

# MODELLING OF DISCRETE AND CONTINUUM DESCRIPTIONS OF CRACK PROPAGATION ON BRITTLE, DUCTILE AND FATIGUE FAILURE

TRACK NUMBER (100)

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## ABSTRACT

This Mini-Symposium aims to address multiple associated aspects of discrete and continuum modelling of crack propagation on brittle, ductile and fatigue failure.

The main focus will be numerical modelling and new solution strategies related with associated enrichment, regularization and adaptive aspects. Topics may include continuous/discontinuous transition, size effects, mesh dependence, solution schemes involving non-local methods, phase-field models, XFEM/GFEM, adaptive remeshing techniques, isogeometric refinements and related issues.

The Mini-Symposium will also address theoretical, physical and practical aspects that, somehow, trigger the need for those methods, namely softening issues related with continuous damage mechanics and micromechanics damage descriptions, energy dissipation in transition from damage to fracture, size effects and complex strain and stress paths.