Special Issue

Geomechanics and Reservoirs: Modeling and Simulation

Message from the Guest Editors

Geomechanics integrates rock mechanics, fluid mechanics, geophysics, and geology to determine the mechanical behavior of geological materials and applies from the microscale to the modeling of wellbores, reservoirs, fields and basins. It is critical to reduce risks and optimize rewards related to mechanical failure of the reservoir and surrounding formations. This Special Issue aims to cover multidisciplinary studies and provide a cutting-edge look at original research in geomechanics modeling and numerical simulations of subsurfaces. Topics of interest include, but are not limited to, coupled thermal–hydrological–mechanical–chemical (THMC) modeling, multiscale characterization and modeling, constitutive behavior, micromechanics, time effects, artificial intelligence and digital twin in geomechanics, conventional and unconventional reservoirs, geothermal energy, gas hydrate, waste disposal, subsurface storage and sequestration, salt systems and induced seismicity.

Guest Editors

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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