



Failure and Deformation Behavior of Underground Geo-Structures: Advances in Geomechanics

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Message from the Guest Editors

Underground engineering has rapidly grown to meet the increasing societal needs and is moving towards challenging innovations.

Mining and energy geomechanics is presently facing complex underground conditions related to uncertainties in the determination of rock strength and deformability, in situ stresses, and pore fluid pressure coupled with problems induced by high stresses at large depths. Furthermore, the processes related to CO₂ sequestration and storage require specific analysis of the rock geomechanical response induced by the geochemical reactions.

On the other hand, the need for transport efficiency in urban areas is presently addressing the construction of tunnels at narrow distances and the underground space use requires an appropriate analysis of rock damage for safety during service.

This Special Issue aims at constructing a channel for sharing knowledge on recent advances in Geomechanics to mitigate adverse events and to address challenges and potential solutions for the sustainable and resilient construction of underground geo-structures.





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Message from the Editor-in-Chief

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