

Obituary 3
News & Events..... 4
Meetings & Conferences
..... 6
Bookshelf 9
Editorial Staff 11

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19th APS Shock Compression of Condensed Matter Conference Tampa, FL, June 14-19, 2015



Message from the Chair

As autumn approaches, it is time to consider the future. Ours is perhaps the most successful Topical Group in the American Physical Society, being the only one to hold its own Topical Conferences without requiring the umbrella of larger Divisional meetings. I hope that you are all planning to attend the 19th Biennial Conference on Shock Compression of Condensed Matter in Tampa, Florida, June 14-19 of next year. An important reminder for those employees of the US Government and its Contractors is to assure that the request for approval is submitted to the appropriate Cabinet-level Department with a required date for approval so that deadlines associated with registration and lodging reservations can be met. It is also time to be planning for the 20th Topical Conference in 2017. This newsletter contains a call for proposals to organize that conference and I hope that you will seriously consider submitting a proposal. Proposals may be forwarded to any of the Topical Group Officers and need not be long. A brief description of the proposed locale and the names, qualifications, and duties of the

proposed Organizers are the primary items that should be included.

Another important item I would like to point out is the special issue of *APS News* that was recently published concerning proposed changes to the APS Governance and Leadership Structures. Because of changes in the laws of Washington, DC, where the Society is incorporated, it is imperative that the proposed changes in governance be implemented in order for us to continue to enjoy nonprofit organization status. While the changes in legal requirements are specific to Washington, the consequences for the Society will affect all members. Hence, when the voting period opens, I hope you will all take the time to vote on this very important issue.

Finally, I wish to thank all of our members for their hard work and dedication to our field and wish you all a safe and happy autumn.

Bill Anderson



**19th American Physical Society Shock Compression of Condensed Matter
Biennial International Conference
Tampa, FL June 14-19, 2015
<http://msl.cas.usf.edu/sccm-2015>**

The nineteenth Biennial International Conference of the APS Topical Group on Shock Compression of Condensed Matter (SCCM-2015) will be held at the Marriott Waterside Hotel & Marina, Tampa, Florida, from June 14th through June 19th 2015. This conference is the forum for discussion of world-wide efforts in exploring fundamental science and applications of matter at extreme conditions including shock-induced materials behavior, plasticity, phase transitions, and chemical reactions; high strain rate phenomena; properties of energetic materials and detonation phenomena; properties of matter in the warm dense regime; and new computational methods from first-principals to the continuum. The call for abstract will be issued in early Fall 2014.

Conference Chairs:

Ivan Oleynik, University of South Florida (oleynik@usf.edu)

Suhithi Peiris, Defense Threat Reduction Agency (suhithi.peiris@dtra.mil)

Ramon Ravelo, University of Texas at El Paso (ravelo@utep.edu)

Conference Treasurer:

Mark Elert, US Naval Academy (elert@usna.edu)

Conference Proceedings Editors:

Ricky Chau, Lawrence Livermore National Laboratory (chau2@llnl.gov); Tim Germann, Los Alamos National Laboratory (tcg@lanl.gov); Thomas Sewell, University of Missouri-Columbia (sewellt@missouri.edu)

Conference Exhibitor Coordinator:

Jennifer Jordan, Air Force Office of Scientific Research (jennifer.jordan.6@us.af.mil)

Conference Student Program:

Dylan Spaulding, Harvard University (dylanspaulding@fas.harvard.edu)

Conference Technical Committee:

- Detonation and shock induced chemistry: David Moore (LANL), Joel Carney (NSWC)
- Energetic and reactive materials: Steve Son (Purdue), James Lightstone (NSWC)

