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ADVANCED MULTISCALE AND ADAPTIVE NUMERICAL METHODS FOR NON-LINEAR SOLIDS

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MINISYMPOSIUM

The minisymposium is intended as a forum for exchange and debate on advanced multiscale (in its widest sense) computational methods for studying the behaviour of materials and structures.
The aim is to bring together researchers (engineers, physicists, mathematicians) specialising in computational mechanics and numerical modelling for the simulation of solid mechanics and structures. Papers may cover a wide range of numerical aspects related to the modelling of materials or structures. In this context, the interest and relevance of multiscale and/or adpative strategies will be highlighted. The focus will be on computational issues, while highlighting the underlying conceptual and theoretical foundations. Application topics will include (but not be limited to):

- Heterogeneous media;
- Localized effects;
- Adaptive Mesh Refinement;
- Multilevel or multimodels strategies;
- Complex material behaviour;
- Interface and contact problems;
- Non-standard continua;
- Coupled problems

Keywords : multiscale, multilevel, adaptive mesh refinement, Solids Mechanics, non-linear problems, advanced numerical methods.