

COMPUTATIONAL GEOMECHANICS

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ABSTRACT

Computational geomechanics has undoubtedly made a tremendous impact on a variety of problems in civil and environmental engineering, energy resources engineering, geosciences, and other related fields. This mini-symposium is intended to disseminate and discuss recent advances in computational geomechanics in a wide range of contexts. Topics of interest include, but are not limited to, constitutive modeling of geomaterials, coupled multiphysics in porous media, fracture mechanics of geomaterials, large deformations, dynamics and instabilities in soils, machine learning for geomechanics, digital twins for geosystems, and their applications to real-world problems such as geohazards, energy geotechnics, and geologic storages. We welcome contributions on various computational approaches, including FEM, DEM, SPH, MPM, peridynamics, and other emerging methods.