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

Contact

Prof. Dr.-Ing. habil. Thomas Böhlke Institute of Engineering Mechanics Karlsruhe Institute of Technology Kaiserstr. 10 D-76131 Karlsruhe Germany Tel.: (0721) 608 46107 Fax: (0721) 608 44187 E-Mail: composite2012@itm.kit.edu URL: www.itm.kit.edu/cm/ Karlsruhe Institute of Technology Institute of Engineering Mechanics



University of Paderborn Chair of Engineering Mechanics



25th International Workshop

Research in Mechanics of Composites



Dec. 6-7, 2012 Bad Herrenalb, Germany

Forschungsgemeinschaft

DFG

Deutsche

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

18:00h	Informal meeting
	and Registration
08:30h	Workshop
11:30h	Final discussion
12:30h	Lunch
	08:30h 11:30h

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 **composite2012@itm.kit.edu** latest by **November 25, 2012**. For the corresponding template, please refer to **www.itm.kit.edu/cm/**

Deadlines

- Submission prelimin. title: Oct. 31, 2012
- Notification of acceptance: Nov. 06, 2012
- Abstract submission: Nov. 25, 2012
- Registration: Nov. 15, 2012
 Conference fee: Nov. 15, 2012
 Workshop: Dec. 6-7, 2012

Registration

by **E-Mail** until **November 15, 2012**

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

to composite2012@itm.kit.edu.

Registration-Fee

Please transfer the amount of **EUR 300,00** (registration fee, including accommodation, meals, abstract band) by **November 15, 2012**, 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. Composite2012
 - 3. In favor of project: XD 20348 71051