

Associação Brasileira de Metalurgia, Materiais e Mineração - ABM

ABM 2010

65th ABM International Congress
July 26-30, 2010 – Rio de Janeiro, RJ, Brazil

CALL FOR PAPERS

FRACTURE, FATIGUE & STRUCTURAL INTEGRITY

The **Fracture Mechanics and Structural Integrity Committee** of the 65th ABM International Congress is soliciting papers for publication and presentation in its technical sessions at the ABM 2010 Congress. The fracture and fatigue behavior of structural material subjected to various loading and environmental conditions is central to assess structural integrity. The increasing demand for ensuring acceptable levels of structural safety has spurred a flurry of research and technological developments aimed at assessing the fracture and fatigue behavior of load-bearing materials such as, for example, cracks in critical weldments of key structural components. Such methodologies play a central role in repair decisions and life-extension programs for in-service structures (e.g., aerospace, automotive, nuclear and offshore structures). This symposium will focus on general topics associated with fatigue, fracture and damage of structural materials with emphasis on fracture and fatigue behavior of conventional and advanced materials. Papers covering the following topics (but not limited to) are welcome:

- Integrity Assessment Methods Under Static and Dynamic Loading
- Material Property Testing, Design and Selection
- High Temperature Materials
- Environmental Degradation
- Fracture Mechanics and Damage Approaches
- Crack Nucleation, Critical and Sub-Critical Crack Growth
- Residual Stress, Fracture and Fatigue of Welded Structures
- Fatigue Behavior and Fatigue Crack Growth
- Effects of Short Cracks and Crack Closure on Fatigue
- Probabilistic and Reliability Approaches Applied to Assessment Methods
- Composite Material Structures

Authors should submit abstracts **on-line** (approximately 250-300 words in length) including paper title, full name(s) of author(s), affiliation, e-mail address by **November 30, 2009** using the ABM 2010 website listed below. Draft papers are to be submitted by **February 19, 2010**. All submitted articles will be peer-reviewed to ensure that technical sessions are quality driven.

Symposium Developers:

Prof. Claudio Ruggieri

PNV-EPUSP, University of São Paulo

E-mail: claudio.ruggieri@usp.br

Prof. Leonardo B. Godefroid

Federal University of Ouro Preto - UFOP

E-mail: leonardo@demet.em.ufop.br

On-line Submission of Abstracts: www.abmbrasil.com.br