.55	-2.80	-1.33
765.60	0.16	-0.09	-0.02	0.00	-3.57	0.98
765.80	0.23	-0.15	0.01	0.32	-4.77	-0.07
766.00	0.42	-0.06	0.01	0.22	-0.03	-1.09
766.20	0.16	-0.12	0.02	0.39	0.85	-2.54
766.40	0.24	-0.10	0.02	-0.32	0.14	-2.44
766.60	0.27	-0.09	0.02	-0.10	-1.64	0.61
766.80	0.22	-0.17	0.01	0.57	-0.68	-0.53
767.00	0.19	-0.13	0.00	0.13	-0.91	-0.98
767.20	0.34	-0.12	0.04	0.61	3.02	0.83
767.40	0.20	-0.16	0.03	0.42	-1.04	-1.34
767.60	0.28	-0.17	0.04	0.65	-0.49	0.77
767.80	0.20	-0.15	0.03	0.79	0.90	-1.21
768.00	0.20	-0.21	0.01	0.59	2.99	1.10
768.20	0.26	-0.18	0.04	0.11	2.55	-0.01
768.40	0.32	-0.07	0.03	0.03	-1.56	-2.18
768.60	0.21	-0.14	0.04	-0.01	4.71	3.29
768.80	0.23	-0.16	0.04	0.88	1.21	3.00
769.00	0.08	-0.16	0.03	-0.09	1.84	-1.87

769.20	0.25	-0.15	0.01	0.07	1.89	-2.59
769.40	0.22	-0.24	0.01	-0.02	-2.13	-2.80
769.60	0.22	-0.19	0.04	-1.18	1.15	-2.18
769.80	0.20	-0.05	0.02	-0.15	0.50	-1.16
770.00	0.39	-0.14	0.04	0.14	-0.05	-0.62
770.20	0.04	-0.13	0.02	0.21	-0.61	-1.31
770.40	0.19	-0.16	0.03	0.36	1.71	0.04
770.60	0.20	-0.21	0.01	-0.02	0.92	-1.67
770.80	0.13	-0.18	0.01	0.04	2.93	-0.66
771.00	0.20	-0.14	0.01	-0.06	1.96	-1.34
771.20	0.26	-0.10	0.01	0.44	1.02	0.47
771.40	0.19	-0.13	0.01	0.15	-3.57	-0.64
771.60	0.15	-0.06	0.02	0.44	-1.32	3.25
771.80	0.21	-0.25	0.02	0.33	5.16	-1.55
772.00	0.14	-0.23	0.00	-0.16	-0.17	-0.97
772.20	0.13	-0.07	0.02	1.48	-3.05	5.74
772.40	0.19	-0.21	0.00	0.76	0.26	1.21
772.60	0.20	-0.04	0.01	0.04	-2.78	0.23
772.80	0.13	-0.10	0.03	1.45	1.39	2.37
773.00	0.16	-0.12	0.00	0.23	-1.48	0.46
773.20	0.20	-0.13	-0.01	0.66	1.42	0.69
773.40	0.24	-0.18	-0.01	0.45	1.07	-1.68
773.60	0.18	-0.07	0.01	-0.23	-4.40	-1.80
773.80	0.10	-0.12	0.01	0.53	-0.75	-1.16
774.00	0.12	-0.13	0.00	0.34	-1.33	0.97
774.20	-0.01	-0.10	-0.02	1.07	1.72	4.47
774.40	0.11	-0.14	-0.01	-0.54	-0.42	-0.29
774.60	0.02	-0.15	0.00	0.66	-3.72	-0.68
774.80	0.10	-0.25	-0.02	0.76	-0.97	2.84
775.00	0.24	-0.15	-0.01	-0.43	4.54	-1.42
775.20	0.17	-0.18	-0.02	-0.59	-2.89	0.03
775.40	0.21	-0.10	-0.02	0.47	-0.03	0.17
775.60	0.19	-0.11	-0.04	1.10	0.95	3.21
775.80	0.17	-0.11	-0.03	-0.22	-2.42	-1.60
776.00	0.07	-0.19	-0.04	-0.34	4.06	-2.82
776.20	0.13	-0.16	0.00	0.04	-0.14	-2.09
776.40	0.16	-0.14	0.00	2.13	0.86	1.56
776.60	0.09	-0.19	0.00	-0.01	-0.44	-1.02
776.80	0.18	-0.14	-0.02	-0.34	-1.50	-1.33
777.00	0.20	-0.03	0.00	0.50	4.37	-1.34
777.20	0.14	-0.10	-0.03	-0.55	1.53	-0.49
777.40	0.19	-0.09	-0.03	-0.68	-1.99	-4.36
777.60	0.19	-0.13	-0.02	-0.70	-0.23	-0.35
777.80	0.18	-0.10	-0.01	-1.26	1.28	-3.65
778.00	0.00	-0.18	-0.01	1.03	-0.81	2.69
778.20	0.22	-0.04	-0.01	0.47	-0.44	-1.25
778.40	0.12	-0.22	0.00	0.17	0.40	-0.40
778.60	0.25	-0.21	0.00	-0.22	-0.62	-1.57
778.80	0.21	-0.09	-0.01	0.15	0.93	-2.36
779.00	0.15	-0.19	0.02	-0.57	-1.99	-1.64

779.20	0.20	-0.15	0.01	-0.01	1.11	-1.67
779.40	0.15	-0.13	0.00	0.20	-0.66	0.01
779.60	0.13	-0.06	-0.03	-0.04	-0.07	-0.77
779.80	0.15	-0.17	-0.01	0.97	-0.61	1.27
780.00	0.11	-0.12	0.00	0.12	0.07	-1.40
780.20	0.23	-0.13	0.01	0.16	-0.53	-0.44
780.40	0.10	-0.18	-0.01	0.32	3.05	-0.38
780.60	0.27	-0.22	0.03	0.22	-0.17	-0.78
780.80	0.09	-0.13	-0.01	0.50	0.39	3.34
781.00	0.14	-0.08	0.00	0.34	0.24	0.46
781.20	0.06	-0.10	-0.01	-0.14	1.33	-3.24
781.40	0.16	-0.10	-0.01	0.23	1.64	1.48
781.60	0.13	-0.15	-0.02	0.53	-1.32	2.20
781.80	0.17	-0.13	0.01	0.44	3.54	0.04
782.00	0.32	-0.11	0.01	0.44	0.50	1.06
782.20	0.25	-0.14	0.01	0.82	-1.52	-1.25
782.40	0.25	-0.16	0.00	-0.31	2.11	-0.18
782.60	0.22	-0.22	0.01	-0.91	-1.19	-2.16
782.80	0.04	-0.07	-0.01	0.66	-2.56	-4.20
783.00	0.04	-0.13	0.01	0.01	1.19	-3.28
783.20	0.05	-0.17	0.00	-0.22	-1.97	-1.04
783.40	0.12	-0.12	-0.01	0.57	1.45	-2.47
783.60	0.01	-0.11	0.01	0.82	-2.38	0.11
783.80	0.23	-0.10	0.02	0.39	4.03	-0.32
784.00	0.25	-0.13	0.00	0.56	-2.11	2.44
784.20	0.02	-0.13	-0.02	0.55	-3.40	0.88
784.40	0.25	-0.10	0.02	0.81	-4.53	0.41
784.60	0.16	-0.14	0.02	0.57	2.74	-2.41
784.80	0.06	-0.15	-0.01	-0.23	-1.44	-0.58
785.00	0.21	-0.21	0.03	0.64	1.62	-2.47
785.20	0.11	-0.24	0.00	-0.14	-0.74	-2.53
785.40	0.12	-0.15	0.01	1.70	-2.97	2.30
785.60	0.10	-0.10	0.01	1.07	-3.20	1.29
785.80	0.08	-0.19	0.00	0.12	-1.19	-0.11
786.00	0.09	-0.18	0.01	1.49	0.81	4.01
786.20	0.26	-0.11	0.03	-0.22	2.07	-3.67
786.40	0.25	-0.21	0.02	0.08	-3.90	1.41
786.60	0.05	-0.13	0.03	0.77	0.76	1.53
786.80	0.15	-0.17	0.02	0.36	1.33	-0.74
787.00	0.10	-0.12	0.01	-1.80	0.52	-6.14
787.20	0.08	-0.14	0.04	-0.04	-0.94	-1.29
787.40	0.13	-0.24	0.04	0.12	-1.49	0.92
787.60	0.07	-0.16	0.02	-1.41	-0.91	-5.00
787.80	0.17	-0.15	0.04	0.49	-0.40	0.37
788.00	-0.01	-0.06	0.02	0.30	1.66	-1.52
788.20	-0.02	-0.17	-0.01	0.22	1.26	-1.32
788.40	0.10	-0.10	0.01	-0.24	-3.22	-0.98
788.60	0.19	-0.24	0.02	0.05	-1.38	-0.09
788.80	0.07	-0.13	0.02	-0.79	1.24	-2.73
789.00	0.23	-0.13	0.03	0.75	-1.36	2.74

789.20	-0.01	-0.12	0.01	-0.28	0.63	-1.47
789.40	-0.01	-0.12	0.01	0.24	1.73	1.58
789.60	0.10	-0.19	0.02	0.41	1.06	-0.15
789.80	0.07	-0.15	0.00	-0.08	-0.42	-1.60
790.00	0.08	-0.17	0.00	-0.09	1.11	-1.29
790.20	0.00	0.03	0.00	0.20	-5.19	-0.05
790.40	0.17	-0.19	0.03	0.90	0.84	5.90
790.60	-0.04	-0.22	-0.01	0.74	-0.69	-0.07
790.80	0.01	-0.19	-0.02	0.41	2.36	-2.64
791.00	0.09	-0.14	0.00	1.63	1.73	1.99
791.20	0.15	-0.07	-0.01	0.17	2.31	-2.76
791.40	0.06	-0.18	-0.02	0.73	-1.44	1.01
791.60	0.08	-0.17	0.00	0.22	-0.11	-0.53
791.80	-0.06	-0.26	0.00	1.00	-1.07	0.72
792.00	0.05	-0.04	0.01	0.39	0.15	0.46
792.20	0.00	-0.04	0.00	0.17	-0.39	-0.34
792.40	0.11	-0.14	-0.01	0.26	1.52	-0.85
792.60	0.19	-0.10	0.00	0.10	2.45	0.47
792.80	-0.06	-0.13	-0.03	0.44	0.51	-0.28
793.00	-0.06	-0.12	-0.02	-0.10	-1.98	0.57
793.20	0.07	-0.18	-0.02	0.10	-0.26	-1.12
793.40	-0.05	-0.08	-0.01	0.18	0.95	0.36
793.60	-0.04	-0.19	-0.02	0.24	-0.03	0.19
793.80	0.01	-0.26	0.00	0.33	1.65	-1.65
794.00	0.06	-0.07	0.02	-0.09	0.81	-1.29
794.20	0.07	-0.08	-0.02	0.12	-2.49	-2.27
794.40	0.07	-0.03	-0.02	0.18	-4.39	-1.15
794.60	0.06	-0.09	-0.01	-0.06	-2.99	-2.13
794.80	0.22	-0.11	0.02	0.29	-2.68	0.60
795.00	-0.12	-0.10	-0.04	0.17	0.01	-1.05
795.20	0.06	-0.20	-0.01	0.23	1.80	-1.12
795.40	0.04	-0.13	-0.01	0.53	-3.99	1.60
795.60	0.05	-0.19	-0.03	0.18	-2.01	-0.36
795.80	0.12	-0.16	0.01	0.80	-0.74	-2.76
796.00	-0.03	-0.19	-0.02	-0.10	-4.35	3.03
796.20	-0.04	-0.07	-0.02	-0.34	-0.81	-2.14
796.40	0.03	-0.12	-0.02	0.29	-0.31	-1.38
796.60	-0.01	-0.05	-0.02	0.33	3.31	-1.20
796.80	-0.12	-0.12	-0.03	-0.21	-2.55	-3.41
797.00	-0.09	-0.05	-0.04	-0.07	0.09	-1.15
797.20	-0.13	-0.09	-0.01	0.45	-0.26	0.04
797.40	-0.03	-0.24	-0.01	-0.39	-0.19	-1.69
797.60	-0.08	-0.15	-0.01	0.43	0.64	0.55
797.80	-0.04	-0.09	-0.04	0.31	0.35	0.55
798.00	-0.21	-0.11	-0.04	0.54	1.17	-0.19
798.20	-0.09	-0.09	-0.04	-0.34	0.13	-0.64
798.40	0.04	-0.07	-0.01	0.54	-0.88	0.50
798.60	0.03	-0.09	-0.03	0.42	-1.38	-1.67
798.80	-0.03	-0.16	-0.03	0.25	1.91	0.47
799.00	-0.05	-0.11	-0.03	0.22	1.62	0.40

799.20	-0.12	-0.11	-0.05	0.36	1.49	-0.74
799.40	-0.10	-0.15	-0.04	0.57	-2.15	0.42
799.60	-0.17	-0.07	-0.05	0.31	0.68	-2.39
799.80	-0.07	-0.04	-0.05	0.33	-2.69	-2.18
800.00	-0.24	-0.12	-0.07	0.32	1.89	-0.79
800.20	0.07	-0.07	-0.03	-1.09	2.80	-5.64
800.40	-0.03	-0.08	-0.03	0.04	1.35	-1.74
800.60	0.07	-0.07	-0.02	1.10	-2.41	0.83
800.80	-0.16	-0.10	-0.03	0.37	-1.28	1.80
801.00	-0.15	-0.11	-0.06	-0.06	-3.35	-2.42
801.20	-0.06	-0.08	-0.08	1.00	-1.07	1.67
801.40	-0.06	-0.08	-0.07	-0.79	1.59	-5.90
801.60	-0.11	-0.14	-0.08	0.35	-4.21	-0.29
801.80	-0.06	-0.20	-0.06	-1.19	-1.25	-4.36
802.00	-0.08	-0.07	-0.05	0.42	-1.24	-0.88
802.20	-0.02	-0.06	-0.05	-0.55	1.50	-4.70
802.40	-0.10	-0.03	-0.07	2.22	-0.04	4.19
802.60	-0.08	-0.08	-0.05	0.72	-2.85	-0.64
802.80	-0.14	-0.04	-0.06	0.32	0.48	-0.31
803.00	-0.06	-0.09	-0.05	0.04	-1.34	-0.35
803.20	-0.01	0.03	-0.05	0.16	1.08	-1.00
803.40	-0.05	-0.12	-0.05	0.18	4.23	-0.22
803.60	-0.27	0.00	-0.07	-0.02	1.55	0.58
803.80	-0.12	0.07	-0.07	1.15	-3.03	-3.30
804.00	-0.07	-0.24	-0.04	-1.04	-0.75	-4.47
804.20	-0.04	-0.02	-0.04	-0.73	-0.68	-4.70
804.40	-0.09	-0.07	-0.06	0.55	2.44	-1.74
804.60	-0.15	-0.09	-0.06	0.31	1.01	0.07
804.80	-0.12	-0.02	-0.04	0.03	-0.16	-0.56
805.00	-0.20	-0.08	-0.05	0.25	-1.42	-0.51
805.20	-0.16	-0.07	-0.05	0.17	1.14	0.93
805.40	-0.13	-0.11	-0.06	0.26	-0.57	-0.32
805.60	-0.12	-0.02	-0.05	0.44	0.15	-1.27
805.80	0.01	-0.07	-0.06	0.21	1.27	3.46
806.00	-0.24	-0.12	-0.09	0.77	-0.29	0.43
806.20	-0.02	-0.20	-0.05	0.69	2.96	-2.04
806.40	-0.14	-0.20	-0.06	-0.11	-0.06	1.01
806.60	-0.02	-0.06	-0.03	-0.34	-3.57	0.30
806.80	-0.13	-0.12	-0.05	0.24	-1.26	0.02
807.00	-0.09	-0.18	-0.06	-0.17	-2.38	-1.47
807.20	-0.12	-0.12	-0.07	0.93	-0.36	1.67
807.40	-0.11	-0.12	-0.06	0.18	-1.97	-1.19
807.60	-0.04	0.00	-0.06	1.52	-0.36	3.03
807.80	-0.10	-0.09	-0.04	-0.34	-0.83	-2.15
808.00	-0.11	-0.09	-0.05	0.34	-1.19	-0.74
808.20	-0.02	-0.09	-0.04	0.54	1.75	0.24
808.40	-0.03	-0.03	-0.06	-0.48	0.18	-2.21
808.60	-0.14	-0.05	-0.06	0.54	-1.94	0.87
808.80	-0.16	-0.01	-0.05	0.67	-6.78	-4.90
809.00	-0.09	-0.07	-0.05	-0.77	1.91	-3.19

809.20	-0.23	-0.11	-0.08	1.31	1.74	-0.69
809.40	0.03	-0.06	-0.06	0.34	-0.60	-0.12
809.60	-0.12	-0.03	-0.05	0.06	0.03	-2.04
809.80	-0.03	-0.14	-0.05	0.28	4.75	-0.71
810.00	-0.09	-0.05	-0.06	0.99	7.64	-1.61
810.20	-0.17	0.00	-0.07	0.16	-1.41	-2.41
810.40	-0.07	-0.10	-0.08	0.41	3.25	-0.40
810.60	-0.01	-0.07	-0.07	0.57	-1.71	0.88
810.80	0.02	-0.05	-0.04	0.51	-0.06	0.12
811.00	0.00	-0.13	-0.04	0.22	1.74	-2.99
811.20	-0.03	0.05	-0.07	0.41	-1.38	1.49
811.40	-0.07	-0.01	-0.04	-0.18	0.59	-1.82
811.60	-0.14	-0.04	-0.06	0.34	-1.01	-1.94
811.80	-0.14	-0.13	-0.07	-0.33	2.02	-1.70
812.00	-0.04	-0.06	-0.06	0.26	1.13	-1.60
812.20	-0.15	-0.13	-0.04	0.19	0.90	-2.03
812.40	-0.08	-0.03	-0.06	0.81	-1.12	3.06
812.60	-0.21	0.02	-0.06	0.23	1.82	-0.83
812.80	-0.11	-0.13	-0.06	0.36	0.38	-1.87
813.00	-0.12	-0.07	-0.04	-1.21	9.13	-3.59
813.20	-0.13	-0.02	-0.04	-0.51	-0.42	-4.64
813.40	-0.06	0.01	-0.04	0.04	0.36	-2.39
813.60	-0.13	-0.03	-0.05	-0.19	-1.24	-2.19
813.80	-0.03	-0.16	-0.04	-0.03	-1.17	-2.21
814.00	-0.13	-0.13	-0.06	0.72	-2.07	-0.13
814.20	-0.15	-0.15	-0.04	0.68	1.92	1.02
814.40	-0.13	-0.10	-0.02	-0.48	2.55	1.15
814.60	0.05	-0.10	-0.03	0.05	0.26	-0.85
814.80	-0.13	-0.05	-0.06	0.29	-0.40	-2.41
815.00	-0.02	-0.12	-0.04	0.25	-0.08	-0.13
815.20	0.00	-0.11	-0.03	0.26	0.23	0.28
815.40	-0.23	-0.06	-0.05	0.38	0.18	0.35
815.60	-0.21	-0.09	-0.05	0.28	-0.10	0.09
815.80	-0.15	-0.13	-0.07	0.35	0.10	0.49
816.00	-0.16	-0.04	-0.05	0.29	0.44	-0.28
816.20	-0.03	-0.12	-0.05	0.25	-1.00	-0.21
816.40	-0.10	-0.10	-0.06	0.47	-1.18	-0.58
816.60	-0.20	-0.06	-0.04	0.29	-0.94	-0.28
816.80	-0.05	-0.09	-0.06	0.85	-1.37	-0.04
817.00	-0.09	-0.08	-0.05	0.80	-0.52	2.29
817.20	-0.13	-0.10	-0.06	-0.09	-1.09	-0.76
817.40	-0.16	-0.07	-0.05	0.71	-0.69	0.94
817.60	0.05	-0.20	-0.03	0.21	1.99	-1.62
817.80	-0.18	-0.13	-0.07	0.46	-4.20	1.86
818.00	-0.05	-0.14	-0.05	0.16	1.08	0.28
818.20	-0.10	-0.03	-0.07	-0.14	0.73	-1.25
818.40	-0.10	-0.15	-0.07	-0.28	0.41	-2.85
818.60	-0.05	-0.11	-0.06	0.40	2.42	0.31
818.80	-0.09	-0.09	-0.06	0.72	1.56	0.60
819.00	-0.12	-0.09	-0.06	0.68	0.56	-0.20

819.20	-0.07	-0.01	-0.05	-0.64	-0.63	-1.64
819.40	-0.03	-0.05	-0.07	-0.16	-1.08	-0.19
819.60	0.01	-0.09	-0.05	0.92	-0.87	3.13
819.80	-0.10	0.00	-0.07	0.56	0.26	1.24
820.00	-0.03	0.01	-0.05	0.34	-0.22	0.89
820.20	-0.11	-0.02	-0.06	0.37	-1.86	-1.29
820.40	-0.14	-0.03	-0.08	0.11	-1.20	-1.27
820.60	-0.19	-0.03	-0.06	-0.23	3.42	1.92
820.80	-0.19	-0.04	-0.08	0.61	2.76	1.69
821.00	-0.26	-0.22	-0.07	0.01	-0.94	-1.38
821.20	-0.12	-0.15	-0.08	-0.67	-0.42	-5.06
821.40	-0.16	-0.08	-0.05	0.59	-1.10	1.65
821.60	-0.11	0.06	-0.09	0.78	0.64	0.29
821.80	-0.09	-0.12	-0.07	0.53	-0.44	-0.27
822.00	-0.04	-0.02	-0.05	0.05	0.20	-1.89
822.20	-0.03	-0.14	-0.06	0.45	-0.11	0.28
822.40	-0.19	-0.08	-0.06	0.97	0.15	0.69
822.60	-0.17	-0.05	-0.07	0.98	-0.88	2.00
822.80	-0.16	-0.02	-0.06	0.50	0.25	1.01
823.00	-0.16	-0.12	-0.06	0.85	0.64	0.04
823.20	-0.03	-0.05	-0.06	0.28	2.22	-0.69
823.40	-0.08	0.03	-0.04	0.39	-0.15	-0.44
823.60	-0.21	-0.07	-0.05	0.28	0.04	0.06
823.80	-0.08	-0.04	-0.06	0.30	1.01	0.23
824.00	-0.20	-0.02	-0.07	0.54	3.53	0.24
824.20	-0.08	-0.09	-0.05	0.45	0.99	-0.57
824.40	0.03	-0.10	-0.04	0.56	0.31	0.71
824.60	-0.18	0.01	-0.07	-0.40	-0.15	-2.63
824.80	-0.25	-0.13	-0.07	0.75	2.72	3.80
825.00	-0.16	-0.04	-0.05	0.44	3.38	-1.95
825.20	-0.12	-0.09	-0.06	-0.21	2.58	-2.15
825.40	-0.16	-0.06	-0.07	1.16	0.73	2.82
825.60	-0.16	-0.06	-0.07	0.38	0.00	1.96
825.80	-0.05	0.04	-0.05	0.18	-0.47	0.48
826.00	-0.05	-0.16	-0.05	0.08	0.88	0.17
826.20	-0.04	-0.16	-0.04	0.44	-0.22	0.45
826.40	-0.09	-0.01	-0.07	0.70	-0.02	-0.82
826.60	0.01	-0.07	-0.05	0.24	-0.70	0.21
826.80	-0.07	-0.09	-0.06	-0.19	-2.25	-1.80
827.00	-0.26	-0.04	-0.07	0.30	-0.11	-0.76
827.20	-0.12	-0.13	-0.06	0.33	-0.13	-0.21
827.40	-0.06	-0.09	-0.07	0.32	-0.35	-0.13
827.60	-0.21	-0.08	-0.07	0.23	-0.44	-0.16
827.80	-0.07	-0.02	-0.07	0.12	0.80	0.28
828.00	-0.12	-0.04	-0.07	0.32	-0.26	-0.19
828.20	-0.12	-0.01	-0.06	0.25	-0.41	-0.05
828.40	-0.19	0.01	-0.08	0.50	-1.40	-2.63
828.60	-0.24	-0.04	-0.08	0.68	-0.31	0.58
828.80	-0.04	0.00	-0.04	0.76	-0.99	0.68
829.00	-0.14	-0.07	-0.05	0.42	1.73	-2.36

829.20	-0.06	-0.15	-0.06	0.84	-0.07	1.44
829.40	0.03	-0.01	-0.05	-0.19	0.20	-3.80
829.60	-0.10	-0.07	-0.06	0.70	0.01	-0.08
829.80	0.00	0.01	-0.04	0.18	1.08	-3.21
830.00	-0.06	-0.06	-0.07	-0.26	1.10	-1.86
830.20	-0.10	-0.16	-0.04	-0.20	1.25	-1.00
830.40	-0.16	-0.15	-0.06	-0.04	-0.48	-1.60
830.60	-0.20	-0.09	-0.09	-0.44	-0.83	-3.12
830.80	-0.14	-0.03	-0.06	0.68	-0.73	0.68
831.00	-0.17	-0.02	-0.05	0.01	4.35	-0.10
831.20	-0.04	-0.10	-0.05	-0.31	-7.20	1.90
831.40	-0.13	-0.12	-0.03	0.62	1.63	2.78
831.60	-0.06	-0.09	-0.05	0.40	0.82	-0.47
831.80	-0.14	-0.04	-0.06	0.51	-1.99	-0.92
832.00	-0.08	-0.10	-0.05	-0.28	1.33	-0.70
832.20	-0.18	-0.02	-0.06	0.61	-4.95	-3.73
832.40	-0.23	-0.12	-0.07	0.25	-1.68	1.16
832.60	0.03	-0.06	-0.06	1.38	7.64	3.31
832.80	-0.02	-0.03	-0.04	-0.85	1.18	-1.91
833.00	-0.25	-0.04	-0.06	0.14	-1.59	-1.24
833.20	-0.19	-0.05	-0.06	0.10	2.39	3.81
833.40	-0.10	-0.11	-0.06	0.20	-2.55	-0.45
833.60	-0.16	-0.06	-0.05	0.70	-4.86	-0.07
833.80	-0.08	-0.10	-0.07	0.08	-2.74	-3.03
834.00	-0.10	-0.14	-0.06	0.09	1.44	-0.80
834.20	-0.07	-0.07	-0.06	0.00	0.20	-0.14
834.40	-0.17	-0.07	-0.07	0.08	-0.97	-0.53
834.60	-0.01	-0.09	-0.06	-0.58	1.21	-4.22
834.80	0.00	-0.11	-0.06	-0.09	1.46	-2.12
835.00	-0.08	-0.06	-0.05	-0.15	0.91	-2.07
835.20	-0.28	-0.13	-0.08	-0.08	-2.70	0.11
835.40	-0.17	-0.05	-0.05	0.38	0.38	-2.08
835.60	-0.18	-0.05	-0.05	0.21	-0.52	-0.70
835.80	-0.14	0.06	-0.07	0.56	1.30	2.99
836.00	-0.14	-0.17	-0.07	0.66	-0.14	-0.98
836.20	0.02	0.00	-0.05	-0.26	2.32	0.90
836.40	-0.22	-0.02	-0.06	-0.06	0.85	-3.11
836.60	-0.06	0.00	-0.05	0.22	0.67	-3.57
836.80	-0.23	-0.15	-0.05	-0.19	-1.07	-0.45
837.00	-0.17	-0.07	-0.05	-0.01	-0.14	-2.81
837.20	0.01	-0.08	-0.06	0.20	-1.78	-0.90
837.40	-0.03	-0.17	-0.04	-0.75	-0.07	-5.23
837.60	-0.06	-0.10	-0.07	-0.05	0.93	-2.29
837.80	-0.01	0.00	-0.05	0.47	0.27	0.29
838.00	-0.14	-0.05	-0.07	-0.12	1.01	-1.67
838.20	-0.24	-0.12	-0.07	0.41	-0.55	0.32
838.40	-0.12	-0.08	-0.05	0.15	-0.51	-0.39
838.60	-0.14	-0.10	-0.08	0.12	0.67	-1.45
838.80	-0.16	0.01	-0.05	0.81	-0.67	1.06
839.00	-0.10	-0.03	-0.04	0.33	-0.29	0.11

839.20	-0.12	-0.07	-0.06	0.19	-0.36	-0.44
839.40	-0.06	-0.05	-0.04	0.27	-0.44	-0.38
839.60	0.02	-0.09	-0.04	0.26	-0.05	0.14
839.80	-0.06	-0.13	-0.07	0.20	-0.78	-1.00
840.00	-0.15	-0.11	-0.06	0.33	-1.17	-0.40
840.20	-0.13	0.00	-0.06	0.00	3.60	-3.08
840.40	-0.05	-0.13	-0.03	1.64	1.78	0.17
840.60	-0.10	-0.05	-0.03	-0.59	3.43	-4.66
840.80	-0.09	-0.13	-0.05	0.41	-1.36	-1.96
841.00	-0.18	-0.15	-0.04	-0.09	-0.41	0.90
841.20	0.02	-0.06	-0.05	0.25	0.52	-0.33
841.40	-0.19	-0.17	-0.04	0.55	0.77	-2.13
841.60	-0.07	-0.06	-0.05	0.47	1.12	-1.79
841.80	-0.16	-0.21	-0.02	0.37	4.67	-1.07
842.00	-0.05	-0.09	-0.04	-0.44	1.20	-3.38
842.20	-0.11	-0.03	-0.03	-0.37	0.30	-2.22
842.40	-0.05	-0.09	-0.05	0.06	3.31	-2.91
842.60	-0.08	0.00	-0.04	-0.17	-0.67	-2.06
842.80	-0.07	-0.16	-0.05	0.09	-1.39	0.56
843.00	-0.07	-0.09	-0.04	0.30	-0.89	0.00
843.20	-0.09	-0.07	-0.04	0.03	0.51	-0.20
843.40	-0.11	-0.10	-0.03	0.21	-2.00	-1.73
843.60	-0.23	-0.06	-0.06	0.68	-1.31	0.45
843.80	-0.08	-0.12	-0.06	0.49	1.71	2.75
844.00	-0.12	-0.06	-0.05	0.41	0.86	0.28
844.20	-0.03	-0.15	-0.02	-0.07	-1.89	0.37
844.40	-0.12	-0.11	-0.05	0.16	1.27	0.39
844.60	-0.06	-0.20	-0.03	-0.65	-2.28	-1.14
844.80	-0.02	-0.19	-0.04	-0.38	-2.41	-1.79
845.00	-0.14	-0.06	-0.02	0.83	1.93	-0.65
845.20	-0.18	-0.10	-0.05	0.19	-4.19	0.72
845.40	-0.12	-0.10	-0.04	0.15	0.27	-2.41
845.60	-0.16	-0.15	-0.04	0.30	0.27	-0.42
845.80	-0.13	-0.12	-0.02	-0.27	0.27	-1.39
846.00	0.00	-0.06	-0.05	0.70	-1.46	-3.63
846.20	-0.25	-0.12	-0.05	0.19	1.86	-2.34
846.40	-0.05	-0.15	-0.02	0.53	-1.70	-1.69
846.60	-0.14	-0.06	-0.07	0.55	0.73	0.12
846.80	0.10	-0.07	-0.04	-0.60	-0.45	-5.13
847.00	-0.16	-0.07	-0.05	0.19	-3.56	1.65
847.20	-0.17	-0.21	-0.02	0.07	-1.92	-1.70
847.40	-0.12	-0.14	-0.06	-0.51	5.04	-5.36
847.60	-0.26	0.00	-0.04	-0.99	-1.27	-2.64
847.80	0.05	0.00	-0.03	-1.24	2.53	-3.95
848.00	-0.04	-0.12	-0.04	0.48	-5.29	-0.34
848.20	-0.24	-0.14	-0.05	-0.37	0.68	-1.89
848.40	-0.19	-0.16	-0.05	1.01	0.71	1.78
848.60	-0.15	-0.08	-0.07	-0.13	0.95	-2.49
848.80	0.02	-0.06	-0.05	-0.98	-2.25	-0.57
849.00	0.01	-0.04	-0.04	0.77	-0.30	-1.77

849.20	-0.25	-0.13	-0.07	0.24	-1.07	-1.44
849.40	-0.21	-0.14	-0.05	0.16	-0.65	-0.03
849.60	0.02	-0.08	-0.04	0.46	1.96	-0.96
849.80	-0.21	-0.03	-0.05	0.00	-1.10	-0.13
850.00	-0.06	-0.11	-0.05	-0.16	-1.28	-0.96
850.20	-0.16	-0.06	-0.06	0.09	-1.84	-1.06
850.40	-0.16	-0.03	-0.08	0.00	0.19	-1.14
850.60	-0.13	-0.06	-0.05	0.48	-0.35	0.42
850.80	-0.16	-0.09	-0.05	0.40	1.01	0.93
851.00	-0.11	-0.19	-0.04	0.29	2.85	1.31
851.20	-0.13	-0.03	-0.07	0.41	-0.28	0.76
851.40	-0.15	-0.03	-0.05	0.21	0.41	-0.73
851.60	-0.13	-0.05	-0.06	0.22	0.45	-0.56
851.80	-0.08	-0.14	-0.06	-0.03	0.81	-0.80
852.00	-0.18	-0.07	-0.07	0.23	5.19	-4.30
852.20	-0.17	-0.11	-0.07	0.32	-6.37	-2.54
852.40	-0.11	-0.03	-0.08	0.55	0.28	1.29
852.60	-0.06	-0.17	-0.06	0.32	0.20	0.44
852.80	-0.28	-0.19	-0.06	0.75	0.72	-0.68
853.00	-0.12	-0.04	-0.06	-0.09	-2.28	3.61
853.20	-0.03	-0.14	-0.06	0.85	3.65	2.98
853.40	-0.06	-0.12	-0.07	0.39	-2.70	-0.06
853.60	-0.09	-0.03	-0.06	0.37	-2.37	-1.25
853.80	-0.10	-0.16	-0.07	-0.95	3.46	-3.35
854.00	-0.14	-0.07	-0.07	-0.19	1.43	-3.61
854.20	-0.16	-0.27	-0.06	0.98	-4.52	-1.16
854.40	0.07	-0.14	-0.03	0.46	-2.25	-0.73
854.60	-0.04	-0.10	-0.06	0.57	0.05	1.80
854.80	-0.03	-0.06	-0.06	-0.63	-5.35	-2.10
855.00	-0.21	-0.15	-0.06	0.78	-0.65	2.55
855.20	-0.05	-0.09	-0.05	-0.08	1.75	-0.81
855.40	-0.12	-0.16	-0.05	-0.02	1.22	-1.33
855.60	0.14	-0.01	-0.05	0.75	-1.83	1.13
855.80	-0.15	-0.14	-0.06	0.36	-0.78	0.74
856.00	-0.18	-0.13	-0.07	0.55	-0.91	-1.71
856.20	-0.06	-0.07	-0.05	0.19	0.43	0.04
856.40	-0.07	-0.06	-0.05	0.12	-0.79	-1.52
856.60	0.06	-0.18	-0.05	0.13	1.36	0.38
856.80	-0.04	-0.11	-0.04	0.08	-0.22	-1.19
857.00	-0.10	-0.10	-0.06	0.43	1.15	0.00
857.20	-0.12	-0.20	-0.04	0.21	-1.71	-1.91
857.40	-0.13	-0.16	-0.06	0.22	1.24	-0.44
857.60	-0.08	-0.09	-0.05	0.21	2.43	0.86
857.80	-0.11	-0.10	-0.06	-0.26	-2.22	-3.01
858.00	-0.16	0.04	-0.05	-0.11	3.55	-3.53
858.20	-0.02	-0.06	-0.04	0.93	-0.64	3.07
858.40	0.00	-0.05	-0.04	0.45	5.30	-2.39
858.60	-0.07	-0.13	-0.05	0.95	4.49	3.08
858.80	-0.04	0.00	-0.02	1.43	0.76	3.28
859.00	-0.07	-0.10	-0.03	0.55	0.75	-1.41

859.20	-0.09	-0.07	-0.04	-0.69	-3.52	-1.91
859.40	-0.20	-0.14	-0.06	-0.21	-0.56	-0.89
859.60	-0.17	-0.07	-0.05	0.22	0.43	-1.32
859.80	-0.26	-0.16	-0.03	0.55	1.44	-1.21
860.00	-0.07	-0.06	-0.03	0.90	0.05	1.47
860.20	-0.12	-0.10	-0.04	0.15	0.65	-0.11
860.40	-0.13	-0.02	-0.06	-0.19	-1.52	-1.80
860.60	0.03	-0.07	-0.06	0.14	-0.40	0.16
860.80	-0.01	-0.13	-0.03	0.19	0.97	0.23
861.00	-0.07	-0.09	-0.05	0.37	0.24	-0.22
861.20	-0.12	-0.18	-0.05	0.27	-0.80	-0.31
861.40	-0.06	-0.07	-0.03	-0.02	0.01	-0.25
861.60	-0.11	-0.06	-0.05	0.17	-1.83	-1.31
861.80	-0.23	-0.19	-0.07	-0.01	-0.43	-0.95
862.00	0.02	-0.22	-0.04	0.80	0.00	-0.54
862.20	-0.05	-0.11	-0.07	0.87	-0.35	-0.14
862.40	-0.12	-0.16	-0.07	0.06	-0.22	-0.32
862.60	-0.29	-0.09	-0.07	0.42	0.95	-0.73
862.80	-0.12	-0.04	-0.05	0.49	-0.20	1.98
863.00	-0.27	-0.02	-0.05	0.18	-1.63	-2.99
863.20	-0.12	-0.05	-0.06	0.36	-0.49	-1.60
863.40	-0.14	-0.11	-0.06	0.07	1.92	0.00
863.60	-0.04	-0.18	-0.04	0.35	0.36	-0.83
863.80	-0.20	-0.06	-0.06	-0.24	-0.98	-1.92
864.00	-0.10	-0.11	-0.03	0.36	0.72	-1.51
864.20	-0.12	-0.08	-0.06	-1.19	0.76	-2.82
864.40	-0.13	-0.12	-0.07	0.08	-0.61	-2.97
864.60	0.06	-0.02	-0.03	-0.20	-0.12	-1.21
864.80	-0.04	0.01	-0.06	-0.08	1.05	-0.41
865.00	-0.13	-0.14	-0.05	-0.38	0.10	0.13
865.20	-0.14	-0.17	-0.03	-0.75	0.09	-3.89
865.40	-0.14	-0.04	-0.07	0.28	0.22	1.04
865.60	-0.16	-0.13	-0.06	-0.47	0.16	-1.91
865.80	-0.07	-0.12	-0.05	-0.29	-2.42	-1.40
866.00	-0.10	-0.12	-0.06	0.21	0.71	-0.18
866.20	0.01	-0.11	-0.04	-0.13	2.36	-1.16
866.40	-0.14	-0.15	-0.06	0.15	-1.10	0.68
866.60	-0.03	-0.13	-0.05	-0.48	-2.02	-2.36
866.80	0.05	-0.04	-0.05	0.02	0.48	-1.39
867.00	-0.13	-0.06	-0.06	-0.05	0.70	-0.89
867.20	-0.16	-0.04	-0.06	0.29	2.60	-0.44
867.40	0.00	-0.11	-0.04	0.13	1.94	-2.40
867.60	-0.06	-0.16	-0.04	-0.25	-1.74	-1.72
867.80	-0.09	-0.13	-0.03	0.16	-0.64	3.09
868.00	-0.05	-0.10	-0.07	0.08	-1.20	0.03
868.20	-0.22	-0.07	-0.06	0.47	0.04	0.54
868.40	-0.05	-0.17	-0.06	0.49	1.02	1.63
868.60	-0.01	-0.07	-0.05	0.60	-1.10	0.12
868.80	0.04	-0.11	-0.05	0.05	0.00	0.00
869.00	-0.04	-0.12	-0.04	1.01	-0.58	2.05

