

16th APS Topical Conference on Shock Compression of Condensed Matter June 28 – July 3, 2009 Nashville, Tennessee

GENERAL INFORMATION

Welcome to the 16th APS Topical Conference on Shock Compression of Condensed Matter.

The Gaylord Opryland Hotel is the site of all technical sessions, and provides lodging accommodations to participants. The conference hotel is in the Opryland complex along the Cumberland River in eastern Nashville, and is adjacent to the Opry Mills Mall and the Grand Ol' Opry. Free shuttles within the Opryland Complex are available. Shuttles to downtown Nashville and Nashville Airport run frequently.

The full **conference registration fee** includes the Sunday and poster session receptions, Thursday banquet, two lunches, three drink tickets, and eight coffee breaks. The banquet includes a songwriters' workshop featuring country musicians Tim Nichols and Rivers Rutherford.

To be identified as a registered attendee, wear your name badge for all conference events. Specific dietary arrangements may be made with advance notice. No part of the registration fee will be refunded for unused conference-provided meals.

All participants will receive copies of the abstract book (the present volume) and hardbound proceedings (published by AIP).

Student registration includes all the above *except* for the Thursday banquet; However, discounted tickets for the banquet are available for students who choose to participate.

The onsite registration desk is located in the Tennessee Lobby A, on the middle level of the Gaylord Opryland Hotel Convention Center.

Hours are as follows:

Sunday, June 28:	16:00 – 20:00
Monday, June 29:	07:00 – 17:00
Tuesday, June 30:	07:30 – 16:00
Wednesday, July 1:	07:30 – 12:00
Thursday, July 2:	07:30 – 16:00
Friday, July 3:	07:30 – 11:00

A poster board in the registration area will be available for various communications (e.g. babysitting needed or offered, coordinating rides, messages). Please check this board occasionally.

CONFERENCE WEBSITE

For fully up-to-date information (including any changes to this Preface), please check our website at <http://www.phy.cam.ac.uk/conferences/apssccm2009/index.html>; this may also be found by searching for “APS SCCM” on the Web.

SCIENTIFIC PROGRAM

The scientific focus of the Conference is on fundamental and applied research topics related to dynamic compression of condensed matter. This multidisciplinary field of research encompasses areas of physics, chemistry, materials science, mechanics, geophysics and planetary physics, and applied mathematics. Experimental, computational and theoretical studies all play important roles.

Plenary, oral and poster sessions will be featured during the five days of the Conference. The program contains about five hundred and sixty eight papers. These papers have been distributed over four plenary sessions, seventy oral sessions and two poster sessions. In addition, a Town Hall Meeting is planned for Tuesday afternoon on the topic of Great Challenges. The parallel and poster sessions have been organized around Topical Areas, each overseen by a member of the Technical Program Committee. Following a technical review, papers presented at the Conference will be published by the American Institute of Physics both as a bound volume and a CD-ROM, plus on the Web for subscribers.

Each day of the Conference, with the exception of Friday, begins with a single plenary talk. Additional highlights during the week include several focus sessions and forty invited talks embedded in the parallel sessions. The program has been arranged so it is possible to fully attend all of the invited talks.

A simplified meeting time-plan and hotel floor plan are provided at the end of the bulletin. The time-plan includes plenary, parallel and poster sessions, the Town Hall Meeting, and the GSCCM Business Meeting. Times and alphanumeric codes for the plenary talks and invited papers are given below.

PLENARY PAPERS

Monday, June 29:

07:50 A1.1: *High Energy Density Extended Solids*, Choong-Shik Yoo, Institute for Shock Physics and Department of Chemistry, Washington State University (preceded by tribute to Malcolm Nicol)

Tuesday, June 30:

08:00 G1.1: *Theoretical and computational challenges in blast loading and penetration of geological materials*, Rebecca Brannon, University of Utah (Tennessee Ballroom C)

Wednesday, July 1:

08:00 P1.1: *Beyond the Standard Model for High Explosives: Challenges & Obstacles to Surovival*, Ralph Menikoff, Los Alamos National Lab (Tennessee Ballroom C)

Thursday, July 2:

08:00 S1.1: *Duvall Award Talk Room* (title TBA), Don Curran, SRI International (ret) (Tennessee Ballroom C)

FOCUS SESSIONS

Although these sessions are specifically identified as focus sessions, various other sessions throughout the week also feature strong programs.

