

Program - General Information



Organized and Hosted by
The Department of Scientific Computing and
Florida State University

DEPARTMENT OF
Scientific
COMPUTING



Forward

The field of multiscale modeling of materials promotes the development of predictive materials research tools that can be used to understand the structure and properties of materials at all scales and help us process materials with novel properties. By its very nature, this field transcends the boundaries between materials science, mechanics, and physics and chemistry of materials. The increasing interest in this field by mathematicians and computational scientists is creating opportunities for solving computational problems in the field with unprecedented levels of rigor and accuracy. Because it is a part of the wider field of materials science, multiscale materials research is intimately linked with experiments and, together, these methodologies serve the dual role of enhancing our fundamental understanding of materials and enabling materials design for improved performance.

The increasing role of multiscale modeling in materials research motivated the materials science community to start the Multiscale Materials Modeling (MMM) Conference series in 2002, with the goal of promoting new concepts in the field and fostering technical exchange within the community. Three successful conferences in this series have been already held:

- The First International Conference on Multiscale Materials Modeling (MMM-2002) at Queen Mary University of London, UK, June 17-20, 2002,
- Second International Conference on Multiscale Materials Modeling (MMM-2004) at the University of California in Los Angeles, USA, October 11-15, 2004, and
- Third International Conference on Multiscale Materials Modeling (MMM-2006) at the University of Freiburg, Germany, September 18-22, 2006.

The Fourth International Conference on Multiscale Materials Modeling (MMM-2008) held at Florida State University comes at a time when the wider computational science field is shaping up and the synergy between the materials modeling community and computational scientists and mathematicians is becoming significant. The overarching theme of the MMM-2008 conference is thus chosen to be “*Tackling Materials Complexities via Computational Science*,” a theme that highlights the connection between multiscale materials modeling and the wider computational science field and also reflects the level of maturity that the field of multiscale materials research has come to. The conference covers topics ranging from basic multiscale modeling principles all the way to computational materials design. Nine symposia have been organized, which span the following topical areas:

- Mathematical basis for multiscale modeling of materials
- Statistical frameworks for multiscale materials modeling
- Mechanics of materials across time and length scales
- Multiscale modeling of microstructure evolution in materials
- Defects in materials
- Computational materials design based on multiscale and multi-level modeling principles

- Multiscale modeling of radiation effects in materials and materials response under extreme conditions
- Multiscale modeling of bio and soft matter systems

The first five topical areas are intended to cover the theoretical and computational basis for multiscale modeling of materials. The sixth topical area is intended to demonstrate the technological importance and industrial potential of multiscale materials modeling techniques, and to stimulate academia-laboratory-industrial interactions. The last two topical areas highly overlap with the earlier ones, yet they bring to the conference distinct materials phenomena and modeling problems and approaches with unique multiscale modeling aspects.

This conference would not have been possible without the help of many individuals both at Florida State University and around the world. Of those, I would like to thank the organizing team of MMM-2006, especially Professor Peter Gumbsch, for sharing their experience and much organizational material with us. I also thank all members of the International Advisory Board for their support and insight during the early organizational phase of the conference, and the members of the International Organizing Committee for the hard work in pulling the conference symposia together and for putting up with the many organization-related requests. Thanks are due to Professor Max Gunzburger, Chairman of the Department of Scientific Computing (formerly School of Computational Science) and to Florida State University for making available financial, logistical and administrative support without which the MMM-2008 would not have been possible. The following local organizing team members have devoted significant effort and time to MMM-2008 organization: Bill Burgess, Anne Johnson, Michele Locke, Jim Wilgenbusch, Christopher Cprek and Michael McDonald. Thanks are also due to my students Srujan Rokkam, Steve Henke, Jie Deng, Santosh Dubey, Mamdouh Mohamed and Jennifer Murray for helping with various organizational tasks. Special thanks are due to Bill Burgess and Srujan Rokkam for their hard work on the preparation of the proceedings volume and conference program.

I would like to thank the MMM-2008 sponsors: Lawrence Livermore National Laboratory (Dr. Tomas Diaz de la Rubia), Oak Ridge National Laboratory (Dr. Steve Zinkle) and Army Research Office (Drs. Bruce LaMattina and A.M. Rajendran) for the generous financial support, and thank TMS (Dr. Todd Osman) for the sponsorship of MMM-2008 and for advertising the conference through the TMS website and other TMS forums.

Last, but not least, I would like to thank all plenary speakers and panelists for accepting our invitation to give plenary lectures or to serve on the conference panels, and all session chairs for managing all conference sessions.

Anter El-Azab
Conference Chair

History

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Conference Committees

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Local Organizing Committee

Anter El-Azab (Chair)	Florida State University, USA
Max Gunzburger (Co-Chair)	Florida State University, USA
Simon Phillpot (Secretary)	University of Florida, USA

Logistics

Registration

The Opening Reception and Registration will be held at the Tallahassee-Leon County Civic Center on Sunday evening from 5:30-8:30 p.m. Please check in at the registration desk in the Arena Access Area; the Reception will be held in the Exhibition Hall. There will also be Registration from 8:00-8:20 a.m. on Monday and Tuesday mornings.

