MULTISCALE AND MULTIPHYSICS MODELLING FOR COMPLEX MATERIALS (MMCM15)

TRACK NUMBER 300 - MULTISCALE AND MULTIPHYSICS SYSTEMS

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ABSTRACT

This symposium will provide a forum to present and debate several advanced computational methods for studying the behaviour of materials and structures. The goal is to gather researchers (engineers, physicists, mathematicians) specialized in computational mechanics and numerical modelling for simulating the mechanics of solids and structures. The computational aspects will play a central role, but papers can focus on broad range of numerical aspects either related to the material modelling or the structural one. In this framework, the interest and suitability of multiscale strategies will be highlighted. The focus will be set on computational issues, while still highlighting the underlying conceptual and theoretical basis.

With these aims in mind, contributions from all aspects of engineering applications, with particular attention to structural engineering applications, will be considered. Topics of applications will include (but not be limited to):

- Materials with micro(/nano)-structure;
- Complex material behaviour;
- Non-standard/Non-local continuous formulation;
- Computational Methods for non-standard continua.

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