869.20	-0.17	-0.09	-0.05	0.67	-1.23	-1.03
869.40	0.02	-0.11	-0.03	0.46	-1.51	0.80
869.60	-0.19	-0.10	-0.06	0.79	1.32	-1.20
869.80	-0.03	-0.12	-0.03	0.13	-1.51	-2.87
870.00	0.00	-0.04	-0.07	0.71	-0.52	2.44
870.20	-0.13	-0.22	-0.01	0.47	-0.40	-1.77
870.40	-0.02	-0.16	-0.05	0.65	-0.49	-1.78
870.60	-0.03	-0.10	-0.04	-1.21	-0.69	-5.43
870.80	-0.09	-0.08	-0.08	0.46	3.64	1.68
871.00	-0.11	-0.16	-0.05	0.45	-2.16	-0.07
871.20	-0.13	-0.01	-0.07	-0.32	-6.54	2.80
871.40	-0.08	-0.09	-0.04	0.00	0.66	0.81
871.60	-0.04	-0.09	-0.04	0.06	-1.12	1.31
871.80	0.05	-0.02	-0.04	0.28	-0.95	-0.43
872.00	-0.15	-0.10	-0.03	0.48	-1.88	-0.51
872.20	-0.07	-0.16	-0.06	0.17	-1.17	-1.21
872.40	-0.04	-0.14	-0.04	-0.36	0.14	0.22
872.60	0.00	-0.06	-0.02	0.19	-0.11	0.76
872.80	-0.18	-0.03	-0.06	0.17	0.02	1.23
873.00	0.03	-0.14	-0.07	-0.01	-1.32	0.91
873.20	0.06	-0.10	-0.05	1.25	-0.91	3.10
873.40	-0.02	-0.20	-0.05	0.93	3.38	6.10
873.60	-0.11	-0.08	-0.03	-0.19	-0.05	-1.43
873.80	-0.14	-0.15	-0.05	0.60	1.95	0.49
874.00	-0.21	-0.13	-0.06	-0.55	2.22	-0.93
874.20	-0.05	-0.01	-0.04	0.11	1.74	-1.52
874.40	-0.16	-0.08	-0.04	0.42	0.54	0.13
874.60	-0.08	-0.07	-0.03	-0.04	1.28	-1.25
874.80	-0.19	-0.03	-0.06	0.35	1.05	-3.87
875.00	-0.01	-0.15	-0.04	0.56	1.08	3.25
875.20	0.01	-0.11	-0.03	0.19	1.04	-0.08
875.40	-0.01	-0.16	-0.04	0.48	4.57	1.98
875.60	-0.08	-0.17	-0.05	0.58	-1.45	2.02
875.80	-0.04	-0.03	-0.07	0.80	0.26	0.66
876.00	-0.07	-0.01	-0.07	0.26	-2.97	-0.01
876.20	-0.11	-0.11	-0.04	-1.98	0.75	-4.37
876.40	0.10	-0.02	-0.02	1.08	-2.93	-0.23
876.60	-0.02	-0.08	-0.06	0.25	0.73	0.21
876.80	-0.06	0.00	-0.05	-0.09	-2.48	-3.34
877.00	-0.05	-0.11	-0.05	0.57	-0.16	-0.08
877.20	0.05	-0.08	-0.04	-0.13	-1.87	-3.22
877.40	-0.11	-0.06	-0.05	0.52	-0.68	0.07
877.60	-0.01	-0.07	-0.05	0.04	2.18	-6.38
877.80	-0.12	-0.13	-0.06	-0.54	0.52	-3.05
878.00	-0.10	-0.10	-0.05	0.30	-0.82	0.49
878.20	-0.05	-0.02	-0.06	0.07	-3.24	0.64
878.40	0.02	-0.11	-0.04	0.43	2.98	-1.49
878.60	-0.04	-0.13	-0.04	0.28	-0.28	0.01
878.80	-0.10	-0.05	-0.07	0.38	-1.68	0.03
879.00	-0.09	-0.12	-0.05	0.22	1.22	0.85

879.20	-0.17	-0.08	-0.04	0.77	-0.18	1.13
879.40	-0.03	-0.14	-0.07	0.06	0.48	-2.21
879.60	-0.12	-0.03	-0.05	0.08	-0.70	-1.14
879.80	-0.12	-0.12	-0.03	0.39	-1.20	-0.66
880.00	-0.02	-0.07	-0.05	0.17	-2.05	-2.02
880.20	-0.13	-0.10	-0.04	0.74	1.53	1.61
880.40	0.01	-0.05	-0.07	0.86	-1.54	3.26
880.60	-0.09	-0.07	-0.06	1.15	-1.89	-0.60
880.80	-0.01	-0.07	-0.05	1.06	-0.28	3.46
881.00	0.02	-0.07	-0.04	-0.59	0.48	-1.64
881.20	-0.03	-0.12	-0.06	0.17	-0.15	-0.36
881.40	-0.17	0.05	-0.07	0.56	-1.30	1.28
881.60	-0.11	-0.10	-0.04	0.61	-2.56	-0.90
881.80	-0.05	-0.06	-0.05	0.00	0.89	-1.08
882.00	0.11	-0.06	-0.04	0.01	1.28	-0.84
882.20	-0.10	-0.06	-0.05	-0.10	-0.66	-0.22
882.40	-0.05	0.02	-0.08	-0.15	2.48	1.20
882.60	-0.04	-0.04	-0.05	-0.33	2.54	-0.67
882.80	0.14	-0.02	-0.03	-1.23	0.31	-4.66
883.00	-0.06	-0.09	-0.05	0.16	-0.13	-0.85
883.20	-0.14	-0.06	-0.06	0.75	2.16	5.62
883.40	0.00	-0.11	-0.05	0.11	-1.15	-1.40
883.60	0.00	-0.11	-0.04	-0.39	0.56	-0.38
883.80	-0.05	-0.04	-0.06	-0.86	-4.16	-1.72
884.00	-0.05	-0.06	-0.06	0.54	2.39	2.82
884.20	-0.03	-0.09	-0.06	0.41	-1.87	-1.56
884.40	-0.05	-0.03	-0.04	0.20	-0.51	-2.86
884.60	0.01	-0.07	-0.04	-0.50	5.16	-3.55
884.80	0.07	-0.17	-0.06	0.17	-1.19	-1.07
885.00	0.05	-0.12	-0.04	0.19	-0.79	0.74
885.20	0.02	-0.10	-0.04	0.02	4.21	-0.48
885.40	-0.03	-0.01	-0.06	0.16	3.01	1.89
885.60	-0.10	-0.12	-0.05	-1.20	-2.06	-3.05
885.80	0.00	-0.13	-0.05	-0.21	0.27	-1.28
886.00	-0.07	-0.06	-0.03	-0.53	2.35	-0.71
886.20	-0.09	-0.07	-0.07	0.38	-0.09	-0.12
886.40	-0.10	-0.03	-0.05	0.19	0.98	1.34
886.60	-0.06	-0.04	-0.03	0.27	-0.24	-0.34
886.80	-0.04	-0.08	-0.03	-0.09	0.91	1.25
887.00	0.04	-0.07	-0.03	0.53	0.16	1.56
887.20	0.06	-0.11	-0.03	0.57	-0.22	0.38
887.40	-0.01	-0.19	-0.04	-0.30	-4.91	-3.42
887.60	-0.11	-0.09	-0.04	0.48	0.27	0.18
887.80	0.05	-0.09	-0.04	0.35	-1.77	0.14
888.00	-0.13	-0.02	-0.06	-0.47	-1.68	-1.21
888.20	-0.01	0.02	-0.05	-0.02	1.70	-1.95
888.40	-0.14	-0.02	-0.05	0.14	-1.46	-0.26
888.60	0.01	-0.07	-0.04	0.24	-1.68	0.06
888.80	0.08	-0.15	-0.03	-0.90	2.18	-1.59
889.00	0.26	0.02	-0.06	0.66	0.86	-0.07

889.20	0.04	-0.02	-0.07	-0.51	-0.92	-0.60
889.40	-0.09	-0.04	-0.09	0.80	0.88	0.26
889.60	0.04	-0.04	-0.04	-0.05	1.80	0.04
889.80	0.13	-0.06	-0.04	0.68	2.18	-1.18
890.00	-0.03	-0.11	-0.06	0.50	-0.69	0.15
890.20	0.02	-0.14	-0.03	0.07	0.14	-2.50
890.40	0.04	0.01	-0.02	0.54	1.98	-0.14
890.60	-0.20	-0.10	-0.05	-0.04	-0.13	-0.45
890.80	-0.04	-0.06	-0.04	0.86	-0.45	3.86
891.00	-0.04	0.02	-0.04	-0.61	-1.69	-3.41
891.20	-0.02	-0.11	-0.03	0.71	0.05	0.22
891.40	-0.08	-0.04	-0.04	1.30	-0.82	4.78
891.60	-0.12	-0.11	-0.04	0.58	1.40	-4.51
891.80	-0.21	-0.02	-0.05	0.94	-0.86	2.44
892.00	-0.03	-0.02	-0.06	0.41	0.06	1.40
892.20	-0.14	-0.11	-0.05	-0.03	-5.99	0.28
892.40	0.03	-0.01	-0.05	0.29	3.42	1.14
892.60	0.14	-0.04	0.00	-0.06	-1.36	0.53
892.80	0.07	-0.05	-0.04	0.43	-0.58	-0.30
893.00	0.06	-0.12	-0.05	0.24	4.15	3.44
893.20	-0.03	-0.13	-0.04	0.82	-0.48	1.01
893.40	-0.02	-0.08	-0.03	0.28	-1.05	-1.06
893.60	-0.08	-0.05	-0.06	0.21	-3.55	-1.62
893.80	-0.07	-0.10	-0.04	0.45	-0.29	1.33
894.00	0.08	-0.05	-0.03	-0.09	3.56	1.06
894.20	0.07	-0.02	-0.04	0.55	1.76	1.28
894.40	-0.05	-0.04	-0.07	-0.41	2.23	0.44
894.60	-0.05	-0.03	-0.03	-0.03	2.58	-0.50
894.80	-0.13	-0.13	-0.05	0.38	-4.00	1.52
895.00	0.01	-0.05	-0.04	-0.17	-0.98	-1.16
895.20	-0.07	-0.11	-0.04	0.42	-1.56	-1.23
895.40	0.01	-0.11	-0.05	0.46	-0.23	0.36
895.60	0.01	-0.05	-0.06	0.26	0.27	0.82
895.80	-0.13	-0.02	-0.04	-0.12	0.38	-1.42
896.00	-0.11	-0.05	-0.08	0.26	-0.29	-0.61
896.20	-0.02	-0.11	-0.05	0.19	-0.65	-0.57
896.40	-0.01	-0.06	-0.04	0.84	-1.43	0.04
896.60	0.10	-0.02	-0.05	-0.64	-2.79	-2.93
896.80	-0.05	0.00	-0.05	0.21	-3.03	-3.00
897.00	0.01	-0.12	-0.05	0.40	1.44	0.80
897.20	-0.07	-0.08	-0.05	0.15	-0.39	-0.39
897.40	0.04	-0.11	-0.06	0.35	-0.78	1.25
897.60	-0.01	-0.01	-0.06	-0.58	1.07	-3.14
897.80	-0.13	-0.10	-0.05	0.62	-2.72	-0.98
898.00	0.08	-0.12	-0.05	-0.12	0.39	-1.24
898.20	0.05	-0.17	-0.04	0.50	2.36	0.62
898.40	0.06	-0.10	-0.05	-0.28	0.91	-0.03
898.60	0.00	-0.06	-0.03	0.12	5.06	-2.41
898.80	-0.07	-0.09	-0.06	0.39	-1.19	-0.24
899.00	-0.01	-0.03	-0.05	0.24	-2.97	0.21

899.20	-0.12	-0.14	-0.06	0.28	1.09	-0.59
899.40	-0.10	-0.10	-0.06	1.02	-0.77	2.57
899.60	-0.08	-0.12	-0.05	-1.49	1.58	-6.98
899.80	-0.11	-0.04	-0.06	-0.39	-2.30	-2.66
900.00	0.10	-0.10	-0.05	-0.24	0.72	0.24
900.20	-0.02	-0.13	-0.05	-0.07	-2.65	-0.21
900.40	0.01	-0.11	-0.04	-0.04	1.03	0.04
900.60	0.04	0.01	-0.02	0.24	-2.21	1.16
900.80	0.12	-0.16	-0.04	0.93	-5.91	3.11
901.00	-0.05	-0.12	-0.04	0.39	-0.53	-0.15
901.20	0.05	-0.09	-0.05	0.86	0.65	1.24
901.40	-0.01	-0.08	-0.04	-0.04	0.72	-2.93
901.60	-0.02	-0.13	-0.05	0.35	0.18	-0.67
901.80	-0.05	-0.15	-0.06	0.19	-0.29	0.87
902.00	0.08	-0.09	-0.06	0.48	-1.37	0.44
902.20	0.02	-0.07	-0.03	0.54	0.10	0.02
902.40	0.02	-0.13	-0.05	0.64	-2.07	1.98
902.60	0.09	-0.05	-0.03	0.46	-2.10	0.91
902.80	0.04	-0.04	-0.04	0.48	-2.64	2.23
903.00	0.01	-0.03	-0.04	-0.12	0.24	0.25
903.20	-0.09	-0.09	-0.04	0.40	1.28	-0.77
903.40	-0.06	-0.08	-0.04	-0.54	-0.23	-4.73
903.60	-0.07	-0.10	-0.06	0.44	-0.63	-0.76
903.80	-0.06	-0.06	-0.03	0.44	-1.36	1.51
904.00	-0.06	-0.12	-0.04	-0.01	0.40	-0.68
904.20	0.09	-0.04	-0.03	-0.03	0.49	0.40
904.40	-0.02	-0.22	-0.04	0.22	0.07	0.03
904.60	-0.07	-0.06	-0.05	0.30	0.37	-0.12
904.80	-0.15	-0.02	-0.05	-0.23	-1.58	-0.49
905.00	-0.08	-0.07	-0.04	-0.10	0.89	-2.54
905.20	-0.14	-0.10	-0.05	0.11	1.24	0.45
905.40	-0.06	-0.05	-0.03	0.31	-2.14	0.20
905.60	-0.08	-0.12	-0.05	0.39	-3.41	0.92
905.80	-0.07	-0.15	-0.04	0.60	-0.88	-1.27
906.00	-0.14	-0.20	-0.03	0.01	-0.40	-1.77
906.20	-0.18	-0.10	-0.05	0.32	-2.60	-1.10
906.40	-0.13	-0.20	-0.05	-0.49	0.41	-1.78
906.60	-0.19	-0.12	-0.05	0.55	-0.11	1.51
906.80	-0.17	-0.12	-0.04	0.54	0.20	0.29
907.00	-0.13	-0.28	-0.04	-0.09	-0.46	-0.15
907.20	0.00	-0.10	-0.04	0.25	-3.30	-1.11
907.40	-0.10	-0.03	-0.05	0.46	-1.04	0.08
907.60	-0.11	-0.09	-0.03	0.27	-0.54	-2.43
907.80	-0.08	-0.04	-0.03	0.48	-2.11	-0.45
908.00	-0.10	-0.14	-0.02	0.11	-1.98	1.13
908.20	-0.10	-0.14	-0.05	0.19	-0.54	-0.54
908.40	0.00	-0.17	-0.05	0.27	-1.61	-0.85
908.60	-0.08	-0.04	-0.05	0.18	-1.40	-1.78
908.80	-0.22	-0.19	-0.05	0.31	-1.18	1.70
909.00	-0.08	-0.06	-0.04	0.03	-1.14	-0.29

909.20	-0.12	-0.15	-0.06	0.65	2.81	2.09
909.40	-0.05	-0.05	-0.05	-0.01	-1.56	-0.37
909.60	-0.09	-0.06	-0.07	0.24	2.27	-0.53
909.80	-0.09	-0.09	-0.05	-1.01	3.92	-6.60
910.00	0.05	-0.08	-0.05	1.05	3.63	0.15
910.20	-0.14	-0.05	-0.05	1.08	1.34	0.35
910.40	0.04	-0.06	-0.05	0.03	0.09	0.71
910.60	-0.21	-0.04	-0.06	0.39	-1.94	-0.15
910.80	-0.12	-0.19	-0.04	-0.35	-1.54	-3.54
911.00	-0.11	-0.03	-0.08	-0.29	-2.15	-3.28
911.20	-0.13	-0.09	-0.07	0.39	-0.41	0.09
911.40	-0.10	-0.16	-0.05	0.35	0.16	0.01
911.60	-0.27	-0.01	-0.08	0.20	0.09	-0.57
911.80	-0.16	-0.01	-0.07	0.18	-0.02	-0.22
912.00	-0.16	-0.12	-0.05	0.14	-0.21	1.12
912.20	-0.13	-0.14	-0.04	0.27	2.50	0.32
912.40	-0.11	-0.07	-0.06	0.36	-2.36	0.65
912.60	-0.06	-0.17	-0.04	0.37	-4.99	0.61
912.80	-0.13	-0.07	-0.06	-0.03	0.22	-0.45
913.00	-0.08	-0.07	-0.06	0.14	-3.04	-0.06
913.20	-0.20	-0.03	-0.07	0.46	-3.12	-0.26
913.40	-0.21	-0.06	-0.05	0.97	1.56	3.00
913.60	-0.11	-0.14	-0.06	0.28	-0.94	-0.92
913.80	-0.31	0.00	-0.07	0.27	0.52	0.77
914.00	-0.02	-0.11	-0.06	0.52	-2.28	2.52
914.20	0.02	-0.04	-0.05	-0.64	-0.88	-1.59
914.40	-0.31	-0.08	-0.10	1.58	-5.07	0.38
914.60	-0.25	-0.02	-0.08	-0.71	-1.05	-3.05
914.80	-0.19	0.01	-0.07	-0.21	3.53	1.88
915.00	-0.20	-0.06	-0.05	-0.99	1.30	-3.38
915.20	-0.24	-0.13	-0.07	0.18	-0.49	-1.95
915.40	-0.25	-0.10	-0.09	0.44	1.83	2.71
915.60	-0.20	0.02	-0.07	-0.20	3.62	-1.33
915.80	-0.20	-0.05	-0.08	0.34	0.55	0.96
916.00	-0.16	-0.09	-0.08	-0.64	-1.89	-2.67
916.20	-0.21	-0.13	-0.09	0.30	-1.55	1.40
916.40	-0.08	-0.14	-0.04	0.26	0.18	-0.04
916.60	-0.25	-0.09	-0.06	0.36	1.82	-0.97
916.80	-0.16	-0.12	-0.06	0.27	0.40	-0.04
917.00	-0.14	-0.13	-0.08	0.23	-1.57	0.63
917.20	-0.12	-0.12	-0.06	0.53	-4.70	0.38
917.40	-0.18	0.01	-0.06	0.00	-2.57	-1.93
917.60	-0.17	-0.21	-0.05	0.58	-1.37	11.30
917.80	-0.11	-0.14	-0.07	-0.60	0.85	-4.58
918.00	-0.17	0.00	-0.06	0.62	-2.08	-2.16
918.20	-0.21	-0.05	-0.07	0.07	-4.13	1.10
918.40	-0.14	-0.04	-0.07	0.53	-0.63	-1.12
918.60	-0.06	-0.08	-0.08	-0.17	0.15	-0.35
918.80	-0.19	-0.10	-0.10	0.05	-1.60	-1.45
919.00	-0.27	-0.06	-0.08	-0.18	-1.27	-0.68

919.20	-0.07	-0.08	-0.07	0.37	1.09	-0.52
919.40	-0.19	-0.07	-0.07	0.30	1.27	-0.60
919.60	-0.20	0.01	-0.07	0.27	-0.77	1.25
919.80	-0.17	-0.02	-0.07	0.28	2.17	0.80
920.00	-0.24	-0.09	-0.09	0.20	-0.36	0.07
920.20	-0.03	-0.01	-0.06	0.23	0.04	0.01
920.40	-0.17	0.00	-0.07	0.21	-0.26	-0.37
920.60	-0.17	-0.05	-0.09	0.29	-0.55	-0.10
920.80	-0.08	-0.16	-0.06	0.30	-0.02	0.35
921.00	-0.19	-0.09	-0.07	0.31	-0.32	0.18
921.20	-0.19	-0.11	-0.06	0.21	0.03	-0.25
921.40	-0.27	-0.11	-0.07	0.27	-0.46	-0.34
921.60	-0.16	-0.06	-0.07	0.36	0.07	0.13
921.80	-0.19	-0.04	-0.09	0.33	-0.79	0.22
922.00	0.03	-0.05	-0.04	0.35	0.04	0.28
922.20	-0.23	-0.07	-0.08	0.06	-0.17	-0.56
922.40	-0.30	-0.09	-0.09	0.41	-0.37	0.57
922.60	-0.21	-0.01	-0.08	0.21	-0.18	-0.02
922.80	-0.28	-0.15	-0.06	0.24	0.39	0.08
923.00	-0.24	-0.14	-0.06	0.35	0.09	0.02
923.20	-0.34	-0.06	-0.08	-0.08	0.14	-0.67
923.40	-0.32	0.04	-0.07	0.23	2.36	1.48
923.60	-0.13	-0.07	-0.06	-0.38	-1.21	-0.37
923.80	-0.20	-0.12	-0.06	0.88	-0.13	1.23
924.00	-0.22	-0.05	-0.07	0.30	-1.30	1.83
924.20	-0.12	-0.10	-0.06	-1.27	1.27	-5.97
924.40	-0.10	-0.09	-0.07	-0.21	-1.59	-3.43
924.60	-0.28	-0.06	-0.07	0.73	-1.86	5.41
924.80	-0.10	-0.14	-0.05	-0.65	0.38	-4.65
925.00	-0.22	-0.13	-0.08	-0.22	0.48	1.15
925.20	-0.06	-0.11	-0.06	0.95	2.14	0.12
925.40	-0.29	-0.03	-0.06	1.94	-5.22	0.93
925.60	-0.33	-0.10	-0.08	-0.10	-1.35	-2.81
925.80	-0.25	-0.02	-0.06	0.33	-2.95	0.85
926.00	-0.18	-0.01	-0.06	1.01	7.40	-2.22
926.20	-0.23	-0.08	-0.07	0.81	2.27	1.78
926.40	-0.13	-0.15	-0.04	1.10	3.08	2.77
926.60	-0.12	0.01	-0.07	0.44	-2.86	1.11
926.80	-0.33	-0.17	-0.06	0.63	0.56	-0.76
927.00	-0.28	-0.07	-0.06	0.74	-2.22	0.48
927.20	-0.38	-0.04	-0.09	0.66	-0.88	0.96
927.40	-0.12	-0.12	-0.09	0.68	0.95	4.61
927.60	-0.09	-0.16	-0.06	-0.14	0.60	0.57
927.80	-0.24	-0.11	-0.07	0.64	0.11	0.47
928.00	-0.12	-0.02	-0.09	-0.63	2.00	-3.42
928.20	-0.22	-0.01	-0.07	-0.69	-1.38	-1.55
928.40	-0.11	-0.20	-0.08	0.28	-0.86	-0.16
928.60	-0.30	-0.12	-0.11	0.64	0.79	1.43
928.80	-0.26	-0.07	-0.08	-0.61	0.04	-1.60
929.00	-0.29	-0.01	-0.09	0.39	2.05	0.68

929.20	-0.26	-0.17	-0.08	0.28	-1.43	0.80
929.40	-0.31	-0.15	-0.09	0.92	0.94	1.78
929.60	-0.28	-0.05	-0.09	0.25	-1.78	0.61
929.80	-0.22	-0.03	-0.09	0.76	-1.10	-0.21
930.00	-0.30	-0.05	-0.09	0.15	2.04	-1.21
930.20	-0.30	-0.17	-0.08	0.19	2.92	1.21
930.40	-0.04	-0.06	-0.06	-0.43	2.09	-1.14
930.60	-0.32	-0.02	-0.09	0.38	1.05	3.22
930.80	-0.35	-0.13	-0.09	1.05	1.45	1.91
931.00	-0.28	-0.06	-0.09	0.16	-1.84	-1.31
931.20	-0.22	-0.08	-0.08	0.51	-1.21	1.32
931.40	-0.20	-0.10	-0.08	-0.55	-2.87	-2.05
931.60	-0.18	-0.14	-0.06	-1.16	-0.28	-3.06
931.80	-0.28	-0.10	-0.09	0.84	2.91	0.65
932.00	-0.23	-0.02	-0.07	0.38	-0.22	0.32
932.20	-0.33	-0.13	-0.09	-0.97	0.61	-2.85
932.40	-0.32	-0.14	-0.10	-4.11	4.12	-13.98
932.60	-0.26	-0.10	-0.10	-0.44	1.14	-0.69
932.80	-0.30	-0.04	-0.10	1.37	0.21	4.13
933.00	-0.27	-0.18	-0.10	-0.79	-4.57	-0.62
933.20	-0.23	0.04	-0.10	1.23	1.56	2.76
933.40	-0.27	-0.09	-0.06	0.31	-2.29	0.67
933.60	-0.34	-0.06	-0.08	0.24	-1.53	-2.18
933.80	-0.32	-0.06	-0.08	-0.43	-2.20	0.79
934.00	-0.26	-0.13	-0.06	0.24	1.09	-0.50
934.20	-0.32	-0.05	-0.07	0.24	-0.44	-0.04
934.40	-0.21	-0.07	-0.07	0.11	-0.80	-0.19
934.60	-0.33	-0.10	-0.09	0.32	0.76	-0.65
934.80	-0.16	-0.05	-0.07	0.28	1.10	-1.11
935.00	-0.33	-0.15	-0.08	0.37	-1.09	-0.27
935.20	-0.24	0.00	-0.07	0.63	-1.37	1.19
935.40	-0.25	-0.15	-0.08	0.50	-3.24	-0.34
935.60	-0.29	0.01	-0.09	0.48	-1.99	1.11
935.80	-0.26	-0.17	-0.05	-0.05	-2.77	0.09
936.00	-0.43	-0.18	-0.05	0.40	1.09	-0.74
936.20	-0.30	-0.04	-0.09	-0.09	3.37	-2.06
936.40	-0.26	-0.07	-0.09	0.34	3.24	0.97
936.60	-0.23	-0.10	-0.07	-0.36	-5.71	3.40
936.80	-0.34	-0.03	-0.08	0.34	-1.46	-0.37
937.00	-0.27	-0.10	-0.09	-0.17	0.47	-2.48
937.20	-0.27	-0.04	-0.08	0.51	-1.24	1.24
937.40	-0.39	-0.09	-0.11	0.09	-0.05	1.35
937.60	-0.31	-0.05	-0.10	0.44	2.84	-0.48
937.80	-0.37	-0.12	-0.10	-0.09	-3.03	-2.00
938.00	-0.30	-0.08	-0.10	0.05	-1.23	0.30
938.20	-0.37	-0.01	-0.10	0.36	-0.35	0.00
938.40	-0.20	-0.03	-0.07	0.00	-0.50	-1.03
938.60	-0.26	-0.11	-0.08	0.46	-2.48	0.08
938.80	-0.26	-0.04	-0.07	0.51	0.14	-0.21
939.00	-0.19	-0.10	-0.10	0.33	-1.08	-0.09

939.20	-0.27	-0.03	-0.09	0.27	-1.07	0.02
939.40	-0.25	-0.06	-0.08	-0.21	-0.40	-1.63
939.60	-0.22	-0.11	-0.07	0.73	-0.70	-0.92
939.80	-0.21	-0.07	-0.09	0.49	1.11	1.23
940.00	-0.30	-0.12	-0.10	0.15	-0.65	-1.13
940.20	-0.15	-0.21	-0.10	0.56	2.42	0.45
940.40	-0.14	-0.04	-0.06	0.60	4.76	2.82
940.60	-0.35	-0.14	-0.10	-1.52	1.57	-3.81
940.80	-0.36	-0.12	-0.09	0.31	-1.11	-1.28
941.00	-0.45	-0.09	-0.07	0.27	0.29	2.47
941.20	-0.20	0.02	-0.07	0.92	2.28	-1.01
941.40	-0.40	-0.12	-0.09	1.81	-2.88	4.09
941.60	-0.30	-0.12	-0.10	0.13	-3.22	-0.36
941.80	-0.26	-0.12	-0.07	0.00	-0.92	-1.43
942.00	-0.26	-0.20	-0.08	-0.17	-1.73	-1.33
942.20	-0.25	-0.10	-0.07	-0.72	-4.12	-0.75
942.40	-0.33	-0.05	-0.08	0.52	1.14	2.93
942.60	-0.28	-0.18	-0.07	0.81	-0.57	0.51
942.80	-0.40	-0.09	-0.10	0.67	0.08	-0.38
943.00	-0.32	-0.07	-0.09	0.06	1.50	-1.37
943.20	-0.19	-0.16	-0.07	1.23	-2.38	3.21
943.40	-0.28	0.01	-0.08	0.16	-1.36	-0.94
943.60	-0.19	-0.06	-0.08	-0.39	-0.30	0.37
943.80	-0.25	-0.02	-0.09	0.16	2.14	1.32
944.00	-0.30	-0.01	-0.09	0.84	3.99	-0.24
944.20	-0.24	-0.05	-0.08	0.15	-0.23	5.42
944.40	-0.18	-0.09	-0.11	-0.10	1.82	-4.64
944.60	-0.14	-0.02	-0.10	0.10	-1.65	-1.54
944.80	-0.23	-0.06	-0.08	-0.16	1.93	-2.37
945.00	-0.28	-0.17	-0.08	-0.21	1.02	1.09
945.20	-0.26	-0.02	-0.10	0.51	-2.07	-1.40
945.40	-0.22	-0.07	-0.09	0.95	-1.93	-1.05
945.60	-0.26	-0.16	-0.10	0.64	-0.81	2.13
945.80	-0.14	-0.12	-0.06	0.10	4.17	-0.35
946.00	-0.24	-0.01	-0.08	0.69	-3.00	3.99
946.20	-0.34	-0.07	-0.10	0.43	-1.08	-0.80
946.40	-0.40	-0.03	-0.10	0.05	-2.67	-2.97
946.60	-0.21	-0.11	-0.08	-0.83	-0.20	-1.63
946.80	-0.33	0.00	-0.10	0.35	-1.51	-0.46
947.00	-0.25	-0.09	-0.08	0.14	1.62	1.06
947.20	-0.31	-0.12	-0.09	0.02	-1.06	-0.51
947.40	-0.20	0.03	-0.10	0.32	-0.84	-0.61
947.60	-0.23	-0.01	-0.07	0.42	-0.90	-1.35
947.80	-0.27	-0.10	-0.12	0.32	-3.09	-0.59
948.00	-0.17	0.00	-0.08	0.35	0.24	0.72
948.20	-0.31	-0.08	-0.09	1.27	-0.26	1.08
948.40	-0.34	-0.07	-0.08	0.14	1.45	-0.33
948.60	-0.15	-0.06	-0.08	1.00	0.05	-1.35
948.80	-0.31	-0.12	-0.09	-0.09	0.80	-2.04
949.00	-0.24	-0.05	-0.08	0.20	-3.11	0.50

949.20	-0.29	-0.04	-0.07	0.31	0.03	-1.97
949.40	-0.31	-0.15	-0.12	0.57	0.58	0.21
949.60	-0.14	-0.11	-0.09	-1.09	-0.89	-3.76
949.80	-0.18	-0.08	-0.07	0.04	2.47	-2.82
950.00	-0.31	-0.16	-0.09	0.07	1.91	-1.88
950.20	-0.40	-0.07	-0.08	-0.64	-2.18	-3.19
950.40	-0.28	-0.11	-0.08	0.78	-3.73	-1.58
950.60	-0.30	-0.08	-0.09	-0.80	-1.90	-4.95
950.80	-0.20	-0.08	-0.08	0.64	-0.67	-0.24
951.00	-0.32	-0.17	-0.09	-0.40	0.13	-1.47
951.20	-0.34	-0.05	-0.09	0.22	1.79	1.05
951.40	-0.26	-0.08	-0.10	-0.57	1.07	1.78
951.60	-0.29	-0.16	-0.09	-0.31	-0.44	-4.61
951.80	-0.15	-0.06	-0.07	0.28	-1.29	0.65
952.00	-0.18	0.02	-0.08	-0.73	-0.03	0.23
952.20	-0.25	-0.16	-0.07	-0.42	1.19	-4.90
952.40	-0.21	-0.19	-0.07	-0.60	-0.93	-2.19
952.60	-0.35	0.10	-0.06	0.61	2.29	-0.33
952.80	-0.14	-0.14	-0.05	-0.99	1.08	-5.09
953.00	-0.34	-0.06	-0.07	-0.40	1.20	-2.05
953.20	-0.18	0.04	-0.10	1.33	-2.96	1.49
953.40	-0.28	-0.04	-0.09	0.56	0.30	0.40
953.60	-0.21	-0.14	-0.07	0.25	0.10	-1.03
953.80	-0.24	-0.16	-0.07	0.43	-1.16	-1.02
954.00	-0.23	-0.15	-0.07	0.12	-2.46	-2.46
954.20	-0.22	-0.16	-0.08	0.05	-0.15	-2.39
954.40	-0.31	-0.01	-0.06	0.28	-0.22	0.31
954.60	-0.34	-0.03	-0.07	-0.13	-0.11	-1.29
954.80	-0.31	-0.06	-0.08	0.96	-0.47	1.86
955.00	-0.27	-0.14	-0.06	0.24	0.05	0.21
955.20	-0.23	-0.06	-0.09	0.31	-0.30	0.34
955.40	-0.34	-0.11	-0.10	0.41	0.90	0.01
955.60	-0.18	-0.01	-0.07	0.41	0.26	-0.18
955.80	-0.29	-0.09	-0.09	0.50	0.42	-0.41
956.00	-0.32	0.00	-0.11	0.71	-0.95	1.82
956.20	-0.19	-0.01	-0.07	-0.72	-0.01	-3.72
956.40	-0.24	-0.10	-0.07	0.25	2.76	0.13
956.60	-0.14	-0.19	-0.10	0.22	-2.18	-2.83
956.80	-0.20	-0.05	-0.06	0.09	-1.57	-1.28
957.00	-0.31	-0.05	-0.09	0.76	2.53	0.04
957.20	-0.19	-0.09	-0.07	0.36	-1.76	2.43
957.40	-0.33	-0.07	-0.10	0.59	-1.55	1.18
957.60	-0.23	-0.02	-0.11	0.35	-0.85	-0.80
957.80	-0.24	-0.08	-0.10	-0.15	-3.22	1.30
958.00	-0.12	-0.07	-0.10	0.55	-2.68	0.15
958.20	-0.20	-0.18	-0.09	0.95	-1.10	1.66
958.40	-0.23	-0.16	-0.09	-0.06	2.50	-5.72
958.60	-0.21	-0.03	-0.08	0.39	-1.39	-2.04
958.80	-0.18	-0.15	-0.09	0.36	-1.80	-0.52
959.00	-0.26	-0.07	-0.10	-0.76	3.19	-1.72

959.20	-0.22	-0.05	-0.09	0.42	2.91	0.35
959.40	-0.20	0.00	-0.10	-0.34	-0.82	0.51
959.60	-0.20	-0.17	-0.09	-0.10	-1.89	-2.98
959.80	-0.33	-0.02	-0.09	0.66	-2.51	0.04
960.00	-0.14	-0.12	-0.08	0.11	2.56	-1.76
960.20	-0.30	-0.14	-0.09	-0.32	1.73	-1.40
960.40	-0.22	-0.06	-0.07	0.69	-4.60	2.73
960.60	-0.24	-0.09	-0.09	0.09	-0.07	-2.05
960.80	-0.25	-0.10	-0.07	0.36	0.50	0.96
961.00	-0.17	-0.12	-0.07	-0.68	-0.16	-2.46
961.20	-0.06	0.00	-0.07	0.61	2.05	0.89
961.40	-0.23	-0.17	-0.06	-0.08	-1.17	-0.44
961.60	-0.35	-0.04	-0.09	0.14	0.94	-0.17
961.80	-0.32	-0.15	-0.08	-1.41	-3.92	-1.87
962.00	-0.19	-0.05	-0.09	0.85	1.85	1.69
962.20	-0.25	-0.15	-0.08	0.33	1.96	-1.62
962.40	-0.32	-0.02	-0.09	0.13	-2.60	-0.77
962.60	-0.19	-0.02	-0.08	-0.29	-1.72	-1.50
962.80	-0.21	-0.12	-0.07	-0.01	-1.83	0.28
963.00	-0.13	-0.09	-0.10	0.65	-0.56	0.09
963.20	-0.21	-0.04	-0.09	0.15	-1.84	-0.24
963.40	-0.30	-0.08	-0.08	0.46	1.25	-1.29
963.60	-0.25	-0.04	-0.07	0.41	-0.38	0.26
963.80	-0.11	-0.11	-0.07	-0.10	-0.84	-1.23
964.00	-0.19	-0.09	-0.07	0.20	0.10	-0.46
964.20	-0.28	-0.11	-0.06	0.34	-0.09	0.31
964.40	-0.24	-0.03	-0.07	0.29	-0.01	0.00
964.60	-0.29	0.02	-0.09	0.18	-0.43	-0.17
964.80	-0.27	-0.13	-0.10	0.27	-0.31	0.30
965.00	-0.28	-0.07	-0.08	0.28	-0.21	0.08
965.20	-0.21	-0.06	-0.06	0.27	-0.26	0.03
965.40	-0.11	-0.08	-0.07	0.24	-0.64	0.16
965.60	-0.38	-0.07	-0.10	0.32	-0.50	0.38
965.80	-0.28	-0.05	-0.08	0.37	0.69	-0.75
966.00	-0.22	-0.06	-0.07	0.36	3.98	-1.32
966.20	-0.20	-0.07	-0.06	0.05	0.91	-2.22
966.40	-0.20	-0.06	-0.07	-0.93	-2.73	-2.42
966.60	-0.39	-0.05	-0.07	0.71	1.89	1.04
966.80	-0.14	-0.08	-0.04	0.08	-1.18	0.78
967.00	-0.21	-0.13	-0.08	-0.21	-1.71	0.32
967.20	-0.22	-0.12	-0.06	1.32	-2.68	3.49
967.40	-0.24	-0.08	-0.07	-0.10	0.89	-1.45
967.60	-0.23	-0.06	-0.08	0.53	-0.96	0.51
967.80	-0.27	-0.10	-0.09	0.35	1.30	0.18
968.00	-0.29	-0.13	-0.08	-0.24	-4.37	1.16
968.20	-0.34	-0.12	-0.06	-0.26	2.99	-0.69
968.40	-0.19	-0.09	-0.07	-0.39	0.47	-3.13
968.60	-0.08	-0.16	-0.07	1.52	1.49	6.02
968.80	-0.17	-0.12	-0.08	-0.04	-4.15	1.20
969.00	-0.18	-0.04	-0.08	0.45	4.08	2.24

