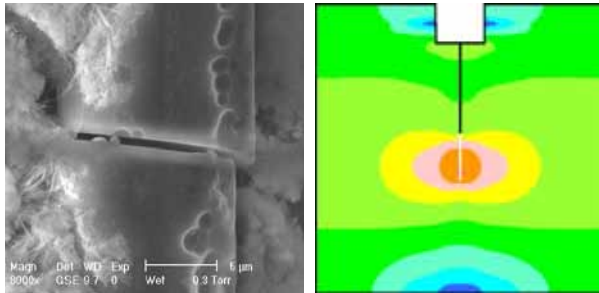


FRACTURE AND DAMAGE OF ADVANCED FIBRE-REINFORCED CEMENT-BASED MATERIALS



A mini-symposium dedicated to fracture and damage of Advanced Fibre-Reinforced Cement-Based Materials is planned within the 18th European Conference of Fracture (ECF 18) in Dresden on August 29 - September 3, 2010 (www.ecf18.de).

Scope

Contributions for the mini-symposium should deal with theory, experimental investigation, modelling and numerical simulation of fracture and damage of the mentioned class of materials. Contributions may be within – but are not limited to – the following topics:

- testing of fracture behaviour of composites under monotonic, cyclic, sustained and impact loading
- failure behaviour of the components (matrix, fibre, interphase)

- aging effects on fracture behaviour
- applications of fracture mechanics for material design and durability assessment
- modelling on different length scales
- multi-level numerical analysis
- discrete and smeared simulation approaches.

Examples of advanced composites covered by the mini-symposium are among others:

- Strain-Hardening Cement-Based Composites (SHCC)
- Textile Reinforced Concrete (TRC)
- High and Ultra-High Performance Fibre Reinforced Concrete (HPFRC and UHPC).

Special emphasis

Special emphasis of the symposium will be given to a multi-scale understanding of fracture and damage of cement-based fibre reinforced materials. Synergy effects could be achieved by bringing together experts with regard to composite materials, experimental techniques and numerical approaches.

Papers

Please submit abstracts online at the ECF 18 homepage www.ecf18.de until September 1, 2009, and send additionally an electronic copy to ECF18-AFRC@tu-dresden.de.

Papers submitted to the mini-symposium will be peer-reviewed and published in a book of symposium proceedings. A number of most substantial papers will be recommended for publication in leading international journals.

Organisation

The scientific program of the mini-symposium will be organised and co-chaired by Prof. Viktor Mechtcherine (Institute of Construction Materials, TU Dresden) and Prof. Michael Kaliske (Institute for Structural Analysis, TU Dresden).

