

## Special Issue

# Rock Fracture Mechanics: From Theories to Practices

### Message from the Guest Editors

The study of rock fracture mechanics is the cornerstone of geotechnical and geological engineering, aiming to reveal the mechanical behavior of rocks under complex stress conditions, with a focus on elucidating the mechanisms of crack initiation, propagation, and coalescence. This research field is crucial for supporting various industrial and engineering applications, such as tunnel engineering, mining engineering, reservoir development engineering, etc. The progress in this field has a significant impact on practical methods for evaluating rock stability, designing underground engineering, and mitigating geological hazard risks. We are pleased to invite you to contribute to this Special Issue on “Rock Fracture Mechanics: From Theories to Practices”. This Special Issue aims to showcase the latest advancements in theoretical frameworks, experimental methodologies, numerical simulation, and practical applications of rock fracture mechanics, fostering a holistic understanding of rock fracture phenomena. By gathering the latest research findings and reviews, we endeavor to propel forward the knowledge frontier in this multifaceted field.

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### Guest Editors

Prof. Dr. Lei Yang

Dr. Xiangchao Sheng

Dr. Mengtian Li

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### Deadline for manuscript submissions

closed (20 July 2025)



## Applied Sciences

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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.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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