

## **NONLINEAR MODELING AND SIMULATION OF PLYS AND INTERFACES IN LAMINATED COMPOSITES**

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### **ABSTRACT**

The contributions to the mini-symposium are dealing with the modeling and simulation of the non-linear mechanical response of laminated fiber reinforced polymer composites (and similar). Mechanisms occurring in the plies and/or at the ply interfaces are of interest and comprise, among others, progressive damage, failure, delamination, plasticity, fatigue, etc.

Modeling approaches based on analytical as well as numerical schemes and combinations thereof, possibly in a multi-scale setting, are to be presented. The focus is put on formulations which are capable of simulating progression of the non-linear effects taking into account the anisotropic and heterogeneous character of laminate composites. The models should have the potential to be employed in structural analyses of components and parts made from such composites.