



Advances in Fracture Mechanics for Structural Integrity Assessment

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Message from the Guest Editors

Rock fracture behaviors are critical to the structural integrity assessment of geotechnical engineering. Additionally, the understanding of the rock fracture mechanism can accelerate the development of rock excavation machines, including tunnel boring machines (TBM), roadheaders, etc. The recent challenging topics in rock fracture mechanics include the crack distribution, initiation and propagation mechanism, and the fracture responses to high hydraulic pressures. Recently, experimental, numerical, and theoretical studies have been widely applied to probe the rock fracture mechanism. However, the complicated geological conditions may prevent researchers from a comprehensive understanding of the rock fracture process and further result in operation problems of excavation machines. Thus, further studies on rock fracture mechanisms, including the crack initiation and propagation analysis under hydraulic pressure and the assessment method of rock fracture, are essential. This Special Issue aims to collect original papers, mainly focusing on rock fracture behaviors and the improvement of excavation machines. We welcome theoretical, laboratory, numerical, and field studies.





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Message from the Editor-in-Chief

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