Monday, June 29:

13:30 Session D3, PDV Fundamentals (Hermitage C)

15:30 Session E3, Isentropic Compression and Planar Loadings (Hermitage C)

Tuesday, June 30:

13:30 Session K3, PDV Applications (Hermitage C)

13:30 Session K4, Isentropic Compression (Hermitage D)

INVITED PAPERS

Monday, June 29:

09:00 B1.1: *Recent Research Efforts in Shock Initiation of Energetic Materials*, Kevin Vandersall, Energetic Materials Center, Lawrence Livermore National Laboratory (Tennessee Ballroom C).

09:30 B3.3: *Optical Spectroscopy of Fireballs from Aluminized High Explosives*, Nick Glumac, University of Illinois, Urbana-Champaign (Hermitage C)

10:00 B2.5: *Transmission Electron Microscopy in the study of Shock Compression*, Ian Jones, University of Birmingham (Hermitage AB)

11:00 C3.1: *Dielectric function of non-equilibrium warm dense gold*, Yuan Ping, LLNL (Hermitage C)

11:30 C2.3: *Drug Delivery and Cell Transfection Using Shock Waves Produced by Nanothermites*, Shubhra Gangopadhyay, The University of Missouri (Hermitage AB)

13:30 D1.1: *Presentation of an approach for the analysis of the mechanical response of propellant under a large spectrum of loadings: numerical and mechanical issues*, Alain Fanget, Centre d'Etudes de Gramat, 46500 (Tennessee Ballroom C)

14:00 D2.3: *An abundance of mechanisms for plastic flow in an extremely brittle material: dislocations and phase transformations in RDX*, Marc Cawkwell, Los Alamos National Laboratory (Hermitage AB)

14:30 D3.5: *What does "velocity" interferometry really measure?*, Dan Dolan, Sandia National Laboratories (Hermitage C)

15:30 E3.1: *A new strip-line design for multi-megabar dynamic loading experiments on the Z-machine* R. W. Lemke, Sandia National Laboratories (Hermitage C)

16:00 E2.3: *Shock Wave Experiments to Examine the Multiphase Properties of Metals*, Brian Jensen, Los Alamos National Laboratory (Hermitage AB)

16:30 E4.5: *On failure in polycrystalline and amorphous brittle materials*, Neil Bourne, AWE, Aldermaston (Hermitage D)

17:00 E5.7: *Analysis of the vibration environment induced on spacecraft components by hypervelocity impact*, Daniele Pavarin, Department of Mechanical Engineering / CISAS University of Padua (Magnolia Ballroom)

Tuesday, June 30:

09:00 H5.1: *Bringing together computational and experimental capabilities at the crystal scale*, Nathan Barton, Lawrence Livermore National Laboratory (Cheekwood GH)

09:30 H4.3: *Physical and Chemical Changes in Liquid Benzene Multiply Shock Compressed to 25 GPa*, Seth Root, Sandia National Laboratories (Hermitage D)

11:00 J4.1: *Interior structure of solar and extrasolar giant planets*, Ronald Redmer, University of Rostock, Institute of Physics, D-18051 Rostock, Germany (Hermitage D)

11:30 J2.3: *Melting curve of molecular hydrogen*, Shanti Deemyad, Harvard University (Hermitage AB)

13:30 K4.1: *Quasi-isentropic compression of materials using the magnetic loading technique*, Tom Ao, Sandia National Laboratories (Hermitage D)

14:00 K1.3: *Steady non-ideal detonations*, Gary Sharpe, University of Leeds (Tennessee Ballroom C)

15:30 L2.1: *Non-Equilibrium Volumetric Response of Shocked Polymers*, Brad Clements, Los Alamos National Laboratory (Hermitage AB)

16:00 L5.2: *An abnormal varying of dynamic yielding behavior of $Gd_3Ga_5O_{12}$ single crystal*, Xianming Zhou, National Key Laboratory for Shock Wave and Detonation Physics, Institute of Fluid Physics, People's Republic of China (Cheekwood GH)

16:30 L3.5: *Laser Compression of Nanocrystalline Metals*, Marc Meyers, U C San Diego Session (Hermitage C)

