

Special Issue

Symmetry and Geotechnical Engineering

Message from the Guest Editors

Disaster prevention and control in mining engineering is fundamentally controlled by micro-scale fracture and damage evolution in rock masses. Traditional continuum mechanics theories face limitations in addressing destructive behaviors caused by multi-scale defects, such as joints, pores, and microcracks. Recently, advances in microfracture mechanics, multi-scale numerical simulations, experimental observation, and risk prediction technologies driven by big data and intelligent methods have revealed the chain-like evolution of rock damage, from microcrack initiation to macrofracture. This provides a new theoretical framework for understanding and predicting green mining operations. This Special Issue focuses on frontier exploration and engineering applications of rock fracture mechanics in mining engineering, highlighting new methods and advancements. Original research is encouraged, while review papers and comparative studies are also welcome.

Guest Editors

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Dr. Haosen Wang

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Deadline for manuscript submissions

closed (30 April 2026)



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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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