

Special Issue

Applications of Fractal Dimensions in Rock Mechanics and Geomechanics

Message from the Guest Editors

Fractal geometry has emerged as a powerful tool to quantify the complexity of irregular structures and scale-invariant patterns in geological media. In rock mechanics, fractal dimension provides critical insights into multiscale phenomena, ranging from microcrack networks to macroscopic rock mass behavior. This Special Issue aims to consolidate cutting-edge research on fractal dimension-based characterization, modeling, and predictive analytics for rock systems. We invite contributions that bridge theoretical innovations with engineering applications, addressing challenges such as nonlinear deformation, fracture propagation, fluid flow in fractured reservoirs, and seismic hazard assessment.

Guest Editors

Prof. Dr. Hai Pu

State Key Laboratory for Geomechanics and Deep Underground Engineering, China University of Mining and Technology, Xuzhou 221116, China

Dr. Kangsheng Xue

State Key Laboratory of Intelligent Construction and Healthy Operation and Maintenance of Deep Underground Engineering, China University of Mining and Technology, Xuzhou 221116, China

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Fractal and Fractional
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
fractalfract@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Fractal and Fractional (*Fractal Fract.*) is a scholarly online journal which provides a forum for discussion on new original models and methods in fractals and fractional calculus both from theory and applications. It is a peer-reviewed, open access journal that publishes high quality original research articles, review papers and short communications.

Editor-in-Chief

Prof. Dr. Carlo Cattani

Engineering School (DEIM), University of Tuscia, Largo dell'Università,
01100 Viterbo, Italy

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