

Location

We have reserved rooms for the participants for the period September 2-7, 2012 in the Evangelische Akademie Baden, Bad Herrenalb, Germany. All participants should arrive on Sunday, Sept. 2, 2012. The lectures will start on Monday, Sept. 3, 2012 at 9:00h and end on Friday, Sept. 7, 2012 at 15:00h.

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By public transport

Take tram S1 leaving every hour to Bad Herrenalb in front of Karlsruhe Main-Train-Station (duration about 30 minutes). Upon arrival in Bad Herrenalb, you can take a taxi or even walk to the conference venue (5 to 10 minutes).

By car

Karlsruhe - Ettlingen - Bad Herrenalb. In the center of Bad Herrenalb turn left in the direction to Dobel (Pforzheim). The conference venue is then located about 500m on your left.

Organizer

Prof. Dr.-Ing. Thomas Böhlke
Speaker of the GAMM Activity Group
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Institute of Engineering Mechanics
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Germany

Prof. Dr.-Ing. Stefan Diebels
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Karlsruhe Institute of Technology
Institute of Engineering Mechanics



Workshop Multiscale Material Modeling 2012



GAMM Activity Group (MMM)

Bad Herrenalb, Germany

September 2-7, 2012

Objective of the Workshop

It is the aim of the GAMM activity group to provide a forum for discussion and interaction for PhD students in the fields of mechanics, applied mathematics, materials science and for engineers with particular research focus on homogenization, micromechanics and multiscale methods. The activity group gives special attention to communicate expert knowledge to young researchers in the fields of micromechanics and multiscale simulation methods.

The Workshop 'Multiscale Material Modeling 2012', being organized by the activity group in Bad Herrenalb, will give an overview on experimental, theoretical and numerical methods which can take into account microstructural information and be applied for the characterization and modeling of metallic, ceramic, and polymer-based materials. All lectures will give an elementary introduction into the considered class of problems and, furthermore, highlight the actual state of art in the field. Generally, the focus of the Workshop is on scale bridging methods with a strong scale coupling.

Main Topics

- Characterization methods for microstructures
- Density functional theory, molecular dynamics
- Methods of atomistic-continuum coupling
- Continuum theories for dislocations
- Micromechanics and methods of homogenization
- Phasefield theories and extended continuum theories

Lectures

Monday, Sept. 3, 2012

- 09:00-10:30 Prof. Dr.-Ing. H. Vehoff
- 10:45-12:15 Prof. Dr. rer. nat. J. Neugebauer
- 13:30-15:00 Prof. Dr. M. Moseler
- 15:15-16:45 Dr.-Ing. B. Eidel

Tuesday, Sept. 4, 2012

- 09:00-10:30 Prof. Dr.-Ing. S. Forest
- 10:45-12:15 Dr. S. Sandfeld
- 13:30-15:00 Prof. Dr. rer. nat. K. C. Le
- 15:15-16:45 Prof. Dr.-Ing. B. Svendsen

Wednesday, Sept. 5, 2012

- 09:00-10:30 Prof. Dr. I. Steinbach
- 10:45-12:15 Prof. Dr.-Ing. C. Miehe
- 13:30-15:00 Jun.-Prof. C. Linder
- 15:30 Black Forest trip

Thursday, Sept. 6, 2012

- 09:00-10:30 Prof. Dr. rer. nat. K. Hackl
- 10:45-12:15 Dr.-Ing. D. Balzani
- 13:30-15:00 Prof. Dr.-Ing. T. Seelig
- 15:15-16:45 Dr.-Ing. F. Fritzen

Friday, Sept. 7, 2012

- 09:00-10:30 Prof. Dr.-Ing. P. Steinmann
- 10:45-12:15 Prof. Dr.-Ing. S. Diebels

For more detailed information on the lectures:

www.itm.kit.edu/cm/294.php#block2425

Deadlines

- Registration: by July 15, 2012
- Workshop fee: EUR 400,-
- Workshop: September 2-7, 2012

Registration

Until **July 15, 2012** by E-Mail to:

workshop-mmm-2012@itm.kit.edu

- Name, First Name
- Institution
- Postal address
- Tel./Fax-No.
- E-Mail

Registration-Fee

Please transfer the amount of **EUR 400,-** (registration fee, including accommodation and meals) by **July 15, 2012**, latest, to the following account:

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- Deutsche Bundesbank, Filiale Karlsruhe
 - Recipient: KIT, Amtskasse Campus Süd
 - Account-No.: 660 015 08
 - Bank Number: 660 000 00
 - BIC / SWIFT: MARK DE F 1660
 - IBAN: DE5766 0000 0000 6600 1508

• **Designated use of the amount transferred:**

1. Name of participant(s)
 2. Workshop MMM 2012
 3. In favor of project XD 20348 71051
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