- Equations of state: Jon Eggert (LLNL)
- Experimental developments: Marcus Knudson, (SNL), Nick Glumac (UIUC)
- First-principles and molecular dynamics: Nir Goldman (LLNL), Jean-Bernard Maillet (CEA)
- Geophysics and planetary science: Stephane Mazevet (Observatoire de Paris), Allen Dalton (DTRA)
- Grain scale to continuum modeling: Larry Fried (LLNL), Zhen Chen (U Missouri)
- High-energy physics/Warm dense matter: Todd Ditmire (UT Austin)
- Inelastic deformations, fracture and spall: Rusty Gray (LANL), KT Ramesh (JHU)
- Materials strength: Justin Brown (SNL), Wayne Chen (Purdue)
- Particulate, porous and composite materials: Vitali Nesterenko (UCSD); John Borg (Marquette U.)
- Phase transitions: Chris Seagle (SNL), Turab Lookman (LANL)
- Soft matter: Eric Brown (LANL)

Please visit the conference website <http://msl.cas.usf.edu/sccm-2015> for the latest updates.

Obituary

Donald R Curran

Don Curran, director of Poulter Laboratory's Shock Physics and Geophysics Program from 1970 to 1997, passed away on February 28 in Oslo, Norway, after a long battle with Parkinson's disease. He was 82.

Born in Aurora, IL, Don grew up in the Midwest, earned a BS in physics at Iowa State, and MS and PhD degrees at Washington State University, where in 1960 he was one of WSU's first graduates in the discipline of shock physics. He worked summers at SRI while completing his thesis on experimental and theoretical studies of high-pressure phase transitions in metals. In 1961 he left for Europe, working 5 years at the Norwegian Defence Research Establishment near Oslo and 3 years at the Ernst Mach Institute in Freiburg, Germany. In 1970 he returned to SRI and began leading a dynamic fracture program that produced the NAG/FRAG family of micro-mechanical failure models for solids.

In 2000 Don received the John S. Rinehart Award, which recognized him for "seminal contributions to the understanding and modeling of dynamic fracture, fragmentation, and shear localization." Author of many professional publications and coauthor of three books, Don was named a Fellow of the American Physical Society. In 2009 Don was awarded the Society's highest honor, the George Duvall Shock Compression Science Award.

His imprint on those who knew him is indelible. With unequaled wit, interpersonal skills, and a penchant for activities "just beyond my abilities", Don was so much fun to be around. He was a ski patroller at Tahoe's Heavenly Ski Resort and a frequent abalone diver, and he introduced and encouraged many of his colleagues to ski and dive. Don is now patrolling at another Heavenly. May his powder be light and deep.

By Donald A Shockey, SRI International
Contributed by Lalit Chhabildas, AFRL, Eglin AFB (retd.)

News and Events

Presidential Early Career Award for Scientists and Engineers (PECASE) Recipients

Seth Root (Sandia National Laboratories) and Miguel Morales (Lawrence Livermore National Laboratory) were amongst 102 researchers and scientists named by President Barak Obama on December 23, 2013 (<http://www.whitehouse.gov/the-press-office/2013/12/23/president-obama-honors-outstanding-early-career-scientists>) as recipients of the Presidential Early Career Award for Scientists and Engineers (PECASE). The PECASE Award is the highest honor bestowed by the U.S. government on outstanding scientists and engineers who are beginning their independent careers. All recipients were either

funded by or employed by 13 federal agencies, including the Department of Energy. Winners were honored by President Obama on April 14, 2014 at a White House ceremony in Washington, D.C. (<http://www.whitehouse.gov/blog/2014/04/15/inspiring-next-generation-innovators-president-obama-honors-nations-cutting-edge-sci>) for their work in advancing the nation's science and engineering. Seth's recognition was for his broad-based work studying dynamic material properties at a wide range of conditions and materials and especially for his work studying noble gases at very high pressures. Miguel was recognized for his use of advanced computational techniques such as density functional theory and quantum Monte Carlo in the study of materials at extreme pressures and temperatures.

Bylaw Amendments

The Topical Group on Shock Compression of Condensed Matter recently held a vote on two proposed bylaw amendments. The first proposal was to eliminate the requirement of 50% membership participation in elections to amend the bylaws. This requirement is unique among APS units and is difficult to achieve. The second proposal was to establish procedures for the adoption of a Unit Statement in the event that the Topical Group wishes to make a public statement on some issue affecting the Group. Both amendments passed with the required two-thirds majority of those voting. The membership participation rate in the election was 51.7%. The revised bylaws are published on the Topical Group web site.

