# **Special Issue**

# Advanced Numerical Methods in Computational Solid Mechanics

## Message from the Guest Editors

Efficient numerical solving of nonlinear solid mechanics problems is still a challenging issue which concerns various fields: nonlinear behavior, micromechanics, contact mechanics, damage, cracks propagation, rupture, etc. Numerical methods dedicated to such topics have been developed for many decades, but many fundamental and important challenges remain. In particular, multiscale methods which bridge different scales in time and space, efficient reduced-order models for variational inequalities or fully scalable nonlinear solvers, to name but a few, For this Special Issue, we seek contributions which introduce or adapt advanced numerical methods for computational mechanics. Topics of interest include, but are not limited to, the following: adaptive mesh refinement, domain decomposition method, multiscale approaches for heterogeneous materials, reduced order modeling, efficient nonlinear solvers, parallel computing, contact mechanics, and crack initiation and/or propagation.

#### **Guest Editors**

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## Deadline for manuscript submissions

closed (31 October 2022)



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The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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