Conference Venue

Haus der Kirche Evangelische Akademie Baden Dobler Str. 51

D-76332 Bad Herrenalb

Tel.: (07083) 928-0 Fax: (07083) 928-601 E-Mail: HausderKirche@hdk.ekiba.de URL: www.ev-akademie-baden.de/haus/

Location



By public transport

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

By car

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

Organizers

Prof. Dr.-Ing. habil. Thomas Böhlke Chair for Continuum Mechanics Institute of Engineering Mechanics Karlsruhe Institute of Technology (KIT) Germany

Prof. Dr.-Ing. habil. Rolf Mahnken Chair of Engineering Mechanics (LTM) University of Paderborn Germany

Guest Organizers

Prof. Igor Tsukrov Mechanical Engineering Department University of New Hampshire, Durham U.S.A.

Dr.-Ing. Dipl.-Math. Romana Piat Institute of Engineering Mechanics Karlsruhe Institute of Technology Germany

Contact

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Karlsruhe Institute of Technology Institute of Engineering Mechanics



University of Paderborn Chair of Engineering Mechanics



23rd International Workshop Research in Mechanics of Composites



Bad Herrenalb 29th Nov. - 1st Dec. 2010







Objective of the Workshop

Modern and classic composites display a macroscopic material behavior depending on their nanostructure, microstructure, and mesostructure in a complex way. The mechanisms and size scales relevant for the macroscopic material behavior depend, among others, on the mechanical or physical sizes considered and on the thermomechanical process conduct. Understanding the correlation of both the microstructure and micromechanical behavior and the macroscopic material behavior of components is of fundamental interest for a number of composite utilization problems such as the selection and the design of materials as well as the dimensioning and optimization of construction parts.

In this workshop, new approaches for the material modeling of composites are introduced and discussed with respect to the multiscale properties of the material type. This workshop serves young researchers and well-established scientists to discuss their research experiences and allows for interdisciplinary discussions covering the fields of applied mathematics, mechanics and materials science.

Time Table

29th Nov. 2010	18:00h	Informal meeting
30th Nov. 2010	08:30h	Workshop
1st Dec. 2010	11:30h	Final discussion
1st Dec 2010	12·30h	Lunch

Key Subjects

- Ceramic-matrix and carbon-carbon composites
- Curing and performance of polymermatrix composites
- Metal-matrix composites
- Micromechanics
- Methods of homogenization
- Mechanical and thermal behaviour
- Description of microstructures
- Evolution of microstructures
- Thermomechanical coupling
- Damage, fatigue and fracture
- Experimental methods
- Numerical techniques

Abstracts

The abstract (max. 250 words, LaTeX) should be submitted to **composite2010@itm.kit.edu** latest by **10th October 2010**. For the corresponding template please refer to **www.itm.kit.edu/cm/**

Deadlines

• Abstract submission: 10th Oct. 2010

• Notification of acceptance: 20th Oct. 2010

• Registration: 31st Oct. 2010

• Conference fee: 31st Oct. 2010

• Workshop: 29th Nov. - 1st Dec. 2010

Registration

by E-Mail until 31st October 2010

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

to composite2010@itm.kit.edu.

Registration-Fee

Please transfer the amount of EUR 300,00 (registration fee, including accommodation, meals, abstract band) by 31st October 2010, latest, to the following account:

- Deutsche Bundesbank, Filiale Karlsruhe
- Recipient: KIT, Amtskasse Campus Süd

• Account-No.: 6600 1508

• Bank Number: 660 000 00

• BIC / SWIFT: MARK DE F1660

• IBAN: DE 5766 0000 0000 6600 1508

- Designated use:
 - 1. Name of participant(s)
 - 2. Composite2010
 - 3. In favor of project: PSP 20348 71051