01 Apr 2015

Preface

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Available online at www.sciencedirect.com

ScienceDirect

Procedia Engineering 103 (2015) 1 – 3

Procedia Engineering

www.elsevier.com/locate/procedia

Preface

This volume contains the papers presented at the 2015 Hypervelocity Impact Symposium (HVIS 2015) held in Boulder, Colorado, April 27-30, on behalf of the Hypervelocity Impact Society. This was the thirteenth symposium since the re-initiation of the symposia in 1986; the proceedings for the previous symposia are published as Volumes 5, 10, 14, 17, 20, 23, 26, 29, and 33, of the *International Journal of Impact Engineering*. The 11th symposium, in Freiberg 2010, split the papers between the Volume 38 of the *International Journal of Impact Engineering* and a proceedings published by the Fraunhofer Ernst Mach Institute, while the proceedings of the 12th symposium appeared as Volume 58 of *Procedia Engineering*. The 86 papers in this volume address advancements in the basic understanding of hypervelocity impact physics, related phenomenology, and engineering applications.

Each paper in this volume has undergone peer review by at least two members of the technical committee experts in their respective fields of research. Appreciation is forwarded to those who served on the technical committee for reviewing the papers, providing constructive critical comments to the authors, and assisting the technical chairs with building the symposium agenda. The authors are to be commended for keeping to the schedule by providing their draft manuscripts for review, making appropriate modifications and corrections, and preparing their final manuscripts.

The opening keynote address, following the tradition that was started in 1989, was given by the recipient of the Society's Distinguished Scientist Award. Three plenary talks were given by Michael Squire of the NASA Engineering Safety Center (*Needs and Trends in Orbital Debris Impact Modeling, Testing, and Technology*), Keith Jamison of SAIC (*Development of a Diagnostic Technique to Track Magnetized Projectiles in Opaque Media*), and William Ailor of the Aerospace Corporation (*The Current State of Planetary Defense*). In addition, Rusty Schweickart of the B612 Foundation gave a keynote address (*Planetary Defense and Recent Efforts in the Discovery of Potentially Hazardous NEOs on an Accelerated Time Scale*) as part of the symposium banquet festivities.

A listing of the HVIS 2015 technical committee is given on the following page; their time and dedication greatly assisted in making the symposium a technical success. A special note of thanks to my fellow Symposium Co-Chair Timothy Maclay (*Celestial Insight, Inc.*), to Joel Williamsen (*Institute for Defense Analyses*) and Steve Evans (*NASA Marshall Space Flight Center*), the Technical Program Co-Chairs, and to William Reinhart (*Sandia National Laboratories*), the Symposium Exhibits Chair. The efforts of Tobin Munsat in organizing and hosting a tour of the Dust Accelerator Lab at the University of Colorado are also noted with appreciation. These gentlemen worked diligently to ensure high quality technical and social programs. The Society is also grateful to Michelle Wiginton and Tammy Mace, both from the Missouri University of Science and Technology, who worked tirelessly with us to ensure a smoothly running symposium. The HVIS 2015 organization committee is grateful to the society's board of directors, its committee chairs, and the Army Research Laboratory for their assistance and support in helping to make this symposium a success.

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Peer-review under responsibility of the Curators of the University of Missouri On behalf of the Missouri University of Science and Technology
doi:10.1016/j.proeng.2015.04.001

HVIS 2015 Symposium Organization

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