SS-2016-011-UHC

Implementation of XFEM in CONFEM
(Implementierung von XFEM in CONFEM)

Describing cracks and crack propagation in materials is highly important for realistic simulation and assessment of structures. Therefore, the Extended Finite Element Method (XFEM) based on FEM is one of the most powerful tools.
The aim of this work initially is to get familiar with XFEM principles and procedures as well as with the theoretical background of fracture mechanics. Afterwards, simple elements in 1D und 2D shall be implemented in ConFEM.
The results shall be compared and validated with those ones from manual calculation.

Contact person: Dipl.-Ing. Daniel Karl
Tel.: 0351 463 36912
Daniel.Karl1@tu-dresden.de

Prof. Dr.-Ing. habil. Häußler-Combe
Tel: 0351 463 39586
uhc@mailbox.tu-dresden.de

DRESDEN
concept
Exzellenz aus
Wissenschaft
und Kultur