14th International Conference on Fracture (ICF14)
Rhodes, Greece, June 18-23, 2017

Mini-Symposium announcement:

Mixed Mode Fracture in Engineering Materials

Organized by
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Cracks and notches in engineering components and structures are often subjected to complex loading conditions which generate different mixtures of normal and shear stresses ahead of the crack tip. Mixed mode fracture mechanics deals with experimental studies and theoretical models for predicting the onset of crack extension and the path of crack growth when cracks are subjected to a combination of mode I (opening), mode II (sliding) and mode III (tearing) deformation. This mini-symposium aims to provide a valuable opportunity for participants from industry and academia to share their professional knowledge on recent advances in mixed mode fatigue and fracture behavior of different engineering materials. Papers can be submitted to this mini-symposium on all aspects of mixed mode fracture mechanics. The topics of interest are including (but not limited to):

1. **Materials:** Metals, polymers, ceramics, rocks, geo-materials, concretes, composites and nano-composites, biomaterials and smart materials.
2. **Mechanisms of crack growth:** Brittle fracture, Ductile rupture, Brittle to ductile transition, Fatigue crack growth, Debonding in adhesive joints, Inter-laminar crack growth in composites.
3. **Modeling:** Mixed mode fracture theories, Empirical models, Notch fracture mechanics, Molecular Dynamics modeling. Fatigue crack growth theories, Crack path simulation, Statistical models, Micromechanical models, Constraint effects.
4. **Types of loading:** Static loading, Dynamic loading, Fatigue loading, Mixed mode I-II-III loading, Thermal loading, Multi-axial loading.
5. **Industrial applications:** Railway engineering, Airplane structures, Welded metallic structures, Adhesive joints, Composite structures, Rock Engineering, Power plants.
6. **Methods:** Analytical solutions, Finite element modeling, Laboratory experiments, Full scale experiments, Failure analysis

Selected papers will be published in special issues of the journals: "**Theoretical and Applied Fracture Mechanics**" and/or "**Fatigue and Fracture of Engineering Materials and Structures**". Please send by email the tentative title of your presentation together with the name, affiliation and email address of the corresponding author and the names of coauthors before Friday 26th of August 2016 to one the organizers:

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