Benchmarks of multiaxial fatigue solutions and PragTic fatigue solver

by

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Abstracts:

Benchmarks of multiaxial fatigue solutions: 15:00-16:30

Multiaxial fatigue solutions were proposed to describe better the effect of complex loading on the fatigue life of components, than the common static hypotheses (von Mises, principal stresses) allow. The prediction methods are quite complex, so plentitude of various methods were established, many are proposed each year, but a few comparisons among them were provided. There are traditional approaches implemented in various fatigue solvers, but the substantiation that they can be safely used is still rather weak. The presentation will describe the effort realized during running the FADOFF project (Fatigue Analysis Documentation OFFice) in the search for eligible data for benchmarks, running the benchmark process itself, and some of the outputs of the large-scale testing. It will describe the most important features of the multiaxial fatigue prediction process.

PragTic fatigue solver: 16:45-19:00

PragTic is currently a freeware fatigue solution available on www.pragtic.com website. During FADOFF project, the process of its commercialization was started, and a full version will be available from end of 2014, together with the freeware version useful for academia, or in-house fatigue analyses. It serves as the major tool for running benchmarks on various fatigue solutions. The presentation will touch its current status, and the major changes under way. A short introduction to explain its functionality and try to prepare an analysis will be provided to attendants. Having own laptops is recommended, so that the latest non-public version could be installed there, and tried in practice.

Note: Due to the limited space in the lecture room (Sala E,DTG, Vicenza) the interested persons should contact Jan Papuga on papuga@pragtic.com in advance to book their place.