The Russian Academy of Sciences

New Trends in Fatigue and Fracture

NT2F13

13-16 May 2013,
Moscow, RUSSIA

Contacts:
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http://nt2f.polytech-lille.net

General Information

The *NT2F13* congress, 13th International Conference on New Trends in Fatigue and Fracture, is intended to be a forum to discuss the present trends on fracture mechanics which consider the actual geometry of defects in light of notch fracture mechanics and new approaches based on mesomechanics and incremental plasticity to offer new interpretations of loading mode and geometrical effects on fracture toughness. Fatigue and fracture of innovative metallic materials such as titanium alloys, as well as studies on nano, composite and biomaterials certainly represent a challenge for the scientific community because of the variety of possible new research topics that could be developed. In this sense, *NT2F13* Conference will be also an excellent place for reviewing critically design codes in view of the increasing complexity of the engineering scenarios.

All instruction about submission, registration and accommodation can be found on conference web site:

http://nt2f.polytech-lille.net

ABSTRACT SUBMISSION GUIDELINE

Authors are requested to electronically submit a one page abstract of the paper by **February 10, 2013**

All files must be sent to nt2f13@mail.ru.

The authors will be notified by **February 20, 2013** about the acceptance or rejection of their papers.

Final manuscripts are due by **April 15, 2013.**

English is the official language of the Conference.

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TOPICS

I. Multi-scale Models and Criteria

- nano, micro, meso and macro levels
- experimental methods and numerical modeling
- multiaxial/mixed mode fracture and fatigue
- transferability of models and criteria

II. Characterization of Crack/Notch Tip Stress Fields

- experimental technique
- numerical modeling
- constraint and effect of non-singular terms
- mixed mode fracture and fatigue

III. Structural Integrity and Engineering Safety

- structural integrity assessment
- reliability and risk analysis
- non-destructive evaluation of structural components
- structural materials ageing
- environmental and hydrogen embitterment effect
- residual stress

IV. Fracture Mechanics and Fatigue in Design and Technology

- codes and standards
- lifetime extension
- application in geomechanics and geotechnology