17:00 L2.6: Porter, David, University of Oxford Session L2.00006 Predicting the Highly Nonlinear Mechanical Properties of Polymeric Materials Room: Hermitage AB

Wednesday, July 1:

09:30 Q2.1: *Some Recent Results on Propagation of the Failure Front Associated with Rod Penetration of Borosilicate Glass*, Dennis Orphal, International Research Associates (Hermitage AB)

10:00 Q5.3: *A review of mesoscale simulations of granular materials*, John Borg, Marquette University, Milwaukee, WI Session (Cheekwood GH)

10:30 Q4.5: *Shock Waves and High-Energy-Density States of Matter in the GSI FAIR Team Project*, V. Mintsev, IPCP RAS (Hermitage D)

11:00 Q1.7: *Shock and detonation processes studied at the nanoscale*, Jean-Bernard Maillet, Session (Tennessee Ballroom C)

Thursday, July 2:

09:00 T3.1: *Advances in Modeling Impacts onto H_2O Ice*, Sarah Stewart, Harvard University (Hermitage C)

11:00 U3.1: *Mesosopic studies of shock compression involving structural phase transformations and plasticity*, Roman Groger, Academy of Sciences of the Czech Republic, Institute of Physics of Materials and Los Alamos National Laboratory, Theoretical Division (Hermitage C)

11:30 U2.3: *Shock-Wave Exploration of the High-Pressure Phases of Carbon*, Michael Desjarlais, Sandia National Laboratories (Hermitage AB)

13:30 V3.1: *The Configurationally-dependent Mechanochemical Behavior of Reactive Powder Mixtures*, Dan Eakins, Los Alamos National Laboratory (Hermitage C)

15:30 W2.1: *Dynamic Fracture of Nanocomposites and Response of Fiber Composite Panels to Shock Loading*, Arun Shukla, Simon Ostrach Professor and Chair, Department

of Mechanical Engineering and Applied Mechanics, The University of Rhode Island, Kingston, RI 02881 (Hermitage AB)

16:00 W3.3: *Empirical Multiphase EoS Modelling Issues*, Geoffrey Cox, AWE (Hermitage C)

16:30 W3.5: *Signatures of multi-Megabar chemistry*, Damien Hicks, Lawrence Livermore National Laboratory (Hermitage D)

Friday, July 3:

08:00 Y1.1: *Modeling thermal ignition and the initial conditions for internal burning in PBX 9501*, Bryan Henson, Chemistry Division, LANL (Magnolia Ballroom)

08:30 Y4.3: *Interface Defeat, Dwell and Penetration of Long Rods on Borosilicate Glass Targets*, Charles Anderson, Southwest Research Institute (Hermitage D)

09:00 Y2.5: *The effects of shockwave profile shape and shock obliquity on spallation: studies of kinetic and stress-state effects on damage evolution and spallation*, George T. Gray III, Los Alamos National Laboratory (Hermitage AB)

10:30 Z1.1: *Unraveling Shock-Induced Chemistry Using Ultrafast Lasers*, David Moore, Los Alamos National Laboratory (Magnolia Ballroom)

11:00 Z2.3: *Exotic Behavior of Materials at Ultra-High Densities*, G. Collins, (Hermitage AB)

11:30 Z4.5: *Tension of liquids by shock waves*, Alexander Utkin, Institute of Problems of Chemical Physics RAS (Hermitage D)

PRESENTATION GUIDELINES

Oral Presentations

All oral sessions will be equipped with an LCD projector with switched input, laptop computer, overhead projector, screen, lavalier microphone, and pointer. The laptop computer will run Microsoft Windows-compatible Powerpoint presentations, Windows Media movies, and PDF files. If you plan to use your own laptop, please ensure the screen resolution is set at a maximum of 1024 x 768 (Macintosh users must bring the necessary converters/cords to connect your laptop to the projector). If your presentation is on a thumb drive or CD, please visit the Speaker-Ready Room (Belmont B) the day before your talk to load it into the correct session. Details on the schedule for this room will be available at the Conference (Registration area and at the Ready Room) and on the Conference Website. Tentatively this room will be open and staffed at the following times:

- Sunday 18:00 – 22:00
- Monday 11:00 – 13:00 18:00 – 21:00
- Tuesday 11:00 – 13:00 18:00 – 21:00
- Wednesday 10:00 – 12:00
- Thursday 11:00 – 13:00 17:30 – 18:30
- Friday (room will not be open; go to your session early to load your presentation)

Plenary talks will be 50 minutes plus 10 minutes for discussion and questions. Invited talks will be 25 minutes plus 5 minutes for discussion and questions. Contributed

talks will be 12 minutes plus three minutes for discussion and questions. The session chairs have been asked to keep strictly to the schedule to maintain synchronization between the parallel sessions.

