ADVANCES IN COMPUTATIONAL TECHNIQUES FOR FRACTURE

TRACK NUMBER 1000

S. MARFIA[*], S. LÖHNERT[#]

AND L. DE LORENZIS[†]

[*] Department of Civil, Computer Science and Aeronautical Technologies Engineering
Roma Tre University
Via Vito Volterra, 62, 00146 Rome, Italy
sonia.marfia@uniroma3.it

[#] Institute of Mechanics and Shell Structures, Technische Universität Dresden
August-Bebel-Str. 30, 01219 Dresden, Germany
stefan.loehnert@tu-dresden.de

[†] Department of Mechanical and Process Engineering, ETH Zürich
Tannenstrasse 3, 8092 Zürich, Switzerland
ldelorenzis@ethz.ch

Key words: Brittle and cohesive fracture, Damage Mechanics, Crack nucleation and propagation, Numerical approaches.

ABSTRACT

This minisymposium is dedicated to discuss recent advances in computational methodologies especially for the simulation of fracture processes. We welcome contributions on topics including (but not limited to):

- ➤ efficient discretization techniques for phase-field fracture
- ➤ enriched finite element methods
- ➤ virtual element methods for crack simulations
- ➤ eigenerosion and eigenfracture techniques
- ➤ advanced cohesive zone elements
- ➤ meshfree methods for fracture
- ➤ peridynamics for fracture