



Wavelets, Fractals and Information Theory

Collection Editor:

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Message from the Collection Editor

This Topical Collection will be an opportunity to extend the research fields of image processing, differential/integral equations, number theory and special functions, image segmentation, the sparse component analysis approach, generalized multiresolution analysis, and entropy as a measure of all aspects of the theoretical and practical studies of mathematics, physics, and engineering.

The main topics of this Topical Collection include (but are not limited to):

- Entropy encoding, wavelet compression, and information theory
- Fractals, non-differentiable functions; Theoretical and applied analytical problems of fractal type, fractional equations
- Fractals, entropy and complexity
- Fractals, wavelets, fractional methods in the stochastic process, stochastic equations
- Fractal and wavelet solutions of fractional differential equations
- Wavelet analysis, integral transforms and applications
- Wavelets, fractals and fractional methods in fault diagnosis, signal analysis, nonlinear time series
- Wavelet-fractal entropy encoding and computational mathematics in data analysis and time series
- Fractional nonlinear equations
- Chaotic dynamics
- Artificial neural networks





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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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