Mark Elert

GSCCM Secretary/Treasurer

Proposals for 2017 Shock Compression Conference

Proposals are now being solicited to organize the 2017 Biennial Conference on Shock Compression of Condensed Matter. Typically a team of three people is needed to organize the conference. The 2015 meeting will be held in Tampa, Florida, and successive SCCM conferences traditionally move between contrasting geographic locations, so a conference site outside the southeastern United States would be preferred. Those interested should send a short proposal to any officer of the Topical group (see the side bar on Page 1).

Bill Anderson

GSCCM Chair

Jerry Forbes Shock Wave Physics Online Course

Shock Wave Physics I (ENPM 681)

Graduate level course based on the book Shock Wave Compression of Condensed Matter: A Primer. It is open to both enrolled students and those not currently enrolled

at the University. The course spans two semesters and is offered in Fall 2014 and Spring 2015.

For detail information about the course email Jerry Forbes at jforw@comcast.net



The Journal of Dynamic Behavior of Materials from Springer

(Eric Brown, Los Alamos National Laboratory)

A new journal is coming just for our community! *The Journal of Dynamic Behavior of Materials* to be published by Springer is a peer reviewed archival journal on the science and engineering of material and structural response to dynamic loading focused on high strain-rate, shock, extreme environments, impact, blast, and penetration. This new journal will be accepting manuscripts for review imminently with the first issue appearing at the beginning of 2015, promising a fast time to publication. Emphasis is on the study of dynamic behavior of materials using experimental, theoretical, modeling & simulation, and interdisciplinary methods. Articles addressing novel methods such as in situ diagnostics and hybrid experimental-computational methods that extend the frontiers of materials science in the dynamic loading regime are highly encouraged. Watch this space for more details and start considering submitting your work on shock compression of condensed matter to *JDBM*. Con-

tact Eric Brown, Editor-in-Chief, (en_brown@lanl.gov) or members of the Editorial or Advisory Board with questions.

Editorial board: Prof. Nadia Bahlouli, University of Strasbourg; Prof. Neil K. Bourne, The University of Manchester; Dr. Daniel T. Casem, U.S. Army Research Laboratory; Dr. Ellen K. Cerreta, Los Alamos National Laboratory; Prof. Wayne Chen, Purdue University; Dr. Kathryn A. Dannemann, Southwest Research Institute; Dr. Robert S. Hixson, National Security Technologies; Dr. Bo Song, Sandia National Laboratories; Prof. Ghatu Subhash, University of Florida; Dr. Tracy Vogler, Sandia National Laboratories

Advisory board: Prof. William L. Fourny, University of Maryland; Prof. Yogendra Gupta, Washington State University; Prof. K. T. Ramesh, Johns Hopkins University; Prof. Guruswami Ravichandran, California Institute of Technology; Prof. Arun Shukla, University of Rhode Island; Prof. Naresh Thadhani, Georgia Institute of Technology; Prof. Hareesh Tippur, Auburn University

Shock Physics Bibliography

Tracy Vogler, Sandia National Laboratory

Keeping up with work in the field is an important part of being a scientist, but it's hard in shock physics when the work is published in so many different journals. Fortunately, Stephen Walley (Cambridge) has been compiling a bibliography of papers in the field. He has graciously provided those for 2013 and 2014, and they have been posted on the GSCCM website (<http://shockphysics.org/pages/resources.html>). Even though Stephen puts a lot of work into compiling the list, it's impossible to catch all the relevant papers. So, please send me (tjvogle@sandia.gov) citations of your papers from 2014 beyond to incorporate into the bibliography. Papers on research that might be presented at the shock conference are welcome; if the topic strays from that you may be asked to defend including it. So, take a look at the bibliographies Stephen has put together – you're bound to find some interesting papers – and send your papers to me so more people will see them! Given below are the bibliographies that I have received.

