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Further information is available via the conference website www.iwm.fraunhofer.de/8_kmm-vin

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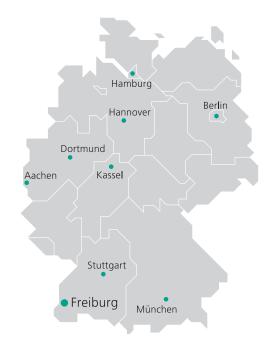
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Workshop Venue

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Directions

www.iwm.fraunhofer.de/en/contact/directions.html



FRAUNHOFER-INSTITUT FÜR WERKSTOFFMECHANIK IWM

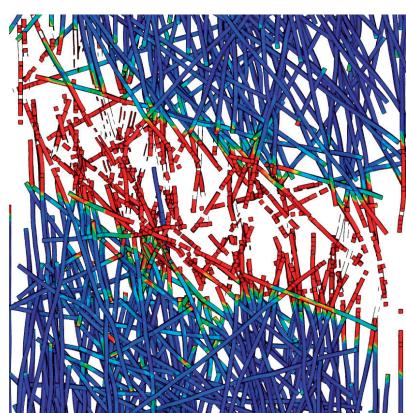


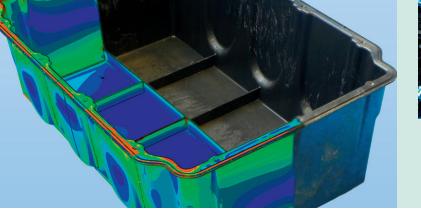
European Virtual Institute on Knowledge-Based Multifunctional Materials KMM-VIN AISBL

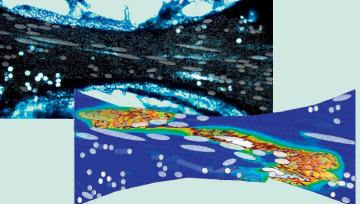
8th KMM-VIN Industrial Workshop (IW8)

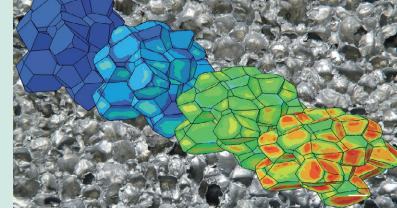
MODELLING OF COMPOSITE MATERIALS AND COMPOSITE COATINGS

October 9-10, 2018 | Freiburg, Germany









Objectives

The workshop is the 8th one in a series of industry related meetings organized by KMM-VIN. The objectives of the IW8 are to bring together leading experts from industry and academia to discuss the latest developments in the modeling of the mechanical response of engineering materials with the special focus on composite materials and composite coatings.

Interest is directed to the interaction of the properties of materials with their microstructure for composites generated from metallic, ceramic and polymeric materials. Beside multiscale simulation methods, the formulation and numerical implementation of adequate material models will be addressed. A special topic will be the effect of disordered/random microstructures, their impact on the effective material response and numerical methods to deal with the scatter induced by these effects.

Keynote lectures from different technological fields especially the aerospace and automotive sector have been invited. They will be complemented by keynote presentations by leading experts from industry and academia. Specific topics on composite materials and composite coatings include, but are not limited to

- multi-scale modelling
- multi-physics modelling
- design of composite materials and coatings
- development of advanced constitutive models
- implementation of new material models in finite element software
- stochastic aspects in material modelling
- application of advanced material models in structural simulation

The industrial fields mainly addressed by the workshop are the automotive and transport sectors, the aerospace industry and the energy sector, but may also include aspects from other fields, especially all fields of lightweight construction.

Contributions from neighboring fields such as naval or civil engineering are also welcome. By this means, a fruitful interaction and exchange of ideas from different technological sectors, all related to advances in the modelling of materials will be achieved.

Call for papers

Potential participants are encouraged to submit contributions to the workshop. Both, oral and poster presentations are welcome.

Abstract submission

Abstracts of oral or poster presentations (max. 300 words) can be submitted online by September 20, 2018 (final extension) using the link http://iw8-registration.kmm-vin.eu/

The abstracts will be made available to the participants in a book of abstracts during the workshop.

Fees

Workshop participation fees:

KMM-VIN, FEMS members: 150 €non-members: 250 €