



## Computational Methods in High Energy Density Plasmas

**March 12 – June 15, 2012**

**ORGANIZING COMMITTEE:** Tina Back (General Atomics), Andrew Christlieb (Michigan State), Jill Dahlburg (Naval Research Lab), Michael Desjarlais (Sandia), Frank Graziani (LLNL), Leslie Greengard (NYU), David Levermore (University of Maryland), Warren Mori (UCLA), Michael Murillo (LANL)

### Scientific Overview

The long program will establish an interdisciplinary forum for researchers in HEDP. In particular, the long program will provide a channel by which experts in the diverse applications disciplines meet and openly discuss the merits and weaknesses of their approaches. In order for the HEDP community to meet the challenges facing it, it is important that mathematicians, physicists, computer scientists, computational chemists, experimentalists, and engineers be part of the dialogue taking place in this long program. Providing a forum where HEDP challenges are communicated to a wide community will set up a synergistic relationship between disciplines.

### Workshop Schedule

- Computational Methods in High Energy Density Plasmas Tutorials. March 13 - 16, 2012
- Workshop I: Computational Challenges in Hot Dense Plasmas. March 26 - 30, 2012
- Workshop II: Computational Challenges in Magnetized Plasma. April 16 - 20, 2012
- Workshop III: Mathematical and Computer Science Approaches to High Energy Density Physics. May 7 - 11, 2012
- Workshop IV: Computational Challenges in Warm Dense Matter. May 21 - 25, 2012
- Culminating Workshop at Lake Arrowhead (by invitation only). June 10 - 15, 2012

### Participation

This long program will involve a community of senior and junior researchers. The intent is for participants to have an opportunity to learn about the mathematics and science of high energy density plasmas, to meet a diverse group of scientists and to have an opportunity to form new collaborations. Full and partial support for long-term participants is available. We are especially interested in applicants who intend to participate in the entire program (March 12 – June 15, 2012), but will consider applications for shorter periods. Funding is available for participants at all academic levels, though graduate students and researchers in the early stages of their careers are especially encouraged to apply. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission and we welcome their applications. More information and an application is available online.

[www.ipam.ucla.edu/programs/pl2012](http://www.ipam.ucla.edu/programs/pl2012)



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