Opening and Plenary Talks

The conference Opening Remarks and all Plenary Talks will take place in Meeting Room A-3.

Oral Presentations

All symposia will be held in one of the Meeting Rooms. Please check the conference program for detailed information on times and exact locations of talks.

Poster Presentations

All posters will be displayed on Tuesday, 28 October from 3:20 to 5:20 p.m. and on Wednesday, 29 October from 3:20 to 5:20 p.m. in the Arena Access Area.

Mounting of posters: Tuesday, 28 October, 10:30 a.m. – 3:00 p.m.

Push pins for affixing the posters to the boards will be provided by the conference organizers.

Coffee and Snack Breaks and Lunches

Coffee and snack breaks will be held in the Arena Access Area and lunches will be held in the Exhibition Hall. Vegetarian lunches will be available if you requested them. Please see the Menus section for choices and times.

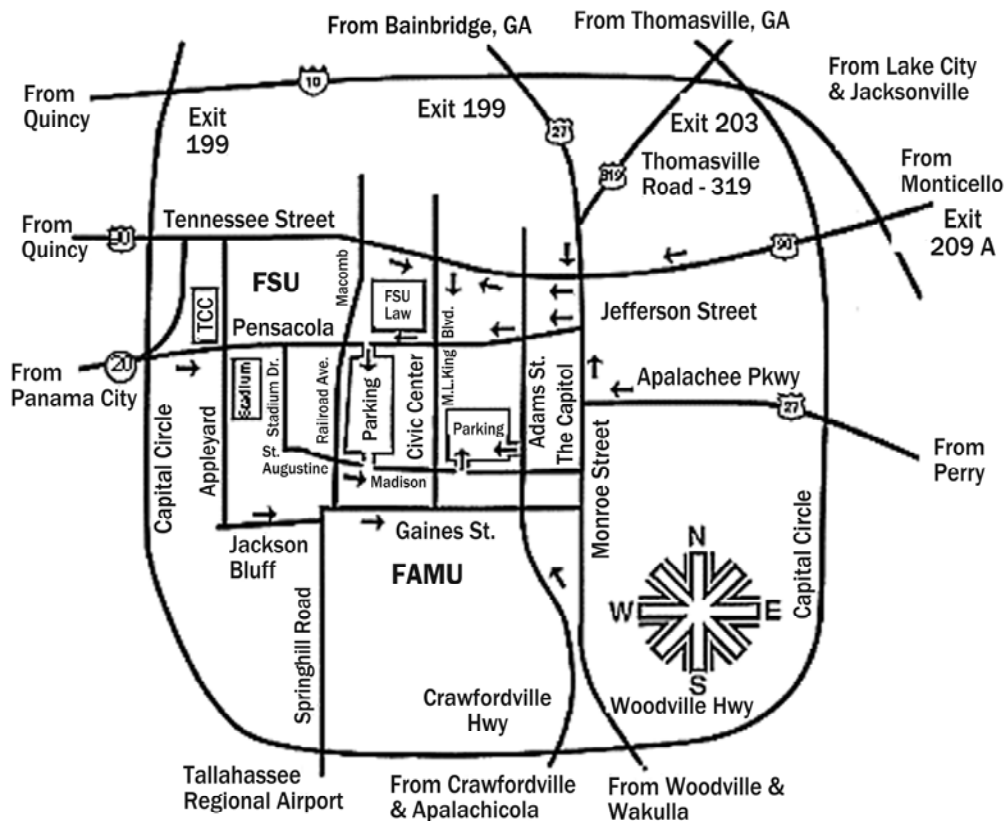
Conference Reception and Banquet

The Conference Reception and Banquet will be held at 7:30 p.m. on Thursday, 30 October in Meeting Room A-3. There will be cocktails, dinner, awards, and other announcements.

Internet Access

Internet access will be provided in the Arena Access Area.

Directions



From I-10: take Exit 203 and proceed SW on Thomasville Road (319) to South on Monroe Street (US 27). Proceed south to Tennessee Street (US 90). Turn right (west) on Tennessee Street. Left on Bronough. Right on Pensacola Street. Civic Center will be on your left.

From Exit 196 on I-10: proceed south (263 South) on Capital Circle. Turn left on Blountstown Hwy which turns into Pensacola Street. As you near the FSU football stadium, you will turn right on Stadium Drive. Follow Stadium Drive around to your left and then turn right on St. Augustine which turns into Madison. Civic Center will be on your left.

From the South: proceed north on Crawfordville Highway and veer left to Duval; turn left on Pensacola St. Civic Center will be on your left.

From Perry: proceed north on US 27 (Appalachee Parkway) until it ends at the Capitol Building. Turn right on Monroe and take first left on Jefferson. Jefferson turns into Pensacola. Civic Center will be on your left.

TALLAHASSEE-LEON COUNTY CIVIC CENTER

