Special Issue

Multiscale Fractal Analysis in Unconventional Reservoirs

Message from the Guest Editor

This Special Issue, "Multiscale Fractal Analysis in Unconventional Reservoirs", seeks to compile innovative research that leverages fractal and multiscale methodologies to address the complexities of unconventional hydrocarbon reservoirs. We invite contributions that explore theoretical advancements, novel computational techniques, and practical applications of multiscale fractal analysis in various aspects of reservoir engineering. Topics of interest include, but are not limited to, the following:

- Fractal characterization of fracture networks and pore geometries;
- Multiscale modeling of fluid flow and transport phenomena;
- Integration of fractal analysis with seismic interpretation and well logging;
- Application of fractal-based methods in reservoir simulation and optimization;
- Case studies demonstrating the practical implementation of multiscale fractal techniques;
- Synergies between fractal analysis and other advanced technologies, such as machine learning and digital rock physics.

Guest Editor

Dr. Yang Wang

School of Resources and Geoscience, 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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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).

