Special Session

on

ADVANCED MATERIAL CHARACTERIZATION, MODELLING, AND NUMERICAL SIMULATIONS

Abstract

This special session is devoted to advanced techniques for material characterization, nonlinear, multi-scale and multi-physics modeling, and emerging numerical techniques used in the computational and engineering practice. The topics of interest include but are not limited to:

- Advanced material characterization techniques (micro CT scanning, nanoindentation, AFM, etc.);
- Model parameter identification, sensitivity and back analyses;
- Advanced simulation tools for strongly heterogeneous and/or anisotropic media;
- Scalable parallel implementations on heterogeneous computational systems;