969.20	-0.18	-0.26	-0.05	0.71	-1.64	-0.49
969.40	-0.23	-0.01	-0.09	0.75	0.53	4.01
969.60	-0.23	-0.06	-0.06	0.57	7.46	3.35
969.80	-0.13	-0.08	-0.08	0.07	-1.16	0.11
970.00	-0.21	-0.07	-0.06	-0.48	1.12	-0.89
970.20	-0.19	-0.13	-0.07	-0.24	-0.63	-4.24
970.40	-0.22	-0.12	-0.08	-0.45	-0.97	-3.34
970.60	-0.16	-0.10	-0.06	0.17	0.44	-0.40
970.80	-0.30	-0.04	-0.09	0.18	-0.49	-1.48
971.00	-0.24	-0.08	-0.07	-0.14	-1.07	1.11
971.20	-0.38	-0.08	-0.10	0.31	0.61	0.12
971.40	-0.17	-0.17	-0.08	0.35	-1.99	1.27
971.60	-0.11	-0.27	-0.09	0.22	-0.90	-0.40
971.80	-0.20	-0.16	-0.07	0.26	1.06	-0.21
972.00	-0.21	-0.07	-0.11	0.29	-0.07	-1.12
972.20	-0.25	0.01	-0.08	0.55	-0.85	-0.92
972.40	-0.16	-0.03	-0.07	0.22	-2.54	0.72
972.60	-0.19	-0.04	-0.07	0.28	-3.98	-1.16
972.80	-0.28	-0.13	-0.10	-0.23	-0.37	-0.06
973.00	-0.23	-0.06	-0.08	0.53	0.09	0.32
973.20	-0.28	-0.15	-0.08	-0.39	0.18	-1.00
973.40	-0.28	-0.17	-0.07	-0.21	-1.26	-1.03
973.60	-0.22	-0.11	-0.09	0.26	-0.30	1.51
973.80	-0.17	-0.12	-0.10	0.51	-5.28	-0.46
974.00	-0.16	-0.09	-0.07	0.49	-1.21	-1.17
974.20	-0.30	-0.16	-0.07	0.51	1.34	-0.79
974.40	-0.25	0.00	-0.08	0.55	1.36	1.73
974.60	-0.27	-0.08	-0.09	0.29	-0.63	-0.31
974.80	-0.21	-0.11	-0.08	-0.40	0.42	-4.79
975.00	-0.27	-0.01	-0.10	1.70	-1.34	2.99
975.20	-0.19	-0.06	-0.08	0.57	1.54	2.69
975.40	-0.22	-0.07	-0.08	0.24	0.14	0.30
975.60	-0.13	-0.10	-0.07	-0.22	1.47	-3.02
975.80	-0.22	-0.07	-0.12	0.07	-5.92	-4.48
976.00	-0.14	-0.17	-0.07	-0.01	0.22	-3.81
976.20	-0.23	-0.04	-0.09	0.43	2.19	0.80
976.40	-0.09	-0.06	-0.06	-0.20	1.55	-1.44
976.60	-0.17	-0.06	-0.07	-0.39	2.07	0.10
976.80	-0.23	-0.11	-0.09	0.17	-1.45	-0.47
977.00	-0.03	-0.01	-0.07	0.28	-2.84	0.48
977.20	-0.12	-0.09	-0.08	-0.05	-0.07	-2.06
977.40	-0.18	-0.09	-0.07	0.44	-2.76	-0.14
977.60	-0.31	-0.12	-0.07	0.17	1.31	-2.37
977.80	-0.26	-0.08	-0.07	0.23	-0.55	1.69
978.00	-0.16	0.01	-0.07	-0.32	-2.62	0.56
978.20	-0.14	-0.02	-0.09	0.72	-1.18	-0.89
978.40	-0.40	-0.16	-0.08	0.28	1.39	0.20
978.60	-0.23	-0.03	-0.05	0.30	-0.13	-1.25
978.80	-0.12	-0.15	-0.06	-1.00	1.11	-6.00
979.00	-0.13	-0.11	-0.08	0.56	-3.14	1.96

979.20	-0.20	-0.06	-0.09	0.06	-2.29	1.24
979.40	-0.28	-0.15	-0.07	-0.75	-2.53	-3.02
979.60	-0.18	-0.09	-0.09	0.04	0.15	-1.91
979.80	-0.19	-0.05	-0.09	0.14	-4.43	-0.99
980.00	-0.19	0.00	-0.07	0.99	1.08	0.68
980.20	-0.15	-0.13	-0.06	0.94	-1.04	1.97
980.40	-0.29	-0.14	-0.07	-0.52	1.39	-3.53
980.60	-0.35	-0.09	-0.08	0.32	-0.06	-1.47
980.80	-0.31	-0.18	-0.08	-0.53	-1.90	-0.46
981.00	-0.31	-0.10	-0.07	-0.15	-2.83	-1.68
981.20	-0.21	-0.08	-0.06	0.31	1.60	-0.27
981.40	-0.27	-0.02	-0.08	0.23	0.12	-0.85
981.60	-0.15	-0.17	-0.08	-0.53	-0.73	-0.56
981.80	-0.23	-0.06	-0.05	-0.24	-0.24	-0.04
982.00	-0.43	-0.07	-0.08	1.07	-0.65	1.87
982.20	-0.31	-0.10	-0.09	0.04	3.67	0.77
982.40	-0.13	-0.09	-0.07	-0.68	-2.00	-1.24
982.60	-0.31	-0.03	-0.08	0.36	-1.83	-2.41
982.80	-0.25	-0.20	-0.06	0.17	1.53	-1.22
983.00	-0.17	-0.14	-0.06	-0.98	-0.47	-0.75
983.20	-0.16	0.09	-0.07	0.46	-2.05	-2.13
983.40	-0.07	-0.14	-0.06	0.23	2.94	-0.94
983.60	-0.34	0.01	-0.08	0.46	-2.46	0.83
983.80	-0.25	-0.09	-0.08	0.31	2.01	3.53
984.00	-0.27	-0.10	-0.07	0.27	-0.27	-1.49
984.20	-0.08	-0.05	-0.05	0.72	1.82	-2.67
984.40	-0.26	-0.07	-0.07	-0.14	4.22	-1.06
984.60	-0.27	-0.01	-0.09	0.50	-0.41	1.46
984.80	-0.05	-0.08	-0.05	-0.59	0.29	-2.48
985.00	-0.29	-0.07	-0.06	0.91	1.65	0.30
985.20	-0.11	-0.09	-0.06	1.07	2.47	1.65
985.40	-0.13	-0.08	-0.08	0.38	-0.70	0.68
985.60	-0.34	-0.03	-0.08	0.01	0.02	0.52
985.80	-0.17	-0.13	-0.04	0.02	-0.58	-1.21
986.00	-0.11	-0.07	-0.08	0.21	-1.00	-1.87
986.20	-0.25	-0.06	-0.07	0.35	0.54	-0.76
986.40	-0.23	-0.09	-0.08	-0.40	1.45	-1.94
986.60	-0.10	-0.05	-0.06	0.31	1.28	-0.16
986.80	-0.23	-0.08	-0.09	-0.04	1.75	0.45
987.00	-0.07	-0.12	-0.07	0.61	2.17	0.25
987.20	-0.24	-0.19	-0.08	-0.63	0.86	-1.66
987.40	-0.21	-0.07	-0.07	0.17	-2.41	1.08
987.60	-0.15	-0.05	-0.10	0.49	5.17	-2.62
987.80	-0.10	-0.12	-0.08	-0.04	-4.74	-3.78
988.00	-0.18	-0.02	-0.08	0.62	0.69	2.16
988.20	-0.24	-0.10	-0.08	0.46	-2.22	1.00
988.40	-0.34	-0.11	-0.08	0.02	-0.06	-0.14
988.60	-0.28	-0.13	-0.10	0.30	-0.43	0.30
988.80	-0.19	-0.04	-0.08	0.35	-0.24	0.35
989.00	-0.29	-0.06	-0.10	0.30	0.30	0.04

989.20	-0.13	-0.04	-0.07	0.26	-1.32	0.37
989.40	-0.29	-0.11	-0.09	0.19	-0.29	-0.28
989.60	-0.24	-0.11	-0.10	0.14	-0.12	-0.05
989.80	-0.21	-0.04	-0.08	0.26	0.88	0.10
990.00	-0.15	-0.02	-0.06	0.33	-0.48	0.39
990.20	-0.26	-0.18	-0.07	0.36	0.04	-0.06
990.40	-0.27	0.00	-0.08	0.35	-0.31	0.80
990.60	-0.31	-0.08	-0.07	-0.05	-0.60	0.42
990.80	-0.24	-0.08	-0.07	0.23	-1.05	-0.04
991.00	-0.18	-0.11	-0.09	0.16	0.50	-0.82
991.20	-0.21	0.01	-0.07	0.23	0.85	-1.24
991.40	-0.13	-0.13	-0.08	0.67	-0.31	1.30
991.60	-0.16	-0.21	-0.07	0.46	-1.01	0.49
991.80	0.01	-0.10	-0.09	-0.32	4.29	-2.19
992.00	-0.19	0.04	-0.09	-0.32	-1.71	-0.21
992.20	-0.33	-0.15	-0.08	-0.30	-0.52	-3.01
992.40	-0.14	-0.13	-0.09	0.24	1.99	0.27
992.60	-0.32	-0.07	-0.07	-0.42	1.72	-3.56
992.80	-0.20	-0.14	-0.06	0.18	-0.45	1.96
993.00	-0.20	-0.06	-0.06	0.36	0.27	-0.11
993.20	-0.22	-0.05	-0.07	-0.21	-0.57	-1.18
993.40	-0.06	-0.05	-0.05	-0.44	-3.54	2.38
993.60	-0.01	-0.03	-0.06	0.16	-1.09	-0.81
993.80	-0.28	-0.02	-0.10	0.80	-0.99	-0.37
994.00	-0.16	-0.05	-0.07	0.48	0.13	-1.17
994.20	-0.26	-0.10	-0.08	-0.42	-0.04	-1.86
994.40	-0.25	-0.14	-0.08	-0.02	-3.18	-0.87
994.60	-0.16	-0.01	-0.07	0.80	0.48	1.24
994.80	-0.17	-0.09	-0.08	0.61	1.92	2.53
995.00	-0.09	-0.08	-0.07	-0.07	2.73	1.19
995.20	-0.22	0.11	-0.09	0.50	0.31	1.62
995.40	-0.25	-0.15	-0.07	-0.21	1.04	-0.25
995.60	-0.17	0.01	-0.08	0.83	-0.69	2.95
995.80	-0.13	-0.26	-0.02	0.85	-0.44	0.78
996.00	-0.23	0.00	-0.07	-0.38	1.64	-0.98
996.20	-0.30	-0.04	-0.07	-0.51	-5.65	1.89
996.40	-0.16	-0.13	-0.08	-0.15	3.78	1.70
996.60	-0.17	-0.10	-0.07	-0.02	-0.53	0.24
996.80	-0.21	-0.09	-0.07	0.78	-2.33	1.98
997.00	-0.18	-0.11	-0.06	0.21	0.55	-1.35
997.20	-0.16	-0.05	-0.05	-0.45	0.05	-1.10
997.40	-0.17	-0.05	-0.08	0.75	-1.70	0.96
997.60	-0.18	-0.10	-0.06	0.54	-3.93	3.65
997.80	-0.14	-0.10	-0.07	0.04	0.78	-0.76
998.00	-0.24	-0.14	-0.08	0.24	-2.46	-0.13
998.20	-0.25	-0.04	-0.08	0.65	-0.58	-1.09
998.40	-0.29	-0.07	-0.10	0.54	-2.78	-2.96
998.60	-0.30	-0.05	-0.07	0.53	-2.62	0.93
998.80	-0.20	-0.14	-0.07	0.55	1.01	-0.51
999.00	-0.16	-0.09	-0.07	1.50	-2.30	1.83

999.20	-0.10	-0.04	-0.08	-1.10	1.93	-2.79
999.40	-0.30	-0.21	-0.07	1.02	-2.15	0.59
999.60	-0.18	-0.03	-0.09	-0.18	1.58	1.13
999.80	-0.14	-0.06	-0.05	-0.02	-2.41	2.65
1000.00	-0.22	-0.13	-0.07	0.09	2.11	0.35
1000.20	-0.11	-0.08	-0.06	0.35	-0.49	1.23
1000.40	-0.17	-0.14	-0.06	1.39	0.57	1.39
1000.60	-0.24	-0.08	-0.09	0.23	-0.35	-0.81
1000.80	-0.26	-0.16	-0.07	-0.82	-1.97	-3.77
1001.00	-0.27	-0.05	-0.10	0.17	0.78	0.52
1001.20	-0.30	-0.12	-0.11	0.34	-2.79	-0.46
1001.40	-0.36	-0.01	-0.08	0.43	1.53	1.02
1001.60	-0.23	-0.07	-0.06	0.14	0.55	0.09
1001.80	-0.22	-0.11	-0.09	0.30	-3.17	0.41
1002.00	-0.21	-0.07	-0.09	0.12	-0.01	0.28
1002.20	-0.23	-0.11	-0.08	0.23	-0.86	-0.16
1002.40	-0.21	-0.14	-0.07	0.34	-2.15	-1.62
1002.60	-0.14	-0.07	-0.06	0.08	3.49	-0.97
1002.80	-0.33	-0.08	-0.09	0.62	-1.04	0.65
1003.00	-0.16	-0.06	-0.10	0.30	-3.62	-1.34
1003.20	-0.30	-0.12	-0.09	0.77	10.41	-4.34
1003.40	-0.24	-0.20	-0.08	0.97	2.35	1.84
1003.60	-0.24	-0.05	-0.08	0.42	-0.52	0.62
1003.80	-0.26	-0.12	-0.09	0.75	0.03	0.84
1004.00	-0.29	-0.14	-0.07	0.06	-0.05	-0.10
1004.20	-0.13	-0.03	-0.08	0.18	1.99	0.39
1004.40	-0.26	-0.06	-0.07	0.22	-0.40	-0.25
1004.60	-0.22	-0.08	-0.06	0.16	-1.81	0.65
1004.80	-0.11	-0.04	-0.08	0.13	-1.05	0.39
1005.00	-0.35	-0.10	-0.09	0.09	0.25	2.62
1005.20	-0.29	0.01	-0.10	0.32	-2.76	-0.11
1005.40	-0.17	0.05	-0.09	0.15	2.77	0.68
1005.60	-0.21	-0.09	-0.09	0.16	0.28	2.03
1005.80	-0.15	-0.03	-0.07	-0.34	-0.35	-2.08
1006.00	-0.25	-0.11	-0.06	-0.35	1.61	-0.31
1006.20	-0.11	-0.20	-0.05	0.28	-0.52	-1.38
1006.40	-0.32	-0.10	-0.09	0.08	0.10	-1.51
1006.60	-0.32	0.00	-0.10	-0.60	-2.47	-0.02
1006.80	-0.15	-0.03	-0.07	-0.33	-2.67	-0.80
1007.00	-0.23	-0.01	-0.09	0.47	0.88	-0.59
1007.20	-0.15	-0.07	-0.09	0.27	-1.67	1.66
1007.40	-0.06	-0.07	-0.07	-0.37	-0.83	-1.45
1007.60	-0.21	-0.05	-0.07	0.78	0.30	0.52
1007.80	-0.22	-0.06	-0.06	0.51	-0.62	0.00
1008.00	-0.07	-0.09	-0.07	0.57	-2.14	-0.01
1008.20	-0.15	-0.16	-0.10	0.18	-2.88	-4.26
1008.40	-0.14	-0.04	-0.07	0.31	2.11	0.26
1008.60	-0.17	-0.07	-0.09	0.49	-0.57	3.22
1008.80	0.00	-0.04	-0.06	0.19	-0.60	-1.27
1009.00	-0.17	0.01	-0.07	-0.57	1.61	3.94

1009.20	-0.15	-0.09	-0.08	0.23	-2.40	-1.89
1009.40	-0.29	-0.03	-0.10	0.01	-0.74	-1.03
1009.60	-0.23	-0.09	-0.09	-0.35	-6.38	-0.21
1009.80	-0.24	-0.06	-0.07	0.54	0.02	-0.76
1010.00	-0.23	-0.09	-0.09	0.24	2.26	0.26
1010.20	-0.19	-0.14	-0.07	0.52	-1.51	-0.82
1010.40	-0.29	-0.05	-0.07	0.80	-1.17	4.04
1010.60	-0.17	-0.20	-0.09	-0.17	1.17	-3.25
1010.80	-0.29	-0.10	-0.10	-0.24	0.87	-1.26
1011.00	-0.28	-0.07	-0.08	-0.24	-1.00	-0.76
1011.20	-0.07	0.01	-0.05	0.42	3.48	0.73
1011.40	-0.12	-0.07	-0.08	0.62	-2.75	1.50
1011.60	-0.16	-0.07	-0.08	0.36	-0.88	1.74
1011.80	-0.21	-0.02	-0.06	-0.02	6.04	0.87
1012.00	-0.02	-0.09	-0.08	0.44	-1.54	1.65
1012.20	-0.16	-0.09	-0.08	-0.15	3.03	0.06
1012.40	-0.19	0.01	-0.07	-0.19	0.65	2.73
1012.60	-0.11	-0.08	-0.06	0.90	2.37	2.70
1012.80	-0.24	-0.02	-0.06	-0.02	-0.60	-1.06
1013.00	-0.08	0.03	-0.05	0.48	-1.32	1.12
1013.20	-0.24	-0.10	-0.08	0.58	-5.08	3.56
1013.40	-0.22	-0.07	-0.06	0.73	1.33	2.89
1013.60	-0.18	0.09	-0.06	0.16	-1.60	-0.06
1013.80	-0.13	-0.09	-0.05	0.06	-1.72	2.01
1014.00	0.00	-0.07	-0.05	0.79	0.89	2.33
1014.20	-0.16	-0.09	-0.06	-0.60	-1.06	-0.39
1014.40	-0.06	-0.08	-0.05	-0.55	0.76	-6.55
1014.60	-0.14	-0.06	-0.07	-0.41	1.70	-1.07
1014.80	-0.31	-0.08	-0.07	0.13	3.26	-2.48
1015.00	-0.19	0.00	-0.08	0.24	-1.99	0.45
1015.20	-0.29	-0.08	-0.06	-0.04	2.01	0.96
1015.40	-0.08	-0.02	-0.06	1.40	-1.20	3.60
1015.60	-0.29	-0.11	-0.08	0.37	1.60	-0.55
1015.80	-0.22	-0.07	-0.07	-0.76	-1.60	-3.50
1016.00	-0.14	-0.06	-0.07	-0.18	-5.24	6.71
1016.20	-0.23	-0.01	-0.08	-0.12	-2.19	0.67
1016.40	-0.26	-0.08	-0.09	0.46	-1.28	1.53
1016.60	-0.19	-0.10	-0.06	-0.82	-0.60	-1.30
1016.80	-0.24	-0.03	-0.08	-0.25	1.43	-3.82
1017.00	-0.17	-0.18	-0.07	0.06	-0.12	-0.59
1017.20	-0.23	0.01	-0.07	-0.20	-1.57	-3.90
1017.40	-0.21	-0.03	-0.06	-0.64	1.37	1.95
1017.60	-0.16	-0.02	-0.08	-0.05	-1.04	1.81
1017.80	-0.16	0.00	-0.08	1.05	-0.23	1.75
1018.00	-0.23	-0.12	-0.06	-0.08	3.86	-1.46
1018.20	-0.03	-0.07	-0.06	0.50	-0.78	0.25
1018.40	-0.22	0.00	-0.09	-0.31	-3.33	-4.27
1018.60	-0.22	-0.04	-0.07	0.77	0.95	-0.27
1018.80	-0.18	-0.03	-0.09	0.70	-4.17	0.18
1019.00	-0.21	-0.09	-0.06	0.74	0.65	3.81

1019.20	-0.13	-0.11	-0.08	0.63	-0.75	0.18
1019.40	-0.19	0.03	-0.07	0.15	-1.22	-3.59
1019.60	-0.15	-0.05	-0.07	-0.39	-3.28	-3.20
1019.80	-0.12	-0.04	-0.06	0.53	-1.43	1.91
1020.00	-0.37	-0.02	-0.09	0.35	1.14	-0.41
1020.20	-0.18	0.02	-0.09	-0.93	0.49	-3.34
1020.40	-0.16	-0.08	-0.07	0.81	0.73	0.32
1020.60	-0.16	-0.06	-0.08	0.39	-4.60	-0.22
1020.80	-0.23	-0.16	-0.08	-1.45	-1.89	-1.59
1021.00	-0.14	-0.01	-0.08	1.20	-0.47	1.32
1021.20	-0.22	-0.05	-0.08	0.09	-1.47	2.38
1021.40	-0.07	-0.05	-0.05	0.26	-0.86	-0.45
1021.60	-0.23	-0.04	-0.06	1.09	4.78	1.75
1021.80	-0.01	-0.17	-0.08	0.20	0.21	-1.40
1022.00	-0.06	-0.11	-0.07	0.95	-0.37	0.40
1022.20	-0.14	-0.05	-0.08	1.31	-1.80	5.00
1022.40	0.03	-0.08	-0.07	-0.22	-0.48	-1.30
1022.60	-0.10	-0.14	-0.09	-0.05	0.22	-1.33
1022.80	-0.09	-0.09	-0.09	0.29	1.25	-0.97
1023.00	-0.11	-0.12	-0.09	-0.02	-0.66	1.22
1023.20	0.00	-0.04	-0.07	0.35	0.27	0.34
1023.40	-0.19	0.06	-0.08	0.24	-0.60	0.17
1023.60	0.00	-0.05	-0.08	0.17	-3.42	0.20
1023.80	0.04	-0.06	-0.05	-0.05	-1.78	1.50
1024.00	-0.16	-0.02	-0.09	0.27	-0.26	-0.22
1024.20	-0.11	-0.03	-0.06	0.02	-0.82	-0.88
1024.40	-0.06	-0.07	-0.06	-0.17	-1.31	1.92
1024.60	-0.27	-0.04	-0.09	0.27	1.00	0.36
1024.80	-0.21	-0.10	-0.09	0.08	2.19	-1.18
1025.00	-0.20	-0.01	-0.07	-0.15	0.63	-1.93
1025.20	-0.08	-0.08	-0.07	0.05	1.98	0.72
1025.40	-0.08	-0.14	-0.07	-0.08	-0.49	-1.58
1025.60	-0.07	0.03	-0.05	-0.47	2.42	-1.21
1025.80	-0.10	-0.06	-0.08	0.48	-1.04	3.26
1026.00	-0.06	-0.07	-0.07	0.30	-0.47	-2.15
1026.20	-0.01	-0.01	-0.05	0.58	0.30	1.82
1026.40	-0.09	-0.11	-0.07	0.86	0.70	3.78
1026.60	-0.24	-0.08	-0.09	0.93	-1.92	0.59
1026.80	0.03	-0.08	-0.07	0.15	1.80	0.54
1027.00	-0.04	-0.07	-0.06	-0.01	2.41	-0.36
1027.20	-0.10	-0.08	-0.09	0.64	-3.85	1.48
1027.40	-0.14	-0.07	-0.06	0.34	0.28	-2.24
1027.60	-0.07	-0.10	-0.07	-0.20	0.39	-1.52
1027.80	-0.01	0.02	-0.06	0.38	-4.45	-3.91
1028.00	-0.24	0.06	-0.09	0.60	1.48	-1.41
1028.20	-0.19	-0.07	-0.06	0.60	-0.03	0.68
1028.40	-0.12	-0.07	-0.08	0.57	-3.75	0.49
1028.60	0.01	-0.11	-0.07	0.39	1.95	-0.28
1028.80	-0.11	-0.09	-0.05	-0.14	1.97	-0.32
1029.00	-0.17	-0.02	-0.07	-0.07	0.56	-0.53

1029.20	-0.17	-0.07	-0.05	0.37	2.71	0.25
1029.40	-0.13	0.11	-0.07	0.16	1.58	1.20
1029.60	-0.21	0.01	-0.07	-0.41	-1.33	-0.73
1029.80	-0.10	0.06	-0.04	0.16	-1.65	0.43
1030.00	-0.17	-0.08	-0.07	-0.25	-1.87	-3.87
1030.20	-0.04	-0.09	-0.05	-0.05	2.99	-0.59
1030.40	-0.01	-0.01	-0.03	0.79	3.23	0.05
1030.60	-0.15	0.06	-0.03	-1.00	-5.45	0.03
1030.80	-0.08	0.00	-0.05	0.41	1.76	-1.57
1031.00	-0.07	0.00	-0.04	0.24	2.51	-4.02
1031.20	-0.11	-0.02	-0.05	-0.02	-2.65	-1.49
1031.40	0.01	-0.21	-0.06	-0.21	2.89	-1.92
1031.60	-0.15	-0.06	-0.05	0.21	-0.87	0.14
1031.80	0.01	-0.02	-0.05	0.61	-1.19	0.89
1032.00	-0.17	-0.03	-0.06	0.29	0.22	0.77
1032.20	-0.11	-0.09	-0.06	0.34	-0.92	-0.08
1032.40	-0.10	-0.16	-0.07	0.32	0.78	0.15
1032.60	-0.23	-0.13	-0.05	0.59	-0.26	0.97
1032.80	-0.05	-0.07	-0.03	0.32	-0.02	2.60
1033.00	-0.04	-0.06	-0.06	0.14	-3.00	0.33
1033.20	-0.08	-0.06	-0.04	0.58	-1.21	-0.95
1033.40	-0.15	0.03	-0.07	0.09	0.35	-0.61
1033.60	-0.01	0.00	-0.06	0.15	-0.98	0.26
1033.80	0.03	-0.13	-0.02	1.44	-2.16	0.61
1034.00	-0.21	0.04	-0.05	0.13	-0.97	-0.21
1034.20	-0.07	0.01	-0.08	-0.13	0.90	-0.93
1034.40	-0.17	-0.07	-0.06	0.21	-0.58	-1.26
1034.60	-0.14	0.02	-0.08	0.61	-2.81	1.22
1034.80	-0.09	0.02	-0.06	0.55	-0.58	1.18
1035.00	-0.09	-0.10	-0.03	-0.04	-0.45	0.98
1035.20	-0.02	-0.03	-0.04	-0.12	-3.07	0.38
1035.40	-0.02	-0.11	-0.07	0.07	2.03	1.25
1035.60	-0.11	-0.08	-0.06	-0.37	-0.32	-0.06
1035.80	0.02	-0.08	-0.05	1.54	0.61	3.40
1036.00	-0.06	-0.12	-0.04	0.64	-2.18	-1.50
1036.20	-0.13	0.09	-0.03	-0.13	1.23	0.37
1036.40	-0.22	-0.04	-0.07	-0.26	1.65	-1.00
1036.60	-0.22	-0.10	-0.06	-0.07	3.10	1.53
1036.80	-0.09	-0.05	-0.03	-0.08	1.50	-0.71
1037.00	-0.22	-0.12	-0.07	0.57	0.47	-0.08
1037.20	-0.12	0.05	-0.06	0.91	-0.37	2.10
1037.40	-0.09	-0.01	-0.07	0.49	-0.89	0.67
1037.60	-0.11	-0.07	-0.05	0.28	-2.93	2.27
1037.80	-0.20	0.05	-0.06	-0.07	3.28	0.47
1038.00	-0.18	-0.09	-0.05	0.52	-0.45	2.10
1038.20	-0.06	-0.04	-0.05	0.39	0.35	-0.71
1038.40	-0.12	-0.07	-0.05	-0.07	-0.83	-1.03
1038.60	-0.06	-0.04	-0.05	0.54	-1.58	2.06
1038.80	-0.08	-0.06	-0.06	0.25	1.71	-0.33
1039.00	-0.20	-0.05	-0.06	-0.34	-0.30	-0.87

1039.20	0.05	-0.16	-0.03	-0.33	-1.94	0.02
1039.40	-0.20	-0.08	-0.06	0.31	0.29	-0.04
1039.60	-0.10	0.04	-0.03	0.17	1.02	0.53
1039.80	-0.20	-0.09	-0.04	0.07	-0.53	0.72
1040.00	-0.23	-0.04	-0.05	0.56	1.53	0.95
1040.20	-0.25	0.14	-0.05	0.68	2.24	4.45
1040.40	-0.12	-0.04	-0.06	0.74	-0.75	2.30
1040.60	-0.04	0.05	-0.06	0.49	-1.25	2.75
1040.80	-0.10	-0.14	-0.07	0.12	-2.19	-0.37
1041.00	-0.14	-0.09	-0.05	0.96	-1.09	4.32
1041.20	-0.13	-0.04	-0.06	0.60	-3.60	1.95
1041.40	0.00	-0.09	-0.05	0.94	-1.53	2.10
1041.60	-0.19	0.00	-0.07	0.26	-2.49	-0.49
1041.80	-0.11	-0.03	-0.09	-0.36	3.15	-0.70
1042.00	-0.02	-0.09	-0.06	-1.12	3.71	-1.77
1042.20	0.01	-0.06	-0.05	0.64	-2.94	0.16
1042.40	-0.12	-0.08	-0.07	0.63	-1.10	0.69
1042.60	-0.18	-0.07	-0.07	0.70	2.10	0.87
1042.80	-0.11	-0.01	-0.06	-0.64	-0.29	-3.40
1043.00	-0.15	-0.05	-0.06	0.71	-0.22	1.66
1043.20	-0.22	-0.02	-0.09	0.88	-1.69	-1.31
1043.40	-0.07	-0.01	-0.05	0.01	-3.59	1.23
1043.60	-0.19	-0.13	-0.07	0.32	-0.35	-0.17
1043.80	-0.10	-0.18	-0.07	0.27	-3.18	2.03
1044.00	-0.15	0.03	-0.06	-0.38	-2.06	-0.11
1044.20	-0.17	0.01	-0.08	-0.43	-0.91	-1.76
1044.40	-0.32	-0.03	-0.08	0.32	-1.05	0.50
1044.60	-0.10	-0.03	-0.03	-0.25	-5.06	-2.34
1044.80	0.11	0.00	-0.06	2.10	-0.65	5.60
1045.00	-0.21	-0.01	-0.07	0.58	5.54	-1.03
1045.20	-0.06	-0.05	-0.06	-0.47	-0.73	-4.41
1045.40	-0.08	-0.11	-0.05	0.19	1.05	0.84
1045.60	-0.19	0.03	-0.07	-1.44	-0.95	-5.13
1045.80	-0.15	-0.06	-0.05	-0.92	0.45	-3.47
1046.00	-0.12	-0.10	-0.04	0.34	-0.38	-0.11
1046.20	-0.19	-0.13	-0.04	0.04	-3.64	-3.35
1046.40	-0.13	-0.10	-0.07	0.42	0.15	0.98
1046.60	-0.13	-0.04	-0.05	0.31	1.93	1.45
1046.80	-0.05	-0.16	-0.06	0.29	1.66	1.27
1047.00	-0.10	-0.08	-0.06	-0.53	0.61	-2.39
1047.20	-0.20	-0.01	-0.06	0.19	0.60	-1.06
1047.40	-0.11	-0.10	-0.07	0.10	-0.24	-0.53
1047.60	-0.10	-0.13	-0.06	0.18	1.74	1.23
1047.80	-0.14	0.01	-0.03	0.11	0.39	-0.37
1048.00	0.02	-0.11	-0.04	0.28	-0.54	0.53
1048.20	-0.16	-0.05	-0.06	0.12	-0.30	0.24
1048.40	-0.15	0.00	-0.04	0.26	0.19	0.02
1048.60	-0.30	-0.10	-0.05	0.26	0.06	0.20
1048.80	-0.13	-0.13	-0.04	0.25	-0.26	0.09
1049.00	-0.13	0.01	-0.06	0.17	-0.13	-0.12

1049.20	-0.12	-0.11	-0.03	0.20	0.05	-0.33
1049.40	-0.12	-0.14	-0.07	0.21	-0.41	0.05
1049.60	-0.24	-0.21	-0.06	0.25	-0.31	0.27
1049.80	-0.22	-0.13	-0.08	0.23	-0.13	-0.02
1050.00	-0.17	-0.08	-0.07	0.18	-0.18	0.00
1050.20	-0.20	-0.11	-0.07	0.28	-0.19	0.01
1050.40	-0.25	-0.11	-0.08	0.24	-0.86	-0.50
1050.60	-0.12	-0.09	-0.07	0.23	0.20	-0.05
1050.80	-0.20	-0.09	-0.04	0.23	-0.04	0.84
1051.00	-0.15	-0.07	-0.07	0.17	-1.71	0.92
1051.20	-0.27	-0.14	-0.07	0.32	-2.21	0.58
1051.40	-0.04	-0.13	-0.06	0.87	0.66	1.88
1051.60	-0.26	-0.05	-0.06	0.19	0.30	-0.40
1051.80	-0.15	0.01	-0.08	-0.18	-0.33	-1.28
1052.00	-0.11	-0.10	-0.06	0.37	-0.70	0.39
1052.20	-0.33	-0.03	-0.06	0.29	-0.60	0.23
1052.40	-0.11	-0.07	-0.05	0.34	-0.36	0.32
1052.60	-0.06	-0.03	-0.07	0.21	-0.23	-0.38
1052.80	-0.20	-0.06	-0.07	0.23	-0.26	0.01
1053.00	-0.16	-0.05	-0.06	0.21	0.53	-0.19
1053.20	-0.24	-0.14	-0.09	0.22	-0.14	-0.49
1053.40	-0.14	0.01	-0.06	0.26	-0.04	-0.12
1053.60	-0.30	-0.07	-0.06	0.72	-0.83	1.59
1053.80	-0.13	-0.15	-0.07	0.19	0.66	-0.20
1054.00	-0.16	-0.12	-0.07	0.20	0.75	-1.12
1054.20	-0.17	-0.07	-0.06	0.63	1.95	1.47
1054.40	-0.12	-0.07	-0.08	-0.14	0.72	-2.87
1054.60	-0.05	-0.02	-0.07	-0.17	0.85	0.35
1054.80	-0.04	-0.19	-0.06	0.26	2.27	1.10
1055.00	-0.14	0.03	-0.09	-0.18	-0.45	0.56
1055.20	-0.22	-0.04	-0.08	-0.32	-2.13	1.74
1055.40	-0.21	-0.13	-0.06	0.03	-0.31	0.68
1055.60	-0.05	-0.05	-0.05	-1.03	-0.57	-2.00
1055.80	-0.11	-0.05	-0.06	-0.58	-1.38	-4.25
1056.00	-0.01	-0.07	-0.07	-0.96	-0.94	-4.32
1056.20	-0.07	-0.11	-0.07	0.26	-3.26	0.01
1056.40	-0.02	-0.01	-0.05	-0.16	0.77	-3.26
1056.60	-0.15	-0.08	-0.06	-0.09	-0.05	1.22
1056.80	-0.12	-0.08	-0.06	1.15	-2.74	2.94
1057.00	-0.33	-0.14	-0.09	-0.26	-1.20	-4.60
1057.20	-0.15	-0.12	-0.07	0.44	0.04	0.05
1057.40	-0.22	-0.06	-0.05	1.10	0.53	0.79
1057.60	-0.05	-0.06	-0.05	0.53	-0.01	0.74
1057.80	-0.09	-0.03	-0.07	0.27	0.36	-0.56
1058.00	-0.21	-0.04	-0.08	0.20	-0.17	-0.83
1058.20	-0.18	0.05	-0.07	0.43	1.35	-1.09
1058.40	-0.16	-0.13	-0.07	0.16	1.51	-1.57
1058.60	-0.16	-0.03	-0.07	0.76	-2.87	-0.74
1058.80	-0.04	0.01	-0.06	-1.49	2.39	-3.14
1059.00	-0.13	-0.04	-0.08	0.62	-1.24	0.78

1059.20	-0.23	-0.07	-0.06	0.21	2.51	2.02
1059.40	-0.22	-0.15	-0.06	0.12	2.21	-0.17
1059.60	-0.19	-0.16	-0.07	0.02	1.95	1.28
1059.80	-0.12	-0.14	-0.06	0.35	-0.40	0.09
1060.00	-0.11	-0.03	-0.05	0.16	-0.43	-0.72
1060.20	-0.08	-0.07	-0.06	0.16	-2.83	-1.94
1060.40	-0.18	-0.11	-0.05	-0.02	-2.37	-2.28
1060.60	0.04	-0.05	-0.06	0.71	1.59	0.18
1060.80	-0.22	-0.09	-0.06	-0.47	1.40	-1.45
1061.00	-0.18	-0.11	-0.04	-0.25	4.69	-0.38
1061.20	-0.08	-0.02	-0.07	0.22	-0.70	-2.55
1061.40	-0.25	-0.08	-0.09	0.85	-1.36	3.67
1061.60	-0.25	-0.06	-0.08	-0.36	-1.95	-0.66
1061.80	-0.10	-0.07	-0.06	0.38	0.15	1.11
1062.00	-0.09	-0.12	-0.07	0.21	0.93	1.26
1062.20	-0.23	0.03	-0.07	0.30	1.50	1.24
1062.40	-0.21	-0.15	-0.10	0.27	1.31	0.06
1062.60	-0.26	-0.06	-0.09	0.11	0.04	-2.43
1062.80	-0.13	-0.02	-0.07	0.10	-1.46	-1.37
1063.00	-0.06	-0.07	-0.05	0.27	0.51	1.07
1063.20	-0.26	-0.04	-0.06	0.67	-1.65	1.12
1063.40	-0.21	0.01	-0.07	0.45	0.74	-0.99
1063.60	-0.10	-0.07	-0.06	-0.20	0.28	-1.41
1063.80	-0.13	0.05	-0.06	-0.09	0.36	0.36
1064.00	-0.22	-0.13	-0.08	0.50	-0.27	-2.89
1064.20	-0.15	-0.01	-0.06	0.31	0.41	0.27
1064.40	-0.08	-0.05	-0.06	2.39	-1.22	11.34
1064.60	-0.13	-0.10	-0.06	0.40	1.11	1.46
1064.80	-0.01	-0.11	-0.03	-1.77	-2.41	-3.23
1065.00	-0.15	-0.07	-0.05	-0.05	2.43	0.42
1065.20	-0.16	-0.04	-0.06	0.46	2.92	1.42
1065.40	-0.14	-0.07	-0.06	-0.33	2.24	-1.44
1065.60	-0.12	-0.07	-0.06	0.07	0.16	-0.77
1065.80	-0.04	0.01	-0.06	0.70	-0.39	-0.66
1066.00	-0.12	-0.15	-0.07	0.77	-0.75	0.55
1066.20	-0.16	-0.05	-0.05	0.42	-2.77	0.69
1066.40	-0.22	0.05	-0.05	-0.04	-0.25	-1.43
1066.60	-0.07	-0.05	-0.06	-0.79	0.24	-4.50
1066.80	-0.07	-0.17	-0.05	0.14	0.08	-0.11
1067.00	-0.05	-0.07	-0.06	-0.01	1.73	-2.31
1067.20	-0.11	-0.02	-0.04	0.04	-3.06	2.47
1067.40	-0.08	0.00	-0.06	0.54	1.48	-0.70
1067.60	-0.14	0.01	-0.07	-0.05	-0.78	-1.09
1067.80	-0.10	-0.11	-0.06	-0.34	4.99	-1.39
1068.00	-0.01	-0.13	-0.04	0.44	-2.26	1.00
1068.20	-0.20	-0.06	-0.06	-0.20	0.45	-3.15
1068.40	-0.13	-0.11	-0.06	0.20	-1.41	0.01
1068.60	-0.11	-0.14	-0.04	-1.52	-3.50	-3.10
1068.80	-0.14	-0.07	-0.07	0.91	-0.39	2.12
1069.00	-0.15	-0.09	-0.05	0.88	3.09	8.52

