

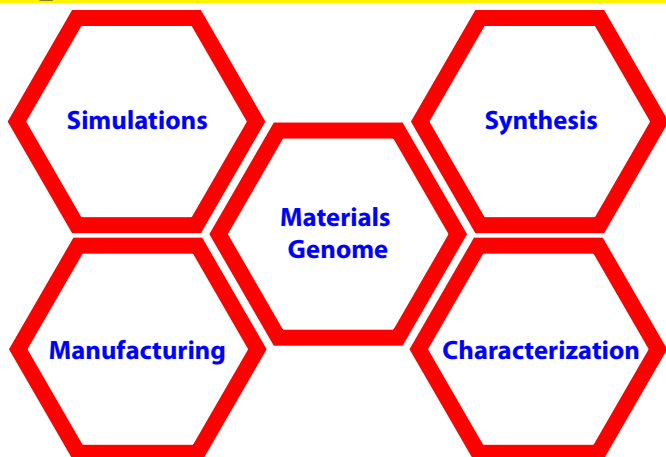
# Materials Genome: Simulations, Synthesis, Characterization and Manufacturing

## Conference supported by

University of Southern California  
Viterbi School of Engineering and  
Center for High Performance Computing and Communication

U.S. Department of Energy  
Offices of Basic Energy Sciences and Advanced Scientific Computing  
Research and the National Nuclear Security Administration

<http://cacs.usc.edu> Terranea Resort <http://www.terranea.com/> April 4-6, 2012



**The conference will waive registration for 20 graduate students.**

To apply please send abstract of your research and a letter of recommendation from your thesis advisor to Patricia Wong ([phw@usc.edu](mailto:phw@usc.edu)) by email with Subject: Grad Student Support and your name.

## Call for Papers

Conference invites simulation and experimental papers for poster presentations.

The Conference will focus on the theme of Materials Genome - Simulation, Synthesis, Characterization, and Manufacturing and bring together leading researchers in these areas. Topics include atomic and electronic structures; mass, charge and energy transport; thermo-mechanical and thermo-chemical behavior; self-assembly; self-healing materials; materials interfaces; nano-electro-mechanical systems; advanced computing and simulations; and enhanced data management, analytics and visualization.

**Conference Registration \$600 (covers lunches, coffee breaks, refreshments & banquet)**

### Keynote Lectures:

**Modeling and Simulations for Materials Genome**

**Ceren Susut, Office of Advanced Scientific Computing Research, DOE**

**The Department of Defense plans for the President's Initiative on Computational Materials Science and Engineering**

**William Mullins, Office of Naval Research**

### Partial List of Invited Speakers:

Ercan Alp (ANL), Rajeev Ahuja (Uppsala), Arun Bansil (Northeastern), Ravin Bhatt (Princeton), Thomas Bligaard (Stanford), Santanu Chaudhuri (Washington State), Michael Demkowicz (MIT), Ram Devanathan (PNNL), Alain Esteve (France), Larry Fried (LLNL), Vikram Gavini (Michigan), Yogendra Gupta (Washington State), Francois Gygi (UC Davis), Mark Hybertsen (BNL), Puru Jena (Virginia Commonwealth), Duane Johnson (Ames Lab), Mukul Kumar (LLNL), Lubos Mitas (NC State), Jeff Neaton (LBNL), Ruth Pachter (U.S. Air Force), Simon Phillpot (U Florida), Krishna Rajan (Iowa State), Carole Rossi (France), Andreas Roelofs (ANL), Tobias Schaedler (HRL Lab), Annabella Selloni (Princeton), Sadasivan Shankar (Intel), Neal Shinn (Sandia), Izabela Szlufarska (Wisconsin), Naresh Thadhani (Gatech), Kenji Tsuruta (Japan), Rama Venkatasubramanian (RTI), Massimiliano Di Ventra (UCSD), Renata Wentzcovitch (Minnesota).

### Advisory Committee:

*Roberto Car (Princeton), Jim Chelikowsky (Texas), George Crabtree (Argonne), Thom Dunning (Illinois), Giulia Galli (UC Davis), Andrew Mark (DOD-HPCMO), Venkatesh Narayanamurti (Harvard), Mike Klein (Temple), Michele Parrinello (Switzerland), Ramamoorthy Ramesh (Berkeley), CNR Rao (India), Ralph Roskies (Pittsburgh), Horst Simon (LBL), Rick Stevens (Argonne)*

**Conference Organizers: Rajiv Kalia, Aiichiro Nakano, Priya Vashishta (USC)**