

Newsletter
December 2015

APS Topical Group on Shock Compression of Condensed Matter



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Message from the Chair

It has been my honor to serve as your Chair this year and I look forward to serving the group next year as Past-Chair. I want to take this opportunity to thank my fellow executive board members for their service to the group this year as well. The term for four of these members is ending this year so I encourage all of you to vote for new members before the election closes on January 14. Finally, I want to thank the members of this group for keeping it active

and interesting. Many of you have volunteered for service within the group in some way this year and your efforts are very much appreciated. Please continue to find ways to contribute to the GSCCM in the coming year.

Best wishes this holiday season!

Paulo Rigg

News and Events

Obituary

Dattatraya Dandekar

Forty two years ago, Dr. Dattatraya Dandekar, a research physicist, began working at the U.S. Army Materials and Mechanics Research Center (AMMRC) in Watertown, Massachusetts, a predecessor of the U.S. Army Research Laboratory (ARL), researching “Shock Waves in Condensed Matter”. Although Dandekar officially retired from ARL in 2013, his longtime career continued until his passing on September 12th of this year. Dandekar was two days shy of his 82nd birthday. Dandekar is survived by his wife Natalie, daughter Sarala, son-in-law Robert Vafaie and two grandchildren Yasmina and Syrus Yafaie. Natalie was by his side throughout his last day as he passed away in peace and without pain.

Dandekar, who was originally from India, came to the United States with a master’s degree in statistics and quickly changed his discipline to address material behavior under high pressures. He graduated with a Ph.D. in geo-physics, from the University of Chicago in 1967, followed by a post-doctoral assignment at Cornell University. His interest in shocked material properties took him to Washington State University as an Assistant Professor to work with Professor George Duvall, a pioneering leader in this discipline. He brought the pioneering spirit to ARL and accomplished many things during his tenure since 1973. He started the shock physics program at AMMRC which was later transferred and expanded at ARL, Aberdeen in 1995. Specific topics of interest are too many but he pioneered the research in a) repeated shock loading technology, and b) multi beam velocity interferometry using a single interferometer which is now a standard technique and used in many defense laboratories. Dandekar was good at networking with many researchers in the DOD and DOE communities with common research topics. He was also willing to share and learn from others both internally and internationally. In 1982, as a visiting professor in civil engineering at North Carolina State University, he helped set up a shock wave facility and taught a graduate course. He also worked for several months at the Ernst Mach Institute in Freiburg, Germany. In 2001, he was engaged in research projects at the Cav-

endish Laboratory, Cambridge and at the Royal Military College of Science, Shrivenham, United Kingdom.

Dandekar became an ARL Fellow in 1994, and was awarded the American Physical Society fellowship in 2001 for his pioneering research in multi beam interferometry. He was an active member in the APS Topical Group on Shock Compression of Condensed Matter (APS-GSCCM) where he served as the Chairman of the Awards Committee in 1993, hosted the 1997 Topical Group Conference, and served as the Chairman of the group in 2000. In 2002 (as an ARL visiting scientist) he taught probability and statistics at the United States Military Academy at West Point, NY. He published more than 120 research papers in journals, books and conference proceedings during his accomplished career. Recently, he received the Paul A. Siple Memorial Award as co-author of the best paper at the 25th Army Science Conference and on July 1, 2015 he received his most recent award presented to him by Professor Yogi Gupta of Washington State University, during a talk given to ARL researchers about “understanding solids at high dynamic stresses and the scientific challenges and multiscale measurements.” As recently as November 2015, ARL posthumously awarded Dr. Dandekar the 2015 Lifetime Achievement Award which Natalie Dandekar accepted on his behalf. The award was in recognition of Datta being “the founding researcher in the discovery and understanding of the loss of material strength that occurs under shock loading on materials.”

Not only did Dandekar love research and science, he also had a deep passion for music. This led him to found a music circle in the Boston area. Blessed with a singing voice that spanned four octaves, he mentored young musicians, became close friends with more established singers and musicians and also composed twenty original works. In 2010, Learnquest Academy of Music presented Dandekar its Distinguished Service Award in Music for “being a nucleus and inspiration in bringing the practitioners of Hindustani and Carnatic music together and sowing seeds of continuous growth of Indian Classical music in the New England area.” Throughout his life, he remained devoted to music and science.

His colleagues at ARL attest to the ways he remained enthusiastic about research even after retirement.

