

Newsletter of the APS Shock Compression of Condensed Matter Topical Group

Welcome to the seventh issue of the American Physical Society Shock Compression of Condensed Matter Topical Group Newsletter. This quarterly newsletter includes conference announcements, job advertisements, profiles of award winners, obituaries, and articles on the history of the field from the membership. Issues have a revolving Lead Editor, with the current issue being compiled by Dr. Eric Brown. Past issues can be found on the GSCCM website <http://www.shockphysics.org/>. Dr. Jennifer Jordan will serve as the Lead Editor for the next issue, please email comments and contributions at Jennifer Jordan at jennifer.jordan@eglin.af.mil.

TGSCCM Election Results

The executive committee would like to thank those members who agreed to stand for election. Thanks also to all the group members who took the time to vote.

The results of the election are:

Vice-Chair - **Neil Bourne** (AWE)

Executive Committee Member at large - **Jennifer Jordan** (Eglin AFB)

Executive Committee Member at large - **Kathy Prestridge** (LANL)

Neil will serve three years as vice-chair, chair elect, and then chair. Jennifer and Kathy will serve a two year term.

Congratulations to Neil, Jennifer, and Kathy as they join the current Topical Group Officers

Chair - Marcus Knudson (SNL)

Chair-Elect - Dave Moore (LANL)

Past-Chair - Dana Dlott (UIUC)

Secretary/Treasurer - Tracy Vogler (Sandia National Laboratories)

Webmaster - E. Ray Lemar (NSWC-IHMD)

Executive Committee, Members At Large - Eric Brown (LANL) and Dana Dattelbaum (LANL)

Please contact them (or any of the other executive committee members) with your ideas on how the topical group can be improved.

Thank you to the Nominating Committee consisted of: Kimberly S. Budil (LLNL), Ronald E. Cohen (CIW-GL) , Zbigniew A. Dreger (WSU) - *chair* , Jennifer L. Jordan (AFRL) , Suhithi M. Peiris (DTRA) - *APS selection*

REPORTS ON CONFERENCES OF INTEREST

2009 APS Shock Compression of Condensed Matter

Submission of Abstracts CLOSES: 20th February 2009

This Conference is planned for June 28 - July 3 at the Gaylord Opryland Hotel, Nashville, TN, and is chaired by William Anderson (LANL), Michael Furnish (SNL) and William Proud (University of Cambridge). In addition to the traditional topical areas, this Conference will include ballistics, dynamic behavior of nano/bio materials, and particulate mechanics. An interesting social and companion program has been laid out to allow an opportunity for conferees to reacquaint themselves with colleagues in the community and for companions to enjoy highlights of the Nashville area. The 12th recipient of the George Duvall Shock Compression Science Award, Don Curran, will present a keynote address. The Gaylord Opryland Resort is a world famous venue that offers many in-house amenities and spectacular indoor gardens, streams, fountains, and waterfalls. In addition, local historical and entertainment offerings are easily accessible. For more information, please visit our website (credit Chris Braithwaite) at: <http://www.phy.cam.ac.uk/conferences/apssccm2009/>

Technical areas and primary points-of-contact are as follows. Please send suggestions for focus topics or invited talks to these people or to the Conference chairs.

CM: Continuum & Multi-scale Modeling - Mike Winey (WSU)
 DC: Detonations & Shock-Induced Chemistry - Laura Smilowitz (LANL)
 EM: Energetic Materials - Ruth Doherty (DTRA)
 ES: Equation of State - Marcus Knudson (SNL)
 ED: Experimental Developments:
 (i) Diagnostics - PDV David Holtkamp (LANL)
 (ii) Loading techniques - e.g. ICE - Jacques Petit (CEA)
 MD: First-Principles & Molecular Dynamics Calculations - Thomas Sewell (U MO)
 GS: Geophysics & Planetary Science - Sarah Stewart (Harvard)
 HD: High Energy Density Physics/ Warm Dense Matter - Thomas Mattson (SNL)
 ID: Inelastic Deformation, Fracture, & Spall - Gennady Kanel (RAS)/Jeremy Millett (AWE)
 MS: Materials Science - Philip Rae (LANL)
 PT: Phase Transitions - Eric Brown (LANL)
 PC: Physics & Chemistry at High Pressure; static and low rate studies - Bill Nellis (Harvard)
 SO: Spectroscopy & Optical Studies - Dan Dolan (SNL)
 PM: Particulate / Porous Materials - Tracy Vogler (SNL)
 BG: Biological / Nanomaterials - M. J. Burchell (Kent)
 CP: Polymers/Composites - Dana Dattelbaum (LANL)
 BL: Ballistic Studies - Charles Anderson / James Walker (SWRI)
 OT: Other topics - Bill Proud / Mike Furnish / Bill Anderson / Jack Wise
 Poster Session - Suhithi Peiris (DTRA) / Jennifer Jordan (USAF)

