

TECHNICAL AND ADMINISTRATIVE ORGANISATION

Merging

Tools from Physics, Chemistry, Mathematics and Computing for
Integrated Materials Science and Engineering

Understanding and designing of structure and properties of materials at all scales

VENUE

The conference will be held at the famous University of Freiburg. Freiburg is in the south west of Germany, beautifully seated between the Black Forest and the Rhine Valley.

France and Switzerland are about half an hour driving from Freiburg. From Frankfurt Airport, it takes two hours by ICE-train to come to Freiburg. From Basel-Mulhouse Euro Airport it is a 45 minutes bus ride.

Program

- 8 plenary keynote talks
- 8 symposia hosting 80 invited speakers
- 350 scientific papers, presented as talks or posters
- 350 attendees from internationally renowned research institutes and corporations
- conference excursion
- social program for accompanying persons

Accommodation

All participants are asked to book their accommodation at their own responsibility. We have an agreement with Insider Group in Freiburg to support all participants via phone or website to find adequate accommodation.

The hotline to Insider Group is +49 761 8858 1169. Further information is published on the conference website

Language

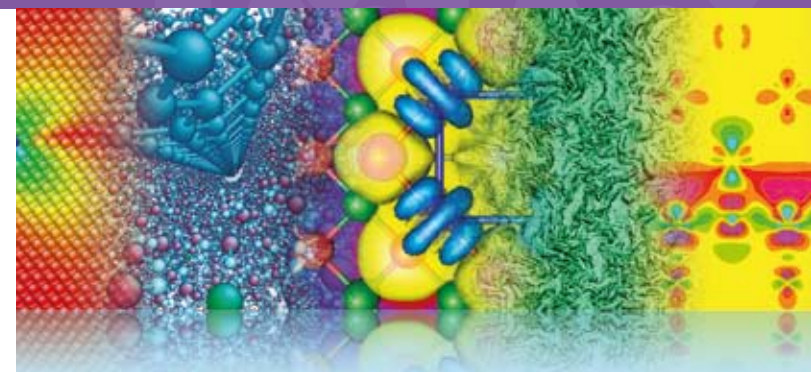
The conference language is English and will be required for abstracts, papers, oral contributions and posters.

Proceedings

Proceedings (printed in black and white) will be available at the conference.

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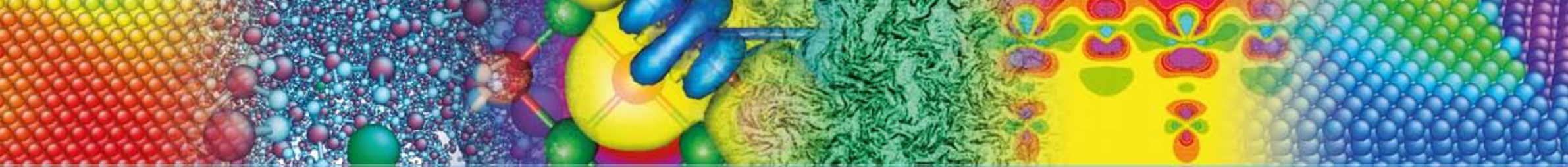


WWW.MMM2010.DE

**Organized by Fraunhofer Institute for Mechanics of
Materials IWM. Hosted by University of Freiburg.**



Fifth International Conference
MMM 2010
Multiscale Materials Modeling
October 4 - 8, 2010, Freiburg Germany



The conference spans topics ranging from basic multiscale modeling principles all the way to computational materials design. MMM2010 will provide a forum to present and discuss latest research on fundamental aspects of multiscale materials modeling of all types of materials. It will cover the following symposia:

- Mathematical Methods
- Micromechanics
- Statistical Approches
- Microstructure Modeling

- Biological & Soft Materials
- Radiation Effects
- Multifunctional Materials – Theory and Experiment
- Tribology: understanding friction, lubrication and wear across the scales

Important Dates

Deadline for submission of abstracts:	15 March 2010
Notification of abstract acceptance:	May 2010
Request of formal acceptance letters (international speakers):	June 2010
Registration opens:	May 2010
Proceedings paper submission:	June 2010
Conference:	October 4-8, 2010

Please check the conference website www.mmm2010.de for actual information. An online system for registration and submission is established.

AIM AND SCOPE

Computational modeling of materials behaviour has become a reliable tool of scientific investigation and complements theoretical and experimental approaches. Component assessment, materials processing and development of new materials systems all rely on accurate models for the description of materials properties. The linkage between materials (micro-)structure and materials properties is at the heart of all materials modeling. Multiscale Materials Modeling is required to make this link from the electronic and atomic structure of matter and discrete structural defects to the continuum descriptions appropriate at larger scales. Multiscale Materials Modeling can be a predictive tool to provide such continuum descriptions as it provides methods to overcome the inherent limitations of discrete methods in time and length-scales.

Although the field is still very much under development, modern Multiscale Materials Modeling techniques clearly have the capacity to solve computational materials problems with unprecedented levels of rigor and accuracy and to provide powerful new tools for materials design. While having developed out of the industrial need for improved design of engineering metals, polymers and composites, Multiscale Materials Modeling has recently also become an indispensable aid in unravelling the mysteries of biological materials and systems. The MMM conference series was established to provide an interdisciplinary forum for the promotion of scientific advances, new concepts and application areas and to foster the technical exchange in the field of Multiscale Materials Modeling.

Conference Chair

Peter Gumbsch, Freiburg, Germany
Erik van der Giessen, Groningen, The Netherlands

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Christian Elsässer, Freiburg, Germany
Michael Moseler, Freiburg, Germany
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