“Datta had planned to work on some of his unfinished work using the Dynamic Compression Sector at the Argonne National Laboratory. We recently finished a joint paper with Carnegie Institute on Brillion Scattering measurement of ALON (Aluminum OxyNitride) and were planning to work on some other crystalline solids,” said ARL’s Dr. Sikhanda Satapathy. “When I visited Datta at his home three days before he passed away, we spent over an hour discussing research and potential experiments to pursue. He gave me an article on surface science, which he had read recently and thought might be useful in my research. Datta’s enthusiasm for anything scientific was contagious and exemplary.”

ARL Fellow Dr. Shashi Karna shares some final words about his friend and colleague. “If you did not know him, you would hardly ever guess how accomplished he was. And, despite his great accomplishments, he was the simplest, gentlest and most humble human being I ever met. Dr. Dandekar, as I called him, was also a very caring and encouraging person. Personally, for me, he was a source of inspiration,” expressed Karna. When many of his peers and colleagues from the APS-TGSCCM learned about Datta’s passing away, a common sentiment that emerged was that “Datta Dandekar was generous, a gentleman, and a scholar.”

Submitted by

**ARL Fellows at Aberdeen Proving Ground, MD
Lalit Chhabildas, AFRL, Eglin AFB (Retd.)**

Election of Topical Group Officers

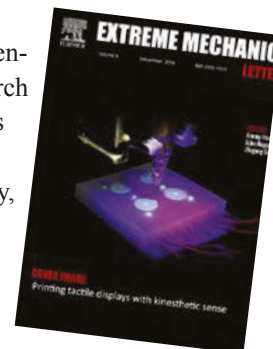
The election of officers for 2016 is now open. If you have not yet voted, please do so before January 14. The link to the online election site was emailed to all Topical Group members on December 7. Look for an email message from “Election Coordinator” with the subject line “GSCCM Officers Election.”

Mark Elert, Secretary-Treasurer

New Journal

Extreme Mechanics Letters

Extreme Mechanics Letters (EML) enables rapid communication of research that highlights the role of mechanics in multi-disciplinary areas across materials science, physics, chemistry, biology, medicine and engineering. Emphasis is on the impact, depth and originality of new concepts, methods and observations at the forefront of applied sciences.



EML publishes letter-sized articles, as well as invited reviews and articles on topics of special interest. The goal is to have the papers published online within 6-8 weeks upon submission.

EML covers experimental, theoretical, and computational mechanics of processes at all size and time scales. Of particular interest is the progress in mechanics that advances the fields of vital importance to the society, including, but not limited to, health science, energy systems, the environment, food and water, climate, and security.

Among the topical areas of interest are:

- Materials of extreme properties, such as exceptional hardness or softness
- Materials under extreme conditions, such as high temperature and high loading rate
- Stretchable, wearable, or implantable electronics for entertainment or healthcare
- Soft robots in manufacturing, surgery and assisted living
- Robots that crawl, run, swim or fly
- Biomimetics that perceive, act, learn and remember
- Active materials in response to mechanical, chemical, electrical, thermal stimuli
- Instability and large deformation in nature and engineering systems
- Force-induced configurational changes of proteins leading to cascades in cellular responses
- Deformation, transport and fracture in high-efficiency batteries
- Interfacial phenomena in interactions between fluids and solids, deformation and failure of materials, and

- processes of living cells
- Self-assembly of materials and devices
- Thin-membrane origami and kirigami
- Mechanics of 3D printing
- Materials and structures of hierarchical architectures
- Hybrid systems of air, liquids, and solids
- Earthquakes and hydraulic fracture
- Foldable, lightweight structures for space exploration

www.journals.elsevier.com/extreme-mechanics-letters/

Mail Delivery of the Newsletter

About 5-7% of the Topical GSCCM members remain opted out of receiving email communications from APS. We will continue mailing the hard copy of the Newsletter by First Class United States Postal Service (USPS) mail to these members. However, they can choose to opt for the email communications for instantaneous delivery as soon as the Newsletter is ready. Their positive gesture in this regard will prove eco-friendly by saving the paper and also budget friendly for the Topical Group. There are two options to change the E-Mail Preferences:



