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ADVANCED AND EFFICIENT NUMERICAL STRATEGIES IN CONTACT MECHANICS

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ABSTRACT

The aim of this minisymposium is to present recent numerical methods for solving contact mechanics problems and associated variational inequalities problems. This includes the introduction of new algorithms and associated numerical methods (penality, generalized saddle point, AMR, HPC, immersed boundaries…). Theoretical results on convergence, error estimates and stability are also welcomed. We are also interested in the use of machine learning for model order reduction and surrogate models in general for contact problems, when algorithms do not forget scientific knowledge in contact theory. This concerns hybrid approaches to scientific machine learning.