

# Special Issue

## Mathematical Problems in Rock Mechanics and Geotechnical Engineering

### Message from the Guest Editor

Rock mechanics and geotechnical engineering are vital in civil, mining, and petroleum engineering, where the complex behavior of geomaterials presents major mathematical and computational challenges. This Special Issue, "*Mathematical Problems in Rock Mechanics and Geotechnical Engineering*," welcomes research advancing theoretical, analytical, and computational understanding in these fields. Topics include engineering analysis, constitutive modeling, and numerical simulations of rock and soil behavior under diverse conditions. The rise of data-driven methods offers new opportunities. We also invite studies applying machine learning, data analytics, intelligent algorithms for geological hazard detection, and AI-based design. By linking classical mechanics with modern artificial intelligence, this issue promotes interdisciplinary collaboration and intelligent solutions for real-world challenges such as tunneling, slope stability, underground energy storage, and seismic risk assessment. Researchers from academia and industry are encouraged to submit original work advancing mathematical modeling and intelligent computation in geomechanics.

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### Guest Editor

Dr. Wei Wu  
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### Deadline for manuscript submissions

30 November 2026



## Mathematics

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## About the Journal

### Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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### Editor-in-Chief

Prof. Dr. Francisco Chiclana  
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