Preferred Option

- Login to your APS membership by visiting <http://www.aps.org>
- Click on the 4th tab "E-mail Lists". This will display your current e-mail preferences
- Click on the "Edit your Email Preferences" near the top
- Scroll down and check the box (if unchecked) for "Unit Mailing Lists"
- Next, check the box for "Topical Group on Shock Compression of Condensed Matter"
- Finally, click on the "Submit" button

2. Alternate Option

If for some reasons, you are not able to follow the Preferred Option given above and still would like to

opt for the E-mail delivery, please send an email to this effect to prigg@wsu.edu and elert@usna.edu with a copy to dwivedis001@yahoo.com

Paulo Rigg
Mark Elert



Valued APS Member,

During this season of giving thanks, I want to express my gratitude to you as a member of APS. Because of over 51,000 members like you, the Society is recognized as the leading membership organization in the United States dedicated to the advancement of physics.

As a small token of my appreciation for your membership and support, the Society's Public Outreach Department has created a simple physics experiment that you can share with family and friends as you celebrate the holidays.

We hope the Hot Cocoa Effect leads to fun and educational conversations about physics, and that it's an enjoyable way for you to share your enthusiasm for physics and inspire in others an interest in physics. [Find step-by-step instructions here.](#)

Hot Cocoa Physics

THE "HOT COCOA EFFECT" IS A CURIOUS PHENOMENON THAT YOU CAN USE TO MAKE A FUN, TASTY, EDUCATIONAL PHYSICS DEMONSTRATION FOR YOUR FAMILY THIS HOLIDAY SEASON, USING MATERIALS YOU PROBABLY ALREADY HAVE AROUND THE HOUSE. WHAT'S THE BEST PART? ONCE YOU'RE DONE, YOU GET TO ENJOY A TASTY MUG OF COCOA!

NEEDED SUPPLIES

- A mug
- Instant cocoa mix
- A metal spoon
- Hot milk or hot water

WHAT TO DO ...

NOTE: This physics experiment requires adult supervision

- 1 Pour some hot milk or hot water into the mug, making sure to leave some room at the top for the cocoa mix.
- 2 Lift your mug by the handle so that it doesn't rest on a surface, put the spoon into the mug. Tap it a few times on the bottom, so everyone can hear how it sounds.
- 3 Now, add the hot cocoa mix and stir it in the mug. Once you've given it a good stir, use the spoon to tap the bottom of the mug continuously as the swirling fluid slows to a stop.
- 4 The pitch will be low initially, but will rise noticeably as you tap. By stirring the liquid again, you can lower the pitch once more and start the process over.

Source: www.physicscentral.com

For more fun physics activities and information to share with family and friends of all ages, [visit Physics Central.](#)

Best wishes for a wonderful holiday season,



Kate P. Kirby

Kate P. Kirby
Chief Executive Officer



Valued APS Member,

Physics offers scientific and technical challenges that we, as a community, embrace. Yet, for some, there are barriers to acquiring the knowledge and skills needed to find a place in our community.

APS programs address these barriers and need your support. Please make your year-end donation today.

Middle school teachers lack hands-on resources to teach physics.

Each year, over 15,000 classrooms participate in PhysicsQuest, a kit-based program developed by APS's Public Outreach department. Teachers receive a free kit that includes an instruction manual, an engaging physics-themed APS comic book, and materials for four fun physics experiments, all generating excitement about physics for more than 375,000 students at a point when they statistically lose interest in math and science.

Fewer than 50% of high school physics teachers have a physics degree.

PhysTEC is a joint project between APS and the American Association of Physics Teachers that promotes and improves the education of future physics teachers. PhysTEC makes it possible for tens of thousands of students to learn physics from a high school teacher who understands the subject and is well-equipped to help students learn. PhysTEC currently reaches over 300 institutions, but the need is greater.

Help improve physics education, increase diversity, impact policy makers, and provide international opportunities with your gift to APS.

Many students face challenges earning physics degrees.

Social barriers and resource constraints can keep students from realizing their potential in fields like physics. The problems include under-funded schools, over-worked teachers, poor advising, and little or no exposure to ideas that excite many of us to study and practice physics. The APS National Mentoring Community (NMC) and APS Bridge Program are helping students advance by providing one-on-one mentoring relationships and access to coursework and role models that can transform education for underrepresented minorities.

Women earn only 20% of bachelor's and doctoral degrees in physics.

