

Wrocław University of Science and Technology Faculty of Mechanical Engineering



MINISYMPOSIUM

RECENT ADVANCES ON MIXED-MODE FATIGUE AND FRACTURE

1. Thematic session title

Recent advances on mixed-mode fatigue and fracture (D-RAMFF)

2. Organizers, including affiliations

Ricardo Branco CEMMPRE, Department of Mechanical Engineering, University of Coimbra, Portugal

Wojciech Macek Polish Academy of Sciences, Institute of Chemical Engineering, Poland

Zbigniew Marciniak Opole University of Technology, Department of Mechanics and Machine Design, Poland

Shengchuan Wu State Key Laboratory of Traction Power, Southwest Jiaotong University, China

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3. Corresponding organizer and contacts (e.g. e-mail, phone)

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

This symposium aims to stimulate discussion and dialogue on the most recent approaches in the fields of mixed-mode fatigue and fracture, which are pivotal topics in the context of modern structural integrity assessment of engineering parts. Despite the huge progresses achieved over time, the development of more sophisticated products, combined with new manufacturing methodologies and new processing techniques, require additional research and clever solutions to

address unsolved questions and to strengthen the existing knowledge. The symposium is expected to gather contributions that make use of theoretical, experimental, and numerical approaches to shed light on different current topics, such as multiaxial fatigue and fracture, initiation and short crack growth, constitutive modelling and damage accumulation, defects and inhomogeneities, notches and stress concentration effects, post-failure fracture surface analyses, fracture surface morphology from macro to nanoscale, 3D fractography, and advanced crack monitoring methods, among others.

Selected papers of the D-ICMFM-RAMFF will be published in scientific journals available in the ICMFM event.

Please submit your work by email to **ricardo.branco@dem.uc.pt** or **icmfmxx@pwr.edu.pl** with subject D-ICMFM-RAMFF.