

NON-CONVENTIONAL METHODS FOR SOLID MECHANICS (NMSM)

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ABSTRACT

The Minisymposium focuses on non-conventional techniques for solid mechanics, including experimental, theoretical and computational aspects. The attention is focused on heterogeneous/multiscale/multiphase/multifunctional materials, and their behaviour especially in the framework of coupled field problems.

Topics:

- Non-conventional theoretical techniques for description of heterogeneous/multiscale/multiphase/multifunctional materials:
 - fractional continuum mechanics,
 - tolerance and non-asymptotic modelling,
 - peridynamics,
 - fractal media,
 - nonlocal continuum,
 - relativistic continuum mechanics, etc.
- Non-conventional techniques for solving coupled field problems for heterogeneous/multiscale/multiphase/multifunctional materials (computational aspects including implementation and hardware/software point of views).
- new set-ups for experimental testing of heterogeneous/multiscale/multiphase/multifunctional materials (miniaturised equipment, digital imaging, etc.)

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