

## CONTINUUM DAMAGE AND CYCLIC PLASTICITY IN FATIGUE LIFE ESTIMATE

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### ABSTRACT

The symposium proposal is to show the application of the continuum damage mechanics in fatigue life estimation under complex loading conditions. Elastoplastic models with coupled damage are considered as well as models with damage indicators in the post-processing stage. This methodology is an alternative to traditional approaches to estimating fatigue life. Contributions related with new damage evolution laws, kinematic hardening models, multiaxial fatigue, fretting fatigue, multiscale models, parameter identification techniques, finite element method, among others, are well accepted.

### REFERENCES (Not mandatory, maximum 2 references)

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- [2] SANDOVAL, C.F.B. ; MALCHER, L. ; CANUT, F.A. ; ARAÚJO, L.M. ; DOCA, T.C.R. ; ARAÚJO, J.A. . Micromechanical Gurson-based continuum damage under the context of fretting fatigue: influence of the plastic strain field. International journal of plasticity, v. 125, p. 235-264, 2019.