Special Issue

Applications of Fractal Analysis in Underground Engineering

Message from the Guest Editors

fractal as a new perspective can quantitatively describe the chaos and roughness has been recognized. Joints, fractures and voids not only affect the strength of rocks, but also are important channels for fluid migration. It is found that the fractal dimension is related to the rock response characteristics of engineering disturbance. The methods of obtaining channel distribution are mainly physical perspective of small samples, numerical simulation and similar simulation. The fractal dimension analysis of the later image processing process has become a research hotspot. In addition, in view of the complexity, concealment and danger of underground engineering, the fractal analysis of massive data provides a new direction for guiding high efficiency and safe production. Therefore, it is necessary to carry out a lot of research work to determine which fractal dimension measurement method is more conducive to understanding and guiding the mechanism of rock mechanics engineering.

Guest Editors

Prof. Dr. Shihao Tu

Prof. Dr. Lei Zhang

Prof. Dr. Chen Wang

Dr. Cun Zhang

Dr. Defu Zhu

Dr. Kaijun Miao

Deadline for manuscript submissions

closed (1 May 2025)

Fractal and Fractional

MDPI

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

Author Benefits

High Visibility:
indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:
JCR - Q1 (Mathematics, Interdisciplinary Applications) / CiteScore - Q1 (Analysis)

Rapid Publication:
manuscripts are peer-reviewed and a first decision is provided to authors approximately 19.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).