Please remember that this is a time to communicate the science of your work to your audience. The person in the last row came to hear what you have to say and see what you have to show. Slides should be designed to be readable from anywhere in the room; print smaller than 14 point may be difficult to see. Proper use of the microphone is important as well. Comprehensive presentations of data should be left to publications. As well, please rehearse the presentation ahead of time.

For an interesting discussion of what makes a successful scientific talk, see Stephen Benka's article, *Who is listening? What do they hear?* (Physics Today, 61, 49-53, 2008).

Poster Presentations

Poster sessions will be held in the Tennessee Ballroom D/E. Each poster will be allowed a poster board space of 47" x 47" (120 cm x 120 cm), and they may extend down from the bottom of the poster board to a maximum of 6' in length. The boards allow fastening by thumbtack or Velcro fastening strips. Thumbtacks will be available. The boards will be assigned numbers corresponding to the presentation numbers (e.g. N1.10 or F1.37). Authors may display their posters beginning at 1700 on Sunday, June 28, and continuing until Wednesday morning; conferees are welcome to browse through them at any time the Tennessee D/E Ballroom is open during this period.

There are two poster sessions (Monday and Tuesday evenings), each of two hours duration. All of the posters should be up for both sessions if at all possible (there is sufficient space for this in the facility). During each poster session, the authors listed in that poster session will be required to stand by their posters. Light hors d'oeuvres and beverages will be available during the poster sessions.

All the posters must be removed by 0800 on Thursday, July 2. Any posters remaining on display after that time will be removed and discarded.

As with the oral presentations, this is a time to communicate the science of your work to your audience. During preparation, time spent devising a sensible flow of thoughts is well spent, including a clear summary. Posters should be readable from a distance of at least five feet.

SESSION CHAIR GUIDELINES

The session chairs play the vital role of ensuring that the technical sessions are quality venues for scientific communication, with authors able to present their work in an orderly manner and others able to ask relevant questions or make suggestions for improvement of the work discussed. You hold the keys to a successful conference.

- Prior to your session, please check the Corrigenda distributed with the Bulletin and the on-site program changes board located near meeting registration to see if there are any last minute changes or withdrawals to your session

- Arrive at the meeting room about 15 minutes prior to the start of the session and familiarize yourself with the controls for lights, microphones, A-V equipment and the timer. If you encounter problems, you should immediately alert the Registration Desk.
- Start the session on time. Briefly introduce yourself, announce the first paper and author, and start the timer.
- Please adhere to the time schedule listed in the Bulletin so that simultaneous sessions are as closely synchronized as possible. Many attendees move from session to session in order to hear specific papers. *Note: Any time used by the speaker and/or technicians to set up laptops for Power Point presentations is deducted from the time allocated for that talk.*
- The allotted time for contributed papers is 15 minutes; for invited papers, 30 minutes. If you are chairing a session that includes both contributed and invited papers please be aware of the different times allocated for each and set the timer as follows:
 - Contributed papers: Set timer for 10 minutes to give an initial warning, then set the final bell to go off 2 minutes later. When this time is up, allow 3 additional minutes for questions relating to the paper, thank the speaker and promptly introduce the next paper and speaker.
 - Invited papers: Set timer for 20 minutes to give an initial warning, then set the final bell to go off 5 minutes later. When this time is up, allow 5 additional minutes for questions relating to the paper, thank the speaker and promptly introduce the next paper and speaker.
- Explain the timing system to the audience prior to the start of the session and as often during the session as you think necessary.
- The By-Laws of the Society request that session chairs courteously, but firmly, ask speakers to stop when their allotted time is up. Keep in mind that the session must end on time and that the last speaker has just as much right to an audience as the first speaker.
- Should a speaker fail to appear, you may allow the preceding discussion to continue, or recess the session until it is time for the next scheduled paper. It is important NOT to call the next scheduled paper to start before its scheduled time. At the end of the session, call again for the regularly scheduled paper, if time allows.
- If any problems arise that you are unable to handle relative to successfully chairing the session, go immediately to the registration desk to alert the staff.
- It is likely you will be asked by the Editors of the Proceedings to review manuscripts. Thank you for working with them to make possible the quick publication of a high quality Proceedings.

