Special Issue

Advances in Fracture Mechanics for Structural Integrity Assessment

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.

Guest Editors

Prof. Dr. Yanlin Zhao

Prof. Dr. Hang Lin

Prof. Dr. Yixian Wang

Prof. Dr. Jie Liu

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Machines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
machines@mdpi.com

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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
CISE - Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

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