1069.20	-0.23	-0.07	-0.04	1.20	-2.63	3.12
1069.40	-0.13	-0.06	-0.05	0.57	-0.37	2.19
1069.60	-0.02	-0.12	-0.06	0.19	2.65	-0.25
1069.80	-0.20	0.02	-0.06	-0.75	0.99	-4.18
1070.00	-0.17	-0.05	-0.06	0.00	5.15	-0.47
1070.20	-0.05	-0.04	-0.06	-0.16	-1.64	-1.85
1070.40	-0.14	0.00	-0.04	-2.32	0.21	-7.88
1070.60	-0.13	-0.06	-0.05	0.43	-0.52	0.82
1070.80	-0.13	-0.04	-0.07	-0.40	-0.01	-1.45
1071.00	-0.06	-0.02	-0.05	0.31	-0.32	-0.65
1071.20	-0.17	-0.03	-0.07	0.06	0.62	-0.49
1071.40	-0.12	-0.09	-0.06	-0.33	-0.62	-1.28
1071.60	-0.04	-0.17	-0.06	-0.06	-1.36	-0.91
1071.80	-0.20	0.00	-0.05	0.45	0.00	-0.36
1072.00	-0.18	-0.10	-0.06	-0.07	0.84	-1.08
1072.20	-0.06	-0.11	-0.05	0.84	0.10	-0.17
1072.40	-0.14	-0.02	-0.06	0.13	-0.56	-0.78
1072.60	-0.16	-0.07	-0.07	0.53	0.62	-0.71
1072.80	-0.12	-0.13	-0.04	-0.18	1.40	-0.74
1073.00	-0.11	-0.09	-0.06	0.93	-1.76	1.34
1073.20	-0.13	0.02	-0.05	0.74	-3.01	-0.17
1073.40	-0.26	-0.01	-0.05	-0.14	-1.85	-3.14
1073.60	-0.14	0.00	-0.07	0.38	1.54	1.98
1073.80	-0.17	0.00	-0.07	0.25	-4.84	1.54
1074.00	-0.06	-0.07	-0.05	0.65	-0.99	-0.35
1074.20	-0.21	0.04	-0.05	0.44	0.86	0.73
1074.40	-0.24	-0.09	-0.06	0.42	-1.72	0.90
1074.60	-0.30	-0.05	-0.07	0.33	-0.86	-0.50
1074.80	-0.06	-0.07	-0.06	0.82	-1.72	0.89
1075.00	-0.21	-0.06	-0.03	-0.02	0.01	-0.81
1075.20	-0.01	-0.04	-0.02	-0.03	0.26	-1.78
1075.40	-0.09	-0.12	-0.06	0.34	0.52	-1.07
1075.60	-0.23	-0.13	-0.08	0.76	0.57	0.35
1075.80	-0.09	-0.19	-0.05	0.12	-0.78	0.07
1076.00	-0.09	0.00	-0.05	-0.10	-2.73	-1.30
1076.20	-0.20	-0.05	-0.05	0.36	-1.22	0.78
1076.40	-0.28	-0.08	-0.06	-0.89	1.11	-5.85
1076.60	-0.25	-0.06	-0.09	0.32	-0.05	1.01
1076.80	-0.24	-0.05	-0.06	0.13	-0.57	-0.26
1077.00	-0.24	-0.07	-0.07	0.21	-0.65	0.04
1077.20	-0.20	-0.05	-0.09	0.42	0.42	0.45
1077.40	-0.35	-0.14	-0.10	0.22	0.33	0.03
1077.60	-0.22	-0.11	-0.06	0.17	0.05	-0.04
1077.80	-0.34	-0.08	-0.05	0.12	-0.38	0.08
1078.00	-0.32	-0.06	-0.07	0.08	0.06	-0.17
1078.20	-0.25	-0.06	-0.05	0.17	-0.04	0.17
1078.40	-0.48	-0.05	-0.05	0.22	-0.54	-0.21
1078.60	-0.42	-0.06	-0.08	0.13	-0.24	0.05
1078.80	-0.36	-0.13	-0.08	0.15	-0.16	0.04
1079.00	-0.39	-0.20	-0.06	0.25	-0.35	0.33

1079.20	-0.43	0.08	-0.10	0.17	0.28	0.35
1079.40	-0.29	-0.01	-0.06	0.16	-1.90	-1.01
1079.60	-0.24	-0.19	-0.07	0.28	-0.97	0.10
1079.80	-0.28	-0.09	-0.08	0.26	0.05	0.38
1080.00	-0.07	-0.03	-0.06	0.32	-0.90	-0.91
1080.20	-0.44	-0.17	-0.08	0.13	-0.43	0.01
1080.40	-0.20	-0.05	-0.09	0.35	-1.16	-0.17
1080.60	-0.26	0.07	-0.11	0.12	1.59	0.34
1080.80	-0.03	-0.11	-0.06	0.18	0.58	1.13
1081.00	-0.30	-0.05	-0.10	0.48	-2.01	0.51
1081.20	-0.23	-0.01	-0.09	0.15	1.96	0.38
1081.40	-0.13	-0.15	-0.08	0.53	2.44	-0.15
1081.60	-0.20	0.00	-0.09	0.29	-0.44	-0.54
1081.80	-0.21	-0.03	-0.11	0.82	-1.32	-0.94
1082.00	-0.36	-0.10	-0.07	0.76	1.69	0.66
1082.20	-0.24	-0.11	-0.06	0.38	-1.02	-0.79
1082.40	-0.33	-0.11	-0.11	0.88	4.17	1.69
1082.60	-0.20	-0.11	-0.07	0.17	3.34	0.76
1082.80	-0.13	-0.11	-0.08	0.04	0.71	1.54
1083.00	-0.12	-0.19	-0.09	1.07	0.88	5.08
1083.20	-0.05	-0.11	-0.07	-0.13	2.44	-1.73
1083.40	0.01	-0.06	-0.08	0.00	-3.94	3.19
1083.60	-0.07	-0.04	-0.09	0.80	1.51	1.44
1083.80	0.01	-0.13	-0.09	0.45	-0.78	1.85
1084.00	-0.02	-0.08	-0.10	0.84	-0.13	0.61
1084.20	-0.09	-0.06	-0.07	-0.32	-0.37	-0.84
1084.40	0.03	-0.14	-0.05	-0.62	-1.98	-2.23
1084.60	-0.08	-0.04	-0.10	-1.37	2.73	-2.62
1084.80	0.08	-0.11	-0.08	0.63	-0.32	1.55
1085.00	-0.10	-0.06	-0.06	0.23	-0.74	-0.07
1085.20	-0.06	0.02	-0.10	0.41	-0.54	-0.36
1085.40	-0.09	-0.07	-0.06	-0.09	-0.50	-1.95
1085.60	-0.15	-0.14	-0.11	0.39	1.63	2.98
1085.80	-0.22	-0.06	-0.09	-0.29	-2.21	-2.00
1086.00	-0.14	-0.10	-0.07	-0.78	0.87	-3.91
1086.20	-0.26	-0.04	-0.09	-1.06	-1.72	-3.31
1086.40	-0.26	0.03	-0.07	-1.21	1.70	-2.40
1086.60	-0.24	-0.06	-0.09	-0.28	-2.69	-1.04
1086.80	-0.22	0.01	-0.07	0.54	-0.73	-0.09
1087.00	-0.23	-0.10	-0.09	0.50	0.01	1.82
1087.20	-0.07	-0.14	-0.07	0.17	0.97	0.10
1087.40	-0.22	-0.05	-0.06	0.17	1.00	-0.36
1087.60	-0.06	-0.12	-0.10	-0.25	-1.82	-2.73
1087.80	-0.02	-0.09	-0.06	-0.02	0.82	0.10
1088.00	-0.21	-0.07	-0.07	0.36	1.59	1.04
1088.20	-0.04	-0.16	-0.05	0.87	3.16	1.19
1088.40	-0.06	-0.07	-0.06	0.64	-1.16	1.84
1088.60	0.04	-0.06	-0.04	0.38	1.54	-0.33
1088.80	-0.14	-0.05	-0.06	0.19	-1.64	-0.82
1089.00	-0.08	-0.15	-0.05	-0.15	-4.40	2.03

1089.20	-0.06	-0.05	-0.04	0.48	-2.87	1.48
1089.40	-0.02	-0.17	-0.04	0.40	0.68	2.16
1089.60	-0.24	0.00	-0.08	0.24	3.55	-0.91
1089.80	-0.17	-0.13	-0.05	0.48	1.38	-0.66
1090.00	-0.05	-0.12	-0.02	-0.24	-0.12	-1.50
1090.20	-0.13	-0.02	-0.06	0.08	-1.16	-1.25
1090.40	-0.21	-0.04	-0.04	-0.68	-0.04	-2.17
1090.60	-0.09	-0.03	-0.04	0.36	-0.23	0.45
1090.80	-0.12	-0.07	-0.05	0.13	-0.43	-0.48
1091.00	0.04	-0.11	-0.06	0.20	-0.38	-0.25
1091.20	-0.12	-0.09	-0.07	0.32	-0.90	-0.04
1091.40	-0.01	-0.11	-0.05	0.19	-0.48	-0.13
1091.60	-0.05	-0.09	-0.04	0.32	-0.20	0.27
1091.80	0.04	-0.12	-0.05	1.58	-0.81	4.02
1092.00	-0.06	-0.02	-0.05	0.39	1.30	-0.48
1092.20	0.06	-0.03	0.00	1.32	-0.98	2.93
1092.40	-0.03	-0.05	-0.04	-0.44	0.65	0.66
1092.60	-0.03	-0.11	0.00	0.53	-4.47	2.28
1092.80	-0.10	-0.04	-0.05	-0.11	-2.50	-1.75
1093.00	-0.04	-0.11	-0.03	0.33	-0.55	-1.82
1093.20	-0.03	-0.01	-0.03	0.49	-1.39	-0.14
1093.40	0.03	-0.16	-0.04	0.08	-0.43	-0.33
1093.60	0.01	0.07	-0.03	0.07	-0.79	-1.35
1093.80	0.03	-0.15	-0.04	-0.89	4.47	-5.09
1094.00	-0.02	-0.10	-0.02	-0.26	4.48	-3.60
1094.20	-0.06	-0.08	-0.05	0.46	-1.92	-0.37
1094.40	-0.13	-0.04	-0.04	1.05	0.60	1.35
1094.60	-0.09	-0.07	-0.04	-0.58	-2.54	1.54
1094.80	-0.06	0.02	-0.04	-0.05	-0.18	-1.99
1095.00	0.02	-0.06	-0.02	0.29	-1.34	-0.74
1095.20	-0.18	0.04	-0.04	0.80	5.92	0.24
1095.40	0.00	-0.13	-0.02	0.71	-0.20	-2.80
1095.60	-0.12	-0.17	-0.02	0.07	-0.04	-0.23
1095.80	-0.06	-0.03	-0.04	1.61	-0.05	2.10
1096.00	-0.08	-0.10	-0.02	-0.47	4.63	7.59
1096.20	-0.21	0.01	-0.03	0.22	1.34	0.35
1096.40	-0.09	-0.04	-0.05	0.84	-1.59	1.86
1096.60	-0.09	0.02	-0.02	0.01	2.34	-1.01
1096.80	-0.10	-0.08	-0.06	0.22	-0.74	0.05
1097.00	-0.18	-0.03	-0.02	0.56	-0.83	-0.18
1097.20	-0.19	-0.24	-0.03	1.33	0.96	2.21
1097.40	-0.17	0.00	-0.02	-0.74	-1.15	-1.12
1097.60	-0.19	-0.10	-0.03	0.36	-1.70	0.87
1097.80	-0.20	-0.03	-0.05	0.05	1.80	-1.54
1098.00	-0.23	-0.13	-0.02	0.60	0.44	1.21
1098.20	-0.05	-0.09	-0.04	0.28	-1.95	2.49
1098.40	-0.14	-0.16	-0.02	-0.11	0.59	0.67
1098.60	-0.12	-0.05	-0.07	-1.36	-0.23	-3.62
1098.80	-0.08	-0.28	-0.04	0.03	2.72	-1.72
1099.00	0.00	-0.17	-0.04	0.48	-1.58	-1.73

1099.20	-0.04	-0.07	-0.01	0.12	-1.61	-0.02
1099.40	-0.09	-0.09	-0.01	0.24	-0.43	-0.83
1099.60	-0.15	-0.05	-0.05	-0.05	-1.65	-1.22
1099.80	0.11	-0.06	-0.03	0.46	-0.31	-0.18
1100.00	0.00	-0.18	-0.03	0.33	-0.55	-0.03
1100.20	0.08	-0.04	-0.04	0.34	-0.73	-0.02
1100.40	0.00	-0.11	-0.03	0.28	0.35	0.28
1100.60	-0.21	-0.15	-0.05	0.39	0.15	0.02
1100.80	-0.01	-0.05	-0.05	0.29	-0.60	-0.64
1101.00	0.01	-0.11	-0.03	0.24	-0.23	0.01
1101.20	-0.24	-0.09	-0.07	0.48	1.49	1.22
1101.40	-0.17	-0.09	-0.03	0.18	0.19	1.25
1101.60	-0.12	-0.20	-0.04	0.08	-3.89	1.61
1101.80	-0.04	-0.08	-0.08	0.60	-0.67	2.80
1102.00	-0.19	-0.15	-0.05	-0.45	-7.10	-0.94
1102.20	-0.13	-0.04	-0.05	0.44	-5.67	-1.25
1102.40	-0.09	-0.05	-0.05	1.03	0.34	4.99
1102.60	-0.10	-0.26	-0.06	0.54	-0.44	1.37
1102.80	-0.13	-0.06	-0.05	-1.42	-2.34	-4.00
1103.00	-0.04	-0.06	-0.07	-0.58	-1.14	-0.71
1103.20	-0.11	-0.08	-0.06	0.64	0.25	-0.37
1103.40	-0.03	-0.08	-0.06	1.20	0.09	3.82
1103.60	-0.12	-0.13	-0.08	-0.28	-0.30	-2.35
1103.80	-0.01	0.08	-0.07	0.18	2.16	0.67
1104.00	0.00	-0.08	-0.07	0.18	-0.36	-0.09
1104.20	-0.14	-0.05	-0.10	0.45	0.24	-0.85
1104.40	-0.10	-0.09	-0.06	-0.27	1.30	2.48
1104.60	0.07	-0.06	-0.08	0.00	0.49	-1.93
1104.80	0.03	-0.06	-0.09	-0.02	-0.81	-1.31
1105.00	0.18	-0.13	-0.08	-0.45	-1.14	-1.61
1105.20	0.29	-0.06	-0.08	0.67	-0.49	1.41
1105.40	0.34	-0.11	-0.01	0.54	-1.29	-1.25
1105.60	0.25	-0.16	-0.11	0.20	-0.94	0.15
1105.80	0.25	-0.05	-0.05	0.21	-0.28	0.26
1106.00	0.44	-0.11	-0.08	0.81	-1.52	0.17
1106.20	0.23	-0.14	-0.03	0.44	0.68	-2.75
1106.40	0.01	-0.08	-0.04	0.35	-0.22	-0.84
1106.60	-0.14	-0.08	-0.10	0.27	-4.90	-0.74
1106.80	0.13	-0.19	-0.06	0.08	0.98	0.36
1107.00	0.06	-0.14	-0.07	0.42	1.39	-1.60
1107.20	-0.01	-0.01	-0.06	0.27	-1.56	-0.75
1107.40	-0.13	-0.02	-0.03	-0.28	0.04	-1.47
1107.60	0.00	-0.06	-0.05	0.61	-2.41	0.14
1107.80	-0.21	-0.02	-0.05	-0.20	-0.29	-2.20
1108.00	-0.17	-0.08	-0.03	-0.07	3.11	1.15
1108.20	-0.15	-0.09	-0.02	0.32	-3.90	-1.62
1108.40	-0.07	-0.12	-0.02	-0.06	-1.23	-3.54
1108.60	0.03	-0.06	-0.05	-0.23	-1.88	0.26
1108.80	0.25	-0.09	0.00	-0.03	-2.52	-0.18
1109.00	0.41	-0.11	-0.03	-0.19	-1.69	-0.51

1109.20	0.54	-0.16	-0.01	0.62	4.31	0.26
1109.40	0.42	-0.15	0.00	0.42	-3.00	-1.22
1109.60	0.47	-0.13	0.01	-0.64	3.04	-2.35
1109.80	0.30	-0.03	0.00	0.67	-1.58	1.55
1110.00	0.21	0.00	0.02	2.09	10.02	4.19
1110.20	0.17	-0.09	0.00	0.75	-1.59	1.14
1110.40	-0.14	-0.03	0.02	-0.96	-0.07	-2.68
1110.60	-0.15	-0.05	0.04	-0.69	2.46	-4.97
1110.80	-0.16	-0.14	0.03	-0.95	-2.84	-2.78
1111.00	-0.19	-0.10	0.00	0.50	-2.21	2.89
1111.20	-0.39	0.03	-0.01	0.70	-3.21	0.57
1111.40	-0.27	-0.19	0.02	0.86	-0.09	4.54
1111.60	-0.19	-0.11	0.04	-0.85	5.99	-1.50
1111.80	-0.22	-0.13	0.01	0.44	3.04	-1.74
1112.00	-0.41	-0.08	0.00	0.40	-1.70	0.06
1112.20	-0.36	-0.14	0.02	-0.86	0.09	-3.28
1112.40	-0.31	-0.02	0.01	0.76	-4.09	1.56
1112.60	-0.18	-0.14	-0.05	-0.62	-2.31	-1.41
1112.80	-0.05	-0.20	-0.02	1.21	-1.55	3.36
1113.00	0.16	0.01	-0.03	-0.27	4.91	-3.03
1113.20	0.15	-0.13	-0.02	0.54	-4.61	-1.18
1113.40	0.24	-0.17	-0.01	0.18	1.35	-0.20
1113.60	0.23	-0.20	-0.02	2.50	-2.80	5.17
1113.80	0.08	-0.05	0.00	0.31	-0.34	0.13
1114.00	0.17	-0.13	-0.05	0.37	1.49	0.86
1114.20	-0.16	-0.12	-0.01	0.26	3.32	-1.42
1114.40	-0.32	-0.09	-0.01	0.39	-1.18	-0.68
1114.60	-0.42	-0.07	-0.04	-0.02	-0.01	-2.42
1114.80	-0.26	-0.12	-0.05	0.28	0.87	-0.55
1115.00	-0.22	-0.06	-0.05	-0.21	-0.63	-0.07
1115.20	-0.11	-0.06	-0.04	0.25	-1.61	-2.59
1115.40	-0.30	-0.10	-0.06	0.40	-0.90	2.96
1115.60	-0.39	-0.15	-0.08	-0.80	-5.82	-0.31
1115.80	-0.44	-0.12	-0.05	-0.85	2.19	0.57
1116.00	-0.17	-0.11	-0.08	-1.65	1.19	-4.39
1116.20	-0.26	-0.14	-0.09	0.30	-2.76	-2.64
1116.40	-0.13	-0.16	-0.07	0.16	0.77	-0.29
1116.60	-0.23	-0.07	-0.09	0.53	0.44	0.59
1116.80	0.19	-0.12	-0.06	0.76	-0.30	0.37
1117.00	0.12	-0.08	-0.11	-0.11	0.61	-0.33
1117.20	0.39	-0.09	-0.07	0.19	-1.23	-2.19
1117.40	0.46	-0.13	-0.05	0.15	0.70	-1.41
1117.60	0.26	-0.07	-0.05	0.52	0.84	-0.32
1117.80	0.17	-0.14	-0.06	-0.57	0.04	-0.31
1118.00	0.15	-0.06	-0.05	-0.21	0.92	-1.94
1118.20	-0.05	-0.08	-0.10	0.40	-1.04	-1.55
1118.40	-0.14	-0.15	-0.04	-0.31	0.14	-4.70
1118.60	-0.16	-0.20	-0.04	0.08	0.65	-0.38
1118.80	-0.42	0.00	-0.10	0.97	-2.42	-1.64
1119.00	-0.25	0.04	-0.05	0.10	-1.86	-0.30

1119.20	0.08	-0.01	-0.02	-0.92	7.35	0.33
1119.40	-0.32	-0.02	-0.08	0.68	0.39	0.07
1119.60	-0.27	-0.10	0.00	0.92	-3.26	3.13
1119.80	-0.36	-0.14	-0.07	1.13	0.79	2.34
1120.00	-0.29	-0.10	-0.07	1.10	-0.52	1.39
1120.20	-0.22	-0.17	-0.04	0.12	0.63	-0.21
1120.40	-0.29	-0.08	-0.04	0.28	0.67	1.29
1120.60	-0.18	-0.12	-0.04	0.05	-0.05	4.73
1120.80	-0.17	-0.06	-0.07	-0.41	-1.06	-2.21
1121.00	0.26	0.15	-0.02	0.01	-3.16	-0.76
1121.20	0.31	-0.11	-0.05	0.84	-5.04	0.18
1121.40	0.25	-0.07	-0.04	0.81	3.73	1.55
1121.60	0.02	-0.11	-0.05	-0.18	-0.74	-0.63
1121.80	-0.03	-0.09	-0.07	-0.20	-1.34	0.36
1122.00	-0.03	-0.06	-0.05	0.66	-3.39	3.81
1122.20	-0.09	0.03	-0.07	-0.26	0.34	-6.39
1122.40	-0.29	-0.07	-0.06	0.61	-0.44	1.91
1122.60	-0.37	-0.05	-0.05	0.13	1.67	0.20
1122.80	-0.41	-0.06	-0.07	0.34	2.28	1.70
1123.00	-0.45	-0.10	-0.06	-0.42	-2.42	-1.63
1123.20	-0.35	-0.05	-0.08	0.14	-1.89	-1.77
1123.40	-0.40	-0.08	-0.07	0.83	-0.06	3.31
1123.60	-0.57	-0.01	-0.09	0.09	0.66	-0.80
1123.80	-0.49	-0.06	-0.07	-0.15	-0.54	-0.46
1124.00	-0.45	-0.14	-0.08	-0.06	0.59	-0.59
1124.20	-0.19	-0.02	-0.10	0.18	2.80	0.20
1124.40	-0.12	-0.09	-0.10	-0.02	-7.05	1.72
1124.60	-0.12	-0.09	-0.07	1.35	0.06	0.61
1124.80	0.17	-0.12	-0.08	0.71	2.14	3.36
1125.00	0.10	0.04	-0.08	0.05	-0.35	0.81
1125.20	0.28	-0.06	-0.10	1.28	-2.99	2.76
1125.40	0.36	-0.10	-0.06	-0.55	0.61	-1.72
1125.60	0.22	-0.06	-0.08	-0.35	2.10	-1.21
1125.80	0.33	0.02	-0.06	0.51	-3.14	1.66
1126.00	0.08	0.01	-0.05	0.28	-1.04	-0.31
1126.20	0.01	-0.06	-0.09	0.95	-2.73	2.06
1126.40	-0.10	0.05	-0.08	0.77	-0.51	0.40
1126.60	-0.40	-0.03	-0.08	0.29	-1.29	1.49
1126.80	-0.11	0.02	-0.08	0.42	1.97	-0.73
1127.00	-0.18	-0.14	-0.06	-0.55	0.81	-0.15
1127.20	-0.21	-0.19	-0.09	0.19	0.29	0.48
1127.40	-0.30	-0.02	-0.10	0.15	-2.99	-0.04
1127.60	-0.20	-0.04	-0.05	-0.24	1.76	1.35
1127.80	-0.17	0.08	-0.07	-0.35	-0.66	-2.05
1128.00	-0.06	-0.07	-0.07	0.51	1.10	0.70
1128.20	-0.18	0.00	-0.05	0.08	-0.59	-0.80
1128.40	-0.20	-0.09	-0.03	0.45	0.28	0.11
1128.60	-0.03	-0.02	-0.04	0.25	0.31	-0.02
1128.80	0.04	-0.15	-0.05	0.38	0.66	-0.26
1129.00	0.13	-0.03	-0.04	0.75	1.62	1.50

1129.20	0.32	-0.17	-0.05	0.52	-1.77	-0.17
1129.40	0.32	-0.08	-0.05	1.09	-1.13	1.33
1129.60	0.09	-0.04	-0.05	0.64	-1.39	2.06
1129.80	0.09	-0.12	-0.04	0.27	0.81	0.59
1130.00	0.20	-0.06	0.00	-0.02	-0.55	-0.58
1130.20	-0.01	-0.02	-0.04	0.34	-0.15	-0.31
1130.40	-0.26	-0.05	-0.04	0.17	0.61	0.14
1130.60	-0.39	-0.02	-0.03	0.09	0.26	-0.09
1130.80	-0.48	-0.08	-0.02	-0.16	-0.33	-0.18
1131.00	-0.38	-0.04	-0.02	-0.16	-0.36	0.25
1131.20	-0.24	-0.03	-0.05	0.05	-0.27	0.48
1131.40	-0.20	0.01	-0.04	0.19	1.06	-0.24
1131.60	-0.04	-0.10	-0.04	0.10	1.18	-0.65
1131.80	-0.29	-0.04	-0.02	0.16	-0.61	0.68
1132.00	0.01	-0.10	0.01	0.16	0.06	0.23
1132.20	0.04	-0.06	-0.04	0.42	-0.29	0.47
1132.40	0.05	-0.19	-0.02	-0.68	-0.67	-2.38
1132.60	0.11	-0.09	-0.03	-0.31	1.33	-2.20
1132.80	-0.04	0.02	-0.02	0.63	-0.42	1.10
1133.00	0.42	-0.08	-0.05	-0.18	0.30	-3.53
1133.20	0.53	-0.01	-0.04	0.08	2.06	0.70
1133.40	0.29	-0.16	-0.03	0.76	1.67	0.65
1133.60	0.35	-0.04	-0.04	0.67	-2.63	0.11
1133.80	0.14	-0.13	-0.05	0.65	-1.74	-1.97
1134.00	0.20	-0.07	-0.07	-0.05	-3.30	-4.21
1134.20	-0.04	-0.02	-0.06	-0.31	-0.70	1.45
1134.40	0.00	-0.10	-0.04	1.52	-2.85	5.66
1134.60	-0.23	-0.05	-0.06	0.50	-1.94	1.43
1134.80	-0.29	0.01	-0.06	-0.21	1.17	2.65
1135.00	-0.22	-0.03	-0.09	-0.18	2.89	-2.44
1135.20	-0.17	0.03	-0.09	-0.58	1.88	-3.11
1135.40	-0.17	-0.07	-0.07	-1.14	0.90	-5.90
1135.60	0.06	-0.04	-0.09	-0.45	0.14	-0.38
1135.80	-0.08	-0.14	-0.11	0.32	-1.30	0.38
1136.00	0.15	-0.06	-0.09	-1.73	2.04	-3.71
1136.20	0.18	-0.16	-0.08	-1.14	-0.52	-4.04
1136.40	0.13	-0.06	-0.07	1.24	-2.59	3.05
1136.60	0.16	-0.07	-0.12	0.00	1.28	-0.18
1136.80	0.29	-0.14	-0.08	-0.36	-2.27	2.78
1137.00	0.30	-0.14	-0.10	1.51	-2.35	3.75
1137.20	0.27	-0.03	-0.09	0.03	2.34	-1.52
1137.40	0.43	-0.07	-0.10	-0.68	1.75	-0.06
1137.60	0.46	-0.05	-0.08	-0.21	-1.27	-0.10
1137.80	0.42	-0.11	-0.10	0.75	2.10	4.20
1138.00	0.30	-0.04	-0.06	0.40	4.36	0.85
1138.20	0.13	-0.11	-0.10	1.06	4.04	4.94
1138.40	-0.06	-0.13	-0.12	0.27	0.41	0.20
1138.60	-0.28	-0.08	-0.11	0.50	0.26	-1.79
1138.80	-0.11	-0.07	-0.07	0.31	-0.90	2.83
1139.00	0.09	-0.15	-0.07	1.06	-3.92	0.79

1139.20	0.13	-0.07	-0.09	0.49	-4.26	-0.56
1139.40	0.07	-0.03	-0.09	0.76	-3.15	1.23
1139.60	0.09	-0.13	-0.09	0.43	-1.08	-3.41
1139.80	0.06	-0.07	-0.09	0.48	-0.11	0.11
1140.00	0.44	-0.08	-0.06	-0.14	1.11	-2.82
1140.20	0.46	-0.05	-0.06	0.82	2.36	-3.35
1140.40	0.43	-0.03	-0.07	-0.21	0.87	-4.25
1140.60	0.42	-0.04	-0.06	-0.77	-2.23	-4.82
1140.80	0.51	-0.15	-0.01	1.16	-2.76	1.57
1141.00	0.59	-0.14	-0.03	0.40	-0.07	-3.04
1141.20	0.50	-0.21	-0.02	0.25	-2.74	1.13
1141.40	0.54	-0.09	-0.04	0.88	0.42	0.27
1141.60	0.51	-0.13	-0.02	0.34	-0.29	-0.69
1141.80	0.60	-0.19	-0.01	0.54	-0.26	0.06
1142.00	0.34	-0.20	-0.01	0.55	-0.24	-0.08
1142.20	0.17	-0.02	0.04	0.30	0.28	-0.05
1142.40	0.08	-0.04	0.02	0.32	-0.30	0.21
1142.60	-0.15	-0.09	0.00	0.30	0.03	0.05
1142.80	0.16	0.10	0.00	0.45	-1.31	1.28
1143.00	-0.01	-0.01	0.05	0.37	-0.38	0.63
1143.20	0.06	-0.02	0.06	0.41	-0.24	0.13
1143.40	0.15	-0.02	0.07	0.06	-3.34	2.21
1143.60	0.20	-0.09	0.03	0.29	-1.38	0.90
1143.80	0.36	0.02	0.06	0.31	-1.33	0.57
1144.00	0.29	-0.05	0.07	0.56	-0.58	0.04
1144.20	0.16	0.00	0.05	0.75	1.70	-0.45
1144.40	0.49	-0.18	0.08	1.01	1.59	1.36
1144.60	0.24	-0.14	0.06	0.65	-0.36	-0.95
1144.80	0.22	-0.07	0.07	0.35	0.97	0.06
1145.00	0.22	-0.09	0.04	-0.05	-0.62	-0.75
1145.20	0.28	-0.06	0.06	-0.02	0.39	0.35
1145.40	0.51	-0.17	0.09	0.38	-1.09	1.06
1145.60	0.21	-0.06	0.08	0.76	0.73	0.03
1145.80	0.16	-0.14	0.07	0.53	0.85	-2.27
1146.00	0.02	0.08	0.08	0.36	-0.94	0.51
1146.20	0.03	-0.07	0.05	0.31	-2.80	-0.62
1146.40	-0.03	-0.14	0.06	0.23	0.33	-0.51
1146.60	-0.31	-0.09	0.07	0.25	-0.24	0.22
1146.80	-0.28	-0.04	0.05	0.21	-0.33	-0.31
1147.00	-0.40	-0.09	0.02	0.12	0.44	0.26
1147.20	-0.30	-0.13	0.00	-0.02	0.40	0.05
1147.40	0.00	-0.23	0.03	0.23	0.31	-0.15
1147.60	-0.10	-0.17	0.06	0.31	-0.13	0.02
1147.80	0.05	-0.04	0.02	0.39	-0.43	-0.12
1148.00	0.08	-0.16	0.00	0.32	0.29	-0.16
1148.20	0.09	-0.18	0.02	0.36	-0.01	-0.35
1148.40	0.13	-0.06	0.00	0.25	0.17	-1.38
1148.60	0.28	-0.31	0.04	0.17	1.80	-0.81
1148.80	0.08	-0.14	0.00	0.07	0.28	-0.93
1149.00	0.11	-0.03	0.05	0.00	-1.31	-1.11

1149.20	0.15	-0.17	0.05	0.78	-3.04	2.22
1149.40	0.23	-0.18	0.02	-0.13	-3.55	1.18
1149.60	0.32	-0.08	0.01	-0.09	4.69	1.82
1149.80	0.14	-0.17	0.02	-0.15	0.50	-0.86
1150.00	-0.06	-0.08	0.04	0.17	0.52	0.44
1150.20	-0.05	-0.11	0.03	0.74	1.01	0.57
1150.40	-0.24	-0.07	-0.02	0.15	-0.71	-0.09
1150.60	-0.13	-0.13	0.05	0.35	-1.43	-0.18
1150.80	-0.28	-0.16	0.04	0.11	0.72	0.21
1151.00	-0.41	-0.03	-0.02	0.13	0.51	0.76
1151.20	-0.12	-0.20	0.05	0.04	-1.38	0.98
1151.40	0.01	-0.14	0.02	0.15	-0.37	-0.73
1151.60	0.03	-0.13	0.02	0.40	-0.69	-0.28
1151.80	0.06	-0.11	0.03	-0.05	-0.26	-2.22
1152.00	-0.01	-0.11	0.03	0.45	-1.26	-1.96
1152.20	0.14	-0.23	0.02	0.81	4.74	1.11
1152.40	0.08	-0.10	0.02	1.20	-0.58	2.89
1152.60	0.16	-0.11	0.04	-0.04	5.62	-0.35
1152.80	0.00	-0.21	0.02	0.18	-2.22	2.20
1153.00	-0.03	-0.26	0.02	-0.07	-0.62	-2.16
1153.20	0.14	-0.10	-0.01	-0.15	5.05	-0.02