The APS Conferences for Undergraduate Women in Physics (CUWiP) provide undergraduate women with the opportunity to learn about career paths, gain information about graduate school and professions in physics, and receive professional guidance in building networks and how to excel in the profession. APS now facilitates these conferences that reach more than 1,300 undergraduate women annually.



The physics community suffers when science is not a priority for elected officials.

The APS Office of Public Affairs in Washington, D.C. advocates for science research and education and each year helps more than 1,000 APS members rally support for science through op-eds, congressional testimony, and meetings with state and federal office holders.

Physics researchers and students lack sufficient international opportunities.

APS's International Affairs department provides our scientific community with resources to network, collaborate, and conduct research with counterparts around the world through matching APS memberships, travel award programs, and international young physicist forums.

Your gift of \$15, \$25, \$50, \$100, \$250, or more will make a real difference to the people who benefit from our programs. Please make your year-end donation to APS today.

[Donate Now](#)

Warm regards,



Kate P. Kirby

Kate P. Kirby
Chief Executive Officer

Upcoming Meetings and Conferences



ICHSF2016

INTERNATIONAL CONFERENCE
ON HIGH SPEED FORMING

Dortmund, Germany

April 27th – 28th 2016

www.ichsf.com



technische universität
dortmund



Institute of
Forming Technology and
Lightweight Construction

Registration

For on-line registration, go to Technical Meeting website:

<http://lwag2016.sciencesconf.org/>

Publication

- Six-page (max. length) contributions for oral lecture or poster presentation are invited.

Preliminary Schedule

Monday, 10h	Tuesday, 11th
8:00 Registration	
8:30 Opening	
9:00 Invited lecture	9:00 Invited lecture
9:40 Lectures - Session 1	9:40 Lectures - Session 5
11:00 Lectures - Session 2	11:00 Lectures - Session 6
12:20 Lunch in 3SR	12:20: Lunch in MJK
14:00 Visit 3SR Lab.	
15:00 Lectures - Session 3	14:00 Lectures - Session 7
16:40 Lectures - Session 4	15:40 Lectures - Session 8
20:30 Banquet: dinner downtown	17:20 End of the LWAG

Contact

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DGA Techniques Terrestres, 18000 Bourges,
France

Accommodation

Accommodation is not included in the registration fee but **twin-bedded rooms have been booked at a reduced rate for students**. Please contact us if you are interested in. Organizers invite participants to book a hotel room as soon as possible.

LIST OF HOTELS ON THE CONFERENCE WEBSITE

Venue



Travelling to Grenoble train station:

LYS Lyon airport → Bus → Grenoble train station
CDG Paris airport → TGV (one stop in LYS → Grenoble train station)

Travelling to the campus:

Grenoble train station → Tramway line B → Campus (stop: Bibliothèques universitaires)

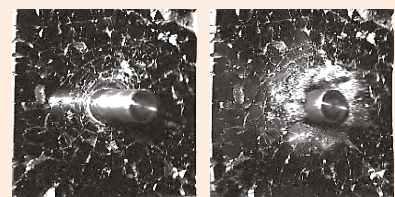
Travelling by Car:

→ Saint-Martin-d'Hères - Domaine Universitaire



LWAG 2016

Light-Weight Armour for Defence
& Security



October 10–11, 2016.

Grenoble – France



<http://lwag2016.sciencesconf.org/>



IGF - Italian Group of Fracture is proud to invite you to join us in Catania for the **21st European Conference on Fracture - ECF21 (June, 20-24, 2016)**. The conference is held under the auspices of the European Structural Integrity Society.

Abstracts submission deadline has been postponed
New abstracts submission deadline: 15.01.2016.
 Registration and Abstracts submission are open!!!

Important dates

Conference registration
 10.09.2015 - 20.06.2016

Abstract submission deadline
 15.01.2016

Notification of acceptance
 31.01.2016

Paper submission
 01.02.2016-20.04.2016

Early bird registration and Author registration deadline for conference paper publication
 20.04.2016

Main Topics

- Analytical, computational and physical Models;
- Biomaterials and Wood Fracture and Fatigue;
- Biomechanics; Ceramics Fracture and Damage;
- Composites;
- Computational Mechanics;
- Concrete & Rocks;

