

Special Issue

Applications of Multifractal Analysis in Medical Signal and Image Processing

Message from the Guest Editors

Fractals and multifractals have become indispensable tools for quantifying complexity in natural systems, offering mathematical frameworks capable of describing structures and signals. While fractal analysis has long been used to measure global geometric complexity, multifractal analysis provides an even deeper insight by capturing local irregularities, heterogeneities, and scale-dependent variations. The application of fractal and multifractal methods has experienced rapid growth across numerous scientific disciplines. In the biomedical sciences, these approaches have proven especially valuable for analyzing both one-dimensional physiological signals, and two-dimensional medical images obtained through histology, histopathology, radiography, CT, and MRI. This Special Issue aims to highlight advances in methodology and application of multifractal analysis in medical signal and image processing. We welcome submissions in the form of original research articles, review articles, technical note articles, and perspective articles that explore novel computational approaches, experimental findings, technical developments, and interdisciplinary applications.

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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.

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