APPENDIX B

Modified FVCOM Subroutines for the development of the Radiative Baroclinic Open Boundary

```
!======================================================================================|
!  Set Boundary Conditions on Temperature and Salinity                                 |
!   NCON2 = 1:  SET CONDITIONS SPECIFIC TO TEMPERATURE                                 |
!   NCON2 = 2:  SET CONDITIONS SPECIFIC TO SALINITY                                    |
!======================================================================================|

  SUBROUTINE BCOND_TS(NCON2)

!---------------------------------------------------------------------------|
  USE ALL_VARS
  USE BCS
  USE MOD_OBCS
!QXU{
#  if defined (TS_OBC)
  USE MOD_TSOBC
#  endif
!QXU}
  IMPLICIT NONE
  REAL(SP) :: S2D,S2D_NEXT,S2D_OBC,T2D,T2D_NEXT,T2D_OBC,XFLUX2D,TMP,RAMP_TS
!QXU{
#  if defined (TS_OBC)
  REAL(SP), ALLOCATABLE :: TOBC_TMP(:,:),SOBC_TMP(:,:)
!  REAL(SP), ALLOCATABLE :: XFLUX(:,:) !Retana, G Nov 27 07 Check of flux at neighbouring nodes
  REAL(SP), ALLOCATABLE :: S3D(:,:), S3D_NEXT(:,:), S3D_OBC(:,:) !Retana, G Mar 15 08
  REAL(SP), ALLOCATABLE :: UJ1(:,:),UJ2(:,:),UJ(:,:),DELTA_U(:) !Retana, G Mar 15 08
  REAL(SP), ALLOCATABLE :: VJ1(:,:),VJ2(:,:),VJ(:,:),DELTA_V(:) !Retana, G May 21 08
!  REAL(SP) :: DELTA !Retana, G
  REAL(SP) ::FACT,UFACT
  INTEGER  ::L1,L2,IERR
#  endif
!QXU}
  INTEGER  :: I,J,K,J1,J11,J22,NCON2,J2,IG
  REAL(SP), ALLOCATABLE :: TTMP(:,:),STMP(:,:)
!QXU{
  REAL(SP) ::TMAX,TMIN,SMAX,SMIN
!QXU}
!---------------------------------------------------------------------------|


!
!--SET CONDITIONS FOR FRESH WATER INFLOW-------------------------------------|
!
  IF(POINT_ST_TYPE == 'specified') THEN
   IF(NUMQBC > 0) THEN
    IF(INFLOW_TYPE == 'node') THEN
     DO I=1,NUMQBC
      J11=INODEQ(I)
      DO K=1,KBM1
       TF1(J11,K)=TDIS(I)
       SF1(J11,K)=SDIS(I)
      END DO
     END DO
    ELSE IF(INFLOW_TYPE == 'edge') THEN
     DO I=1,NUMQBC
      J11=N_ICELLQ(I,1)
      J22=N_ICELLQ(I,2)
      DO K=1,KBM1
       TF1(J11,K)=TDIS(I)
       SF1(J11,K)=SDIS(I)
       TF1(J22,K)=TDIS(I)
       SF1(J22,K)=SDIS(I)
      END DO
     END DO
    END IF
   END IF
  END IF


  IF(IOBCN > 0) THEN
```

```
!QXU{
#    if defined (TS_OBC)
     ALLOCATE(TOBC_TMP(1:IOBCN,1:KBM1))
     ALLOCATE(SOBC_TMP(1:IOBCN,1:KBM1))
     CALL BRACKET(TSO_TM,THOUR,L1,L2,FACT,UFACT,IERR)
     IF(IERR==-1)THEN
       TOBC_TMP = 0.0_SP
       SOBC_TMP  = 0.0_SP
     ELSE
       TOBC_TMP(1:IOBCN,1:KBM1) = UFACT*TEMPOBC(1:IOBCN,1:KBM1,L1)  +&
                          FACT*TEMPOBC(1:IOBCN,1:KBM1,L2)
       SOBC_TMP(1:IOBCN,1:KBM1)  = UFACT*SALTOBC(1:IOBCN,1:KBM1,L1)  +&
                          FACT*SALTOBC(1:IOBCN,1:KBM1,L2)
!      WRITE(*,*)'UFACT=',UFACT,'FACT=',FACT !  Retana, G
     END IF
#    endif
!QXU}
!
!  SET TEMPERATURE CONDITIONS ON OUTER BOUNDARY
!
   RAMP_TS = TANH(FLOAT(IINT)/FLOAT(IRAMP+1))
   IF(NCON2 == 1) THEN
   ALLOCATE(TTMP(IOBCN,KBM1));  TTMP = 0.0_SP
     DO I=1,IOBCN
       J=I_OBC_N(I)
       J1=NEXT_OBC(I)
       T2D=0.0_SP
       T2D_NEXT=0.0_SP
       XFLUX2D=0.0_SP
       DO K=1,KBM1
         T2D=T2D+T1(J,K)*DZ(K)
         T2D_NEXT=T2D_NEXT+TF1(J1,K)*DZ(K)
         XFLUX2D=XFLUX2D+XFLUX_OBC(I,K)*DZ(K)
       END DO

       IF(UARD_OBCN(I) > 0.0_SP) THEN
         TMP=XFLUX2D+T2D*UARD_OBCN(I)
         T2D_OBC=(T2D*DT(J)-TMP*DTI/ART1(J))/D(J)

         CALL BCOND_T_PERTURBATION(T2D_NEXT,T2D,TTMP,I,J,J1)

         DO K=1,KBM1
           TF1(J,K)=T2D_OBC+TTMP(I,K)
!          TF1(J,K)=T2D_OBC+(TF1(J1,K)-T2D_NEXT)
         END DO
!qxu{
         DO K=1,KBM1
           TMAX = MAXVAL(T1(NBSN(J,1:NTSN(J)),K))
           TMIN = MINVAL(T1(NBSN(J,1:NTSN(J)),K))

           IF(K == 1)THEN
            TMAX = MAX(TMAX,(T1(J,K)*DZ(K+1)+T1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
            TMIN = MIN(TMIN,(T1(J,K)*DZ(K+1)+T1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
           ELSE IF(K == KBM1)THEN
            TMAX = MAX(TMAX,(T1(J,K)*DZ(K-1)+T1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)))
            TMIN = MIN(TMIN,(T1(J,K)*DZ(K-1)+T1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)))
           ELSE
            TMAX = MAX(TMAX,(T1(J,K)*DZ(K-1)+T1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)), &
                 (T1(J,K)*DZ(K+1)+T1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
            TMIN = MIN(TMIN,(T1(J,K)*DZ(K-1)+T1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)), &
                 (T1(J,K)*DZ(K+1)+T1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
           END IF

           IF(TMIN-TF1(J,K) > 0.0_SP)TF1(J,K) = TMIN
           IF(TF1(J,K)-TMAX > 0.0_SP)TF1(J,K) = TMAX

         END DO
!qxu}
       ELSE
         DO K=1,KBM1
```

```
!         TF1(J,K) = T1(J,K)
!        GWC  ADD TS NUDGING ON OPEN BOUNDARY
!QXU          TF1(J,K) = T1(J,K) - ALPHA_OBC*RAMP_TS*(T1(J,K)-TEMP_OBC(I))
!        GWC

!QXU{
#         if defined (TS_OBC)
            IF(IERR.NE.-1)THEN
              TF1(J,K) = T1(J,K) - ALPHA_SERIES_OBC*RAMP_TS*(T1(J,K)-TOBC_TMP(I,K))
            ELSE
              TF1(J,K) = T1(J,K)
                  ENDIF
#         else
            TF1(J,K) = T1(J,K) - ALPHA_OBC*RAMP_TS*(T1(J,K)-TEMP_OBC(I))
#         endif
!QXU}

        END DO
      END IF
    END DO


!
!  SET SALINITY CONDITIONS ON OUTER BOUNDARY
!
  ELSE IF(NCON2 == 2) THEN
  ALLOCATE(STMP(IOBCN,KBM1));  STMP = 0.0_SP
  ALLOCATE(S3D(IOBCN,KBM1))   !Retana G
  ALLOCATE(S3D_NEXT(IOBCN,KBM1))  !Retana G
  ALLOCATE(S3D_OBC(IOBCN,KBM1))   !Retana G
!-------New Treatment for salinity at the OB-------Retana G----------!
!    DO K=1,KBM1
!      DO I=1,IOBCN
!       J=I_OBC_N(I)
!       J1=NEXT_OBC(I)
!       J2=NEXT_OBC2(I)
  ALLOCATE(UJ1(IOBCN,KBM1)); UJ1=0.0_SP   !Retana G
  ALLOCATE(UJ2(IOBCN,KBM1)); UJ2=0.0_SP   !Retana G
  ALLOCATE(UJ(IOBCN,KBM1)); UJ=0.0_SP   !Retana G

  ALLOCATE(VJ1(IOBCN,KBM1)); VJ1=0.0_SP   !Retana G
  ALLOCATE(VJ2(IOBCN,KBM1)); VJ2=0.0_SP   !Retana G
  ALLOCATE(VJ(IOBCN,KBM1)); VJ=0.0_SP   !Retana G

  ALLOCATE(DELTA_U(M)); DELTA_U=0.0_SP   !Retana G
  ALLOCATE(DELTA_V(M)); DELTA_V=0.0_SP   !Retana G
!    DO K=1,KBM1
     DO I=1,IOBCN
      J=I_OBC_N(I)
      J1=NEXT_OBC(I)
      J2=NEXT_OBC2(I)
      DO K=1,KBM1
       DO IG=1,NTVE(J1)
          UJ1(J1,K)=UJ1(J1,K)+UF(NBVE(J1,IG),K)
          VJ1(J1,K)=VJ1(J1,K)+VF(NBVE(J1,IG),K)
       END DO
          UJ1(J1,K)=UJ1(J1,K)/FLOAT(NTVE(J1))
          DELTA_U(J1)=DELTA_U(J1)+UJ1(J1,K)*DZ(K)
          VJ1(J1,K)=VJ1(J1,K)/FLOAT(NTVE(J1))
          DELTA_V(J1)=DELTA_V(J1)+VJ1(J1,K)*DZ(K)
       DO IG=1,NTVE(J2)
          UJ2(J2,K)=UJ2(J2,K)+UF(NBVE(J2,IG),K)
          VJ2(J2,K)=VJ2(J2,K)+VF(NBVE(J2,IG),K)
!          DELTA(J2)=DELTA(J2)+UJ1(J2,K)
       END DO
          UJ2(J2,K)=UJ2(J2,K)/FLOAT(NTVE(J2))
          VJ2(J2,K)=VJ2(J2,K)/FLOAT(NTVE(J2))
       DO IG=1,NTVE(J)
          UJ(J,K)=UJ(J,K)+UF(NBVE(J,IG),K)
          VJ(J,K)=VJ(J,K)+VF(NBVE(J,IG),K)
```

```
!           DELTA(J)=DELTA(J)+UJ1(J,K)
         END DO
            UJ(J,K)=UJ(J,K)/FLOAT(NTVE(J))
            VJ(J,K)=VJ(J,K)/FLOAT(NTVE(J))
!     END DO  !Retana Apr 7
!     END DO   !Retana Apr 7


!     DO I=1,IOBCN !----Retana Apr7
!     DO K=1,KBM1
!       J=I_OBC_N(I)
!       J1=NEXT_OBC(I)
!       J2=NEXT_OBC2(I) !---Retana Apr7

!=====================RETANA=====TOTAL-OB-PASS-FILTER=======================!
!       IF (UJ2(J2,K) > UJ1(J1,K)) THEN

!       S1(J,K)=(SF1(NEXT_OBC(I-1),K)+SF1(J1,K)+SF1(NEXT_OBC(I+1),K))/3.0
!       SOBC_TMP(J,K)=(SF1(NEXT_OBC(I-1),K)+SF1(J1,K)+SF1(NEXT_OBC(I+1),K))/3.0
!       S1(J1,K)=(SF1(NEXT_OBC2(I-1),K)+SF1(J2,K)+SF1(NEXT_OBC2(I+1),K))/3.0


!!       S1(J,K)= SF1(J1,K)
!!       SOBC_TMP(J,K)=SF1(J1,K) !"Ghost cell"
!!       S1(J1,K)=SF1(J2,K)
!       ELSE
!       S1(J,K)=(SOBC_TMP(I_OBC_N(I-1),K)+SOBC_TMP(J,K)+SOBC_TMP(I_OBC_N(I+1),K))/3.0
!       S1(J1,K)=(SF1(I_OBC_N(I-1),K)+SF1(J,K)+SF1(I_OBC_N(I+1),K))/3.0
!       S1(J2,K)=(SF1(NEXT_OBC(I-1),K)+SF1(J1,K)+SF1(NEXT_OBC(I+1),K))/3.0

!       END IF

!!       S1(J,K)=SOBC_TMP(J,K)
!!       S1(J1,K)=SF1(J,K)
!!       S1(J2,K)=SF1(J1,K)
!       END IF
!=====================RETANA=====TOTAL-OB-PASS-FILTER=======================!

!=====================RETANA=====3-PASS-FILTER=======================!
      IF (UJ2(J2,K) > UJ1(J1,K)) THEN
       IF (I==1) THEN
       S1(J,K)=(SF1(J1,K)+2.0*SF1(NEXT_OBC(I+1),K))/3.0
       SOBC_TMP(J,K)=(SF1(J1,K)+2.0*SF1(NEXT_OBC(I+1),K))/3.0
       S1(J1,K)=(SF1(J2,K)+2.0*SF1(NEXT_OBC2(I+1),K))/3.0
       ELSE IF (I==IOBCN) THEN
       S1(J,K)=(SF1(J1,K)+2.0*SF1(NEXT_OBC(I-1),K))/3.0
       SOBC_TMP(J,K)=(SF1(J1,K)+2.0*SF1(NEXT_OBC(I-1),K))/3.0
       S1(J1,K)=(SF1(J2,K)+2.0*SF1(NEXT_OBC2(I-1),K))/3.0
       ELSE
       S1(J,K)=(SF1(NEXT_OBC(I-1),K)+SF1(J1,K)+SF1(NEXT_OBC(I+1),K))/3.0
       SOBC_TMP(J,K)=(SF1(NEXT_OBC(I-1),K)+SF1(J1,K)+SF1(NEXT_OBC(I+1),K))/3.0
       S1(J1,K)=(SF1(NEXT_OBC2(I-1),K)+SF1(J2,K)+SF1(NEXT_OBC2(I+1),K))/3.0
       END IF

!       S1(J,K)= SF1(J1,K)
!       SOBC_TMP(J,K)=SF1(J1,K) !"Ghost cell"
!       S1(J1,K)=SF1(J2,K)
       ELSE
       IF (I==1) THEN
       S1(J,K)=(SOBC_TMP(J,K)+2.0*SOBC_TMP(I_OBC_N(I+1),K))/3.0
       S1(J1,K)=(SF1(J,K)+2.0*SF1(I_OBC_N(I+1),K))/3.0
       S1(J2,K)=(SF1(J1,K)+2.0*SF1(NEXT_OBC(I+1),K))/3.0
       ELSE IF (I==IOBCN) THEN
       S1(J,K)=(SOBC_TMP(J,K)+2.0*SOBC_TMP(I_OBC_N(I-1),K))/3.0
       S1(J1,K)=(SF1(J,K)+2.0*SF1(I_OBC_N(I-1),K))/3.0
       S1(J2,K)=(SF1(J1,K)+2.0*SF1(NEXT_OBC(I-1),K))/3.0
       ELSE
       S1(J,K)=(SOBC_TMP(I_OBC_N(I-1),K)+SOBC_TMP(J,K)+SOBC_TMP(I_OBC_N(I+1),K))/3.0
       S1(J1,K)=(SF1(I_OBC_N(I-1),K)+SF1(J,K)+SF1(I_OBC_N(I+1),K))/3.0
       S1(J2,K)=(SF1(NEXT_OBC(I-1),K)+SF1(J1,K)+SF1(NEXT_OBC(I+1),K))/3.0
```

```
!       S1(J1,K)=(SF1(NEXT_OBC(I-1),K)+SF1(J,K)+SF1(NEXT_OBC(I+1),K))/3.0
!       S1(J2,K)=(SF1(NEXT_OBC2(I-1),K)+SF1(J1,K)+SF1(NEXT_OBC2(I+1),K))/3.0
       END IF

!       S1(J,K)=SOBC_TMP(J,K)
!       S1(J1,K)=SF1(J,K)
!       S1(J2,K)=SF1(J1,K)
      END IF
!=====================RETANA=====3-PASS-FILTER=========================!



!       WRITE(*,*) 'UJ1=', I,J1,K,UJ1(J1,K)
!       WRITE(*,*) 'UJ2=', I,J2,K,UJ2(J2,K)
!      WRITE(*,*) 'NADJN_OBC(J)=',NADJN_OBC(J)
!      WRITE(*,*) 'ADJN_OBC(J,1)=',ADJN_OBC(J,1)
!      WRITE(*,*) 'NADJC_OBC(J)=',NADJC_OBC(J)
!      WRITE(*,*) 'ADJC_OBC(J,1)=',ADJC_OBC(J,1)
!      WRITE(*,*) 'NTVE(10)=',NTVE(10)
!      WRITE(*,*) 'NBVE(10,NTVE(10)+1)=', (NBVE(10,K), K=1,NTVE(10))

!      END DO
!    END DO
 !-------------------------------------------------Retana G-----------!
!    DO I=1,IOBCN !Disabled Retana
!      J=I_OBC_N(I) !Disabled Retana
!      J1=NEXT_OBC(I) !Disabled Retana
!      S2D=0.0_SP !Disabled Retana
!      S2D_NEXT=0.0_SP !Disabled Retana
!      XFLUX2D=0.0_SP !Disabled Retana
!       XFLUX3D=0.0_SP
!       S3D=0.0_SP !Retana
!       S3D_NEXT=0.0_SP !Retana
!      DO K=1,KBM1
!        S3D(J,K)=S3D(J,K)+S1(J,K)*DZ(K)
!        S3D_NEXT(J1,K)=S3D_NEXT(J1,K)+SF1(J1,K)*DZ(K)
!        S2D=S2D+S1(J,K)*DZ(K) !Disabled Retana
!        S2D_NEXT=S2D_NEXT+SF1(J1,K)*DZ(K) !Disabled Retana
!        XFLUX2D=XFLUX2D+XFLUX_OBC(I,K)*DZ(K) !Disabled Retana
!        XFLUX3D=XFLUX3D+XFLUX_OBC(I,K)*DZ(K) !Disabled Retana
!      END DO

 !     CALL E2N3D(U,UNODE)   !Retana G

!      IF(UARD_OBCN(I) > 0.0_SP) THEN  !Retana Disabling if statement
! UARD_OBCN is generated in usfvcom from the 4th runge-kutta time step 2d continuity eq
!        TMP=XFLUX2D+S2D*UARD_OBCN(I) !Retana, disabling if statment
!        S3D_OBC(J,K)=(S3D(J,K)*DT(J))/D(J)   !-TMP*DTI/ART1(J))/D(J) !Retana, disabling if statment
!        CALL BCOND_S_PERTURBATION(S2D_NEXT,S2D,STMP,I,J,J1) !Retana, disabling if statment
!        CALL BCOND_S_PERTURBATION(S3D_NEXT,S3D,STMP,I,J,J1) !Retana, disabling if statment

!         DO K=1,KBM1
!          SF1(J,K)=S3D_OBC(J,K)+STMP(I,K)
!          SF1(J,K)=S2D_OBC+(SF1(J1,K)-S2D_NEXT)
!         END DO

!QXU{

 END DO !Retana Sigma loop

        DO K=1,KBM1
          SMAX = MAXVAL(S1(NBSN(J,1:NTSN(J)),K))
          SMIN = MINVAL(S1(NBSN(J,1:NTSN(J)),K))

          IF(K == 1)THEN
           SMAX = MAX(SMAX,(S1(J,K)*DZ(K+1)+S1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
           SMIN = MIN(SMIN,(S1(J,K)*DZ(K+1)+S1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
          ELSE IF(K == KBM1)THEN
           SMAX = MAX(SMAX,(S1(J,K)*DZ(K-1)+S1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)))
```

```
          SMIN = MIN(SMIN,(S1(J,K)*DZ(K-1)+S1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)))
         ELSE
          SMAX = MAX(SMAX,(S1(J,K)*DZ(K-1)+S1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)), &
               (S1(J,K)*DZ(K+1)+S1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
          SMIN = MIN(SMIN,(S1(J,K)*DZ(K-1)+S1(J,K-1)*DZ(K))/(DZ(K)+DZ(K-1)), &
               (S1(J,K)*DZ(K+1)+S1(J,K+1)*DZ(K))/(DZ(K)+DZ(K+1)))
         END IF

         IF(SMIN-SF1(J,K) > 0.0_SP) SF1(J,K) = SMIN
         IF(SF1(J,K)-SMAX > 0.0_SP) SF1(J,K) = SMAX

       END DO
!QXU}
!       ELSE !Retana, disabling if statment
       DO K=1,KBM1
!         SF1(J,K) = S1(J,K)
!        GWC  ADD TS NUDGING ON OPEN BOUNDARY
!QXU          SF1(J,K) = S1(J,K) - ALPHA_OBC*RAMP_TS*(S1(J,K)-SALT_OBC(I))
!        GWC

!QXU{
#         if defined (TS_OBC)
           IF(IERR.NE.-1)THEN
            SF1(J,K) = S1(J,K) - ALPHA_SERIES_OBC*RAMP_TS*(S1(J,K)-SOBC_TMP(I,K))
           ELSE
            SF1(J,K) = S1(J,K)
           ENDIF
#         else
           SF1(J,K) = S1(J,K) - ALPHA_OBC*RAMP_TS*(S1(J,K)-SALT_OBC(I))
#         endif
!QXU}

       END DO
!      END IF  !Retana, Disabling If_statement
    END DO

    DO I=1,IOBCN
     J=I_OBC_N(I)
     J1=NEXT_OBC(I)
      DO K=1,KBM1
       DO IG=1,NTVE(I)
        IF (I==1) THEN
        UF(NBVE(J,IG),K)=(UJ1(J1,K)+2.0*UJ1(NEXT_OBC(I+1),K))/3.0+&
        (UAF(J)-DELTA_U(J1))
        VF(NBVE(J,IG),K)=(VJ1(J1,K)+2.0*VJ1(NEXT_OBC(I+1),K))/3.0+&
        (VAF(J)-DELTA_V(J1))
        ELSE IF (I==IOBCN) THEN
        UF(NBVE(J,IG),K)=(2.0*UJ1(NEXT_OBC(I-1),K)+UJ1(J1,K))/3.0+&
        (UAF(J)-DELTA_U(J1))
        VF(NBVE(J,IG),K)=(2.0*VJ1(NEXT_OBC(I-1),K)+VJ1(J1,K))/3.0+&
        (VAF(J)-DELTA_V(J1))
        ELSE
        UF(NBVE(J,IG),K)=(UJ1(NEXT_OBC(I-1),K)+UJ1(J1,K)+UJ1(NEXT_OBC(I+1),K))/3.0+&
        (UAF(J)-DELTA_U(J1))
        VF(NBVE(J,IG),K)=(VJ1(NEXT_OBC(I-1),K)+VJ1(J1,K)+VJ1(NEXT_OBC(I+1),K))/3.0+&
        (VAF(J)-DELTA_V(J1))
        END IF

        !VF(NBVE(J,IG),K)=0.0
       END DO
      END DO
     END DO


!   END DO  !Retana sigma loop
  ELSE
   PRINT*, 'NCON2 NOT IN THE LIST'
   PRINT*, 'MUST BE 1 OR 2'
   CALL PSTOP
  END IF
```

```
!QXU{
#  if defined (TS_OBC)
    DEALLOCATE(TOBC_TMP,SOBC_TMP)
!    DEALLOCATE(DELTA)   !Retana G
#  endif
!QXU}

  END IF

!
!--SET BOUNDARY CONDITIONS----------------------------------------------------|
!
  DO K=1,KBM1
    T(0,K)=0.0_SP
    S(0,K)=0.0_SP
  END DO

  RETURN
  END SUBROUTINE BCOND_TS
!======================================================================================|
```

```
!==============================================================================!

  SUBROUTINE ADV_UV_EDGE_GCN

!==============================================================================!
! this subroutine calculate advective, coriolis, pressure gradient, etc in     !
! x and y momentum equations except vertical diffusion terms for internal mode !
!==============================================================================!

  USE ALL_VARS
  USE BCS
#  if defined (SPHERICAL)
  USE MOD_SPHERICAL
#  if defined (NORTHPOLE)
  USE MOD_NORTHPOLE
#  endif
#  endif
#  if defined (WET_DRY)
  USE MOD_WD
#  endif
#  if defined (EQUI_TIDE)
  USE MOD_EQUITIDE
#  endif
#  if defined (ATMO_TIDE)
  USE MOD_ATMOTIDE
#  endif

#  if defined (MEAN_FLOW)
  USE MOD_MEANFLOW
  USE MOD_OBCS3
#  endif

  IMPLICIT NONE
  REAL(SP) :: XFLUX(0:NT,KB),YFLUX(0:NT,KB)
  REAL(SP) :: PSTX_TM(0:NT,KB),PSTY_TM(0:NT,KB)
  REAL(SP) :: COFA1,COFA2,COFA3,COFA4,COFA5,COFA6,COFA7,COFA8
  REAL(SP) :: FXX,FYY,XADV,YADV,TXXIJ,TYYIJ,TXYIJ
  REAL(SP) :: VISCOF,VISCOF1,VISCOF2,TEMP,TPA,TPB
  REAL(SP) :: XIJA,YIJA,XIJB,YIJB,UIJ,VIJ,UIJ1,VIJ1,UIJ2,VIJ2
  REAL(SP) :: DIJ,ELIJ,TMPA,TMPB,TMP,XFLUXV,YFLUXV
  REAL(SP) :: FACT,FM1,EXFLUX,ISWETTMP
  REAL(SP) :: DTMP,DX12,DY12,TMP1,FLUXOBC3D_X(0:NT,KB),FLUXOBC3D_Y(0:NT,KB) !Retana, G
  INTEGER  :: JTMP, ITMP !Retana, G
  INTEGER  :: I,IA,IB,J1,J2,K1,K2,K3,K4,K5,K6,K,II,J,I1,I2
#  if defined (SPHERICAL)
  REAL(DP) :: XTMP,XTMP1
#  if defined (NORTHPOLE)
  REAL(SP) :: U_TMP,V_TMP,UF_TMP,VF_TMP
#  endif
#  endif


!------------------------------------------------------------------------------!

  FACT = 0.0_SP
  FM1  = 1.0_SP
  IF(HORZMIX == 'closure') THEN
    FACT = 1.0_SP
    FM1  = 0.0_SP
  END IF

!
!-----Initialize Flux Variables-----------------------------------------------!
!
  XFLUX  = 0.0_SP
  YFLUX  = 0.0_SP
  PSTX_TM = 0.0_SP
  PSTY_TM = 0.0_SP

!
```

```
!-----Loop Over Edges and Accumulate Flux----------------------------------------!
!
  DO I=1,NE
    IA=IEC(I,1)
    IB=IEC(I,2)
    J1=IENODE(I,1)
    J2=IENODE(I,2)
!     write(*,*) I, NE, IA, IB, J1, J2   !Retana
     DIJ=0.5_SP*(DT(J1)+DT(J2))
    ELIJ=0.5_SP*(EGF(J1)+EGF(J2))
#   if defined (EQUI_TIDE)
    ELIJ=ELIJ-0.5_SP*(EGF_EQI(J1)+EGF_EQI(J2))
#   endif
#   if defined (ATMO_TIDE)
    ELIJ=ELIJ-0.5_SP*(EGF_ATMO(J1)+EGF_ATMO(J2))
#   endif


    K1=NBE(IA,1)
    K2=NBE(IA,2)
    K3=NBE(IA,3)
    K4=NBE(IB,1)
    K5=NBE(IB,2)
    K6=NBE(IB,3)
#   if defined (SPHERICAL)
    XIJA=DLTXNE(I,1)
    YIJA=DLTYNE(I,1)
    XIJB=DLTXNE(I,2)
    YIJB=DLTYNE(I,2)
#   else
    XIJA=XIJC(I)-XC(IA)
    YIJA=YIJC(I)-YC(IA)
    XIJB=XIJC(I)-XC(IB)
    YIJB=YIJC(I)-YC(IB)
#   endif

    DO K=1,KBM1
#   if defined (WET_DRY)
     IF(ISWETCT(IA)*ISWETC(IA) == 1 .OR. ISWETCT(IB)*ISWETC(IB) == 1)THEN
#   endif
     COFA1=A1U(IA,1)*U(IA,K)+A1U(IA,2)*U(K1,K)+A1U(IA,3)*U(K2,K)+A1U(IA,4)*U(K3,K)
     COFA2=A2U(IA,1)*U(IA,K)+A2U(IA,2)*U(K1,K)+A2U(IA,3)*U(K2,K)+A2U(IA,4)*U(K3,K)
     COFA5=A1U(IA,1)*V(IA,K)+A1U(IA,2)*V(K1,K)+A1U(IA,3)*V(K2,K)+A1U(IA,4)*V(K3,K)
     COFA6=A2U(IA,1)*V(IA,K)+A2U(IA,2)*V(K1,K)+A2U(IA,3)*V(K2,K)+A2U(IA,4)*V(K3,K)

     UIJ1=U(IA,K)+COFA1*XIJA+COFA2*YIJA
     VIJ1=V(IA,K)+COFA5*XIJA+COFA6*YIJA

     COFA3=A1U(IB,1)*U(IB,K)+A1U(IB,2)*U(K4,K)+A1U(IB,3)*U(K5,K)+A1U(IB,4)*U(K6,K)
     COFA4=A2U(IB,1)*U(IB,K)+A2U(IB,2)*U(K4,K)+A2U(IB,3)*U(K5,K)+A2U(IB,4)*U(K6,K)
     COFA7=A1U(IB,1)*V(IB,K)+A1U(IB,2)*V(K4,K)+A1U(IB,3)*V(K5,K)+A1U(IB,4)*V(K6,K)
     COFA8=A2U(IB,1)*V(IB,K)+A2U(IB,2)*V(K4,K)+A2U(IB,3)*V(K5,K)+A2U(IB,4)*V(K6,K)

     UIJ2=U(IB,K)+COFA3*XIJB+COFA4*YIJB
     VIJ2=V(IB,K)+COFA7*XIJB+COFA8*YIJB

     UIJ=0.5_SP*(UIJ1+UIJ2)
     VIJ=0.5_SP*(VIJ1+VIJ2)
     EXFLUX = DIJ*(-UIJ*DLTYC(I) + VIJ*DLTXC(I))

!
!-------ADD THE VISCOUS TERM & ADVECTION TERM---------------------------------!
!

     VISCOF1=ART(IA)*SQRT(COFA1**2+COFA6**2+0.5_SP*(COFA2+COFA5)**2)
     VISCOF2=ART(IB)*SQRT(COFA3**2+COFA8**2+0.5_SP*(COFA4+COFA7)**2)

     VISCOF=FACT*0.5_SP*HORCON*(VISCOF1+VISCOF2)/HPRNU + FM1*HORCON

     TXXIJ=(COFA1+COFA3)*VISCOF
```

```
      TYYIJ=(COFA6+COFA8)*VISCOF
      TXYIJ=0.5_SP*(COFA2+COFA4+COFA5+COFA7)*VISCOF
      FXX=DIJ*(TXXIJ*DLTYC(I)-TXYIJ*DLTXC(I))
      FYY=DIJ*(TXYIJ*DLTYC(I)-TYYIJ*DLTXC(I))

      XADV=EXFLUX*((1.0_SP-SIGN(1.0_SP,EXFLUX))*UIJ2+(1.0_SP+SIGN(1.0_SP,EXFLUX))*UIJ1)*0.5_SP
      YADV=EXFLUX*((1.0_SP-SIGN(1.0_SP,EXFLUX))*VIJ2+(1.0_SP+SIGN(1.0_SP,EXFLUX))*VIJ1)*0.5_SP

      !!CALCULATE BOUNDARY FLUX AUGMENTERS
#  if !defined (MEAN_FLOW)
      TPA = FLOAT(1-ISBC(I))*EPOR(IA)
      TPB = FLOAT(1-ISBC(I))*EPOR(IB)

      !!ACCUMULATE ADVECTIVE + DIFFUSIVE + BAROTROPIC PRESSURE GRADIENT TERMS
!      XFLUX(IA,K)=XFLUX(IA,K)+XADV*TPA+FXX*TPA
!      YFLUX(IA,K)=YFLUX(IA,K)+YADV*TPA+FYY*TPA
!      XFLUX(IB,K)=XFLUX(IB,K)-XADV*TPB-FXX*TPB
!      YFLUX(IB,K)=YFLUX(IB,K)-YADV*TPB-FYY*TPB
      XFLUX(IA,K)=XFLUX(IA,K)+XADV*TPA+(FXX+3.0_SP*FXX*FLOAT(ISBC(I)))*EPOR(IA)
      YFLUX(IA,K)=YFLUX(IA,K)+YADV*TPA+(FYY+3.0_SP*FYY*FLOAT(ISBC(I)))*EPOR(IA)
      XFLUX(IB,K)=XFLUX(IB,K)-XADV*TPB-(FXX+3.0_SP*FXX*FLOAT(ISBC(I)))*EPOR(IB)
      YFLUX(IB,K)=YFLUX(IB,K)-YADV*TPB-(FYY+3.0_SP*FYY*FLOAT(ISBC(I)))*EPOR(IB)
#  else
      TPA = FLOAT(1-ISBC(I))
      TPB = FLOAT(1-ISBC(I))
      XFLUX(IA,K)=XFLUX(IA,K)+(XADV*TPA+(FXX+3.0_SP*FXX*FLOAT(ISBC(I))))*IUCP(IA)
      YFLUX(IA,K)=YFLUX(IA,K)+(YADV*TPA+(FYY+3.0_SP*FYY*FLOAT(ISBC(I))))*IUCP(IA)
      XFLUX(IB,K)=XFLUX(IB,K)-(XADV*TPB+(FXX+3.0_SP*FXX*FLOAT(ISBC(I))))*IUCP(IB)
      YFLUX(IB,K)=YFLUX(IB,K)-(YADV*TPB+(FYY+3.0_SP*FYY*FLOAT(ISBC(I))))*IUCP(IB)
#  endif

#  if defined (WET_DRY)
   END IF
#  endif
!JQI<for spherical coordinator and domain across 360^o latitude
#    if defined (SPHERICAL)
       XTMP  = VX(J2)*TPI-VX(J1)*TPI
       XTMP1 = VX(J2)-VX(J1)
       IF(XTMP1 >  180.0_SP)THEN
              XTMP = -360.0_SP*TPI+XTMP
       ELSE IF(XTMP1 < -180.0_SP)THEN
              XTMP =  360.0_SP*TPI+XTMP
             END IF

       PSTX_TM(IA,K)=PSTX_TM(IA,K)-GRAV*DT1(IA)*ELIJ*DLTYC(I)
       PSTY_TM(IA,K)=PSTY_TM(IA,K)+GRAV*DT1(IA)*ELIJ*XTMP*COS(DEG2RAD*YC(IA))
       PSTX_TM(IB,K)=PSTX_TM(IB,K)+GRAV*DT1(IB)*ELIJ*DLTYC(I)
       PSTY_TM(IB,K)=PSTY_TM(IB,K)-GRAV*DT1(IB)*ELIJ*XTMP*COS(DEG2RAD*YC(IB))
#    else
!JQI>
       PSTX_TM(IA,K)=PSTX_TM(IA,K)-GRAV*DT1(IA)*ELIJ*DLTYC(I)
       PSTY_TM(IA,K)=PSTY_TM(IA,K)+GRAV*DT1(IA)*ELIJ*DLTXC(I)
       PSTX_TM(IB,K)=PSTX_TM(IB,K)+GRAV*DT1(IB)*ELIJ*DLTYC(I)
       PSTY_TM(IB,K)=PSTY_TM(IB,K)-GRAV*DT1(IB)*ELIJ*DLTXC(I)
!JQI<
#    endif
!JQI>
    END DO
  END DO

     DO I=1,N
#     if defined (WET_DRY)
      ISWETTMP = ISWETCT(I)*ISWETC(I)
       DO K=1,KBM1
              XFLUX(I,K)  = XFLUX(I,K)*ISWETTMP
              YFLUX(I,K)  = YFLUX(I,K)*ISWETTMP
        PSTX_TM(I,K)= PSTX_TM(I,K)*ISWETTMP
        PSTY_TM(I,K)= PSTY_TM(I,K)*ISWETTMP
       END DO
#     endif
```

```
      DO K=1,KBM1
       XFLUX(I,K)=XFLUX(I,K)+PSTX_TM(I,K)
       YFLUX(I,K)=YFLUX(I,K)+PSTY_TM(I,K)
      END DO
     END DO

!
!-------ADD VERTICAL CONVECTIVE FLUX, CORIOLIS TERM AND BAROCLINIC PG TERM----!
!
   DO I=1,N
#    if defined (WET_DRY)
     IF(ISWETCT(I)*ISWETC(I) == 1)THEN
#    endif
     DO K=1,KBM1
      IF(K == 1) THEN
       XFLUXV=-W(I,K+1)*(U(I,K)*DZ(K+1)+U(I,K+1)*DZ(K))/&
              (DZ(K)+DZ(K+1))
       YFLUXV=-W(I,K+1)*(V(I,K)*DZ(K+1)+V(I,K+1)*DZ(K))/&
              (DZ(K)+DZ(K+1))
      ELSE IF(K == KBM1) THEN
       XFLUXV= W(I,K)*(U(I,K)*DZ(K-1)+U(I,K-1)*DZ(K))/&
              (DZ(K)+DZ(K-1))
       YFLUXV= W(I,K)*(V(I,K)*DZ(K-1)+V(I,K-1)*DZ(K))/&
              (DZ(K)+DZ(K-1))
      ELSE
       XFLUXV= W(I,K)*(U(I,K)*DZ(K-1)+U(I,K-1)*DZ(K))/&
              (DZ(K)+DZ(K-1))-&
              W(I,K+1)*(U(I,K)*DZ(K+1)+U(I,K+1)*DZ(K))/&
              (DZ(K)+DZ(K+1))
       YFLUXV= W(I,K)*(V(I,K)*DZ(K-1)+V(I,K-1)*DZ(K))/&
              (DZ(K)+DZ(K-1))-&
              W(I,K+1)*(V(I,K)*DZ(K+1)+V(I,K+1)*DZ(K))/&
              (DZ(K)+DZ(K+1))
      END IF
#     if defined (SPHERICAL)
      XFLUX(I,K)=XFLUX(I,K)+XFLUXV/DZ(K)*ART(I)&
              +DRHOX(I,K)-COR(I)*V(I,K)*DT1(I)*ART(I)&
              -U(I,K)*V(I,K)/REARTH*TAN(YC(I)*PI/180.0_SP)*DT1(I)*ART(I)&
              +0.5_SP*U(I,K)*(W(I,K+1)+W(I,K))/REARTH*DT1(I)*ART(I)
      YFLUX(I,K)=YFLUX(I,K)+YFLUXV/DZ(K)*ART(I)&
              +DRHOY(I,K)+COR(I)*U(I,K)*DT1(I)*ART(I)&
              +U(I,K)*U(I,K)/REARTH*TAN(YC(I)*PI/180.0_SP)*DT1(I)*ART(I)&
              +0.5_SP*V(I,K)*(W(I,K+1)+W(I,K))/REARTH*DT1(I)*ART(I)
#     else
      XFLUX(I,K)=XFLUX(I,K)+XFLUXV/DZ(K)*ART(I)&
              +DRHOX(I,K)-COR(I)*V(I,K)*DT1(I)*ART(I)
      YFLUX(I,K)=YFLUX(I,K)+YFLUXV/DZ(K)*ART(I)&
              +DRHOY(I,K)+COR(I)*U(I,K)*DT1(I)*ART(I)
#     endif

     END DO
#  if defined (WET_DRY)
    END IF
#  endif
   END DO

#  if defined (SPHERICAL)
#  if defined (NORTHPOLE)
   CALL ADV_UV_EDGE_XY(XFLUX,YFLUX)
#  endif
#  endif

#  if !defined (MEAN_FLOW)
     DO I=1,N    !--------------Retana, flux is zero at the OB DISABLED!!!!
       IF(ISBCE(I) == 2) THEN
         DO K=1,KBM1
!=======================================RETANA=======================================!
```

```
      ITMP=0
       DO J=1,3
        IF(NBE(I,J) == 0) THEN
          JTMP=J
          ITMP=ITMP+1
        END IF
       END DO
       J1=JTMP+1-INT((JTMP+1)/4)*3
       J2=JTMP+2-INT((JTMP+2)/4)*3
       I1=NV(I,J1)
       I2=NV(I,J2)
       DY12=VY(I1)-VY(I2)
       DX12=VX(I1)-VX(I2)
       DTMP = 0.5_SP*(D(I1)+D(I2))
         TMP1 = UF(I,K) * DY12 - VF(I,K) * DX12
         FLUXOBC3D_X(I,K) = DTMP * TMP1 * UF(I,K)
         FLUXOBC3D_Y(I,K) = DTMP * TMP1 * VF(I,K)
             XFLUX(I,K)=XFLUX(I,K) - FLUXOBC3D_X(I,K)
             YFLUX(I,K)=YFLUX(I,K) - FLUXOBC3D_Y(I,K)
!       WRITE(*,*) I,J1,J2,I1,I2,K,DY12,U(I,K),DTMP,TMP1,FLUXOBC3D_X(I,K),XFLUX(I,K) !Retana

!=========================================RETANA=======================================!
!             XFLUX(I,K)=0.0_SP !Disabled by Retana to forced some sort of flux at the OB
!             YFLUX(I,K)=0.0_SP  !Disabled by Retana to forced some sort of flux at the OB
          END DO
        END IF
      END DO
#  else      !Is this flux at the Open Boundary?   !Retana
    IF(nmfcell > 0) THEN
      DO II=1,nmfcell
       I1=I_MFCELL_N(II)
       DO K=1,KBM1
        XFLUX(I1,K) = XFLUX(I1,K) + FLUXOBC3D_X(II,K)*IUCP(I1)
        YFLUX(I1,K) = YFLUX(I1,K) + FLUXOBC3D_Y(II,K)*IUCP(I1)
       END DO
      END DO
    END IF
#  endif

    !ADJUST FLUX AT RIVER INFLOWS
    IF(NUMQBC >= 1) THEN
     IF(INFLOW_TYPE == 'node') THEN
      DO II=1,NUMQBC
       J=INODEQ(II)
       I1=NBVE(J,1)
       I2=NBVE(J,NTVE(J))
       DO K=1,KBM1
        VLCTYQ(II)=QDIS(II)/QAREA(II)
!         TEMP=0.5_SP*QDIS(II)*VQDIST(II,K)*VLCTYQ(II)
        TEMP=0.5_SP*QDIS(II)*VQDIST(II,K)*VQDIST(II,K)*VLCTYQ(II)/DZ(K)
        XFLUX(I1,K)=XFLUX(I1,K)-TEMP/DZ(K)*COS(ANGLEQ(II))
        XFLUX(I2,K)=XFLUX(I2,K)-TEMP/DZ(K)*COS(ANGLEQ(II))
        YFLUX(I1,K)=YFLUX(I1,K)-TEMP/DZ(K)*SIN(ANGLEQ(II))
        YFLUX(I2,K)=YFLUX(I2,K)-TEMP/DZ(K)*SIN(ANGLEQ(II))
       END DO
      END DO
     ELSE IF(INFLOW_TYPE == 'edge') THEN
      DO II=1,NUMQBC
       I1=ICELLQ(II)
       DO K=1,KBM1
        VLCTYQ(II)=QDIS(II)/QAREA(II)
!         TEMP=QDIS(II)*VQDIST(II,K)*VLCTYQ(II)
        TEMP=QDIS(II)*VQDIST(II,K)*VQDIST(II,K)*VLCTYQ(II)/DZ(K)
        XFLUX(I1,K)=XFLUX(I1,K)-TEMP/DZ(K)*COS(ANGLEQ(II))
        YFLUX(I1,K)=YFLUX(I1,K)-TEMP/DZ(K)*SIN(ANGLEQ(II))
       END DO
      END DO
     ELSE
      PRINT*,'INFLOW_TYPE NOT CORRECT'
      CALL PSTOP
```

```
    END IF
   END IF

   !ADJUST FLUX AT OPEN BOUNDARY MEAN FLOW
#  if defined (MEAN_FLOW)
   IF(nmfcell > 0) THEN
     DO II=1,nmfcell
       I1=I_MFCELL_N(II)
       DO K=1,KBM1
         VLCTYMF(II)=MFQDIS(II)/MFAREA(II)
!        TEMP=MFQDIS(II)*MFDIST(II,K)*VLCTYMF(II)
         TEMP=MFQDIS(II)*MFDIST(II,K)*MFDIST(II,K)*VLCTYMF(II)/DZ(K)
         XFLUX(I1,K)=XFLUX(I1,K)-TEMP/DZ(K)*COS(ANGLEMF(II))
         YFLUX(I1,K)=YFLUX(I1,K)-TEMP/DZ(K)*SIN(ANGLEMF(II))
       END DO
     END DO
   END IF
#  endif

   DO I=1,N
#  if defined (WET_DRY)
    IF(ISWETCT(I)*ISWETC(I) == 1)THEN
#  endif
!JQI<
#  if defined (SPHERICAL)
#  if defined (NORTHPOLE)
   IF(CELL_NORTHAREA(I) == 1)THEN
     DO K=1,KBM1
       U_TMP = -V(I,K)*COS(XC(I)*PI/180.)-U(I,K)*SIN(XC(I)*PI/180.)
       V_TMP = -V(I,K)*SIN(XC(I)*PI/180.)+U(I,K)*COS(XC(I)*PI/180.)
       UF_TMP=U_TMP*DT1(I)/D1(I)-DTI*XFLUX(I,K)/ART(I)/D1(I)
       VF_TMP=V_TMP*DT1(I)/D1(I)-DTI*YFLUX(I,K)/ART(I)/D1(I)

       UF(I,K)  = VF_TMP*COS(XC(I)*PI/180.)-UF_TMP*SIN(XC(I)*PI/180.)
       VF(I,K)  = UF_TMP*COS(XC(I)*PI/180.)+VF_TMP*SIN(XC(I)*PI/180.)
       VF(I,K)  = -VF(I,K)

     END DO
   ELSE
#  endif
#  endif
!JQI>
     DO K=1,KBM1
       UF(I,K)=U(I,K)*DT1(I)/D1(I)-DTI*XFLUX(I,K)/ART(I)/D1(I)
       VF(I,K)=V(I,K)*DT1(I)/D1(I)-DTI*YFLUX(I,K)/ART(I)/D1(I)
     END DO
!JQI<
#  if defined (SPHERICAL)
#  if defined (NORTHPOLE)
   END IF
#  endif
#  endif
!JQI>
#  if defined (WET_DRY)
    ELSE
     DO K=1,KBM1
       UF(I,K)=0.0_SP
       VF(I,K)=0.0_SP
     END DO
    END IF
#  endif
   END DO

   RETURN
   END SUBROUTINE ADV_UV_EDGE_GCN
!=======================================================================================!
```

```
!=====================================================================================!
! TYPE_OBC = 1: Surface Elevation Specified (Tidal Forcing) (ASL)             !
! TYPE_OBC = 2: AS TYPE_OBC=1 AND NON-LINEAR FLUX FOR CURRENT AT OPEN BOUNDARY !
! TYPE_OBC = 3: Zero Surface Elevation Boundary Condition (ASL_CLP)           !
! TYPE_OBC = 4: AS TYPE_OBC=3 AND NON-LINEAR FLUX FOR CURRENT AT OPEN BOUNDARY !
! TYPE_OBC = 5: GRAVITY-WAVE RADIATION IMPLICIT OPEN BOUNDARY CONDITION (GWI)  !
! TYPE_OBC = 6: AS TYPE_OBC=5 AND NON-LINEAR FLUX FOR CURRENT AT OPEN BOUNDARY !
! TYPE_OBC = 7: BLUMBERG AND KHANTA IMPLICIT OPEN BOUNDARY CONDITION (BKI)    !
! TYPE_OBC = 8: AS TYPE_OBC=7 AND NON-LINEAR FLUX FOR CURRENT AT OPEN BOUNDARY !
! TYPE_OBC = 9: ORLANSKI RADIATION EXPLICIT OPEN BOUNDARY CONDITION (ORE)     !
! TYPE_OBC =10: AS TYPE_OBC=9 AND NON-LINEAR FLUX FOR CURRENT AT OPEN BOUNDARY !
!                                                 !
! TYPE_TSOBC = 1: THE PERTURBATION OF TEMPERATURE AND SALINITY AT OPEN BOUNDARY!
!              ARE EQUAL TO THAT AT NEXT_OBC                                  !
! TYPE_TSOBC = 2: GRAVITY-WAVE RADIATION IMPLICIT OPEN BOUNDARY CONDITION FOR  !
!              THE PERTURBATION OF TEMPERATURE AND SALINITY                   !
! TYPE_TSOBC = 3: BLUMBERG AND KHANTA IMPLICIT OPEN BOUNDARY CONDITION FOR     !
!              THE PERTURBATION OF TEMPERATURE AND SALINITY                   !
! TYPE_TSOBC = 4: ORLANSKI RADIATION EXPLICIT OPEN BOUNDARY CONDITION FOR      !
!              THE PERTURBATION OF TEMPERATURE AND SALINITY                   !
!=====================================================================================!

MODULE MOD_OBCS
  USE MOD_PREC
  IMPLICIT NONE
  SAVE

!--Open Boundary Types, Lists, Pointers
# if defined (TIDE_OUTPUT)
  INTEGER             :: IOBCNODE_GL      !! = ntidenode_GL
  INTEGER,  ALLOCATABLE :: I_OBCNODE_GL(:)  !! = I_TIDENODE_GL
  INTEGER             :: IOBCELL_GL       !! = ntidecell_GL
  INTEGER,  ALLOCATABLE :: I_OBCELL_GL(:)   !! = I_TIDECELL_GL
# endif

  INTEGER             :: IOBCN_GL         !!GLOBAL NUMBER OF OPEN BOUNDARY NODES
  INTEGER             :: IOBCN            !!LOCAL NUMBER OF OPEN BOUNDARY NODES
  INTEGER,  ALLOCATABLE :: I_OBC_GL(:)      !!GLOBAL ID OF OPEN BOUNDARY NODES
  INTEGER,  ALLOCATABLE :: I_OBC_N(:)       !!OPEN BOUNDARY NODE LIST
  INTEGER,  ALLOCATABLE :: NEXT_OBC(:)      !!INTERIOR NEIGHBOR OF OPEN BOUNDARY NODE
  INTEGER,  ALLOCATABLE :: NEXT_OBC2(:)     !!INTERIOR NEIGHBOR OF NEXT_OBC
  INTEGER,  ALLOCATABLE :: TYPE_OBC(:)      !!OUTER BOUNDARY NODE TYPE (FOR SURFACE ELEVATION)
  INTEGER,  ALLOCATABLE :: TYPE_OBC_GL(:)   !!OUTER BOUNDARY NODE TYPE (FOR SURFACE ELEVATION)
!  GWC ADD OPEN BOUNDARY TEMP/SALT ARRAYS
  REAL*4,   ALLOCATABLE :: TEMP_OBC(:)      !!OPEN BOUNDARY TEMPERATURE (INPUT FROM USER)
  REAL*4,   ALLOCATABLE :: SALT_OBC(:)      !!OPEN BOUNDARY SALT (INPUT FROM USER)
  REAL*4,   ALLOCATABLE :: TEMP_OBC_GL(:)   !!GLOBAL OPEN BOUNDARY TEMPERATURE (INPUT FROM USER)
  REAL*4,   ALLOCATABLE :: SALT_OBC_GL(:)   !!GLOBAL OPEN BOUNDARY SALT (INPUT FROM USER)
!  GWC
  INTEGER             :: IBCN(5)          !!NUMBER OF EACH TYPE OF OBN IN LOCAL  DOM
  INTEGER             :: IBCN_GL(5)       !!NUMBER OF EACH TYPE OF OBN IN GLOBAL DOM
  INTEGER,  ALLOCATABLE :: OBC_LST(:,:)     !!MAPPING OF OPEN BOUNDARY ARRAYS TO EACH TYPE
  INTEGER,  ALLOCATABLE :: NADJN_OBC(:)     !!NUMBER OF ADJACENT OPEN BOUNDARY NODES TO OBN
  INTEGER,  ALLOCATABLE :: ADJN_OBC(:,:)    !!ADJACENT OBN's of OBN
  INTEGER,  ALLOCATABLE :: NADJC_OBC(:)     !!NUMBER OF ADJACENT OPEN BOUNDARY CELLS TO OBN
  INTEGER,  ALLOCATABLE :: ADJC_OBC(:,:)    !!ADJACENT OPEN BOUNDARY CELLS

!--Open Boundary Metrics
  INTEGER,  ALLOCATABLE :: NFLUXF_OBC(:)    !!NUMBER OF FLUX SEGMENTS TO OBN
  REAL(SP), ALLOCATABLE :: FLUXF_OBC(:,:)   !!FLUX FRACTION ON EACH SIDE OF OBN
  REAL(SP), ALLOCATABLE :: NXOBC(:)         !!INWARD POINTING X-NORMAL OF OBN
  REAL(SP), ALLOCATABLE :: NYOBC(:)         !!INWARD POINTING Y-NORMAL OF OBN
  REAL(SP), ALLOCATABLE :: DLTN_OBC(:)      !!DISTANCE BETWEEN NEXT_OBC AND OBN NORMAL TO
BOUNDARY

!--Previous Time Level Free Surface Fields
  REAL(SP), ALLOCATABLE :: ELM1(:)          !!SURFACE ELEV FROM PREVIOUS TIME LEVEL (ORLANSKI COND)
  REAL(SP), ALLOCATABLE :: ELM2(:)          !!SURFACE ELEV FROM PREVIOUS TIME LEVEL (ORLANSKI COND)
  REAL(SP), ALLOCATABLE :: T1M1(:,:)        !!TEMPERATURE FROM PREVIOUS TIME LEVEL (ORLANSKI COND)
```

```
  REAL(SP), ALLOCATABLE :: T1M2(:,:)        !!TEMPERATURE FROM PREVIOUS TIME LEVEL (ORLANSKI COND)
  REAL(SP), ALLOCATABLE :: S1M1(:,:)        !!SALINITY FROM PREVIOUS TIME LEVEL (ORLANSKI COND)
  REAL(SP), ALLOCATABLE :: S1M2(:,:)        !!SALINITY FROM PREVIOUS TIME LEVEL (ORLANSKI COND)

!--Nonlinear Velocity Open Boundary Condition Arrays
  REAL(SP), ALLOCATABLE :: FLUXOBN(:)
  REAL(SP), ALLOCATABLE :: IUCP(:)
  REAL(SP), ALLOCATABLE :: XFLUX_OBCN(:)
  REAL(SP), ALLOCATABLE :: UARD_OBCN(:)
  REAL(SP), ALLOCATABLE :: XFLUX_OBC(:,:)

  INTEGER             :: TYPE_TSOBC

  CONTAINS


!=======================================================================|
  SUBROUTINE ALLOC_OBC_DATA

!-----------------------------------------------------------------------|
!  ALLOCATE AND INITIALIZE SURFACE ELEVATION ARRAYS FOR                 |
!  TIME STEPS N-1 AND N-2                                               |
!-----------------------------------------------------------------------|

  USE ALL_VARS
  IMPLICIT NONE

  ALLOCATE(ELM1(0:MT))           ;ELM1      = ZERO
  ALLOCATE(ELM2(0:MT))           ;ELM2      = ZERO
  ALLOCATE(NEXT_OBC(IOBCN))      ;NEXT_OBC  = 0
  ALLOCATE(NEXT_OBC2(IOBCN))     ;NEXT_OBC2 = 0
  ALLOCATE(FLUXOBN(1:NT))        ;FLUXOBN   = ZERO
  ALLOCATE(IUCP(0:NT))           ;IUCP      = 1
  ALLOCATE(XFLUX_OBCN(IOBCN+1))  ;XFLUX_OBCN = ZERO
  ALLOCATE(UARD_OBCN(IOBCN+1))   ;UARD_OBCN  = ZERO
  ALLOCATE(XFLUX_OBC(IOBCN+1,KBM1));XFLUX_OBC  = ZERO

  IF(TYPE_TSOBC == 4)THEN
  ALLOCATE(T1M1(0:MT,KBM1))      ;T1M1      = ZERO
  ALLOCATE(T1M2(0:MT,KBM1))      ;T1M2      = ZERO
  ALLOCATE(S1M1(0:MT,KBM1))      ;S1M1      = ZERO
  ALLOCATE(S1M2(0:MT,KBM1))      ;S1M2      = ZERO
  END IF
  RETURN
  END SUBROUTINE ALLOC_OBC_DATA
!=======================================================================|

!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%|
!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%|

!=======================================================================|
  SUBROUTINE ASSIGN_ELM1_TO_ELM2

!-----------------------------------------------------------------------|
!  Assign ELM1 to ELM2 and EL to ELM1                                   |
!-----------------------------------------------------------------------|

  USE ALL_VARS
  IMPLICIT NONE

  ELM2 = ELM1
  ELM1 = EL

  IF(TYPE_TSOBC == 4)THEN
    T1M2 = T1M1
    T1M1 = T1

    S1M2 = S1M1
```

```
    S1M1 = S1
   END IF

   RETURN
   END SUBROUTINE ASSIGN_ELM1_TO_ELM2
!==============================================================================|

!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%|
!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%|

!==============================================================================|
   SUBROUTINE BCOND_ASL

!------------------------------------------------------------------------------|
!  Surface Elevation Boundary Condition (Tidal Forcing)                  |
!------------------------------------------------------------------------------|

   USE ALL_VARS
# if defined (MULTIPROCESSOR)
   USE MOD_PAR
# endif
   USE BCS
   IMPLICIT NONE

   INTEGER :: I,II,J,L1,L2,IERR,JN
   REAL(SP):: FACT,UFACT,TIME1
   REAL(SP):: FORCE,PHAI_IJ

   TIME1 = TIME * 86400.0_SP
!
!-Julian: Set Elevation Based on Linear Interpolation Between Two Data Times-|
!
   IF(S_TYPE == 'julian')THEN
    IF(IBCN(1) > 0)CALL BRACKET(ELO_TM,TIME1,L1,L2,FACT,UFACT,IERR)
    DO J = 1, IBCN(1)
      JN = OBC_LST(1,J)
      II = I_OBC_N(JN)
      ELF(II) = UFACT*ELSBC(J,L1) + FACT*ELSBC(J,L2)
!       WRITE(*,*) ELF(II)  !Retana test
!       ELF(II) = ELF(II)*RAMP
    END DO
   END IF

!
!-Non-Julian: Set Elevation Based on Input Amplitude and Phase of Tidal Comps-|
!

   IF(S_TYPE == 'non-julian')THEN
    DO I = 1, IBCN(1)
      JN = OBC_LST(1,I)
      II = I_OBC_N(JN)
      FORCE = 0.0_SP
      DO J = 1,6
        PHAI_IJ = PHAI(I,J)*PI2/360.0_SP
        FORCE = APT(I,J)*COS(PI2/PERIOD(J)*TIME1-PHAI_IJ) + FORCE
      END DO
      FORCE = FORCE + EMEAN(I)
      ELF(II) = FORCE * RAMP
    END DO
   END IF

   RETURN
   END SUBROUTINE BCOND_ASL
!==============================================================================|

!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
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```

