



Applications of Fractal Analysis in Underground Engineering

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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.