1. Alexander, C. S., Key, C. T., and Schumacher, S. C. (2013). "Dynamic response and modeling of a carbon fiber—epoxy composite subject to shock loading," *J. Appl. Phys.* **114**, 223515. <http://dx.doi.org/10.1063/1.4846116>
2. Armstrong, M.R., Zaug, J. M., Goldman, N., Kuo, I-F. W., Crowhurst, J. C., Howard, W. M., Carter, J. A., Kashgarian, M., Chesser, J. M., Barbee, T. W., and Bastea, S. (2013). "Control of reactivity via ultrafast compression rates", *J. Phys. Chem. A*, **117**, 13051.
3. Barton, N.R., and Rhee, M. (2013). "A multiscale strength model for tantalum over an extended range of strain rates," *J. Appl. Phys* **114**, 123507.
4. Bhattacharya, C. (2014). "A multiphase EOS for metals using mGLJ model" *Comput. Mater. Sci.* **82**, 274-279.
5. Goldman, N., and Tamblyn, I. (2013). "Prebiotic Chemistry Within a Simple Impacting Icy Mixture", *J. Phys. Chem. A*, **117**, 5124.

6. Jones, D.R., Chapman, D.J., and Eakins, D.E. (2013). "A gas gun based technique for studying the role of temperature in dynamic fracture and fragmentation," *J. Appl. Phys.* **114**, 173508.
<http://dx.doi.org/10.1063/1.4828867>
7. Liu, X., Mashimo, T., Ogata, K., Kinoshita, T., Sekine, T., Zhou, X., and Nellis, W.J. (2013) "Anomalous elastic-plastic transition of MgO under shock compression" in *J. Appl. Phys.* **114**, 243511.
8. Martins, Z., Price, M. C., Goldman, N., Sephton, M. A., and Burchell, M. J. (2013). "Shock synthesis of prebiotic amino acids from an impacting icy planet surface analogue", *Nature Geosciences*, **6**, 1045.
9. Neogi, A. and Mitra, N. (2014). "On shock response of nano-void closed/open cell copper material: Non-equilibrium molecular dynamic simulations" *J. Appl. Phys.* **115**, 013504.
10. Ramsey, M. C., and Pitz, R. W. (2013) Energetic Cavitation Collapse Generates 3.2 Mbar Plasma with a 1.4 J Driver, *Phys. Rev. Lett.*, **110**, 154301.
11. Tramontina, D., Erhart, P., Germann, T., Hawreliak, J., Higginbotham, A., Park, N., Ravelo, R., Stukowski, A., Suggit, M., Tang, Y., Wark, J. and Bringa, E. (2014). "Molecular dynamics simulations of shock-induced plasticity in tantalum" *High Energy Density Phys.* **10**, 9-15.
12. Zhang, Q.B. and Zhao, J. (2014). "A review of dynamic experimental techniques and mechanical behaviour of rock materials" *Rock Mech Rock Engng.* doi: 10.1007/s00603-013-0463-y

Meetings and Conferences



2015 Hypervelocity Impact Symposium

April 26-30, 2015, Boulder, Colorado USA
(Stephen M Walley, University of Cambridge)

Paper Submission Deadline - October 21, 2014

Symposium Topics

- Hypervelocity Phenomenology Studies
- High-Velocity Launchers and Diagnostics
- Spacecraft Meteoroid/Debris Shielding and Failure Analyses
- Material Response (including EOS)
- Fracture and Fragmentation
- High-Velocity Penetration Mechanics and Target Response
- Armor/Anti-Armor and Ballistic Technology
- Analytical and Numerical Methodologies
- Theoretical/applied mechanics relevant to hypervelocity impact

Special Session

- Asteroid Impact and Planetary Defense Technology

Important Dates

February 04, 2014

Call for Abstracts Issued

May 23, 2014

Abstract Submission Due

July 11, 2014

Notification of Abstract Acceptance

October 21, 2014

Draft Paper Deadline

Who Should Attend?

Scientists, engineers and technical managers from academia, industry, government and defense programs.