- Creep Fracture;
- Damage Mechanics;
- Damage and fracture in materials under dynamic loading;
- Durability of structures;
- Environmentally Assisted Fracture;
- Failure Analysis and Case Studies;
- Fatigue - Crack Growth (all materials);
- Fatigue Resistance of metals;
- Fatigue of Metals – Very High Cycle;
- Failure Analysis and Forensic Engineering;
- Fractography and Advanced metallography;
- Fracture and Fatigue at Atomistic and Molecular Scales;
- Fracture and fatigue testing systems;
- Fracture under Mixed-Mode and Multiaxial Loading;
- Fracture vs. Gradient Mechanics;
- Functional Gradient Materials;
- Impact & Dynamics;
- Fundamentals of cohesive zone models;
- History of Fracture Mechanics and Fatigue;
- Innovative Alloys;
- Linear and Nonlinear Fracture Mechanics;
- Materials mechanical behavior and image analysis;
- Mesomechanics of Fracture;
- Micromechanisms of Fracture and Fatigue;
- Multi-physics and multi-scale modelling of cracking in heterogeneous materials;
- Multiscale Experiments and Modeling;
- Nanostructured Materials; Nondestructive Examination;
- Physical Aspects of Brittle Fracture;
- Physical Aspects of Ductile Fracture;
- Polymers Fracture and Fatigue;
- Probabilistic Fracture Mechanics;
- Reliability and Life Extension of Components;
- Repair and retrofitting: modelling and practical applications;
- Sandwiches, Joints and Coatings;
- Smart Materials;
- Structural Integrity;
- Temperature Effect;
- Thin Films

<http://www.ecf21.eu/site/>

International Conference on Computational & Experimental Engineering and Sciences



You are cordially invited to submit an abstract to the Symposium **“Dynamic Deformation and Fracture”**, which is organised within the framework of the **ICCES16 to be held in Madeira, Portugal on September 59, 2016**. The topics of the Symposium include, but are not limited to, the following:

- highstrain rate loading and deformation;
- dynamic fracture;
- impact and blast loading;
- highspeed penetration;
- impact fatigue;
- damping properties of advanced materials;
- thermomechanics of dynamic loading;
- stress waves in microstructured materials;
- simulation of failure and damage in materials under dynamic loading;
- response of components and structures to harsh environment;
- improving the resistance of materials to highrate mechanical loading.

The materials of interest range from traditional ones such as metals, alloys, ceramics, polymers and composites to advanced and emerging materials as well as bioand biomedical materials.

To submit your abstract (or extended abstract), please visit <http://www.icces.org/guide.html>.

www.icces.org



18th International Electromagnetic Launch Technology Symposium

24-28 October 2016

Wuhan University | Wuhan, China

Abstract Deadline: 31 December 2015

Submit abstract online:

<http://www.emlsymposium.com/abstracts/submit.html>

Download abstract template:

www.emlsymposium.com/resources

EML Scope

The Electromagnetic Launch (EML) Symposium is a biennial event that serves as the principal forum for the discussion, interchange, and presentation of research on critical technologies for accelerating objects or projectiles to hypervelocities using electromagnetic or electrothermo-chemical launchers. During the Symposium, researchers share their latest results through oral and poster presentations. The Symposium's proceedings are the major archival source of papers published in this field.

The Organizing Committee is pleased to announce that the 2016 event will be held in Wuhan, China during the dates of 24-28 October.

EML Topics

- Electric Light Gas Guns
- Coilguns
- EM Railguns
- Electrothermal/ETC Launchers
- Armatures
- Integrated Launch Packages
- Launch Package Components
- High-G Sensors, Guidance, Nav and Control
- Energy Storage
- Power Conditioning

<http://www.emlsymposium.com/index.html>

15th International Conference on Fracture and Damage Mechanics

Alicante, Spain

14-16 September, 2016

The 15th international conference on fracture and damage mechanics (FDM 2015) will take place in Alicante, Spain. The conference follows the success of previous meetings held in London, UK

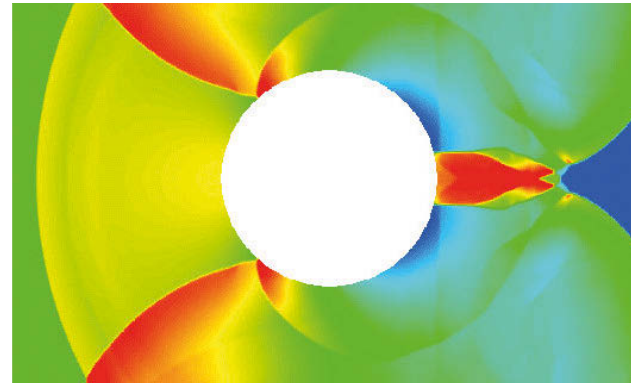
(1999), Milan, Italy (2001), Paderborn, Germany (2003), Mallorca, Spain (2005), Harbin, China (2006), Madeira, Portugal (2007), Seoul, Korea (2008), St. George, Malta (2009), Nagasaki, Japan (2010), Dubrovnik, Croatia (2011), Xian, China (2012), Sardinia, Italy (2013), Ponta Delgado, Azores (2014) and Budva, Montenegro (2015).