BUSINESS MEETING

Please plan to attend the GSCCM Business Meeting where issues affecting the future course of the Topical Group will be discussed. This meeting will be held at 12:50 on Thursday July 2 in the Cheekwood GH Conference Room (subject to change).

This meeting is to discuss items relevant to the topical group operation, policy and direction of the topical group. It is the place to make suggestions on what you think the topical group should be addressing, new ideas for promoting the group, discussing how to improve effectiveness in representing the Shock Physics Community. It is open to all conference attendees and needs your input. Please come along and help form the new directions of this topical group.

PROCEEDINGS

As with the previous two SCCM Conferences, all manuscripts for the 16th APS Topical Conference on Shock Compression of Condensed Matter will be submitted electronically. You are strongly encouraged to submit a manuscript of your presentation. The Proceedings will be published by the American Institute of Physics (AIP) as a bound volume, as a CD-ROM, and on the Web for subscribers. Most research libraries subscribe to AIP publications; hence, your work will be broadly disseminated. Details on manuscript submission can be found through the conference APS website (linked from the Conference website). Manuscripts need to be submitted through the Proceedings website by July 31, 2009.

TOWN HALL MEETING

This event will take place Tuesday evening, June 30, from 1730 to 1830 in the Tennessee Ballroom C, and will be chaired by Jon Eggert of Lawrence Livermore National Laboratories. Following suggestions raised by members of the Shock Compression of Condensed Matter Group, the **TOWN HALL** meeting at the **SCCM 2009** Conference will take the following format:

Up to four short presentations (5-10 minutes each) will be made covering research areas relevant to the GSCCM. The aim of each presentation will be to present the most significant challenges for researchers in that area. After each presentation there will be an open discussion on the issues raised.

In order to capture the main points of each discussion, each presenter will submit a short statement of their main points for inclusion **BOTH** in the conference proceedings **AND** on the conference website. Questions, responses, viewpoints from the audience will also be recorded.

At the SCCM 2009 these topics will be (a) SPACE Research - introduced by Dr. Shannon Ryan (b) NANOTECHNOLOGY – introduced by Prof K.T. Ramesh (c) Compression Tools – introduced by Dr. Dave Funk and, if time permits, TEMPERATURE Measurement.

Please see the Conference Website for the most current information on this event.

COMPANY SHOWCASE

The shock community is heavily dependant on state of the art high-speed data capture systems, complex analysis programmes, with expertise and consultancy playing a major role.

To assist in generating contacts between suppliers and the research community we have organised the COMPANY SHOWCASE.

We have reserved booths and meeting spaces Sunday – Wednesday for a number of interested companies who will be present at the Conference. A document giving details of the companies attending is available at the registration desk and in the poster areas. We encourage you to speak to the companies and see what new and exciting products they have available. Many of these companies will be available for discussions later in the week as well.

SOCIAL PROGRAM

Events for Conferees and Companions:

Sunday, June 28: Welcome Reception

Following their registration, SCCM09 attendees and companions are cordially invited to a Welcome Reception and Registration Social to be held in the Tennessee D/E Ballroom from 18:00 to 22:00 to make new acquaintances and renew old ones. Hors d'oeuvres and drinks will be served.

Wednesday, July 1: Conference Social Event (capacity: 225 on the boat; no limit for dinner)

Join us as we cruise down the river on the Music City Queen paddle boat. The boat is all ours, to enjoy delicious box lunches and a narration about the river as we head to downtown Nashville. Buses depart the Gaylord at 12:30 (or before if full) to take us to the dock and the Music City Queen. We'll depart the dock at 13:15, and arrive downtown at approx. 14:30. You'll have until 18:00 to explore The Ryman Auditorium, Country Music Hall of Fame, and many nearby attractions. At 18:00 we'll meet at the Wild Horse Saloon for the "Taste Of Tennessee" buffet and an evening of music and dancing. Everything is included in this package, except alcohol. Buses will return us to the Gaylord, from the Wild Horse. The buses run until late at night.

