

## Special Issue

# Advances in Rock Mechanics in Deep Resource Development

### Message from the Guest Editors

This Special Issue covers various types of resources such as coal, metal mines, geothermal energy, oil, and gas, aiming to gather original research in basic theoretical innovation, key technological breakthroughs, intelligent method applications, and major engineering practices, promote interdisciplinary integration, and provide scientific support for the safe and efficient development of deep resources. Potential topics include, but are not limited to, the following:

- Deep rock mechanics constitutive theory;
- Mechanism of THMC multi field coupling;
- Efficient rock breaking methods, theories, and applications;
- Stability control of surrounding rock in deep mining;
- Disaster warning and control in deep energy development;
- In situ testing technology for deep engineering;
- Artificial intelligence methods in energy extraction;
- Efficient utilization of deep space;
- Research and development of engineering materials under extreme conditions;
- New theories, methods, and technologies in the process of deep mining.

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### Guest Editors

Dr. Quan Zhang

Dr. Chun Yang

Prof. Dr. Manchao He

Dr. Xiao Wang

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### Deadline for manuscript submissions

31 March 2026



## Applied Sciences

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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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