

## Minisymposium: Mechanics and Physics of Granular Materials

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**Abstract:** Nearly every product, commodity, or piece of infrastructure is constituted from, derived from, or supported by particulate materials that originate from mining, agriculture, and/or chemical processing. Granular materials are also featured in applications ranging from the development of novel composite materials with tailored properties to geomechanics and the construction of foundations and earthworks. As ubiquitous constituents of industrial processes and geophysical phenomena, these materials operate in regimes extending from quasi-static deformation to rapid, collision-dominated flows. While systems composed of granular or bulk solids share common properties over a very wide range of particle sizes, their macroscopic behaviors are entirely dependent on the microstructural and micromechanical properties of their grains and their interactions. This symposium focuses on the mechanics of granular systems over a broad range of scales and phase regimes. Contributions to this symposium will feature theoretical, computational, and experimental studies carried out with the goal of understanding the mechanical and physical properties of granular materials from both continuum and discrete perspectives.