Title:

Continuum Damage and Cyclic Plasticity in Fatigue Life Estimate

Organizers:

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Abstract:

The prediction of fatigue life is strongly associated with the correct description of the cyclic behavior of the material. Traditionally, fatigue life estimates, under variable amplitude conditions, is determined by rules of cycle count and accumulation of damage. However, the continuum damage mechanics (CDM) has been widely used, now a day, in the prediction of the multi-axial fatigue life, especially in conditions of low number of cycles, where the macroscopic plasticity is present. In this context, this session is focused on contributions associated with the application of the CDM in prediction of the fatigue life. Contributions regarding the correct description of the cyclic hardening of materials are also welcome.