The conference series has the support of the experts in the field of fracture and damage mechanics and has become established as a leading international forum for presentation latest research.

The high quality researches presented at the previous meetings are archived in conference proceedings published in book form. In addition special issues in leading journals such as *International Journal of Fracture*, *Engineering Fracture Mechanics* and *Key Engineering Materials* have been devoted to the work presented at the meeting.

The proceedings one the 15th international conference will be published in the Journal of Key Engineering Materials and distributed to the delegates at the conference.

<http://fdm.engineeringconferences.net/new/>



11th International Conference: New Models and Hydrocodes for Shock Wave Physics (NMH)

PETER 2016

29 May – 3 June 2016
Saint Malo, France

Organised by the IOP Shockwaves and Extreme Conditions Group

<http://peter16.iopconfs.org>

IOP Institute of Physics

New Models and Hydrocodes for Shock Wave Physics

is an international conference devoted to a wide-range of relevant research in the field of shock physics including studies that are experimental, theoretical, and/or numerical. The conference series originated under the direction of Dr Vladimir Klimenko (now Chairman Emeritus of NMH). The conference is normally held in Europe in even-numbered years. Recent venues include Pardubice, London, Paris, Lisbon, and Dijon.

For the first time in its history, NMH is being held as part of the **PETER (Pressure, Energy, Temperature and Extreme Rates)** conference series.

The 11th NMH (PETER 2016) is jointly organized by the Shock Waves and Extreme Conditions (SWEC) group of the Institute of Physics, the Commissariat à l'Energie Atomique (CEA), and Los Alamos National Laboratory (LANL).

Themes

The conference will address areas relevant to shock and high-rate phenomena in all phases of matter including both inert and energetic materials.

There will be seven main themes:

- Experimental methods and results
- Constitutive behavior and models (including EOS, deviator, phase transition, etc.)
- Damage mechanics (including spall, ejecta, etc.)
- Explosives (including both unreacted and reacted characteristics, detonation, reaction zone, etc.)
- Models of material behavior (atomistic, MD, continuum, and multi-scale linkages in time and space)
- Numerical methods (Eulerian, Lagrangian, ALE, etc.)
- High velocity impact

* Authors can submit abstracts and receive confirmation of their abstract status by mid-March

Key dates

Abstract deadline*: 1 March 2016

Early registration deadline: 15 April 2016

Registration deadline: 15 May 2016

<http://peter16.iopconfs.org/home>



APS March Meeting in Baltimore, MD

Focus Session on “Materials in Extremes: Bridging Simulation and Experiment”

With over 9000 abstracts, the upcoming APS March meeting will be one of the largest ever, spanning 5 full days (March 14-18, 2016).

The program will be posted online, and authors notified of session assignments, in January. Of particular interest to Topical Group members are the GSCCM-cosponsored (with DCOMP and DMP) focus session on “Materials in Extremes: Bridging Simulation and Experiment,” which will be held tentatively from Tuesday morning through Friday afternoon, and the GSCCM business meeting on Wednesday evening.

Invited speakers include:

Jennifer Ciezak-Jenkins (ARL) – *The Promise and Challenge of Extended Solids of Nitrogen*

Adrien Denoeud (CEA) – *Study of the Warm Dense Matter with XANES spectroscopy - Applications to planetary interiors*

Arianna Gleason (Stanford/LANL) – *Ultrafast X-ray Studies on the Dynamics of Structural Transitions*

Sheng-Nian Luo (PEAC Institute of Multiscale Sciences) – *Dynamic materials response at multiscales: Experiments and simulations*

Darby Luscher (LANL) – *Modeling the anisotropic shock response of single-crystal RDX*

Artem Oganov (SUNY Stony Brook) – *Discovering new materials and new phenomena with evolutionary algorithms*