Other members of the Conference committee are:
 Treasurer: Jack Wise (SNL)
 Publications / Proceedings Editors: Mark Elert (USNA), Billy Buttler (LANL)
 International advisor: Tony Zocher (LANL)
 Conference Advisor: Jim Asay (SNL/WSU)



The City - Music City, USA. Settled on Christmas Day, 1779. Capitol of the State of Tennessee. Population (2004) City - 595,805, MSA: 1,541,659 Elevation Lowest: 550 ft (168 m) Highest: 1100 ft (336 m) Central Time Zone. Served by 16 Airlines.

The Sights - Outdoor 107 City and County Parks, 7 Municipal golf courses, 9 Greenways, 11 State Parks and 3 National Park Service units within 1 hour. Entertainment, Live music (country, jazz, classical, etc.), Live Theatre, Nashville Zoo. History and Culture - Art Galleries, (Frist Center for the Visual Arts), The Parthenon, Cheekwood Botanical Gardens, The Hermitage (Home of Andrew Jackson), Fort Negley, Stones River National Battlefield

The Venue - Gaylord Opryland Hotel - Largest non-gaming hotel property in the United States. Completely enclosed and climate-controlled complex includes 9 acres of gardens. 10 Restaurants and bars. Two outdoor and one indoor swimming pools. Next to Opry Mills, a 1.2 million sq. ft. entertainment and shopping complex.

2009 APS March Meeting Focus session on Extreme Conditions

Dear Colleagues,

The 2009 APS March meeting will feature a Focus session on Simulations of Matter under Extreme Conditions (17.13.5/19.3.1). A description can be found at the following link:

<http://www.aps.org/meetings/march/focus3.cfm#17.13.5>

While the theme is on simulations, we would also like to encourage experimental talks, especially those that validate or otherwise ground the models in reality.

There is still time to suggest speakers that have done exciting work in rapidly developing and important areas relevant to this session. In particular, we would like to include areas covered in the BES Workshop on Basic Research Needs for Materials under Extreme Environments such as Chemical Stability and Microstructure Stability in Extreme Conditions. More information available at the following link:

<http://www.sc.doe.gov/bes/reports/abstracts.html#MUEE>

For those of you who normally attend the APS March meeting, this focus session may be an excellent forum to present your work.

To nominate someone, feel free to reply directly to us, the session organizers (Jim Belak, belak@llnl.gov and Joel Kress, jdk@lanl.gov), with your candidate's name and

contact information, the title of the suggested talk, and a brief justification. (Alternatively, you could use the APS website to submit a nomination; scroll to the top of the above link.)

Thank you very much for your time; we look forward to hearing your suggestions and seeing you next March.

Best regards,
Jim Belak
Joel Kress

2009 SOCIETY FOR EXPERIMENTAL MECHANICS (SEM) International Congress & Exposition on Experimental & Applied Mechanics

The conference will be held at the Hyatt Regency Albuquerque, New Mexico USA June 1-3, 2009 with a symposium discussing recent developments in the understanding and modeling of the high-pressure and shear response of materials.

