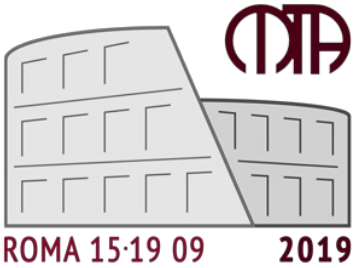

Minisymposium

Interface models and phase-field approaches for fracture and damage mechanics

Organizers:

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In the recent past, developments of interface and phase-field approaches to fracture and damage mechanics, in addition with the constant increase of computational resources, have allowed to simulate and predict complicated failure processes previously inconceivable.
The present mini-symposium aims at providing a forum for an in-depth discussion of new and recent methods for the description of fracture and damage phenomena at different scales and in different materials.
Contributions concerning theoretical, numerical and experimental aspects are welcome from scientists (including mathematicians, physicians and mechanicians) working in different fields of material science and mechanics of materials.

Specifically, topics of interest include, among others:

- Regularizations and approximations of crack discontinuities
- Phase-field approaches to brittle, cohesive and ductile fracture
- Variational and multiscale models for fracture and damage
- Non-local damage models in solids and structures
- Modelling of friction and adhesion at the interface between materials
- Fatigue failure
- Fracture and damage in a multi-physics framework (e.g coupling with plasticity, thermal and chemical effects, etc.)
- New mathematical formulations and numerical solution strategies for the description of fracture processes