There are also options that include the Music City Queen but not dinner; and round trip bus transport to downtown plus the dinner at the Wild Horse. Please see the registration form for these options.

Questions or concerns about this activity may be emailed to apscompanions@comcast.net prior to the Conference.

Thursday, July 2: Conference Banquet

Conferees and companions are invited to enjoy the Conference Banquet, scheduled to take place beginning at 18:30 Thursday evening in the Tennessee C Ballroom. Tickets are included in the full Conference registration, and available for students registrants and

companions (please arrange to purchase by Monday morning). This is also a chance to enjoy some of what made Nashville famous in a songwriters' workshop featuring Tim Nichols and Rivers Rutherford.

Events for Companions:

General note: A varied and reasonably-priced set of trips and activities is planned for SCCM09 companions. Companions interested in these activities need to sign up ahead of the Conference, as final numbers for these activities are required by the beginning of June. There may be limited space available on these tours at the conference registration on June 28th. Although participation in these activities is not limited to companions who register, registration provides 1) Companions' Kick-off Breakfast with Botanical Tour of the Gaylord 2) name badge on lanyard 3) Conference satchel 4) information packet. Questions or concerns may be emailed to apscompanions@comcast.net prior to the Conference.

Monday, June 29: Companions' Kick-off Breakfast (Complimentary to registered companions, reservation required)

Registered companions are cordially invited to gather in the Cheekwood F Ballroom at 08:00 for a light breakfast, conversation and an information session. Breakfast will include fruit, cheese, bagels/ breads and beverages. The Nashville Chamber of Commerce will present information for all ages, on the sights and sounds of Nashville. Final details for the upcoming companion activities will also be discussed. This will be followed by an optional 1 hour tour (25 slots available) of the fascinating and surprising botanical features of the Gaylord Opryland Hotel. Reservations for the botanical tour are required prior to the breakfast. The Companions' Kick-off Breakfast is an excellent chance to get acquainted/ reacquainted with your fellow companions attending this meeting.

Tuesday, June 30: Companion Tour (capacity: 56 people)

Depart at 07:00 for a day long tour to Lynchburg, Jack Daniel's Old Time Distillery and Miss Mary Bobo's Boarding House Restaurant. Lynchburg is a quaint little town 75 miles south of Nashville. At 09:00 we start with a 1 hour and 10 min. long tour of Jack Daniel's. Please wear good walking shoes (some small hills and very steep stairs) and weather appropriate clothing (hot and humid??). After the tour you can walk (about 5 min.) to the square, join the 10:30 optional whiskey tasting (approx. 45 min. long), or take the bus, to downtown Lynchburg. Enjoy museums, shops and wandering around the picturesque town square. At 12:45 we meet at Miss Mary Bobo's to enjoy a lunch of "heaping bowls of fine boarding house fare". After lunch there will be time for more exploring. The bus will leave at 15:30 to return to the Gaylord. Cold water and juices will be available on the bus. Due to the early hour of departure, feel free to bring along your breakfast on the bus. *****Please sign up, on the registration form, for the optional Whiskey tasting.*****

Wednesday, July 1: The Hermitage (capacity: 41 people)

Depart at 07:45 for the home and plantation of our 7th president, Andrew Jackson - The Hermitage. Starting at 08:30 we will journey back to the early 1800s and see where “Old Hickory”, the first president to have a nickname, lived and worked. We will tour the grounds and see where history was made. We will depart to return to the Gaylord at 10:45, to get ready for the afternoon riverboat ride.

Thursday, July 2: Loveless Café, Cheekwood, Belle Meade (capacity: 50 people)

Depart at 07:00 for a family style breakfast at the Loveless Café. Enjoy fruit, country style ham, hash brown casserole, grits and Carol Fay’s famous biscuits and preserves (featured in a “Throwdown with Bobby Flay”), and more. Next we’ll walk off our breakfast at Cheekwood, the mansion built by the Maxwell House Coffee family fortune. Walk the 1 mile Carell Woodland Sculpture Trail; tour the mansion (at 09:30), Botanic Hall, Japanese and East Gardens, and the Contemporary Art Galleries. Remember your walking shoes, hat and sunscreen! Our final destination is Belle Meade Plantation. At 12:30 we’ll tour the 1853 Greek Revival Mansion, followed by a salad luncheon at 13:30. (We’ll be hungry by then). There will be time to tour the plantation and check out the Gift Shop (of course) before we head back to the Gaylord at about 15:45. Leave the driving to the Gaylord and enjoy 3 famous Nashville attractions in one relaxing and fun filled day!!