<http://hvis2015.mst.edu/>

Recent Events

First Ballistic and Wound Ballistic International Congress

(Stephen M Walley, University of Cambridge)



The first Ballistic and Wound Ballistic International Congress was held on Jun 16-17, 2014 at the School of Health of Health of the Armies of Bron, Lyon, France (<http://www.congress-ballistique-lesionnelle.fr>). Following the five ballistics and wound ballistics conferences held since 2008 in Marseille and Lyon (communications on the site www.eswbsebl.org site), the 2014 conference was the international conference for the first time. It was organized jointly by the National Institute of Scientific Police (INPS) and Euroballistics®, with the support of the European Company of Lesional Ballistics (SEBL). Being the centenary of the beginning of World War I, the themes discussed weapons and wounds, comparing yesteryear to present day equivalents including:

- **Historical** review and respective injury powers of Firearms and ammunitions from First World War to nowadays
- **Technical ballistics** (physical and mathematical behaviour of weapons and ammunitions, types of ammunitions, categories of weapons, protective measures)
- **Intermediate ballistics** (studies of clothes, distance of shooting, rebounds and detours, position of the victims and the authors during the facts)
- **The forensic lesional ballistics** (crime scene, external examination of the victims, performs an autopsy, ballistics intracorporelle, osseous ballistics, shootings technical on the gelatin, the studies on simulants computing).

The diversity of subjects, multiple professional origins of participants and speakers, as well as international approaches, guaranteed a wealth of communications in two official languages, viz English and French.

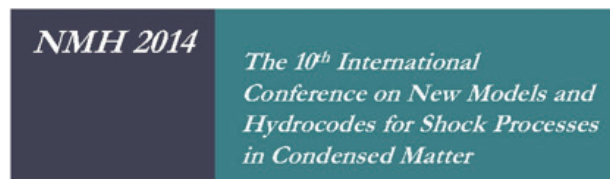
High Pressure Gordon Research Seminar (Richard G. Kraus, Lawrence Livermore National Laboratory)

The 2014 Gordon Research Seminar on Research at High Pressure was held on June 21-22, 2014, at the University of New England, Biddeford, ME, USA chaired by Rachael T. Hazael and Richard G. Kraus (http://www.grc.org/programs.aspx?year=2014&program=grs_highp). This seminar preceded the traditional Gordon Research Conference and was led by young researchers for the participation of students, post-doctoral researchers (post-docs) and other early career scientists.

The focus of this meeting was the continued development of High Pressure Research as a tool for studying matter at extreme conditions. Currently, all areas of high-pressure research show great complexity; biological systems, large unit cells, electrides, and bonding at multi-Mbar pressures and multi-eV temperatures. Dissemination of new, diverse, and evolving techniques utilized by the numerous high-pressure communities was an important aspect of the meeting. Approximately 60 young researchers (graduate students, post-docs, and early career scientists) from the many fields in high-pressure science presented their results, applications, and tools in a manner that provoked in-depth conversations and new ideas. Financial support was provided to many of the students and post-docs.

Conference on New Models and Hydrocodes for Shock Processes in Condensed Matter (NMH 2014)

(Marvin Zocher, Los Alamos National Laboratory)



The 10th International Conference on New Models and Hydrocodes for Shock Processes in Condensed Matter (NMH2014) was held during July 27 - August 1, 2014 at



the University of Pardubice, Czech Republic, EU. This conference series originated under the direction of Dr. Vladimir Klimenko (now Chair Emeritus of NMH), and previous venues include London, Paris, Lisbon, Dijon, et al. This meeting addresses areas relevant to shock waves and high-rate phenomena in all phases of matter. The focus of the conference is the exploration of new research areas, which are becoming increasingly relevant to the Shock Community – these include, but are not restricted to:

- Shock waves in condensed matter, including EOS, strength, and damage and related experiments
- Shocks in HE, including unreacted and reacted EOS, and modelling of the reaction zone and related experiments
- Computational methods for the simulation of shock processes, including the continuum, mesoscale, and microscale applications and multiscale linkage
-

Please contact the Organizing Committee member Marvin Zocher (zocher@lanl.gov) for additional information and time frame for the proceedings of the conference to become available.

