



Thematic Session on Failure mechanism and life assessment under defects

1. Thematic session title

Thematic Session on Failure mechanism and life assessment under defects

2. Organizers, including affiliations

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4. Short description of the symposium including the scope and target public

The thematic session of failure mechanism and life assessment under defects is organised within the First International Symposium on Risk Analysis and Safety of Complex Structures and Components (IRAS2019), which will take place in the Faculty of Engineering of the University of Porto, Portugal, from 1-2 July 2019 (<http://fe.up.pt/iras2019>).

This thematic session is intended to gather people from both academic and industrial communities to exchange ideas on experimental investigations and simulating techniques for the failure of defect in titanium alloys and powder metallurgy superalloys. Papers towards are mostly welcome, aiming at a very multidisciplinary discussion.

The goal of the thematic session of failure mechanism and life assessment under defects is to provide a platform to present the last researches on:

- Composition identification of typical defect in alloys
- Modeling techniques of defect in material
- Deformation mechanism of defect at elevated temperature
- Dislocation nucleation and interaction with defect
- Failure mechanism of interface between defect and base material
- Principal influence factors in failure process of defect
- Response prediction on material around defect under uniform and fatigue loadings

All contributions in the form of extended abstracts will be peer reviewed by the members of G-IRAS2019-FMLA Scientific Committee. Full papers will be published in special issues of the scientific journals available for IRAS2019 event upon peer review and acceptance.

Please submit your work by email to maojx@buaa.edu.cn or iras2019@fe.up.pt with subject **G-IRAS2019-FMLA**.