```
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!==============================================================================|
  SUBROUTINE BCOND_ASL_CLP

!----------------------------------------------------------------------------|
!  Zero Surface Elevation Boundary Condition                                 |
!----------------------------------------------------------------------------|

  USE ALL_VARS
  IMPLICIT NONE

  INTEGER :: I,II,JN

  DO I = 1, IBCN(2)
   JN = OBC_LST(2,I)
   II = I_OBC_N(JN)
   ELF(II) = 0.0_SP
  END DO

  RETURN
  END SUBROUTINE BCOND_ASL_CLP
!==============================================================================|

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!==============================================================================|
  SUBROUTINE BCOND_GWI

!----------------------------------------------------------------------------|
!  GRAVITY-WAVE RADIATION IMPLICIT OPEN BOUNDARY CONDITION (GWI)           |
!----------------------------------------------------------------------------|

  USE ALL_VARS
  IMPLICIT NONE

  INTEGER :: I1,I2,J,JN
  REAL(SP):: CC,CP

  DO J = 1,IBCN(3)
   JN = OBC_LST(3,J)
   I1 =  I_OBC_N(JN)
   I2 = NEXT_OBC(JN)
!     CC = SQRT(GRAV*H(I1))*DTE/DLTN_OBC(JN)
   CC = SQRT(GRAV*D(I1))*DTE/DLTN_OBC(JN)
!     WRITE(*,*) H(I1),D(I1), J, JN,I1,I2,CC !RETANA
   CP = CC + 1.0_SP
   ELF(I1) = (CC*ELF(I2) + EL(I1))/CP
  END DO

  RETURN
  END SUBROUTINE BCOND_GWI
!==============================================================================|

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!==============================================================================|
  SUBROUTINE BCOND_BKI

!----------------------------------------------------------------------------|
!  BLUMBERG AND KHANTA IMPLICIT OPEN BOUNDARY CONDITION                 |
!----------------------------------------------------------------------------|

  USE ALL_VARS
```

```
  IMPLICIT NONE

  INTEGER :: I1,I2,J,JN
  REAL(SP):: CC,CP

   DO J = 1,IBCN(4)
    JN = OBC_LST(4,J)
    I1 = I_OBC_N(JN)
    I2 = NEXT_OBC(JN)
    CC = SQRT(GRAV*H(I1))*DTE/DLTN_OBC(JN)
    CP = CC + 1.0_SP

    ELF(I1) = (CC*ELF(I2) + EL(I1)*(1.0_SP-DTE/10800.0_SP))/CP
  END DO

  RETURN
  END SUBROUTINE BCOND_BKI
!==============================================================================|

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!==============================================================================|
  SUBROUTINE BCOND_ORE

!------------------------------------------------------------------------------|
!  ORLANSKI RADIATION EXPLICIT OPEN BOUNDARY CONDITION (ORE)                   |
!------------------------------------------------------------------------------|

  USE ALL_VARS
  IMPLICIT NONE

  INTEGER  :: I1,I2,I3,J,JN
  REAL(SP) :: CL, MU

  DO J = 1, IBCN(5)
    JN = OBC_LST(5,J)
    I1 = I_OBC_N(JN)
    I2 = NEXT_OBC(JN)
    I3 = NEXT_OBC2(JN)

    CL = (ELM2(I2)-EL(I2))/(EL(I2)+ELM2(I2)-2.0*ELM1(I3))
    IF(CL >= 1.0)THEN
      MU = 1.0
    ELSE IF(CL > 0.0 .AND. CL < 1.0)THEN
      MU = CL
    ELSE
      MU = 0.0
    END IF

    ELF(I1)=(ELM1(I1)*(1.0-MU)+2.0*MU*EL(I2))/(1.0+MU)
  END DO

  RETURN
  END SUBROUTINE BCOND_ORE
!==============================================================================|

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!==============================================================================|
  SUBROUTINE SEPARATE_OBC

!------------------------------------------------------------------------------|
! Accumulate separately the amounts of nodes for 11 types of open boundaries   |
!------------------------------------------------------------------------------|
```

```
  USE ALL_VARS
  IMPLICIT NONE

  INTEGER :: I,I1,I2,I3,I4,I5,II,J

  IBCN = 0
  IBCN_GL = 0

  DO I = 1, IOBCN_GL
    IF(TYPE_OBC_GL(I) == 1 .OR. TYPE_OBC_GL(I) == 2)  IBCN_GL(1) = IBCN_GL(1) + 1
    IF(TYPE_OBC_GL(I) == 3 .OR. TYPE_OBC_GL(I) == 4)  IBCN_GL(2) = IBCN_GL(2) + 1
    IF(TYPE_OBC_GL(I) == 5 .OR. TYPE_OBC_GL(I) == 6)  IBCN_GL(3) = IBCN_GL(3) + 1
    IF(TYPE_OBC_GL(I) == 7 .OR. TYPE_OBC_GL(I) == 8)  IBCN_GL(4) = IBCN_GL(4) + 1
    IF(TYPE_OBC_GL(I) == 9 .OR. TYPE_OBC_GL(I) == 10) IBCN_GL(5) = IBCN_GL(5) + 1
  END DO

  DO I = 1, IOBCN
    IF(TYPE_OBC(I) == 1 .OR. TYPE_OBC(I) == 2)  IBCN(1) = IBCN(1) + 1
    IF(TYPE_OBC(I) == 3 .OR. TYPE_OBC(I) == 4)  IBCN(2) = IBCN(2) + 1
    IF(TYPE_OBC(I) == 5 .OR. TYPE_OBC(I) == 6)  IBCN(3) = IBCN(3) + 1
    IF(TYPE_OBC(I) == 7 .OR. TYPE_OBC(I) == 8)  IBCN(4) = IBCN(4) + 1
    IF(TYPE_OBC(I) == 9 .OR. TYPE_OBC(I) == 10) IBCN(5) = IBCN(5) + 1
  END DO

  I1 = 0
  I2 = 0
  I3 = 0
  I4 = 0
  I5 = 0


  ALLOCATE(OBC_LST(5,MAXVAL(IBCN))) ; OBC_LST = 0

  DO I=1,IOBCN
    IF(TYPE_OBC(I) == 1 .OR. TYPE_OBC(I) == 2)THEN
      I1 = I1 + 1
      OBC_LST(1,I1) = I
    ELSE IF(TYPE_OBC(I) == 3 .OR. TYPE_OBC(I) == 4)THEN
      I2 = I2 + 1
      OBC_LST(2,I2) = I
    ELSE IF(TYPE_OBC(I) == 5 .OR. TYPE_OBC(I) == 6)THEN
      I3 = I3 + 1
      OBC_LST(3,I3) = I
    ELSE IF(TYPE_OBC(I) == 7 .OR. TYPE_OBC(I) == 8)THEN
      I4 = I4 + 1
      OBC_LST(4,I4) = I
    ELSE IF(TYPE_OBC(I) == 9 .OR. TYPE_OBC(I) == 10)THEN
      I5 = I5 + 1
      OBC_LST(5,I5) = I
    END IF
  END DO

  RETURN
  END SUBROUTINE SEPARATE_OBC
!==========================================================================|

!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
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!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%|

!==========================================================================|
  SUBROUTINE SETUP_OBC

!------------------------------------------------------------------------------!
  USE ALL_VARS
#  if defined (SPHERICAL)
  USE MOD_SPHERICAL
#  endif
# if defined (MULTIPROCESSOR)
```

```
  USE MOD_PAR
# endif
  IMPLICIT NONE

  REAL(SP) :: DXC,DYC,DXN,DYN,CROSS,E1,E2,DOTMAX,DOT,DX,DY,DXN_TMP,DYN_TMP
  INTEGER  :: I,J,JJ,INODE,JNODE,I1,I2,IC,N1,N2,N3
  LOGICAL  :: DEBUG

  REAL(SP), ALLOCATABLE :: NXOBC_TMP(:),NYOBC_TMP(:)

# if defined (SPHERICAL)
  REAL(DP) x1_dp,y1_dp,x2_dp,y2_dp,side
# endif
!---------------------------------------------------------------------------!

!--Determine Adjacent Open Boundary Points---------------------------------!

  ALLOCATE(NADJN_OBC(IOBCN))  ; NADJN_OBC = 0
  ALLOCATE(ADJN_OBC(IOBCN,2)) ; ADJN_OBC = 0

  DO I=1,IOBCN
   INODE = I_OBC_N(I)
   DO J=1,NTSN(INODE)-1
    JNODE = NBSN(INODE,J)
    IF(ISONB(JNODE) == 2 .AND. INODE /= JNODE)THEN
     NADJN_OBC(I) = NADJN_OBC(I) + 1
     ADJN_OBC(I,NADJN_OBC(I)) = JNODE
    END IF
   END DO
  END DO


  DO I=1,IOBCN
   IF(NADJN_OBC(I) == 0)THEN
    WRITE(*,*)'NO ADJACENT NODE FOUND FOR BOUNDARY NODE',I
    WRITE(*,*)'IN PROCESSOR',MYID
    CALL PSTOP
   END IF
  END DO

!--Determine Adjacent Cells-(Nonlinear Only)-------------------------------!
!--Simultaneously Determine INWARD Pointing Normal NXOBC,NYOBC               !

  ALLOCATE(NADJC_OBC(IOBCN))  ; NADJC_OBC = 0
  ALLOCATE(ADJC_OBC(IOBCN,2)) ; ADJC_OBC = 0
  ALLOCATE(NXOBC(IOBCN)) ; NXOBC = 0
  ALLOCATE(NYOBC(IOBCN)) ; NYOBC = 0
  ALLOCATE(NXOBC_TMP(IOBCN)) ; NXOBC_TMP = 0
  ALLOCATE(NYOBC_TMP(IOBCN)) ; NYOBC_TMP = 0

  DO I=1,IOBCN
   I1 = I_OBC_N(I)

   !!Mark First Cell on Boundary Edge Adjacent to Node I
   I2 = ADJN_OBC(I,1)
   DO J = 1, NTVE(I1)
    IC = NBVE(I1,J)
    N1 = NV(IC,1) ; N2 = NV(IC,2) ; N3 = NV(IC,3)
    IF( N1-I2 == 0 .OR. N2-I2 == 0 .OR. N3-I2 == 0)THEN
# if defined (SPHERICAL)
      x1_dp=VX(I1); y1_dp=VY(I1)
      x2_dp=VX(I2); y2_dp=VY(I2)
      CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
      DXN = side; DYN = (VY(I2)-VY(I1))*TPI

      x2_dp=XC(IC); y2_dp=YC(IC)
      CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
      DXC = side; DYC = (YC(IC)-VY(I1))*TPI
# else
      DXN = VX(I2)-VX(I1) ; DYN = VY(I2)-VY(I1)
```

```
        DXC = XC(IC)-VX(I1) ; DYC = YC(IC)-VY(I1)
# endif
        CROSS = SIGN(1.0_SP,DXC*DYN - DYC*DXN)
        NXOBC_TMP(I) =  CROSS*DYN/SQRT(DXN**2 +DYN**2)
        NYOBC_TMP(I) = -CROSS*DXN/SQRT(DXN**2 +DYN**2)
        NXOBC(I) = NXOBC_TMP(I)
        NYOBC(I) = NYOBC_TMP(I)
         NADJC_OBC(I) = NADJC_OBC(I) + 1
         ADJC_OBC(I,NADJC_OBC(I)) = IC
        IF(MOD(TYPE_OBC(I),2) == 1)THEN
         !!Node is Linear, Mark Cell as Linear for Flux Update
         IUCP(IC) = 0
        END IF
       END IF
     END DO

     IF(NADJN_OBC(I) > 1)THEN
     I2 = ADJN_OBC(I,2)
     DO J = 1, NTVE(I1)
      IC = NBVE(I1,J)
      N1 = NV(IC,1) ; N2 = NV(IC,2) ; N3 = NV(IC,3)
      IF( N1-I2 == 0 .OR. N2-I2 == 0 .OR. N3-I2 == 0)THEN
# if defined (SPHERICAL)
        x1_dp=VX(I1); y1_dp=VY(I1)
        x2_dp=VX(I2); y2_dp=VY(I2)
        CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
        DXN = side; DYN = (VY(I2)-VY(I1))*TPI

        x2_dp=XC(IC); y2_dp=YC(IC)
        CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
        DXC = side; DYC = (YC(IC)-VY(I1))*TPI
# else
        DXN = VX(I2)-VX(I1) ; DYN = VY(I2)-VY(I1)
        DXC = XC(IC)-VX(I1) ; DYC = YC(IC)-VY(I1)
# endif
        CROSS = SIGN(1.0_SP,DXC*DYN - DYC*DXN)
        NXOBC_TMP(I) = NXOBC_TMP(I) + CROSS*DYN/SQRT(DXN**2 +DYN**2)
        NYOBC_TMP(I) = NYOBC_TMP(I) - CROSS*DXN/SQRT(DXN**2 +DYN**2)
        NXOBC(I) = NXOBC_TMP(I)/SQRT(NXOBC_TMP(I)**2 + NYOBC_TMP(I)**2)
        NYOBC(I) = NYOBC_TMP(I)/SQRT(NXOBC_TMP(I)**2 + NYOBC_TMP(I)**2)

         NADJC_OBC(I) = NADJC_OBC(I) + 1
         ADJC_OBC(I,NADJC_OBC(I)) = IC
        IF(MOD(TYPE_OBC(I),2) == 1)THEN
         !!Node is Linear, Mark Cell as Linear for Flux Update
         IUCP(IC) = 0
        END IF
       END IF
     END DO
     END IF
   END DO

   DEALLOCATE(NXOBC_TMP,NYOBC_TMP)

!--Determine Adjacent FluxFractions-----------------------------------------!

   ALLOCATE(NFLUXF_OBC(IOBCN))  ; NFLUXF_OBC = 0
   ALLOCATE(FLUXF_OBC(IOBCN,2)) ; FLUXF_OBC  = 0
   DO I=1,IOBCN
    IF(NADJN_OBC(I) == 1)THEN
     NFLUXF_OBC(I) = 1
     FLUXF_OBC(I,1) = 1.
     FLUXF_OBC(I,2) = 0.
    ELSE
     NFLUXF_OBC(I) = 2
     N1   = I_OBC_N(I)
     N2   = ADJN_OBC(I,1)
     N3   = ADJN_OBC(I,2)
# if defined (SPHERICAL)
     x1_dp=VX(N2)
```

```
      y1_dp=VY(N2)
      x2_dp=VX(N1)
      y2_dp=VY(N1)
      CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
      E1 = SQRT( side**2 + ((VY(N1)-VY(N2))*TPI)**2)

      x1_dp=VX(N3)
      y1_dp=VY(N3)
      CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
      E2 = SQRT( side**2 + ((VY(N1)-VY(N3))*TPI)**2)
# else
      E1 = SQRT( (VX(N1)-VX(N2))**2 + (VY(N1)-VY(N2))**2)
      E2 = SQRT( (VX(N1)-VX(N3))**2 + (VY(N1)-VY(N3))**2)
# endif
      FLUXF_OBC(I,1) =  E1/(E1+E2)
      FLUXF_OBC(I,2) =  E2/(E1+E2)
    END IF
  END DO
!--Determine 1st Layer Neighbor for Open Boundary Points----------------------!
!--Node Chosen is Node That is Connected to OBC Node and is Oriented           !
!--Most Normal to the Boundary.  It is not Necessarily the Closest Node        !
!--Determine also DLTN_OBC, the normal component of the distance between       !
!--Next_obc and the open boundary node                                         !

  DO I=1,IOBCN
    DOTMAX =  -1.0
    INODE = I_OBC_N(I)
    DO J=1,NTSN(INODE)-1
      JNODE = NBSN(INODE,J)
      IF(ISONB(JNODE) /= 2 .AND. INODE /= JNODE)THEN
# if defined (SPHERICAL)
        x1_dp=VX(INODE)
        y1_dp=VY(INODE)
        x2_dp=VX(JNODE)
        y2_dp=VY(JNODE)
        CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
        DXN_TMP = side
        DYN_TMP = (VY(JNODE)-VY(INODE))*TPI
# else
        DXN_TMP = VX(JNODE)-VX(INODE)
        DYN_TMP = VY(JNODE)-VY(INODE)
# endif
        DXN = DXN_TMP/SQRT(DXN_TMP**2 + DYN_TMP**2)
        DYN = DYN_TMP/SQRT(DXN_TMP**2 + DYN_TMP**2)
        DOT = DXN*NXOBC(I) + DYN*NYOBC(I)
        IF(DOT > DOTMAX)THEN
          DOTMAX = DOT
          NEXT_OBC(I) = JNODE
        END IF
      END IF
    END DO
  END DO


!--Determine 2nd Layer Neighbor for Open Boundary Points----------------------!

  DO I=1,IOBCN
    DOTMAX =  -1.0
    INODE = NEXT_OBC(I)
    DO J=1,NTSN(INODE)-1
      JNODE = NBSN(INODE,J)
      IF(ISONB(JNODE) /= 2)THEN
# if defined (SPHERICAL)
        x1_dp=VX(INODE)
        y1_dp=VY(INODE)
        x2_dp=VX(JNODE)
        y2_dp=VY(JNODE)
        CALL ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
        DXN_TMP = side
        DYN_TMP = (VY(JNODE)-VY(INODE))*TPI
```

```
# else
        DXN_TMP = VX(JNODE)-VX(INODE)
        DYN_TMP = VY(JNODE)-VY(INODE)
# endif
        DXN = DXN_TMP/SQRT(DXN_TMP**2 + DYN_TMP**2)
        DYN = DYN_TMP/SQRT(DXN_TMP**2 + DYN_TMP**2)
        DOT = DXN*NXOBC(I) + DYN*NYOBC(I)
        IF(DOT > DOTMAX)THEN
          DOTMAX = DOT
          NEXT_OBC2(I) = JNODE
        END IF
      END IF
    END DO
  END DO

!--Determine DLTN_OBC-----------------------------------------------------------!
  ALLOCATE(DLTN_OBC(IOBCN))
  DO I=1,IOBCN
    I1 = I_OBC_N(I)
    I2 = NEXT_OBC(I)
!     WRITE(*,*) 'NEXT_OBC=',NEXT_OBC(I)   !Retana, G test oct/16/07
# if defined (SPHERICAL)
    x1_dp=VX(I1)
    y1_dp=VY(I1)
    x2_dp=VX(I2)
    y2_dp=VY(I2)
    call ARCX(x1_dp,y1_dp,x2_dp,y2_dp,side)
    DX = side
    DY = (VY(I2)-VY(I1))*TPI
# else
    DX = VX(I2)-VX(I1)
    DY = VY(I2)-VY(I1)
# endif
    DLTN_OBC(I) = ABS(DX*NXOBC(I) + DY*NYOBC(I))
  END DO

  RETURN
!--Dump Information to Matlab Files for Checking--------------------------------!

  OPEN(UNIT=81,FILE='mesh.scatter',FORM='formatted')
  DO I=1,M
    WRITE(81,*)vx(i),vy(i)
  END DO
  CLOSE(81)
  OPEN(UNIT=81,FILE='nextobc.scatter',FORM='formatted')
  DO I=1,IOBCN
    I1 = NEXT_OBC(I)
    WRITE(81,*)VX(I1),VY(I1)
  END DO
  CLOSE(81)
  OPEN(UNIT=81,FILE='nextobc2.scatter',FORM='formatted')
  DO I=1,IOBCN
    I1 = NEXT_OBC2(I)
    WRITE(81,*)VX(I1),VY(I1)
  END DO
  CLOSE(81)
  OPEN(UNIT=81,FILE='iobcn.scatter',FORM='formatted')
  DO I=1,IOBCN
    I1 = I_OBC_N(I)
    WRITE(81,*)VX(I1),VY(I1)
  END DO
  CLOSE(81)
  OPEN(UNIT=81,FILE='obcnorm.scatter',FORM='formatted')
  DO I=1,IOBCN
    I1 = I_OBC_N(I)
    WRITE(81,*)NXOBC(I1),NYOBC(I1)
  END DO
  CLOSE(81)
  OPEN(UNIT=81,FILE='nonlinear.scatter',FORM='formatted')
  DO I=1,IOBCN
```

```
    IF(NADJC_OBC(I) > 0) WRITE(81,*)XC(ADJC_OBC(I,1)),YC(ADJC_OBC(I,1))
    IF(NADJC_OBC(I) > 1) WRITE(81,*)XC(ADJC_OBC(I,2)),YC(ADJC_OBC(I,2))
   END DO
   CLOSE(81)
   OPEN(UNIT=81,FILE='linear.scatter',FORM='formatted')
   DO I=1,N
    IF(IUCP(I)==0)THEN
      WRITE(81,*)XC(I),YC(I)
    END IF
   END DO
   CLOSE(81)

   RETURN
   END SUBROUTINE SETUP_OBC
!==============================================================================|

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!==============================================================================|
   SUBROUTINE FLUX_OBN(K)

   USE ALL_VARS
   IMPLICIT NONE

   INTEGER, INTENT(IN)  :: K
   INTEGER              :: I,J,C1,C2
   REAL(SP)             :: FF,FLUX

   FLUXOBN = 0.0_SP

   DO I = 1, IOBCN

      J = I_OBC_N(I)
      !Compute Boundary Flux From Continuity Flux Defect
      FLUX = -(ELF(J)-ELRK(J))*ART1(J)/(ALPHA_RK(K)*DTE)-XFLUX_OBCN(I)

      !Set Flux In Adjacent Nonlinear BC Element 1 (If Exists)
      IF(NADJC_OBC(I) > 0) THEN
        C1 = ADJC_OBC(I,1)
        FF = FLUXF_OBC(I,1)
        FLUXOBN(C1) = FLUXOBN(C1) + FF*FLUX
      END IF

      !Set Flux In Adjacent Nonlinear BC Element 2 (If Exists)
      IF(NADJC_OBC(I) > 1) THEN
        C2 =  ADJC_OBC(I,2)
        FF = FLUXF_OBC(I,2)
        FLUXOBN(C2) = FLUXOBN(C2) + FF*FLUX
      END IF

   END DO

   RETURN
   END SUBROUTINE FLUX_OBN

!=========================================================================

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!==============================================================================|
   SUBROUTINE TSOBC_TYPE
!==============================================================================|
! Read in the type of open boundary condition for temperature and salinity     |
! perturbation                                          |
```

```
!=======================================================================================|
  USE MOD_PREC
  USE CONTROL
  USE MOD_INP
  IMPLICIT NONE
  INTEGER  INTVEC(150),ISCAN
  CHARACTER(LEN=120) :: FNAME
  FNAME = "./"//trim(casename)//"_run.dat"
!---------------------------------------------------------------------------------------|
!    "TSOBC_TYPE"   !!
!---------------------------------------------------------------------------------------|
  ISCAN = SCAN_FILE(FNAME,"TYPE_TSOBC",ISCAL = TYPE_TSOBC)
  IF(ISCAN /= 0)THEN
    WRITE(IPT,*)'ERROR READING TYPE_TSOBC: ',ISCAN
    IF(ISCAN == -2)THEN
      WRITE(IPT,*)'VARIABLE NOT FOUND IN INPUT FILE: ',TRIM(FNAME)
    END IF
    CALL PSTOP
  END IF

!=======================================================================================|
!          SCREEN REPORT OF THE T and S OBC TYPE                                        |
!=======================================================================================|
  IF(MSR) THEN
    WRITE(IPT,*) '!                                          !'
    WRITE(IPT,*) '!------SPECIFY T/S PERTURBATION OBC TYPE------------!'
    WRITE(IPT,*) '!                                          !'
    WRITE(IPT,*) '!  # TYPE_TSOBC           :',TYPE_TSOBC
    WRITE(IPT,*) '!-----------------------------------------------!'

