



EMERGING TRENDS IN APPLIED MATHEMATICS AND MECHANICS

Numerical Analysis and Computational Methods in Nonsmooth Mechanics,

Organized by

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Currently, a large number of boundary value problems describing the evolution of deformable solids are expressed in terms of nondifferentiable functions or potentials. Frictional contact problems and various problems in plasticity with and without hardening or damage represent some examples, among others.

Such problems are usually called nonsmooth problems and their study represents the object of Nonsmooth Mechanics.

The purpose of this minisymposium is to give an overview of recent researches related to the numerical aspects of Nonsmooth Mechanics, with emphasis to description and implementation of accurate and reliable computational tools. The minisymposium is devoted but not restricted to the following topics: numerical modelling of problems with nonsmooth constitutive laws, approximation of variational and hemivariational inequalities, numerical analysis of discrete schemes, numerical methods and the corresponding algorithms, applications to mechanical engineering. It is addressed to specialists on mechanical modelling, applied mathematicians, engineers and all scientists interested to reinforce interchanges between nonlinear analysis and computational methods, with applications to Nonsmooth Mechanics.