



In the field, structures and mechanical components experience multiaxial stress states events even under uniaxial loading conditions. Therefore, multiaxial fatigue and fracture assessment is of utmost importance in design stages against fatigue and fracture.

Multiaxial stress states are comprised by normal and shear stresses, both with different damage scales which are set accordingly to the material type. Moreover, the combination of normal and shear stress amplitudes can lead to different damage rates. Variables such as: stress amplitude ratios, load sequences, stress levels, proportional and non-proportional loading conditions cause different damage rates within the material.

Experiments in lab are designed based on preconceived events which eliminates the stochastic nature of the loading events found in the field, this fact difficult the simulation of random loadings in the lab.

Very few works can be found in literature regarding all these issues. The main objective of this International Symposium is to bring together researchers, engineers, and students to present and exchange new data and new ideas, allowing an interesting multidisciplinary discussion.

Organizing Committee

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