Hopkinson Centenary Conference

(Cavendish Laboratory, University of Cambridge)



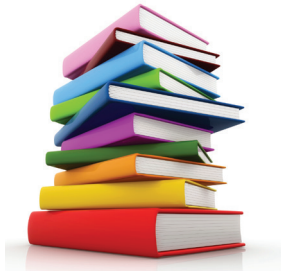
DYMAT, the European Association for research into the dynamic behavior of materials and its applications organized Hopkinson Centenary Conference (<http://www.hopkinson2014.org>) to celebrate the centenary of an epoch making invention by Bertram Hopkinson (1874 – 1918) on September 9-11, 2014 at University of Cambridge, Cambridge, UK. With his 1914 seminal paper, “A method of measuring the pressure produced in the detonation of high explosives or by the impact of bullets” Philosophical Transaction of the Royal Society of London, A213, pp. 437-456, Bertram Hopkinson pioneered the development of an experimental set-up which even nowadays seems to be in greater demand than ever.



The Hopkinson Centenary Conference was intended to commemorate this ground-breaking invention and to reflect the most recent scientific developments in the area of Hopkinson bar type tests for dynamic material testing. The presentations included other dynamic test methodologies (e.g. Taylor impact, blast and shock experiments). Specific focused interest was the original purpose of the Hopkinson bar, i.e. the measurement of blast effects. The University of Cambridge, as the place where Bertram Hopkinson studied at Trinity College and where he was Professor of Mechanism and Applied Mechanics, was the perfect location for hosting the Centenary Conference. Two special issues of the Philosophical Transactions of the Royal Society of London, Series A, are now available as given in the Books, Proceedings, and Other Newsletter section of this Newsletter.

Bookshelf

Books, Proceedings, and Other Newsletters



Flow, Deformation and Fracture: Lectures on Fluid Mechanics and the Mechanics of Deformable Solids for Mathematicians and Physicists

Author: G. I. Barenblatt
ISBN: 9780521715386

Adhesive Particle Flow: A Discrete-Element Approach

Authors: Jeffery S. Marshall and Shuiqing Li
ISBN: 9781107032071

Plasticity of Pressure-Sensitive Materials

Editors: Holm Altenbach and Andreas Öchsner
ISBN: 9783642409448 (Print) 9783642409455 (Online)

Peridynamic Theory and Its Applications

Authors: Erdogan Madenci and Erkan Oterkus
ISBN: 9781461484653

Constitutive Relations under Impact Loadings: Experiments, Theoretical and Numerical Aspects
Series: CISM International Centre for Mechanical Sciences, Vol. 552

Editors: Tomasz Lodygowski and Alexis Rusinek
ISBN: 9783709117682

Blast Mitigation: Experimental and Numerical Studies

Editors: Arun Shukla, Yapa D. S. Rajapakse, and Mary E. Hynes
ISBN: 9781461472667

Fracture Mechanics of Piezoelectric and Ferroelectric Solids

Authors: Daining Fang and Jinxi Liu
ISBN: 9783642300868

Elastoplasticity Theory: Series: Lecture Notes in Applied and Computational Mechanics, Vol. 69

Author: Koichi Hashiguchi
ISBN: 9783642358494

Proceedings of the 22nd International Meshing Roundtable

Editors: Josep Sarrate and Matthew Staten
ISBN: 9783319023359

Elasticity for Geotechnicians: A Modern Exposition of Kelvin, Boussinesq, Flamant, Cerruti, Melan, and Mindlin Problems

Series: Solid Mechanics and Its Applications, Vol. 204
Authors: Paolo Podio-Guidugli and Antonino Favata
ISBN: 9783319012582

How Mechanics Shaped the Modern World

Author: David H. Allen
ISBN: 9783319017013

Introduction to Solid Mechanics: An Integrated Approach

Authors: Jacob Lubliner and Panayiotis Papadopoulos
ISBN: 9781461467687

Fracture Phenomena in Nature and Technology: Proceedings of the IUTAM Symposium on Fracture Phenomena in Nature and Technology held in Brescia, Italy, 1-5 July 2012

Editors: Davide Bigoni, Angelo Carini, Massimiliano Gei, and Alberto Salvadori, Alberto
ISBN: 9783319043975

Multiple Impacts in Dissipative Granular Chains

Series: Lecture Notes in Applied and Computational Mechanics, Vol. 72
Authors: Ngoc Son Nguyen and Bernard Brogliato
ISBN: 9783642392986

Incoming Asteroid!: What Could We Do About It?