  END IF


  RETURN
  END SUBROUTINE TSOBC_TYPE
!=======================================================================

!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%|
!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%|

!=======================================================================================|
  SUBROUTINE BCOND_T_PERTURBATION(T2D_NEXT,T2D,TTMP,I,J,J1)
!=======================================================================================|
! Calculate the OBC for temperature perturbation                                        |
!=======================================================================================|
  USE ALL_VARS
  IMPLICIT NONE

!   INTEGER :: I1,I2,J,JN
  INTEGER :: I,J,J1,J2,K
  REAL(SP):: CC,CP,MU,CL
  REAL(SP):: PERT_NEXT,PERT,T2D_NEXT,T2D
  REAL(SP):: T2D_NEXT1,TM12D_NEXT2,TM12D_NEXT1,TM22D_NEXT1
  REAL(SP):: TTMP(IOBCN,KBM1)

  SELECT CASE(TYPE_TSOBC)

  CASE(1)
    DO K=1,KBM1
      TTMP(I,K) = TF1(J1,K) - T2D_NEXT
    END DO
  CASE(2)
    CC = SQRT(GRAV*H(J))*DTI/DLTN_OBC(I)
    CP = CC + 1.0_SP
    DO K=1,KBM1
      PERT_NEXT = TF1(J1,K) - T2D_NEXT
      PERT      = T1(J,K) - T2D
      TTMP(I,K) = (CC*PERT_NEXT + PERT)/CP
```

```
    END DO
   CASE(3)
    CC = SQRT(GRAV*H(J))*DTI/DLTN_OBC(I)
    CP = CC + 1.0_SP
    DO K=1,KBM1
      PERT_NEXT = TF1(J1,K) - T2D_NEXT
      PERT      = T1(J,K) - T2D
      TTMP(I,K) = (CC*PERT_NEXT + PERT*(1.0_SP - DTI/10800.0_SP))/CP
    END DO
   CASE(4)
    J2 = NEXT_OBC2(I)
    T2D_NEXT1  =0.0_SP
    TM12D_NEXT2=0.0_SP
    TM12D_NEXT1=0.0_SP
    TM22D_NEXT1=0.0_SP
    DO K=1,KBM1
      T2D_NEXT1  =T2D_NEXT1  +T1(J1,K)*DZ(K)
      TM12D_NEXT2=TM12D_NEXT2+T1M1(J2,K)*DZ(K)
      TM12D_NEXT1=TM12D_NEXT1+T1M1(J,K)*DZ(K)
      TM22D_NEXT1=TM22D_NEXT1+T1M2(J1,K)*DZ(K)
    END DO

    DO K=1,KBM1
      CL = ((T1M2(J1,K)-TM22D_NEXT1)-(T1(J1,K)-T2D_NEXT1))/   &
          ((T1(J1,K)-T2D_NEXT1)+(T1M2(J1,K)-TM22D_NEXT1)     &
                -2.0*(T1M1(J2,K)-TM12D_NEXT2))
      IF(CL >= 1.0)THEN
        MU = 1.0
      ELSE IF(CL > 0.0 .AND. CL < 1.0)THEN
        MU = CL
      ELSE
        MU = 0.0
      END IF

      TTMP(I,K)=((T1M1(J,K)-TM12D_NEXT1)*(1.0-MU)     &
             +2.0*MU*(T1(J1,K)-T2D_NEXT1))/(1.0+MU)
    END DO

   END SELECT

   RETURN
   END SUBROUTINE BCOND_T_PERTURBATION
!==========================================================================

!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%|
!%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%|

!==============================================================================|
!   SUBROUTINE BCOND_S_PERTURBATION(S2D_NEXT,S2D,STMP,I,J,J1) !Disabled by Retana
   SUBROUTINE BCOND_S_PERTURBATION(S3D_NEXT,S3D,STMP,I,J,J1)

!==============================================================================|
! Calculate the OBC for salinity perturbation                                 |
!==============================================================================|
   USE ALL_VARS
   IMPLICIT NONE

   INTEGER :: I,J,J1,J2,K
   REAL(SP):: CC,CP,MU,CL
   REAL(SP):: PERT_NEXT,PERT,S2D_NEXT,S2D  !Disabled by Retana
   REAL(SP):: PERT_NEXT,PERT,S3D_NEXT(IOBCN,KBM1),S3D(IOBCN,KBM1) !Retana
   REAL(SP):: S2D_NEXT1,SM12D_NEXT2,SM12D_NEXT1,SM22D_NEXT1
   REAL(SP):: STMP(IOBCN,KBM1)

   SELECT CASE(TYPE_TSOBC)

   CASE(1)
    DO K=1,KBM1
```

```
      STMP(I,K) = SF1(J1,K) - S2D_NEXT
    END DO
  CASE(2)
    CC = SQRT(GRAV*H(J))*DTI/DLTN_OBC(I)
    CP = CC + 1.0_SP
    DO K=1,KBM1
!     PERT_NEXT = SF1(J1,K) - S2D_NEXT !Disabled by Retana, G
!     PERT      = S1(J,K) - S2D        !Disabled by Retana, G
      PERT_NEXT = SF1(J1,K) - S3D_NEXT(J1,K)
      PERT      = S1(J,K) - S3D(J,K)
      STMP(I,K) = (CC*PERT_NEXT + PERT)/CP
    END DO
  CASE(3)
    CC = SQRT(GRAV*H(J))*DTI/DLTN_OBC(I)
    CP = CC + 1.0_SP
    DO K=1,KBM1
!     PERT_NEXT = SF1(J1,K) !Retana, G
!     PERT      = S1(J,K)-PERT_NEXT !Retana, G
      PERT_NEXT = SF1(J1,K) - S2D_NEXT  !Disabled by Retana, G Oct/24/07
      PERT      = S1(J,K) - S2D         !Disabled by Retana, G Oct/24/07
      STMP(I,K) = (CC*PERT_NEXT + PERT*(1.0_SP - DTI/10800.0_SP))/CP
    END DO
  CASE(4)
    J2 = NEXT_OBC2(I)
    S2D_NEXT1  =0.0_SP
    SM12D_NEXT2=0.0_SP
    SM12D_NEXT1=0.0_SP
    SM22D_NEXT1=0.0_SP
    DO K=1,KBM1
      S2D_NEXT1  =S2D_NEXT1  +S1(J1,K)*DZ(K)
      SM12D_NEXT2=SM12D_NEXT2+S1M1(J2,K)*DZ(K)
      SM12D_NEXT1=SM12D_NEXT1+S1M1(J,K)*DZ(K)
      SM22D_NEXT1=SM22D_NEXT1+S1M2(J1,K)*DZ(K)
    END DO

    DO K=1,KBM1
      CL = ((S1M2(J1,K)-SM22D_NEXT1)-(S1(J1,K)-S2D_NEXT1))/   &
          ((S1(J1,K)-S2D_NEXT1)+(S1M2(J1,K)-SM22D_NEXT1)     &
                -2.0*(S1M1(J2,K)-SM12D_NEXT2))
      IF(CL >= 1.0)THEN
        MU = 1.0
      ELSE IF(CL > 0.0 .AND. CL < 1.0)THEN
        MU = CL
      ELSE
        MU = 0.0
      END IF

      STMP(I,K)=((S1M1(J,K)-SM12D_NEXT1)*(1.0-MU)     &
            +2.0*MU*(S1(J1,K)-S2D_NEXT1))/(1.0+MU)
    END DO

  END SELECT

  RETURN
  END SUBROUTINE BCOND_S_PERTURBATION
!=======================================================================

END MODULE MOD_OBCS
```

APPENDIX C

Modified FVCOM Subroutines for the development of the Spatially Varying Shear Stress Coefficient.

```
!=======================================================================|
!  SET UP LOCAL PHYSICAL DOMAIN (CONNECTIVITY/MESH)                     |
!=======================================================================|

  SUBROUTINE PDOMDEC

!=======================================================================!
  USE ALL_VARS
#  if defined (MULTIPROCESSOR)
  USE MOD_PAR
#  endif
#  if defined (SPHERICAL)
  USE MOD_SPHERICAL
#  endif
  IMPLICIT NONE
  INTEGER I,EGL,J,IERR,I1,I2,N_SPONGE
  REAL(SP), ALLOCATABLE :: CORRG(:),CORR(:)
  REAL(SP), ALLOCATABLE :: R_SPG(:),C_SPG(:)
  INTEGER, ALLOCATABLE  :: N_SPG(:)
  REAL(SP)  TEMP,DTMP,C_SPONGE
#  if defined (SPHERICAL)
  INTEGER K,ITMP
  REAL(DP) VX1,VY1,VX2,VY2,VX3,VY3,EVX12,EVX13,EVX23,&
        EVY12,EVY13,EVY23,EVXY,VX12,VY12,VX23,VY23,VX31,VY31,&
              X1_DP,Y1_DP,X2_DP,Y2_DP,DTMP_DP
#  endif

!=======================================================================|
!  GENERATE LOCAL NODE CONNECTIVITY (NV) FROM GLOBAL NODE CONNECTIVITY (NVG)  |
!  USING LOCAL TO GLOBAL MAPPING FOR INTERIOR ELEMENTS (EGID)           |
!  AND LOCAL TO GLOBAL MAPPING FOR HALO ELEMENTS (HE_LST)               |
!=======================================================================|

  IF(SERIAL) NV = NVG

#  if defined (MULTIPROCESSOR)
  IF(PAR)THEN
    DO I=1,N
      EGL = EGID(I)
      NV(I,1:4) = NLID(NVG(EGID(I),1:4))
    END DO
    DO I=1,NHE
      EGL = HE_LST(I)
      NV(I+N,1:4) = NLID_X(NVG(EGL,1:4))
    END DO
  END IF
#  endif

!=======================================================================|
!   SET UP LOCAL MESH (HORIZONTAL COORDINATES)                          |
!=======================================================================|


!--------------READ IN X AND Y GLOBAL COORDINATES AT NODES----------------------!

  ALLOCATE(XG(0:MGL),YG(0:MGL)) ; XG = 0.0_SP ; YG = 0.0_SP
  DO I=1,MGL
    READ(INGRD,*)J,XG(I),YG(I)
#  if defined (SPHERICAL)
    IF(XG(I) < 0.0) XG(I) = XG(I) + 360.0
!    IF(YG(I) < 0.0) YG(I) = YG(I) + 360.0
#  endif
  END DO
  CLOSE(INGRD)

!--------------CALCULATE GLOBAL MINIMUMS AND MAXIMUMS--------------------------!

#  if defined (SPHERICAL)
  VXMIN = 0.0_SP ; VXMAX = MAXVAL(XG(1:MGL))
  VYMIN = 0.0_SP ; VYMAX = MAXVAL(YG(1:MGL))
```

```
#  else
   VXMIN = MINVAL(XG(1:MGL)) ; VXMAX = MAXVAL(XG(1:MGL))
   VYMIN = MINVAL(YG(1:MGL)) ; VYMAX = MAXVAL(YG(1:MGL))
#  endif

!--------------SHIFT GRID TO UPPER RIGHT CARTESIAN-----------------------------!

   XG = XG - VXMIN
   YG = YG - VYMIN
   XG(0) = 0.0_SP ; YG(0) = 0.0_SP

!--------------CALCULATE GLOBAL ELEMENT CENTER GRID COORDINATES----------------!

   ALLOCATE(XCG(0:NGL),YCG(0:NGL)) ; XCG = 0.0_SP ; YCG = 0.0_SP
   DO I=1,NGL
    XCG(I)  = (XG(NVG(I,1)) + XG(NVG(I,2)) + XG(NVG(I,3)))/3.0_SP
    YCG(I)  = (YG(NVG(I,1)) + YG(NVG(I,2)) + YG(NVG(I,3)))/3.0_SP
   END DO
# if defined (SPHERICAL)
   DO I=1,NGL
    VX1=XG(NVG(I,1))
    VY1=YG(NVG(I,1))
    VX2=XG(NVG(I,2))
    VY2=YG(NVG(I,2))
    VX3=XG(NVG(I,3))
    VY3=YG(NVG(I,3))

    DO 56 K=1,1000000
!JQI<
      EVX12=VX2-VX1
      EVX13=VX3-VX1
      EVX23=VX3-VX2

      IF(EVX12 >  180.0_SP)THEN
        EVX12 = -360.0_SP+EVX12
      ELSE IF(EVX12 < -180.0_SP)THEN
        EVX12 =  360.0_SP+EVX12
      END IF
      IF(EVX13 >  180.0_SP)THEN
              EVX13 = -360.0_SP+EVX13
      ELSE IF(EVX13 < -180.0_SP)THEN
              EVX13 =  360.0_SP+EVX13
      END IF
      IF(EVX23 >  180.0_SP)THEN
        EVX23 = -360.0_SP+EVX23
      ELSE IF(EVX23 < -180.0_SP)THEN
        EVX23 =  360.0_SP+EVX23
      END IF
!JQI>
      EVX12=ABS(EVX12)
      EVX13=ABS(EVX13)
      EVX23=ABS(EVX23)

      EVY12=ABS(VY2-VY1)
      EVY13=ABS(VY3-VY1)
      EVY23=ABS(VY3-VY2)

      EVXY=1.E-10_SP

      IF((EVX12 < EVXY) .AND.(EVX13 < EVXY) .AND. (EVX23 < EVXY) &
        .AND.(EVY12 < EVXY) .AND. (EVY13 < EVXY)              &
        .AND.(EVY23 < EVXY))THEN
       XCG(I)=VX1
       YCG(I)=VY1
       GOTO 57
      ELSE
       CALL ARCC(VX1,VY1,VX2,VY2,VX12,VY12)
       CALL ARCC(VX2,VY2,VX3,VY3,VX23,VY23)
       CALL ARCC(VX3,VY3,VX1,VY1,VX31,VY31)
```

```
        VX1=VX12
        VY1=VY12
        VX2=VX23
        VY2=VY23
        VX3=VX31
        VY3=VY31
      END IF
56    CONTINUE
57    CONTINUE
    END DO
# endif

    XCG(0) = 0.0_SP ; YCG(0) = 0.0_SP


!--------------TRANSFORM TO LOCAL DOMAINS IF PARALLEL--------------------------!

    IF(SERIAL)THEN
      VX = XG
      VY = YG
    END IF

#  if defined (MULTIPROCESSOR)
    IF(PAR)THEN
      DO I=1,M
        VX(I) = XG(NGID(I))
        VY(I) = YG(NGID(I))
      END DO

      DO I=1,NHN
        VX(I+M) = XG(HN_LST(I))
        VY(I+M) = YG(HN_LST(I))
      END DO
    END IF
# endif

!=============================================================================|
!   SET UP LOCAL MESH (BATHYMETRIC DEPTH)                                     |
!=============================================================================|

!--------------READ IN BATHYMETRY----------------------------------------------!

    ALLOCATE(HG(0:MGL))  ; HG = 0.0_SP
    DO I=1,MGL
      READ(INDEP,*) TEMP,TEMP,HG(I)
    END DO
    CLOSE(INDEP)


!--------------TRANSFORM TO LOCAL DOMAINS IF PARALLEL--------------------------!

    IF(SERIAL) H = HG

#  if defined (MULTIPROCESSOR)
    IF(PAR)THEN
      DO I=1,M
        H(I)   = HG(NGID(I))
      END DO
      DO I=1,NHN
        H(I+M) = HG(HN_LST(I))
      END DO
    END IF
#  endif

!--------------CALCULATE EXTREMUMS---------------------------------------------!

    HMAX = MAXVAL(ABS(HG(1:MGL)))
    HMIN = MINVAL(HG(1:MGL))

!=============================================================================|
```

```
!   SET UP LOCAL CORIOLIS FORCE                                                 |
!===============================================================================|

!--------------READ IN CORIOLIS PARAMETER-------------------------------------!

    ALLOCATE(CORRG(0:MGL))  ; CORRG = 0.0_SP
!  MHB:ZHAO  ADJUST FOR DIFFERENT CORIOLIS FILE FORMAT
#  if defined (SPHERICAL)
    CORRG=YG
#  else
    IF(CASENAME == "mhb")THEN
      DO I=1,MGL
        READ(INCOR,*) TEMP,CORRG(I)
      END DO
    ELSE
      DO I=1,MGL
        READ(INCOR,*) TEMP,TEMP,CORRG(I)
      END DO
    END IF
    CLOSE(INCOR)
# endif

!--------------TRANSFORM TO LOCAL DOMAINS IF PARALLEL--------------------------!
    ALLOCATE(CORR(0:MT)) ; CORR = 0.0_SP
    IF(SERIAL) CORR = CORRG

#  if defined (MULTIPROCESSOR)
    IF(PAR)THEN
      DO I=1,M
        CORR(I) = CORRG(NGID(I))
      END DO
      DO I=1,NHN
        CORR(I+M) = CORRG(HN_LST(I))
      END DO
    END IF
#  endif

!===============================================================================|
!   COMPUTE FACE CENTER VALUES FOR GRID, DEPTH, AND CORIOLIS PARAMETER        |
!===============================================================================|

# if defined (SPHERICAL)
    IF(SERIAL) XC = XCG; YC = YCG

#  if defined (MULTIPROCESSOR)
    IF(PAR)THEN
      DO I=1,N
        XC(I) = XCG(EGID(I))
        YC(I) = YCG(EGID(I))
      ENDDO
      DO I=1,NHE
        XC(I+N) = XCG(HE_LST(I))
        YC(I+N) = YCG(HE_LST(I))
      END DO
    END IF
#  endif
    COR = YC
    DO I=1,NT
      H1(I)  = SUM( H(NV(I,1:3)))/3.0_SP
      COR(I) = 2.*7.292e-5_SP*SIN(COR(I)*2.0_SP*3.14159_SP/360.0_SP)
    END DO

# else
    DO I=1,NT
!     XC(I)  = SUM(VX(NV(I,1:3)))/3.0
      XC(I)  = (VX(NV(I,1)) + VX(NV(I,2)) + VX(NV(I,3)))/3.0_SP
      YC(I)  = (VY(NV(I,1)) + VY(NV(I,2)) + VY(NV(I,3)))/3.0_SP
!     YC(I)  = SUM(VY(NV(I,1:3)))/3.0
      H1(I)  = SUM( H(NV(I,1:3)))/3.0_SP
      COR(I) = CORR(NV(I,1)) + CORR(NV(I,2)) + CORR(NV(I,3))
```

```
      COR(I) = COR(I)/3.0_SP
!      COR(I) = SUM(CORR(NV(I,1:3)))/3.0
      COR(I) = 2.*7.292e-5_SP*SIN(COR(I)*2.0_SP*3.14159_SP/360.0_SP)
    END DO
#  endif

!=======================================================================|
!   COMPUTE SPONGE LAYER FOR OPEN BOUNDARY DAMPING                      |
!=======================================================================|

!--READ NUMBER OF SPONGE NODES AND ALLOCATE ARRAYS-----------------------|

    READ(INSPO,*) N_SPONGE
    IF(N_SPONGE > 0 )THEN

    ALLOCATE( N_SPG(N_SPONGE) , R_SPG(N_SPONGE) , C_SPG(N_SPONGE) )

!--READ IN INDICES OF SPONGE NODES --------------------------------------|

    DO I=1,N_SPONGE
      READ(INSPO,*) N_SPG(I),R_SPG(I),C_SPG(I)
    END DO
    CLOSE(INSPO)



!--SET SPONGE PARAMETERS------------------------------------------------|

    CC_SPONGE = 0.0_SP

    DO I=1,NT
      DO I1=1,N_SPONGE
        I2=N_SPG(I1)
# if defined (SPHERICAL)
        X1_DP=XC(I)
        Y1_DP=YC(I)
        X2_DP=XG(I2)
        Y2_DP=YG(I2)
        CALL ARC(X1_DP,Y1_DP,X2_DP,Y2_DP,DTMP_DP)
        DTMP=DTMP_DP/R_SPG(I1)
# else
        DTMP=(XC(I)-XG(I2))**2+(YC(I)-YG(I2))**2
        DTMP=SQRT(DTMP)/R_SPG(I1)
# endif
        IF(DTMP <= 1.) THEN
          C_SPONGE=C_SPG(I1)*(1.-DTMP)
          CC_SPONGE(I)=MAX(C_SPONGE,CC_SPONGE(I))
        END IF
      END DO
    END DO

    DEALLOCATE(N_SPG,R_SPG,C_SPG)

  END IF !! N_SPONGE > 0

  IF(MSR)WRITE(IPT,*)'!  # SPONGE LAYER SET BY :',N_SPONGE

!================================RETANA=================================|
!   READ THE FRICTION COEFFICIENT FOR EACH CELL FROM "FRC.DAT"(INFRC)
!=======================================================================|

  DO I=1,NGL
   READ(INFRC,*) NGL,CBC(I)
  END DO

!================================RETANA=================================|

!=======================================================================|
!   WRITE TO SMS GRID FILE WHILE GLOBAL VALUES EXIST                    |
!=======================================================================|
```

```
  IF(MSR)THEN
    WRITE(IOSMSD,*)'scat2d'
    WRITE(IOSMSD,*)'xyd ',MGL,' dep ',1,' dep '
    DO I=1,MGL
      WRITE(IOSMSD,*) XG(I),YG(I),HG(I)
    END DO
    CLOSE(IOSMSD)
  END IF
  DEALLOCATE(CORR,CORRG)

  RETURN
  END SUBROUTINE PDOMDEC
!=======================================================================================|
```

```
!======================================================================================|
!  Calculate Bottom Drag Coefficient based on Bottom Roughness                         !
!  note:                                                                               !
!  when the log function derived from the constant stress log-viscous                  !
!  layer is applied to an estuary, if the value of z0 is close to                      !
!  (zz(kbm1)-z(kb)*dt1, drag coefficient "cbc" could become a huge                     !
!  number due to near-zero value of alog function. In our application                  !
!  we simply cutoff at cbc=0.005. One could adjust this cutoff value                   !
!  based on observations or his or her experiences.                                    !
!  CALCULATES:   WUBOT(N), WVBOT(N) : BOTTOM SHEAR STRESSES                            !
!======================================================================================|

  SUBROUTINE BOTTOM_ROUGHNESS

!======================================================================================!
  USE ALL_VARS
#  if defined (WET_DRY)
  USE MOD_WD
#  endif
  IMPLICIT NONE
  INTEGER :: I,II
  REAL(SP), PARAMETER  :: KAPPA = .40_SP   !!VON KARMAN LENGTH SCALE
  REAL(SP), PARAMETER  :: VK2   = .160_SP  !!KAPPA SQUARED
  REAL(SP)             :: CBCMIN,Z0,ZTEMP,BTPS,RR,U_TAUB,Z0B_GOTM,Z0B_TEMP
!======================================================================================!


!
!  SET CONSTANTS
!
  CBCMIN = BFRIC
  Z0     = Z0B

!======================================================================================|
  IF(BROUGH_TYPE == 'orig')THEN !USE ORIGINAL FVCOM FORM FOR BOTTOM FRICTION  |
!======================================================================================|
!    DO I=1,N
!      IF(DT1(I) > 3.0)THEN
!       ZTEMP=(ZZ(KBM1)-Z(KB))*DT1(I)/Z0
!       CBC(I) = MAX(CBCMIN,VK2/(LOG(ZTEMP))**2)
!      ELSE
!       ZTEMP=(ZZ(KBM1)-Z(KB))*3.0/Z0
!       CBC(I) = MAX(CBCMIN,VK2/(LOG(ZTEMP))**2)
!      END IF
!    END DO
!=================================RETANA=================================================|
 !  DO I=1,N
 !   READ(INFRC,*) N,CBC(I)
 !  END DO
 ! !!!!!!!!!!!!!!!!!!THIS IS CALCULATED IN THE PDOMDEC.F SUBROUTINE!!!!!!!!!!!|
!=================================RETANA=================================================|

!======================================================================================|
  ELSE IF(BROUGH_TYPE == 'gotm')THEN !GOTM FORMULATION FOR BOTTOM FRICTION    |
!======================================================================================|

!----Convert Input Z0B to GOTMS H0B
    Z0B_TEMP = Z0B/.03

    DO I=1,N
    U_TAUB = 0.
    DO II=1,40
      IF (UMOL <= 0.) THEN
        Z0B_GOTM=0.03*Z0B
      ELSE
        Z0B_GOTM=0.1*UMOL/MAX(UMOL,U_TAUB)+0.03*Z0B_TEMP
      END IF
       ztemp=(zz(kbm1)-z(kb))*dt1(i)
      RR=KAPPA/(LOG((Z0B_GOTM+ZTEMP)/Z0B_GOTM))
     U_TAUB = RR*SQRT( U(I,KBM1)*U(I,KBM1) + V(I,KBM1)*V(I,KBM1) )
```

```
    END DO
    CBC(I) =   RR*RR
    END DO

!=======================================================================================|
  ELSE IF(BROUGH_TYPE == 'user_defined')THEN !Use User Defined broud_ud.F     |
!=======================================================================================|

    CALL BROUGH_UD

  END IF


!=======================================================================================|
!  CALCULATE SHEAR STRESS ON BOTTOM  --> WUBOT/WVBOT                          |
!=======================================================================================|
  DO  I = 1, N
    IF(D1(I) > 0.0_SP) THEN
#     if !defined (TWO_D_MODEL)
      BTPS= CBC(I)*SQRT(U(I,KBM1)**2+V(I,KBM1)**2)
      WUBOT(I) = -BTPS * U(I,KBM1)
      WVBOT(I) = -BTPS * V(I,KBM1)
#     else
      BTPS= CBC(I)*SQRT(UA(I)**2+VA(I)**2)
      WUBOT(I) = -BTPS * UA(I)
      WVBOT(I) = -BTPS * VA(I)
#     endif
    ELSE
      WUBOT(I) = 0.0_SP
      WVBOT(I) = 0.0_SP
    END IF
  END DO


  RETURN
  END SUBROUTINE BOTTOM_ROUGHNESS
!=======================================================================================|
```

```
!======================================================================================!
!   Open Input Files for Model Parameters and Output Files for Results        !
!======================================================================================!

  SUBROUTINE IOFILES
  USE ALL_VARS
  USE MOD_UTILS
#  if defined (BALANCE_2D)
  USE MOD_BALANCE_2D
#  endif
#  if defined (MEAN_FLOW)
  USE MOD_MEANFLOW
#  endif
  IMPLICIT NONE
!# if defined (MULTIPROCESSOR)
!   include "mpif.h"
!# endif
  LOGICAL:: CHECK
  CHARACTER(LEN=80)  :: TEMP,ISTR,OSTR
  CHARACTER(LEN=100) :: MKOUTDIR,MKSMSDIR,MKMDMDIR,MKRESDIR,MKTSODIR,MKNCDDIR

  INTEGER IERR,ISTAT

!======================================================================================!
!              Definitions of input files                                !
!                                                                        !
! inrun: casename_run.dat: input data and parameter file controlling          !
!                      the model run                                     !
! indep: casename_dep.dat: input water depth at the rest. For estuary,        !
!                      water depth refers to water depth at the          !
!                      lowest water level. The adjustment (adjust)       !
!                      must be specified in "casename_run.dat"           !
! ingrd: casename_grd.dat: input triangular mesh files. This file is          !
!                      generated from the SMS mesh generation            !
! inobc: casename_obn.dat: input data for open boundary triangles             !
!                      nodes                                             !
! incwh: casename_mc.dat: boundary input meteorlogical forcing:               !
!                     wind velocity,heat flux, and                       !
!                     precipitation/evaporation. This file only          !
!                     work for a uniform meteorological forcing          !
!                     case.                                              !
! inriv: casename_riv.dat: river discharge input data that include            !
!                      number of rivers, transport, etc.                 !
! inits: casename_its.dat: initial temperature and salinity fields            !
! inoel: casename_el.dat: tidal amplitudes and phases at the open             !
!                     boundary (with no julian time)                     !
! injul: casename_elj.dat: tidal amplitudes and phases at the open            !
!                      boundary generated using Foreman s program        !
!                      with a julian time.                               !
! inhfx: casename_hfx.dat: real-time field of heat flux input. In our         !
!                      current experiments, it is an ouput file          !
!                      from MM5 results.                                 !
! inwnd: casename_wnd.dat: real-time field of wind velocity or wind           !
!                      stress used for external mode. In our             !
!                      current experiments, it is an output file         !
!                      from MM5 results.                                 !
! inelf: casename_el_ini.dat: the initial field of surface elevation          !
!                       at each triangular node calculated from          !
!                       the Foreman s harmonic tidal analysis            !
!                       program. This file needs to be generated         !
!                       based on calibrated amplitudes and phases        !
!                       of major tidal constituents from the             !
!                       model tidal simulation.                          !
! inuvf: casename_uv_ini.dat: the initial field of currents at each           !
!                       triangular centriod calculated from the          !
!                       Foreman s harmonic tidal analysis program        !
!                       . This file needs to be generated based          !
!                       on calibrated tidal ellipses of major            !
!                       tidal constituents from the model tidal          !
!                       simulation.                                      !
```

```
! inlag: casename_lag_ini.dat: the initial positions of particles for          !
!                        the lagrangian tracking                        !
! inspo: casename_spg.dat:   the parameters for sponge layers at the          !
!                       open boundary                                   !
! incor: casename_cor.dat: the latitudes of triangular nodes which are        !
!                       used to calculate the Coriolis parameter           !
! inbfw: casename_bfw.dat: the inFORMATion about bottom freshw water          !
!                       input                                           !
! injmp: casename_jmpobc.dat number of nodes and list of nodes for frictional  !
!                       geostrophic inflow correction                   !
! inmf : casename_meanflow.dat: open bndy volume transport input file that     !
!                      includes number of open boundary cell, transport,etc !
! intcell : casename_tide_cell.dat: the cell index of open bndy tidal cells    !
!                           used in MEAN_FLOW bndy condition          !
! intuv   : casename_tide_uv.dat: the time series of u and v velocity at       !
!                           tide_cell points                          !
! intnode : casename_tide_node.dat: the node index of open bndy tidal nodes    !
!                           used in MEAN_FLOW bndy condition          !
! intelel : casename_tide_el.dat: the time series of water elevation at        !
!                           tide_node points                          !
!=============================================================================!

!=============================================================================!
!               Definitions of output files                                   !
!                                                                             !
! ioprt: casename_prt.dat: the file printing all input parametes, data         !
!                       and forcings                                    !
! ioplt: casename_plt.dat: the archive file including averaged field          !
!                       of currents, temperature, salinity,etc for          !
!                       a specified time interval (such as atidal           !
!                       cycle)                                          !
! iotsr: casename_tsr.dat: the archive file including time series of          !
!                        selected variables at selected locations           !
! iomob: casename_mob.dat: the archive file including time series of          !
!                        momentum balance variables at selected locations   !
! iopar: casename_lag_out.dat: the output trajectories of particles           !
!                          during tracking periods.                         !
! iopuv: casename_lag_ouv.dat: the output velocity of particles               !
!                          during tracking periods.                         !
! iosmsd: casename_dep.xy: the output file for water depth used for           !
!                       sms graphics software.                          !
! iosmsv: casename_uvi_uva.xy: the output files for internal and              !
!                          external velocities used for sms                 !
!                          graphics software.                             !
! iosmst: casename_elts.xy:    the output fiels for elevation,                !
!                          temperature and salinity used for sms            !
!                          graphics software.                             !
!                       iosmsv and isomst output files are updated          !
!                       at a specified time interval, so that they          !
!                       are opened in subroutine called  out_sms_one        !
! item90-94: the temporary files used to storage the data, which are          !
!           cleaned up at the end of the model run                          !
!                                                                           !
!  there are also some output files in subroutines of "out_binary" and        !
!  "out_binary_residual" for standard model binary output. All these          !
!  files could be directly used for graphics system developed by the          !
!  ocean ecosystem modeling group at SMAST/UMASSD.                              !
!=============================================================================!

  IF(MSR)WRITE(IPT,*)'!                                                  !'
  IF(MSR)WRITE(IPT,*)'!                OPENING FILES                             !'
  IF(MSR)WRITE(IPT,*)'!                                                  !'

  INDEP =11
  INGRD =12
  INOBC =13
  INCWH =14
  INRIV =15
  INITS =16
  INOEL =17
```

```
  INJUL =18
  INHFX =19
  INWND =20
  INELF =22
  INUVF =23
  INSPO =25
  INCOR =26
  INBFW =27
  INFRC =28     !Retana file for Friction Coefficient at each celle "Cf" or BFRIC

  IOPRT =41
  IOPLT =42
  IOTSR =43
!QXU{
# if defined (BALANCE_2D)
  IOMOB =44
# endif
!QXU}

# if defined (MEAN_FLOW)
  INMF    =45
  INTCELL =46
  INTNODE =47
  INTELEL =48
  INTUV   =49
# endif

  IOSMSD=51
  IOSMSV=52
  IOSMST=53

  IGOTM =59

  INRES=54
  INJMP=55
  IREST=60


!
!-----------------CHECK FOR EXISTENCE/CREATE DIRECTORIES----------------------!
!

#  if !defined (DOS)
  MKOUTDIR = "mkdir -p "//TRIM(OUTDIR)
  MKRESDIR = "mkdir -p "//TRIM(OUTDIR)//"/out"
  MKSMSDIR = "mkdir -p "//TRIM(OUTDIR)//"/sms"
  MKMDMDIR = "mkdir -p "//TRIM(OUTDIR)//"/medm"
  MKTSODIR = "mkdir -p "//TRIM(OUTDIR)//"/timeseries"
  MKNCDDIR = "mkdir -p "//TRIM(OUTDIR)//"/netcdf"

  IF(MSR)THEN
#   if !defined (CRAY)
    CALL SYSTEM( TRIM(MKRESDIR) )
    CALL SYSTEM( TRIM(MKOUTDIR) )
    CALL SYSTEM( TRIM(MKSMSDIR) )
    CALL SYSTEM( TRIM(MKMDMDIR) )
    CALL SYSTEM( TRIM(MKTSODIR) )
    CALL SYSTEM( TRIM(MKNCDDIR) )

#   endif
#   if defined (CRAY)
    CALL CRAY_SYSTEM_CALL(TRIM(MKRESDIR))
    CALL CRAY_SYSTEM_CALL(TRIM(MKOUTDIR))
    CALL CRAY_SYSTEM_CALL(TRIM(MKSMSDIR))
    CALL CRAY_SYSTEM_CALL(TRIM(MKMDMDIR))
    CALL CRAY_SYSTEM_CALL(TRIM(MKTSODIR))
    CALL CRAY_SYSTEM_CALL(TRIM(MKNCDDIR))
#   endif
  END IF
#  endif
```

```
# if defined (MULTIPROCESSOR)
  CALL MPI_BARRIER(MPI_COMM_WORLD,IERR)
# endif
  IF(MSR)WRITE(IPT,*)
!
!---------CHECK EXISTENCE OF STANDARD FILES-AND OPEN---------------------------!
!
  ISTR = "./"//TRIM(INPDIR)//"/"//trim(casename)
  OSTR = "./"//TRIM(OUTDIR)//"/"//"out/"//trim(casename)
  CALL FOPEN(IOPRT, TRIM(OSTR)//'_prt.dat',"ofr")
  CALL FOPEN(INDEP, TRIM(ISTR)//'_dep.dat',"cfr")
  CALL FOPEN(INGRD, TRIM(ISTR)//'_grd.dat',"cfr")
  CALL FOPEN(INOBC, TRIM(ISTR)//'_obc.dat',"cfr")
  CALL FOPEN(INRIV, TRIM(ISTR)//'_riv.dat',"cfr")
  CALL FOPEN(INSPO, TRIM(ISTR)//'_spg.dat',"cfr")
  CALL FOPEN(INFRC, TRIM(ISTR)//'_frc.dat',"cfr")   !Retana Open friction file "Cf or BFRIC"
#  if !defined(SPHERICAL)
  CALL FOPEN(INCOR, TRIM(ISTR)//'_cor.dat',"cfr")
#  endif
  CALL FOPEN(INBFW, TRIM(ISTR)//'_bfw.dat',"cfr")


!
!-----------------INITIAL TEMPERATURE AND SALINITY-----------------------------!
!
  IF(RESTART /= 'hot_start') CALL FOPEN(INITS, TRIM(ISTR)//'_its.dat',"cfr")
!
!-----------------OPEN METEOROLOGICAL FORCING FILES----------------------------!
!
  IF(M_TYPE == 'uniform')THEN
    CALL FOPEN(INCWH, TRIM(ISTR)//'_mc.dat',"cfr")
  ELSE
    CALL FOPEN(INHFX, TRIM(ISTR)//'_hfx.dat' ,"cur")
    CALL FOPEN(INWND, TRIM(ISTR)//'_wnd.dat' ,"cur")
  END IF

!
!-----------------OPEN TIDAL FORCING AND INITIAL VELOCITY FIELD FILES----------!
!
  IF(S_TYPE=='non-julian')THEN
    CALL FOPEN(INOEL,TRIM(ISTR)//'_el_obc.dat',"cfr")
  ELSE
    CALL FOPEN(INJUL,TRIM(ISTR)//'_elj_obc.dat',"cfr")
    IF(RESTART=='cold_start') THEN
      CALL FOPEN(INELF,TRIM(ISTR)//'_el_ini.dat' ,"cfr")
      CALL FOPEN(INUVF,TRIM(ISTR)//'_uv_ini.dat' ,"cfr")
    END IF
  END IF


!
!----------------------FILES FOR GEOSTROPHIC CORRECTION AT INFLOW-------------!
!
  JMPOBC = .FALSE.
  INQUIRE(FILE=TRIM(ISTR)//'_jmpobc.dat',EXIST=CHECK)
  IF(CHECK)THEN
    JMPOBC = .TRUE.
    CALL FOPEN(INJMP,TRIM(ISTR)//'_jmpobc.dat',"cfr")
  END IF
!
!----------------------FILES FOR RESTART--------------------------------------!
!
  IF(RESTART == 'hot_start') CALL FOPEN(INRES,TRIM(ISTR)//'_restart.dat',"cur")
  IF(RESTART == 'hot_cold_s') CALL FOPEN(INRES,TRIM(ISTR)//'_restart.dat',"cur")
!
!----------------------FILES FOR ARCHIVING------------------------------------!
!
  CALL FOPEN(IOPLT,TRIM(OSTR)//'_plt.dat' ,"our")
  CALL FOPEN(IOTSR,TRIM(OSTR)//'_tsr.dat' ,"ofr")
```

```
!
!-----------------------DEPTH OUTPUT FOR SMS PLOT------------------------------!
!
  CALL FOPEN(IOSMSD,TRIM(OUTDIR)//"/sms/"//trim(casename)//"_dep.xy" ,"ofr")
!QXU{
#  if defined (BALANCE_2D)
  CALL FOPEN(IOMOB,TRIM(OSTR)//'_mob.dat' ,"ofr")
#  endif
!QXU}

#  if defined (MEAN_FLOW)
  CALL FOPEN(INMF,   TRIM(ISTR)//'_meanflow.dat'  ,"cfr")
  CALL FOPEN(INTCELL,TRIM(ISTR)//'_tide_cell.dat' ,"cfr")
  CALL FOPEN(INTNODE,TRIM(ISTR)//'_tide_node.dat' ,"cfr")
  CALL FOPEN(INTELEL,TRIM(ISTR)//'_tide_el.dat'   ,"cfr")
  CALL FOPEN(INTUV,  TRIM(ISTR)//'_tide_uv.dat'   ,"cfr")
#  endif


  RETURN
  END SUBROUTINE IOFILES
!===============================================================================!
```

```
!=========================================================================================!
!  CLOSE UP FILES                                                                         !
!=========================================================================================!

