Special Issue

Advances in Failure Mechanism and Numerical Methods for Geomaterials

Message from the Guest Editors

With the increasing demand for energy and infrastructure development, hydropower engineering, underground engineering, coal mining, petroleum exploitation projects and marine engineering in complex geology or high stress/seepage conditions poses a higher challenge to the research of geomaterials. Therefore, this Special Issue is intended for the presentation of experimental results, new methods and engineering applications for geomaterials. This Special Issue will publish high-quality, original research papers, in the overlapping fields of:

- Mechanical properties: macro and micro investigation;
- Constitutive model;
- Numerical simulations;
- Localized deformation mechanism;
- Case study of practical underground engineering;
- Micromechanics in artificial intelligence in geo-mechanics;
- Fossil energy extraction;
- CO2 storage;
- Conventional and unconventional gas reservoirs;
- Geotechnical engineering in marine development.

Guest Editors

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Dr. Peng Wu

Dr. Qingxiang Meng

Deadline for manuscript submissions

closed (20 June 2025)

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Message from the Editor-in-Chief

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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