Series: Astronomers' Universe
Author: Duncan Lunan
ISBN: 9781461487494

Nanomechanical Analysis of High Performance Materials

Series: Solid Mechanics and Its Applications, Vol. 203

Editor: Atul Tiwari
ISBN: 9789400769199

*Plasticity and Beyond
Microstructures, Crystal-Plasticity and Phase Transitions*

Series: CISM International Centre for Mechanical Sciences, Vol. 550

Authors: Jörg Schröder and Klaus Hackl
ISBN: 9783709116258

Engineering Viscoelasticity

Author: Danton Gutierrez-Lemini
ISBN: 9781461481393

Tokamak Engineering Mechanics

Series: Mechanical Engineering Series
Authors: Yuntao Song, Weiyue Wu, and Shijun Du
ISBN: 9783642395758

A Variational Approach to Fracture and Other Inelastic Phenomena

Author: Gianpietro Del Piero
ISBN: 9789400772267

Notes on Continuum Mechanics

Series: Lecture Notes on Numerical Methods in Engineering and Sciences, Vol. 4

Author: Eduardo WV Chaves
ISBN: 9789400759862

Introduction to Nanofiber Materials

Authors: Frank K. Ko and Yuqin Wan
ISBN: 9780521879835

Biological Materials Science

Biological Materials, Bioinspired Materials, and Biomaterials

Authors: Marc André Meyers and Po-Yu Chen
ISBN: 9781107010451

Phase Transitions in Materials

Author: Brent Fultz
ISBN: 9781107067240

Projectile Impact: Modelling Techniques and Target Performance Assessment

Editor: S. Syngellakis
ISBN: 9781845648794

Special Issues From Philosophical Society of The Royal Society A: Mathematical, Physical, and Engineering Sciences



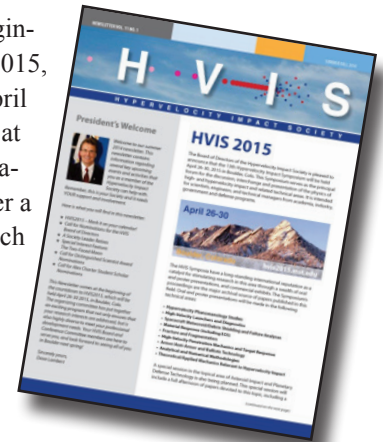
Hypervelocity Impact Society Newsletter

The Hypervelocity Impact Society welcomes you to read our Summer/Fall 2014 newsletter (<http://www.hvis.org/docs/HVISV1111.pdf>). This newsletter brings several key events and items of discussion that you, as HVIS members and scientists and engineers in relevant fields, might find of great interest.

Here is what you will find in this newsletter:

- HVIS2015 - Mark it on your Calendar!
- Nominations for HVIS Board of Directors
- Impact Point: the Career of a HVIS Member
- Special Topic: The Two-Faced Moon
- Call for Distinguished Scientist Nominations
- Call for Alex Charter Student Applications

This Newsletter comes at the beginning of the countdown to HVIS2015, being held in Boulder CO, 26 April 2015. Check out the symposium at <http://hvis2015.mst.edu>. The organizing committee has put together a program that ensures your research interests are addressed. Plan on attending and, if you are not a HVIS member, feel free to contact us at www.hvis.org, or meet us in Boulder.



**David E. Lambert, PhD, AFRL, Eglin AFB
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*Lead for this and next issues

Please send any questions or comments about the newsletter to any of the editors.

Special thanks to Kerry Johnson and Nancy Bennett-Karasik of APS Special Publications.

The APS Topical Group on Shock Compression of Condensed Matter (GSCCM) was founded in 1984 to promote the development and exchange of information on the dynamic high-pressure properties of materials. The Topical Group sponsors biennial technical meetings on shock compression and detonation physics research, including experimental, theoretical and computational studies, and new experimental methods and developments