  SUBROUTINE CLOSEFILES
  USE ALL_VARS
  IMPLICIT NONE
  REAL(SP) ::  COMT(80)

  CLOSE(IOPRT)
  CLOSE(IOPLT)
  CLOSE(IOTSR)
  CLOSE(INFRC)   !Retana close friction coefficient Cf file

  IF(M_TYPE=='non-uniform')THEN
    CLOSE(INHFX) ; CLOSE(INWND)
  END IF

  IF(S_TYPE == 'julian') CLOSE(INJUL)


  RETURN
  END SUBROUTINE CLOSEFILES
!=========================================================================================!
```

```
!=====================================================================|
!  GLOBAL LIMITS AND ARRAY SIZING PARAMETERS                          !
!=====================================================================|

MODULE LIMS
  USE MOD_PREC
  IMPLICIT NONE
  SAVE

  INTEGER NGL              !!GLOBAL NUMBER OF ELEMENTS
  INTEGER MGL              !!GLOBAL NUMBER OF NODES
  INTEGER IBFW_GL          !!GLOBAL NUMBER OF GROUNDWATER NODES
  INTEGER NUMQBC_GL        !!GLOBAL NUMBER OF FRESHWATER INFLOW NODES
  INTEGER NOBCGEO_GL       !!GLOBAL NUMBER OF OPEN BOUNDARY
  INTEGER NDRFT_GL         !!GLOBAL NUMBER OF LAGRANGIAN TRACKING PARTICLES

  INTEGER N               !!LOCAL NUMBER OF ELEMENTS
  INTEGER M               !!LOCAL NUMBER OF NODES
  INTEGER IBFW             !!LOCAL NUMBER OF GROUNDWATER NODES
  INTEGER NUMQBC           !!LOCAL NUMBER OF FRESHWATER INFLOW NODES
  INTEGER NOBCGEO          !!LOCAL NUMBER OF OPEN BOUNDARY
  INTEGER NDRFT            !!LOCAL NUMBER OF LAGRANGIAN TRACKING PARTICLES
  INTEGER NISBCE_1         !!LOCAL NUMBER OF ELEMENTS WITH ISBCE = 1
  INTEGER NISBCE_2         !!LOCAL NUMBER OF ELEMENTS WITH ISBCE = 2
  INTEGER NISBCE_3         !!LOCAL NUMBER OF ELEMENTS WITH ISBCE = 3

  INTEGER KB              !!NUMBER OF SIGMA LEVELS
  INTEGER KBM1             !!NUMBER OF SIGMA LEVELS-1
  INTEGER KBM2             !!NUMBER OF SIGMA LEVELS-2
  INTEGER MYID             !!UNIQUE PROCESSOR ID (1 => NPROCS)
  INTEGER KSL             !!NUMBER OF STANDARD SEA LEVELS
  INTEGER NPROCS           !!NUMBER OF PROCESSORS
  INTEGER NE              !!NUMBER OF UNIQUE EDGES (LOCAL DOMAIN ONLY)
  INTEGER NCV              !!NUMBER OF INTERNAL CONTROL VOLUMES (EXTENDED LOCAL ONLY)

  INTEGER NCV_I            !!NUMBER OF INTERNAL CONTROL VOLUMES (LOCAL ONLY)
  INTEGER NT              !!TOTAL OF LOCAL INTERNAL + HALO ELEMENTS
  INTEGER MT              !!TOTAL OF LOCAL INTERNAL + HALO NODES
  INTEGER MX_NBR_ELEM      !!MAX NUMBER OF ELEMENTS SURROUNDING A NODE

END MODULE LIMS



!=====================================================================|
!  CONTROL VARIABLES                                                  |
!=====================================================================|

MODULE CONTROL

  USE MOD_PREC
  IMPLICIT NONE
  SAVE

  LOGICAL SERIAL              !!TRUE IF SINGLE PROCESSOR
  LOGICAL MSR                !!TRUE IF MASTER PROCESSOR (MYID==1)
  LOGICAL PAR                !!TRUE IF MULTIPROCESSOR RUN
  LOGICAL JMPOBC              !!TRUE IF USING JS MODIFIED OPEN BOUNDARY CONDITION

  CHARACTER(LEN=80) FVCOM_VERSION !!STRING DESCRIBING VERSION
  CHARACTER(LEN=80) FVCOM_WEBSITE !!STRING DESCRIBING WEBSITE FOR FVCOM INFO
  CHARACTER(LEN=80) CASENAME     !!LETTER ACRONYM SPECIFYING CASE IDENTITY (MAX 80 CHARS)
  CHARACTER(LEN=120) CASETITLE   !!CASE TITLE
  CHARACTER(LEN=80) OUTDIR       !!PARENT OUTPUT DIRECTORY
  CHARACTER(LEN=80) INPDIR       !!MAIN   INPUT DIRECTORY
  CHARACTER(LEN=80) INFOFILE     !!INFO  FILE
  CHARACTER(LEN=80) M_TYPE       !!METEOROLOGICAL FORCING TYPE (uniform/non-uniform)
  CHARACTER(LEN=80) S_TYPE       !!(julian/non-julian)
  CHARACTER(LEN=80) BROUGH_TYPE  !!(orig/gotm/user_defined)
  CHARACTER(LEN=80) WINDTYPE     !!WIND FORCING (stress/speed)
```

```
  CHARACTER(LEN=80) INFLOW_TYPE   !!SPECIFIED RIVER INFLOW TYPE (edge/node)
  CHARACTER(LEN=80) POINT_ST_TYPE !!(calculated/specified)
  CHARACTER(LEN=80) CTRL_DEN      !!CONTROLS DENSITY CALCULATION (sigma-t/pdensity/sigma-t_stp)
  CHARACTER(LEN=80) H_TYPE        !!SURFACE HEATING (body_h/flux_h)
  CHARACTER(LEN=80) C_BAROPG      !!CONTROL BAROCLINIC PRES GRADIENT CALC (sigma/s_levels)
  CHARACTER(LEN=80) HORZMIX       !!CONTROLS HORIZONTAL DIFFUSION COEF CALC (constant/closure)
  CHARACTER(LEN=80) VERTMIX       !!CONTROLS VERTICAL DIFFUSION COEF CALC [UNUSED]
  CHARACTER(LEN=80) RESTART       !!CONTROLS RESTART TYPE (cold_start/hot_cold_s/hot_start)


!--Constants----------------------------------------------------------------!
  REAL(SP), PARAMETER, DIMENSION(4) :: ALPHA_RK = (/0.2500_SP,0.333333_SP,0.5000_SP,1.0_SP/)
  REAL(SP), PARAMETER :: GRAV      = 9.81_SP
  REAL(SP), PARAMETER :: PI        = 3.141592653_SP
  REAL(SP), PARAMETER :: PI2       = 6.283185307_SP
  REAL(SP), PARAMETER :: ZERO      = 0.0_SP
  REAL(SP), PARAMETER :: ONE_THIRD = 1.0_SP/3.0_SP
  REAL(SP), PARAMETER :: REARTH    = 6371.0E03_SP   !!Earth Radius in Meters
  REAL(SP), PARAMETER :: DEG2RAD   = PI2/360.0_SP   !!Radians/Degree
  REAL(SP), PARAMETER :: TPI       = DEG2RAD*REARTH !TPI=pi*rearth/180.=3.14159265/180.0*6371.*1000.

!--Tidal Periods------------------:
  REAL(SP), PARAMETER, DIMENSION(6) :: &
              !    s2        m2          n2         k1         p1         o1
       PERIOD = (/43200.0_SP, 44712.0_SP, 45570.0_SP, 86164.0_SP, 86637.0_SP, 92950.0_SP/)

!--File Unit Specifiers (see iofiles.f for details)-----------------------------!
  INTEGER  INRUN,INDEP,INGRD,INOBC,INCWH,INRIV,INITS,INOEL, &
         INJUL,INHFX,INWND,INELF,INUVF,INLAG,INSPO, &
         INCOR,INBFW,IOPRT,IOPLT,IOTSR,INFRC, &       !Retana, G. May/18/2005 IOTPT
         IOSMSD,IOSMSV,IOSMST,INRES,INJMP,IREST,IPT,INRIVW,IGOTM !, &
         !IODEP, IOITS, IOIUV, IOSTN !,IOAUX           !Retana, G. Jul/25/2005 IODEP, IOAUX.
                                    !Retana, G. IOITS,IOIUV Jul/12/06.IOSTN Jul/26/06.



!--Sigma Level Parameters---------------------------------------------------!
  REAL(SP) :: P_SIGMA     !!PARAMETER CONTROLLING SIGMA LEVEL DISTRIBUTION

!--Bottom Friction Parameters-----------------------------------------------!
  REAL(SP) :: BFRIC       !!MINIMUM BOTTOM DRAG COEFFICIENT
  REAL(SP) :: Z0B         !!BOTTOM FRICTION DEPTH LENGTH SCALE

!--Flow Stability Parameters------------------------------------------------!
  LOGICAL  :: VERT_STAB   !!TRUE IF VERTICAL ADJUSTMENT PERFORMED

!--Temp/Salinity Flux Enhancement Parameters--------------------------------!
  LOGICAL  :: TS_FCT      !!TRUE IF TEMP/SALINITY ADJUSTMENT IS ON

!--Run Mode Parameters------------------------------------------------------!
  LOGICAL  :: BAROTROPIC  !!TRUE CODE IS TO RUN IN BAROTROPIC MODE
  LOGICAL  :: SALINITY_ON !!TRUE CODE IS TO UPDATE SALINITY EQUATION
  LOGICAL  :: TEMP_ON     !!TRUE CODE IS TO UPDATE TEMPERATURE EQUATION

!--Bathymetric Parameters---------------------------------------------------!
  REAL(SP) :: DJUST       !!WATER LEVEL CONSTANT ADJUSTMENT
  REAL(SP) :: MIN_DEPTH   !!MINIMUM ALLOWABLE DEPTH
  REAL(SP) :: HMAX        !!GLOBAL MAXIMUM DEPTH
  REAL(SP) :: HMIN        !!GLOBAL MINIMUM DEPTH

!--Diffusion Coefficients/Viscosities---------------------------------------!
  REAL(SP) :: UMOL        !!VERTICAL DIFFUSION COEFFICIENT
  REAL(SP) :: HORCON      !!HORIZONTAL DIFFUSION COEFFICIENT
  REAL(SP) :: VPRNU       !!VERTICAL KINEMATIC VISCOSITY
  REAL(SP) :: HPRNU       !!HORIZONTAL KINEMATIC VISCOSITY

!--Water Heating Parameters-------------------------------------------------!
  REAL(SP) :: RHEAT       !!VERTICAL HEATING SWITCH
  REAL(SP) :: ZETA1       !!VERTICAL HEATING LENGTH SCALE
  REAL(SP) :: ZETA2       !!SECONDARY VERTICAL HEATING LENGTH SCALE
```

```
!--Parameters Controlling Time/Time Stepping----------------------------------!
  REAL(SP) :: DTE       !!EXTERNAL TIME STEP (Seconds)
  REAL(SP) :: DTI       !!INTERNAL TIME STEP (Seconds)
  REAL(SP) :: TIME      !!SIMULATION TIME IN DAYS
  REAL(SP) :: TIMERK    !!SIMULATION TIME AT CURRENT RK STAGE [UNUSED]
  REAL(SP) :: THOUR     !!SIMULATION TIME AT CURRENT INTERNAL STEP (IINT) IN HOURS
  REAL(SP) :: THOUR1    !!SIMULATION TIME AT END OF CURRENT EXTERNAL STEP (IEXT) IN HOURS
  REAL(SP) :: RAMP      !!RAMP FACTOR USED TO EASE STARTUP = f(IINT)
  REAL(SP) :: DELTT     !!TIME BETWEEN JULIAN TIDE DATASETS
  REAL(SP) :: THOUR_HS  !!TIME IN HOURS AT WHICH FLUX/BODY HEATING INITIATED
  REAL(SP) :: DAYS      !!TOTAL NUMBER OF DAYS IN SIMULATION
!  REAL(SP) :: HOUR1     !!COUNTER OF HOURS.                    Retana, G. May/18/2005
  INTEGER IINT          !!INTERNAL TIME STEP ITERATION NUMBER (ISTART => IEND)
  INTEGER IEXT          !!EXTERNAL TIME STEP ITERATION NUMBER (1 => ISPLIT)
  INTEGER ISTART        !!STARTING INTERNAL TIME STEP ITERATION NUMBER
  INTEGER IEND          !!ENDING INTERNAL TIME STEP ITERATION NUMBER
  INTEGER ISPLIT        !!NUMBER OF ITERATIONS OF EXTERNAL MODE/INTERNAL STEP
  INTEGER IRAMP         !!NUMBER OF INTERNAL ITERATIONS OVER WHICH TO RAMP UP
  INTEGER NSTEPS        !!ITERATION NUMBER AT END OF SIMULATION = IEND

!--Parameters Controlling Output
  INTEGER IRECORD       !!INTERVAL (IINT) FOR DUMPING BINARY OUTPUT
  INTEGER IDMPSMS       !!INTERVAL (IINT) FOR DUMPING SMS OUTPUT
  INTEGER IREPORT       !!INTERVAL (IINT) FOR REPORTING OF FLOWFIELD STATISTICS
  INTEGER IRESTART      !!INTERVAL (IINT) FOR RESTART FILE DUMPS

!--Parameters Related to Archiving of Flow Field Averages---------------------!
  LOGICAL AVGE_ON
  INTEGER BEG_AVGE
  INTEGER INT_AVGE
  INTEGER NUM_AVGE

!--Parameters Pertaining to Archiving-----------------------------------------!
  REAL(SP) :: T1EL,T2EL

!--Parameter Related to Surface Wave Breaking and Ri # dissipation correction--!
  LOGICAL  :: SURFACEWAVE_MIX    !!TRUE IF SURFACE WIND INDUCED

!  GWC OBC NUDGING
!--Parameter Related to Open Boundary Condition Nudging-----------------------!
  LOGICAL  :: TS_NUDGING_OBC     !!TRUE IF OBC Nudging Activated
  REAL(SP) :: ALPHA_OBC          !!OBC NUDGING COEFFICIENT

!  HH: NEW OPEN BOUNDARY CONDITION
!--Parameter Related to Tidal Open Boundary Output----------------------------!
#  if defined (TIDE_OUTPUT)
  INTEGER  :: TIDE_INITIAL       !!STARTING TIME OF OUTPUT (in time steps)
  INTEGER  :: TIDE_INTERVAL      !!OUTPUT INTERVAL (in time steps)
#  endif

!  GWC SEDIMENT MODEL
!--Parameter Related to Inclusion of Sediment Model---------------------------!
  LOGICAL  :: SEDIMENT_ON        !!TRUE IF SEDIMENT MODEL ACTIVE
  LOGICAL  :: RESTART_SED        !!TRUE IF SEDIMENT SHOULD BE RESTARTED



END MODULE CONTROL

!==============================================================================|

MODULE ALL_VARS

  USE MOD_PREC
  USE LIMS
  USE CONTROL
  IMPLICIT NONE
  SAVE
```

```
!-------------------------Temporary Array-----------------------------------------!

  INTEGER, ALLOCATABLE :: NVG(:,:)

!-------------------------Global Grid Variables-----------------------------------!

  REAL(SP), ALLOCATABLE :: XG(:)            !!GLOBAL X-COORD AT NODE
  REAL(SP), ALLOCATABLE :: YG(:)            !!GLOBAL X-COORD AT NODE
  REAL(SP), ALLOCATABLE :: HG(:)            !!GLOBAL DEPTH AT NODE
  REAL(SP), ALLOCATABLE :: XCG(:)            !!GLOBAL X-COORD AT FACE CENTER
  REAL(SP), ALLOCATABLE :: YCG(:)            !!GLOBAL X-COORD AT FACE CENTER

!-------------------------Grid Metrics--------------------------------------------!

  REAL(SP)            :: VXMIN,VYMIN,VXMAX,VYMAX
  REAL(SP), ALLOCATABLE :: XC(:)            !!X-COORD AT FACE CENTER
  REAL(SP), ALLOCATABLE :: YC(:)            !!Y-COORD AT FACE CENTER
  REAL(SP), ALLOCATABLE :: VX(:)            !!X-COORD AT GRID POINT
  REAL(SP), ALLOCATABLE :: VY(:)            !!Y-COORD AT GRID POINT
  REAL(SP), ALLOCATABLE :: ART(:)            !!AREA OF ELEMENT
  REAL(SP), ALLOCATABLE :: ART1(:)            !!AREA OF NODE-BASE CONTROl VOLUME
  REAL(SP), ALLOCATABLE :: ART2(:)            !!AREA OF ELEMENTS AROUND NODE

!----------------Node, Boundary Condition, and Control Volume----------------------!

  INTEGER, ALLOCATABLE :: NV(:,:)           !!NODE NUMBERING FOR ELEMENTS
  INTEGER, ALLOCATABLE :: NBE(:,:)           !!INDICES OF ELMNT NEIGHBORS
  INTEGER, ALLOCATABLE :: NTVE(:)
  INTEGER, ALLOCATABLE :: NTSN(:)
  INTEGER, ALLOCATABLE :: ISONB(:)          !!NODE MARKER = 0,1,2
  INTEGER, ALLOCATABLE :: ISBC(:)
  INTEGER, ALLOCATABLE :: ISBCE(:)
  INTEGER, ALLOCATABLE :: IEC(:,:)
  INTEGER, ALLOCATABLE :: IENODE(:,:)
  INTEGER, ALLOCATABLE :: NBSN(:,:)
  INTEGER, ALLOCATABLE :: NIEC(:,:)
  INTEGER, ALLOCATABLE :: NTRG(:)
  INTEGER, ALLOCATABLE :: NBVE(:,:)
  INTEGER, ALLOCATABLE :: NBVT(:,:)
  INTEGER, ALLOCATABLE :: LISBCE_1(:)        !!LIST OF ELEMENTS WITH ISBCE=1
  INTEGER, ALLOCATABLE :: LISBCE_2(:)        !!LIST OF ELEMENTS WITH ISBCE=2
  INTEGER, ALLOCATABLE :: LISBCE_3(:)        !!LIST OF ELEMENTS WITH ISBCE=3
  REAL(SP),ALLOCATABLE :: DLTXC(:)
  REAL(SP),ALLOCATABLE :: DLTYC(:)
  REAL(SP),ALLOCATABLE :: DLTXYC(:)
  REAL(SP),ALLOCATABLE :: DLTXE(:)
  REAL(SP),ALLOCATABLE :: DLTYE(:)
  REAL(SP),ALLOCATABLE :: DLTXYE(:)
  REAL(SP),ALLOCATABLE :: SITAC(:)
  REAL(SP),ALLOCATABLE :: SITAE(:)
  REAL(SP),ALLOCATABLE :: XIJC(:)
  REAL(SP),ALLOCATABLE :: YIJC(:)
  REAL(SP),ALLOCATABLE :: XIJE(:,:)
  REAL(SP),ALLOCATABLE :: YIJE(:,:)
  REAL(SP),ALLOCATABLE :: EPOR(:)           !!ELEMENT FLUX POROSITY (=0. IF ISBCE = 2)
  INTEGER, ALLOCATABLE :: IBCGEO(:)        !!LOCAL GEOSTROPHIC FRICTION CORRECTION NODES
  INTEGER, ALLOCATABLE :: N_ICELLQ(:,:)    !!FLUX ANGLE

!----------------1-d arrays for the sigma coordinate ---------------------------------!

  REAL(SP), ALLOCATABLE :: Z(:)              !!SIGMA COORDINATE VALUE
  REAL(SP), ALLOCATABLE :: ZZ(:)              !!INTRA LEVEL SIGMA VALUE
  REAL(SP), ALLOCATABLE :: DZ(:)              !!DELTA-SIGMA VALUE
  REAL(SP), ALLOCATABLE :: DZZ(:)              !!DELTA OF INTRA LEVEL SIGMA
  REAL(SP), ALLOCATABLE :: DPTHSL(:)              !!Z-DEPTHS FOR SALINITY/TEMP ICs


!---------------2-d flow variable arrays at elements-------------------------------!

  REAL(SP), ALLOCATABLE :: UA(:)          !!VERTICALLY AVERAGED X-VELOC
```

```
  REAL(SP), ALLOCATABLE :: VA(:)          !!VERTICALLY AVERAGED Y-VELOC
  REAL(SP), ALLOCATABLE :: UAF(:)         !!UA FROM PREVIOUS RK STAGE
  REAL(SP), ALLOCATABLE :: VAF(:)         !!VA FROM PREVIOUS RK STAGE
  REAL(SP), ALLOCATABLE :: UARK(:)        !!UA FROM PREVIOUS TIMESTEP
  REAL(SP), ALLOCATABLE :: VARK(:)        !!VA FROM PREVIOUS TIMESTEP
  REAL(SP), ALLOCATABLE :: UARD(:)        !!UA AVERAGED OVER EXTERNAL INT
  REAL(SP), ALLOCATABLE :: VARD(:)        !!VA AVERAGED OVER EXTERNAL INT
  REAL(SP), ALLOCATABLE :: COR(:)         !!CORIOLIS PARAMETER
  REAL(SP), ALLOCATABLE :: H1(:)          !!BATHYMETRIC DEPTH
  REAL(SP), ALLOCATABLE :: D1(:)          !!CURRENT DEPTH
  REAL(SP), ALLOCATABLE :: DT1(:)         !!DEPTH AT PREVIOUS TIME STEP
  REAL(SP), ALLOCATABLE :: EL1(:)         !!CURRENT SURFACE ELEVATION
  REAL(SP), ALLOCATABLE :: ET1(:)         !!SURFACE ELEVATION AT PREVIOUS TIME STEP
  REAL(SP), ALLOCATABLE :: ELRK1(:)       !!SURFACE ELEVATION AT BEGINNING OF RK INT
  REAL(SP), ALLOCATABLE :: ELF1(:)        !!SURFACE ELEVATION STORAGE FOR RK INT
  REAL(SP), ALLOCATABLE :: DTFA(:)        !!ADJUSTED DEPTH FOR MASS CONSERVATION


  REAL(SP), ALLOCATABLE :: CC_SPONGE(:)    !!SPONGE DAMPING COEFFICIENT FOR MOMENTUM

!---------------2-d flow variable arrays at nodes---------------------------------!

  REAL(SP), ALLOCATABLE :: H(:)           !!BATHYMETRIC DEPTH
  REAL(SP), ALLOCATABLE :: D(:)           !!CURRENT DEPTH
  REAL(SP), ALLOCATABLE :: DT(:)          !!DEPTH AT PREVIOUS TIME STEP
  REAL(SP), ALLOCATABLE :: EL(:)          !!CURRENT SURFACE ELEVATION
  REAL(SP), ALLOCATABLE :: ET(:)          !!SURFACE ELEVATION AT PREVIOUS TIME STEP
  REAL(SP), ALLOCATABLE :: EGF(:)         !!AVERAGE SURFACE ELEVATION OVER EXTERNAL INT
  REAL(SP), ALLOCATABLE :: ELRK(:)        !!SURFACE ELEVATION AT BEGINNING OF RK INT
  REAL(SP), ALLOCATABLE :: ELF(:)         !!SURFACE ELEVATION STORAGE FOR RK INT

!---------------surface/bottom boundary conditions---------------------------------!

  REAL(SP), ALLOCATABLE :: CBC(:)          !!BOTTOM FRICTION
  REAL(SP), ALLOCATABLE :: SWRAD(:)        !!SURFACE INCIDENT RADIATION
  REAL(SP), ALLOCATABLE :: WUSURF2(:)      !!SURFACE FRICTION FOR EXT
  REAL(SP), ALLOCATABLE :: WVSURF2(:)      !!SURFACE FRICTION FOR EXT
  REAL(SP), ALLOCATABLE :: WUBOT(:)        !!BOTTOM FRICTION
  REAL(SP), ALLOCATABLE :: WVBOT(:)        !!BOTTOM FRICTION
  REAL(SP), ALLOCATABLE :: WUSURF(:)       !!SURFACE FRICTION FOR INT
  REAL(SP), ALLOCATABLE :: WVSURF(:)       !!SURFACE FRICTION FOR INT
  REAL(SP), ALLOCATABLE :: WTSURF(:)
  REAL(SP), ALLOCATABLE :: BFWDIS(:)       !!GROUNDWATER FLUX AT CURRENT TIME
  REAL(SP), ALLOCATABLE :: QDIS(:)         !!RIVER FLUX AT CURRENT TIME
  REAL(SP), ALLOCATABLE :: QDIS2(:)        !!RIVER FLUX (EXT MODE, NOT USED)
  REAL(SP), ALLOCATABLE :: TDIS(:)         !!RIVER WATER TEMP AT CURRENT TIME
  REAL(SP), ALLOCATABLE :: SDIS(:)         !!RIVER WATER SLNT AT CURRENT TIME
  REAL(SP), ALLOCATABLE :: QAREA(:)        !!AREA OF RIVER DISCHARGE
  REAL(SP), ALLOCATABLE :: RDISQ(:,:)      !!AREA OF FLUX
  REAL(SP), ALLOCATABLE :: ANGLEQ(:)       !!RIVER DISCHARGE ANGLE
  REAL(SP), ALLOCATABLE :: VLCTYQ(:)       !!RIVER DISCHARGE VELOCITY
  REAL(SP), ALLOCATABLE :: UUWIND(:)       !!SURFACE X-WIND
  REAL(SP), ALLOCATABLE :: VVWIND(:)       !!SURFACE Y-WIND

!----------------------2-d flow fluxes-----------------------------------------!

  REAL(SP), ALLOCATABLE :: PSTX(:)         !!EXT MODE BAROTROPIC TERMS
  REAL(SP), ALLOCATABLE :: PSTY(:)         !!EXT MODE BAROTROPIC TERMS
  REAL(SP), ALLOCATABLE :: ADVUA(:)
  REAL(SP), ALLOCATABLE :: ADVVA(:)
  REAL(SP), ALLOCATABLE :: ADX2D(:)
  REAL(SP), ALLOCATABLE :: ADY2D(:)
  REAL(SP), ALLOCATABLE :: DRX2D(:)
  REAL(SP), ALLOCATABLE :: DRY2D(:)
  REAL(SP), ALLOCATABLE :: TPS(:)          !!WORKING ARRAY
  REAL(SP), ALLOCATABLE :: ADVX(:,:)
  REAL(SP), ALLOCATABLE :: ADVY(:,:)

!---------------- internal mode   arrays-(element based)----------------------------!
```

```
  REAL(SP), ALLOCATABLE :: U(:,:)        !X-VELOCITY
  REAL(SP), ALLOCATABLE :: V(:,:)        !Y-VELOCITY
  REAL(SP), ALLOCATABLE :: W(:,:)        !VERTICAL VELOCITY IN SIGMA SYSTEM
  REAL(SP), ALLOCATABLE :: WW(:,:)       !Z-VELOCITY
  REAL(SP), ALLOCATABLE :: UF(:,:)       !X-VELOCITY FROM PREVIOUS TIMESTEP
  REAL(SP), ALLOCATABLE :: VF(:,:)       !Y-VELOCITY FROM PREVIOUS TIMESTEP
  REAL(SP), ALLOCATABLE :: WT(:,:)       !Z-VELOCITY FROM PREVIOUS TIMESTEP
  REAL(SP), ALLOCATABLE :: RHO(:,:)      !DENSITY AT ELEMENTS
  REAL(SP), ALLOCATABLE :: RMEAN(:,:)    !INITIAL DENSITY AT ELEMENTS
  REAL(SP), ALLOCATABLE :: T(:,:)        !TEMPERATURE AT ELEMENTS
  REAL(SP), ALLOCATABLE :: TMEAN(:,:)    !INITIAL TEMPERATURE AT ELEMENTS
  REAL(SP), ALLOCATABLE :: S(:,:)        !SALINITY AT ELEMENTS
  REAL(SP), ALLOCATABLE :: SMEAN(:,:)    !INITIAL SALINITY AT ELEMENTS
  REAL(SP), ALLOCATABLE :: Q2(:,:)       !2 X TURBULENT KINETIC ENERGY AT NODES
  REAL(SP), ALLOCATABLE :: L(:,:)        !TURBULENT LENGTH MACROSCALE
  REAL(SP), ALLOCATABLE :: Q2L(:,:)      !2 X TURBULENT KE X LENGTH AT NODES
#  if defined (GOTM)
  REAL(SP), ALLOCATABLE :: TKE(:,:)      !TURBULENT KINETIC ENERGY AT NODES
  REAL(SP), ALLOCATABLE :: TKEF(:,:)     !TURBULENT KINETIC ENERGY AT NODES
  REAL(SP), ALLOCATABLE :: TEPS(:,:)     !TURBULENT DISSIPATION AT NODES
  REAL(SP), ALLOCATABLE :: TEPSF(:,:)    !TURBULENT DISSIPATION AT NODES
#  endif
  REAL(SP), ALLOCATABLE :: KM(:,:)       !TURBULENT EDDY VISCOSITY FOR MOMENTUM
  REAL(SP), ALLOCATABLE :: KH(:,:)       !TURBULENT DIFFUSIVITY FOR SALINITY/TEMP
  REAL(SP), ALLOCATABLE :: KQ(:,:)       !TURBULENT DIFFUSIVITY FOR Q2/Q2L
  REAL(SP), ALLOCATABLE :: AAM(:,:)      !STORAGE FOR OUTPUT OF HORIZONTAL VISCOSITY
  REAL(SP), ALLOCATABLE :: Q2F(:,:)      !WORKING ARRAY FOR UPDATING Q2
  REAL(SP), ALLOCATABLE :: Q2LF(:,:)     !WORKING ARRAY FOR UPDATING Q2F
  REAL(SP), ALLOCATABLE :: KM1(:,:)      !TURBULENT EDDY VISCOSITY FOR MOMENTUM


!-----------------------3d variable arrays-(node based)-----------------------------!

  REAL(SP), ALLOCATABLE :: T1(:,:)       !!TEMPERATURE AT NODES
  REAL(SP), ALLOCATABLE :: S1(:,:)       !!SALINITY AT NODES
  REAL(SP), ALLOCATABLE :: RHO1(:,:)     !!DENSITY AT NODES
  REAL(SP), ALLOCATABLE :: TF1(:,:)      !!TEMPERATURE FROM PREVIOUS TIME
  REAL(SP), ALLOCATABLE :: SF1(:,:)      !!SALINITY FROM PREVIOUS TIME
  REAL(SP), ALLOCATABLE :: TMEAN1(:,:)   !!MEAN INITIAL TEMP
  REAL(SP), ALLOCATABLE :: SMEAN1(:,:)   !!MEAN INITIAL SALINITY
  REAL(SP), ALLOCATABLE :: RMEAN1(:,:)   !!MEAN INITIAL DENSITY
  REAL(SP), ALLOCATABLE :: WTS(:,:)      !!VERTICAL VELOCITY IN SIGMA SYSTEM
  REAL(SP), ALLOCATABLE :: WTTS(:,:)     !!WTS FROM PREVIOUS TIMESTEP

!---------------------------internal mode fluxes-------------------------------------!

  REAL(SP), ALLOCATABLE :: DRHOX(:,:)    !!BAROCLINIC PG IN X DIRECTION
  REAL(SP), ALLOCATABLE :: DRHOY(:,:)    !!BAROCLINIC PG IN Y DIRECTION

!------------shape coefficient arrays and control volume metrics--------------------!

  REAL(SP), ALLOCATABLE :: A1U(:,:)
  REAL(SP), ALLOCATABLE :: A2U(:,:)
  REAL(SP), ALLOCATABLE :: AWX(:,:)
  REAL(SP), ALLOCATABLE :: AWY(:,:)
  REAL(SP), ALLOCATABLE :: AW0(:,:)
  REAL(SP), ALLOCATABLE :: ALPHA(:)


!-----salinity and temperature bottom diffusion condition/bottom depth gradients----!

  REAL(SP), ALLOCATABLE :: PHPN(:)
  REAL(SP), ALLOCATABLE :: PFPXB(:)
  REAL(SP), ALLOCATABLE :: PFPYB(:)
  REAL(SP), ALLOCATABLE :: SITA_GD(:)
  REAL(SP), ALLOCATABLE :: AH_BOTTOM(:)

!-----arrays used for averaging of flow quantities for output----------------------!

  REAL(SP), ALLOCATABLE :: U_AVE(:,:)   !U AVERAGED OVER INT_AVGE ITERATIONS
```

```
  REAL(SP), ALLOCATABLE :: V_AVE(:,:)   !V AVERAGED OVER INT_AVGE ITERATIONS
  REAL(SP), ALLOCATABLE :: W_AVE(:,:)   !WW AVERAGED OVER INT_AVGE ITERATIONS
  REAL(SP), ALLOCATABLE :: KM_AVE(:,:)  !KM AVERAGED OVER INT_AVGE ITERATIONS
  REAL(SP), ALLOCATABLE :: KH_AVE(:,:)  !KH AVERAGED OVER INT_AVGE ITERATIONS
  REAL(SP), ALLOCATABLE :: T_AVE(:,:)   !T1 AVERAGED OVER INT_AVGE ITERATIONS
  REAL(SP), ALLOCATABLE :: S_AVE(:,:)   !S1 AVERAGED OVER INT_AVGE ITERATIONS
  REAL(SP), ALLOCATABLE :: R_AVE(:,:)   !RHO1 AVERAGED OVER INT_AVGE ITERATIONS
  REAL(SP), ALLOCATABLE :: EL_AVE(:)    !EL AVERAGED OVER INT_AVGE ITERATIONS

  REAL(SP), ALLOCATABLE :: VISCOFH(:,:)

END MODULE ALL_VARS

MODULE BCS
  USE MOD_TYPES
  USE MOD_PREC
  IMPLICIT NONE
  SAVE


!----------------boundary conditions: ground water---------------------------------!

 INTEGER, ALLOCATABLE :: NODE_BFW(:)      !!LOCAL GROUNDWATER NODES
 INTEGER, ALLOCATABLE :: BFW_GL2LOC(:)    !!GLOBAL TO LOCAL MAPPING OF GWATER NODES
 REAL(SP),  ALLOCATABLE :: BFWQDIS(:,:)   !!GROUNDWATER FRESH WATER FLUX DATA
 TYPE(BC)     :: BFW_TM                   !!TIME MAP FOR GROUNDWATER DATA

!----------------boundary conditions: non-Julian tidal forcing----------------------!

  REAL(SP),  ALLOCATABLE :: APT(:,:)     !!TIDE AMPLITUDE
  REAL(SP),  ALLOCATABLE :: PHAI(:,:)    !!TIDE PHASE
  REAL(SP),  ALLOCATABLE :: EMEAN(:)     !!MEAN SURFACE ELEVATION

!----------------boundary conditions: Julian tidal forcing--------------------------!

  REAL(SP), ALLOCATABLE    :: ELSBC(:,:)    !!INPUT SURFACE ELEVATION
  TYPE(BC)                 :: ELO_TM        !!TIME MAP FOR SURFACE ELEVATION DATA

!----------------boundary conditions: fresh water discharge-------------------------!

  INTEGER, ALLOCATABLE  :: INODEQ(:)       !!LOCAL FRESH WATER INFLOW NODES
  INTEGER, ALLOCATABLE  :: ICELLQ(:)       !!LOCAL FRESH WATER INFLOW ELEMENTS
  INTEGER, ALLOCATABLE  :: RIV_GL2LOC(:)   !!GLOBAL TO LOCAL MAP OF FW NODES
  TYPE(BC)              :: QBC_TM          !!TIME MAP FOR RIVER DISCHARGE DATA
  REAL(SP), ALLOCATABLE  :: VQDIST(:,:)    !!DISCHARGE VERTICAL DISTRIBUTION
  REAL(SP), ALLOCATABLE  :: DQDIS(:,:)     !!WATER FLUX DISCHARGE DATA
  REAL(SP), ALLOCATABLE  :: DTDIS(:,:)     !!WATER TEMPERATURE DISCHARGE DATA
  REAL(SP), ALLOCATABLE  :: DSDIS(:,:)     !!WATER SALINITY DISCHARGE DATA

!----------------surface forcing: heat flux and radiation---------------------------!

  TYPE(BC)              :: HFX_TM          !!TIME MAP FOR TIME DEPENDENT HF/RAD DATA
  REAL(SP), ALLOCATABLE  :: DHFLUX(:,:)    !!HEAT FLUX DATA
  REAL(SP), ALLOCATABLE  :: DHSHORT(:,:)   !!SHORT WAVE RADIATION DATA

!----------------surface forcing: wind field----------------------------------------!

  TYPE(BC)              :: WND_TM          !!TIME MAPPING FOR WIND FIELD DATA
  REAL(SP), ALLOCATABLE  :: DTX(:,:)       !!SURFACE WIND (X)
  REAL(SP), ALLOCATABLE  :: DTY(:,:)       !!SURFACE WIND (Y)

!----------------boundary conditions: uniform meteo conditions----------------------!

  TYPE(BC)              :: UMF_TM          !!TIME MAPPING FOR UNIFORM METEOS
  REAL(SP), ALLOCATABLE  :: DQPREC(:)      !!PRECIPITATION
  REAL(SP), ALLOCATABLE  :: DQEVAP(:)      !!EVAPORATION
  REAL(SP), ALLOCATABLE  :: UWIND(:)       !!SURFACE WIND (X)
  REAL(SP), ALLOCATABLE  :: VWIND(:)       !!SURFACE WIND (Y)
  REAL(SP), ALLOCATABLE  :: UHFLUX(:)      !!UNIFORM HEAT FLUX
  REAL(SP), ALLOCATABLE  :: UHSHORT(:)     !!UNIFORM SHORT WAVE RADIATION
```

```
!=======================================================================================|

END MODULE  BCS
```

VITA

Angel Gabriel Retana-Calvo was born in San José, Costa Rica on April 3, 1975. In 1992, he graduated from the Costarrican Scientific High School in San José. Prior to starting his graduate studies at the University of New Orleans (UNO) in January 1998, he obtained a degree of Bachelor in Mechanical Engineering at the Universidad de Costa Rica in San José, Costa Rica, on March 12, 1997, a degree of Master of Sciences in Civil Environmental Engineering at the University of New Orleans in New Orleans, Louisiana, in December 1999.

During graduate school while pursuing his master's degree, he worked as a research assistant for the Urban Waste Management and Research Center at UNO. His academic emphasis has been in the areas of water and wastewater treatment of the environmental engineering field.

During his doctoral program, he worked as a research assistant in engineering studies related with water resources. His academic approach includes hydrodynamic modeling with the performance of physical and numerical models.

Currently, he serves as Brown and Caldwell Southeast Business Unit Regional Process Engineer in Orlando, Florida.