COMPUTATIONAL GEOMECHANICS

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MINISYMPOSIUM

We propose this mini-symposium focusing on recent advances in computational approaches in geomechanics. The mechanical behavior of porous granular materials such as soils, rocks, and concrete is highly complex and requires sophisticated computational modeling. Such modeling plays a pivotal role in many engineering practices related to civil infrastructure, energy, and the environment. This mini-symposium aims to provide a forum for the presentation and discussion of recent research in computational geomechanics. Contributions are solicited in, but not limited to, the following topic areas:

- Development, implementation, and validation of constitutive models for geomaterials
- Computational methods and algorithms for coupled poromechanics and other multi-physics problems
- Granular mechanics and other micromechanics approaches to geomaterials
- Multiscale modeling techniques
- Meshfree methods for large deformation problems
- Numerical modeling of fracture and damage processes
- Uncertainty quantification and probabilistic methods
- Data-driven/machine-learning methods for geomechanics

We welcome submissions from researchers and practitioners from both academia and industry. The mini-symposium will provide an opportunity for participants to exchange ideas, share their research findings, and discuss challenges and future directions in computational geomechanics. We anticipate that this mini-symposium will attract a diverse group of researchers and practitioners and will contribute to the advancement of computational geomechanics.