Additional details are available at
<http://www.sem.org/CONF-AC-TOP.asp>

NTREM 2009

12th International Seminar on New Trends in Research of Energetic Materials, University of Pardubice, Pardubice, the Czech Republic, April 1-3, 2009. More information located on the web:
www.ntrem.com

LWAG 2009

Conference focused on new developments in the context of security and armour systems, held May 18-19, Aveiro, Portugal. Additional details at:
http://www.lightarmour.org/LWAG_2009.html

The 14th International Detonation Symposium

To be held at the Coeur d'Alene Resort, Coeur d'Alene, Idaho, April 11 through 16, 2010. It will be devoted to the physics, chemistry, and detonation of explosives. For more information see:
<http://www.intdetsymp.org/detsymp2010>.

Dynamic Behaviour of Materials

National Engineering School (ENIM), Ile du Saulcy, 57000 Metz, May 13-15, 2009. More information Email: ludmann@enim.fr

15th International Symposium on Electromagnetic Launch Technology

To be held May 17-20, 2010 at the Royal Military Academy, Brussels, Belgium, Abstracts Due: July 10, 2009
www.emlsymposium.org

27th International Symposium on Shock Waves

St. Petersburg, Russia, July 19-24, 2009. More information can be found at:
<http://www.ioffe.ru/ISSW27/>

THERMEC'2009

Will be held in Berlin Aug 25 to 29 2009. The meeting will feature a symposium on Dynamic Behaviour of Materials.
<http://thermec.uow.edu.au>

9th International DYMAT Conference on the Mechanical and Physical Behaviour of Materials under Dynamic Loading

Will take place in Brussels, Belgium 7-11 September 2009.
<http://www.dymat2009.org>.

The 8th International Conference on Fracture and Damage Mechanics (FDM09)

To be held in the beautiful Mediterranean island of MALTA, 8-10 September 2009. For more information see:
<http://fdm.engineeringconferences.net/>

FRAGBLAST 9

9th International Symposium on Rock Fragmentation by Blasting, Granada, Spain, September 13-17, 2009. More information can be found at:
<http://www.fragblast.org/index.asp>

Recent / Upcoming Publications of Interest

Mechanical Behavior of Materials, 2nd Ed.
Marc André Meyers and Krishan Kumar Chawla
Cambridge University Press
Hardback (ISBN-13: 9780521866750)
<http://www.cambridge.org>

24th International Symposium on Ballistics

DEStech Publications, Inc.
ISBN13: 978-1-932078-93-0
<http://www.destechpub.com>

Structures Under Shock and Impact X

Wit Press, UK
Edited: N. JONES and C.A. BREBBIA
ISBN: 978-1-84564-107-8
www.Witpress.com

Proceedings of the 2007 Hypervelocity Impact Symposium

Special Issue International Journal of Impact Engineering,
vol. 35, issue 12 (2008)

The Behaviour of Bulk Nanomaterials and Metallic Glasses under Dynamic Loading

H. Couque, editor
Nexter Munitions, La Chapelle, France
ISBN : 2-9517947-3-8

Joint 21st AIRAPT and 45th EHPRG International Conference on High Pressure Science and Technology

Editors: G G N Angilella, R Pucci and F Siringo
<http://www.iop.org/EJ/volume/1742-6596/121>

ABC of Contemporary Ceramic Materials"

Roman Pampuch
http://www.technagroup.it/store/cat043_12.htm

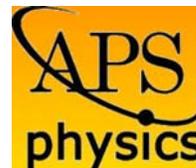
Microstructure of Metals and Alloys: An Atlas of Transmission Electron Microscopy Images

Ganka Zlateva and Zlatanka Martinova
CRC Press
ISBN: 9781420075564
<http://www.crcpress.com>

A special thanks to Steven Walley for suggesting recent book selections!

Job Opportunities:

Please submit job openings for future newsletters.



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This document was prepared as a service to the Topical Group on Shock Compression of Condensed Matter (TGSCCM) community. The opinions of the contributors expressed herein do not necessarily state or reflect those of the American Physical Society and shall not be used for advertising or product endorsement purposes.

Thanks to all who contributed to this Newsletter. Please send any information for the next newsletter to Jennifer Jordan at jennifer.jordan@eglin.af.mil.

Eric N. Brown
Edition Editor