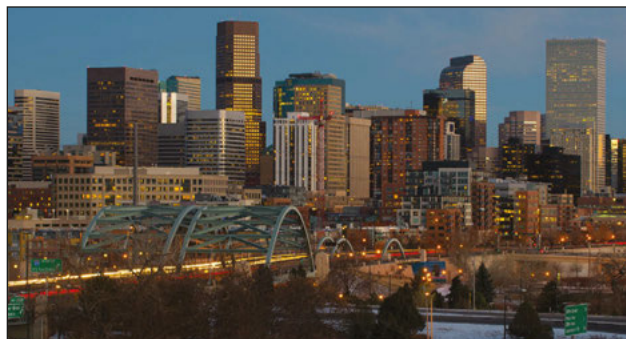
Elissaios Stavrou (LLNL) – *Extreme thermodynamic conditions: novel stoichiometries, violations of textbook chemistry, and intriguing possibilities for the synthesis of new materials*

Registration is open, at: <http://www.aps.org/meetings/march/registration/index.cfm>.

Note that the early bird registration deadline is January 8, and online registration will end on February 12.

Focus Topic Co-Organizers

Ricky Chau, Tim Germann, and Ivan Oleynik



Announcing 20th Biennial Conference on Shock Compression of Condensed Matter (SCCM-2017)

Following on an outstanding topical group meeting in Tampa, the 20th American Physical Society Shock Compression of Condensed Matter Biennial International Conference is being scheduled to be held in Denver, Colorado in the summer of 2017. This conference is

the premier interdisciplinary forum for discussion of world-wide efforts in exploring fundamental science and applications of matter at extreme conditions including shock-induced physics and chemistry, energetic materials and detonation phenomena. In the foothills of the Rocky Mountains, Denver has an international airport with a new train opening to provide convenient access to the downtown. Denver has a wonderful walking down town with lots of restaurant, coffee shops and breweries. We welcome your help and suggestions.

SCCM-2017 Co-Chairs

Eric Brown

Los Alamos National Laboratory, en_brown@lanl.gov

Jon Eggert

Lawrence Livermore National Laboratory, eggert1@llnl.gov

Marcus Knudson

Sandia National Laboratories, mdknuds@sandia.gov
Washington State University, mknudson@wsu.edu

Job Openings

David S. Moore

Vacancy Name: IRC46640

Job Title: Shock Physicist (Scientist 4)

Location: Los Alamos National Laboratory, Los Alamos, NM, USA

Organization: M-9/Explosive Science and Shock Physics

Los Alamos National Laboratory has a current opening for Shock Physicist in its M-9/Explosive Science and Shock Physics group. For detailed description and information including job responsibilities, minimum job requirements, etc., please visit the link:
https://jobszp1.lanl.gov/OA_HTML/RF.jsp?function_id=14330&resp_id=51616&resp_appl_id=800&security_group_id=0&lang_code=US¶ms=vic.SzCvq8AF72JES53IW-XJRaHJc.ZZyyMjaodFk9JATLh-V1EKKfMP8X3LGjq5S&oas=9nCGz9F_NdJ9olmLcBxe_A.&_ga=1.144815860.1193950875.1427915649

Vacancy Name: IRC46641

Job Title: Detonation Physicist (Scientist 4)

Location: Los Alamos National Laboratory, Los Alamos, NM, USA

Organization: M-9/Explosive Science and Shock Physics

Los Alamos National Laboratory has a current opening for Detonation Physicist in its M-9/Explosive Science and Shock Physics group. For detailed description and information including job responsibilities, minimum job requirements, etc., please visit the link:
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Dan Hooks

Vacancy Name: IRC45917

Job Title: Senior High Explosive Scientist (Scientist 3/4/5)

Location: Los Alamos National Laboratory, Los Alamos, NM, USA

Organization: M-DO/Explosive Science and Shock Physics

Los Alamos National Laboratory has a current opening for Senior High Explosive Scientist in its M-DO/Explosive Science and Shock Physics group. For detailed description and information including job responsibilities, minimum job requirements, etc., please visit the link:

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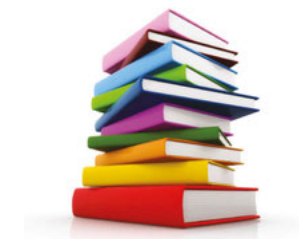
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*Lead for this and next issues

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