CONFERENCE ORGANIZERS

Co-Chairs:	William W. Anderson, Los Alamos Nat’l Laboratory Michael D. Furnish, Sandia National Laboratories William G. Proud, University of Cambridge
Treasurer:	Jack L. Wise, Sandia National Laboratories
Poster Session Chairs:	Jennifer L. Jordan, Air Force Research Lab. (MNNE) Suhitha Peiris, Defence Threat Reduction Agency
Publications Chairs: (Proceedings)	Mark Elert, United States Naval Academy William Buttler, Los Alamos National Laboratory
International Advisor:	Tony Zocher, Los Alamos National Laboratory
Student Outreach:	David S. Moore, Los Alamos National Laboratory Kathy P. Prestridge, Los Alamos National Laboratory
Conference Advisor:	James R. Asay, Sandia National Laboratories (ret)
Webmaster:	Christopher Braithwaite, University of Cambridge
Companion Program Chair:	Linn Furnish

TECHNICAL PROGRAM COMMITTEE

Mike Winey (WSU): Continuum and Multi-scale Modelling
Laura Smilowitz (LANL) / Clare Bauer (AWE): Detonations / Shock-Induced Chemistry
Ruth Doherty (DTRA): Energetic Materials
Marcus Knudson (SNL): Equation of State
Kevin Fleming (Sandia) / Mike Furlanetto (LANL) / Dave Holtkamp (LANL):
Experimental Developments – Diagnostics

Jacques Petit (CEG) / Eric Buzaud (CEG): Experimental Developments - Loading techniques

Thomas Sewell (U MO): First-Principles and Molecular Dynamics Calculations

Sarah Stewart (Harvard): Geophysics and Planetary Science

Thomas Mattsson (SNL): High Energy Density Physics/ Warm Dense Matter

Gennady Kanel (RAS) / Jeremy Millett (AWE): Inelastic Deformation, Fracture, and Spall

Philip Rae (LANL): Materials Science

Eric Brown (LANL): Phase Transitions

Bill Nellis (Harvard): Physics and Chemistry at High Pressure; static and low rate studies

Dan Dolan (SNL): Spectroscopy and Optical Studies

Tracy Vogler (SNL): Particulate / Porous Materials

M. J. Burchell (Kent) / K.T. Ramesh (Johns Hopkins): Biological / Nanomaterials

Dana Dattelbaum (LANL): Polymers/Composites

Charles Anderson / James Walker (SWRI): Ballistic Studies

Bill Proud / Mike Furnish / Bill Anderson / Jack Wise: Other topics

It is not possible to acknowledge here all of the others who have contributed to SCCM09, but the Conference would not be possible without them.

GSCCM OFFICERS FOR 2009

Chair:	Marcus D. Knudson, Sandia National Laboratories
Chair-Elect:	David S. Moore, Los Alamos National Laboratory
Vice Chair:	Neil K. Bourne, AWE
Past-Chair:	Dana D. Dlott, University of Illinois at Urbana-Champaign
Secretary / Treasurer:	Tracy J. Vogler, Sandia National Laboratories
Webmaster:	E. Ray Lemar, Naval Surface Warfare Center (IHMD)
Executive Committee:	Eric N. Brown, Los Alamos National Laboratory Dana M. Dattelbaum, Los Alamos National Laboratory Jennifer L. Jordan, Air Force Research Laboratory (MNNE) Kathy P. Prestridge, Los Alamos National Laboratory
Duval Award Committee Chair:	Ramon Ravelo, University of Texas – El Paso
APS Fellowship Committee Chair:	Ramon Ravelo, University of Texas – El Paso

PLEASE NOTE

The APS and the SCCM09 Organizing Committees have made every effort to provide accurate and complete information in this Program. However, changes or corrections may occasionally be necessary and may be made without notice after the date of publication. To ensure that you receive the most up-to-date information, please check the meeting Corrigenda distributed with this Program. The Website as well is a source for updates on the technical program as well as other aspects of the Conference.

