Karlsruhe Institute of Technology

University of Paderborn

# 29th International Workshop “Research in Mechanics of Composites”
# December 6-8, 2016, Bad Herrenalb, Germany

## Objective of the Workshop

Modern fiber reinforced polymers (FRP) show a macroscopic material behavior depending sensitively on the fiber orientation distribution and arrangement as well as on the generally nonlinear material behavior of the constituents. Additionally, the overall composite behavior is influenced by fluid-structure interaction, by curing during the production process as well as by the interface properties. Understanding the correlation of both the microstructure and the micromechanical behavior on the one side, and the macroscopic composite behavior on the other side, is of fundamental interest for the design of materials, the optimization of production processes as well as the dimensioning and optimization of construction parts. In this workshop, new approaches for the material modeling of **short and long fiber reinforced composites**, corresponding numerical solution strategies, and experimental techniques are discussed. Special emphasis is given to the modeling of process chains.

The International Research Training Group “Integrated Engineering of continuous-discontinuous long fiber reinforced polymer structures” funded by the German Research Foundation (DFG) provides a structured educational program for several PhD students focusing on research in the areas of materials science, product engineering, mechanics, production science and light-weight technologies.

## Key Subjects related to Fiber Reinforced Polymers

- Constitutive modeling
- Micromechanics and methods of homogenization
- Modeling of process chains
- Methods of experimental characterization
- Numerical simulation techniques
- Mathematical analysis and description of microstructures

## Abstracts

The abstract (max. 250 words, in LaTeX) should be submitted to composite2016@itm.kit.edu latest by October 17, 2016. For the corresponding template, please refer to:
**29th International Workshop "Research in Mechanics of Composites"**
http://www.itm.kit.edu/cm/294.php

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## Deadlines

- Submission of tentative title and abstract: Oct. 17, 2016
- Notification of acceptance: Oct. 24, 2016
- Registration: Nov. 4, 2016
- Conference fee: Nov. 4, 2016
- Workshop period: Dec. 6-8, 2016

## Registration

- By E-Mail to: composite2016@itm.kit.edu until November 4, 2016, latest
- Title, Name, First Name:
- Institution:
- Postal address:
- Tel.-No.:
- E-Mail:

## Conference Fee

Please transfer the amount of EUR 350 (conference fee, including accommodation, meals, and abstract band) by November 4, 2016, latest, to the following account:

| | |
|---|---|
| Bank-Name: | Deutsche Bundesbank, Filiale Karlsruhe |
| Recipient: | KIT, Amtskasse Campus Süd |
| BIC / SWIFT: | MARK DE F1660 |
| IBAN: | DE 5766 0000 0000 6600 1508 |
| Reference: | Name, Surname, Institution, Composite Workshop 2016 - **Project: XD 02034871051** |

## Time Table

| | | |
|---|---|---|
| Dec. 6, 2016 | 18:00h | Informal meeting and registration |
| Dec. 7, 2016 | 08:30h | Workshop |
| | 19:00h | Conference Dinner |
| Dec. 8, 2016 | 11:30h | Final discussion |
| Dec. 8, 2016 | 12:30h | Lunch |

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## Conference Venue and Location

Haus der Kirche - Evangelische Akademie Baden
Dobler Str. 51, D-76332 Bad Herrenalb, Germany
Tel.: +49 (0) 7083 928-0, Fax: +49 (0) 7083 928-601
E-Mail: HausderKirche@hdk.ekiba.de
URL: www.ev-akademie-baden.de/haus/
www.hdk.ev-akademie-baden.de/html/hausprospekt641.html


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

**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 500 m on your left.

## Organizers

- Prof. Dr.-Ing. Thomas Böhlke
  Chair for Continuum Mechanics
  Institute of Engineering Mechanics
  Karlsruhe Institute of Technology (KIT)
  Germany
- Prof. Dr.-Ing. Rolf Mahnken
  Chair of Engineering Mechanics (LTM)
  University of Paderborn, Germany
- GRK 2078 International Research Training Group
  http://www.grk2078.kit.edu/

## Contact

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