Special Issue

Advances in Fractional Order Signal Processing: Theory and Methods

Message from the Guest Editors

With the rapid development of information technology, the research object of signal processing gradually shifts from relatively simple and stable signals to more complex signals such as non-stationary, non-Gaussian, and time-varying. Traditional signal processing theories and methods can no longer meet practical needs. Fractional Fourier transform uses a set of linear frequency-modulated orthogonal bases to decompose signals, making it suitable for processing non-stationary signals. The theory and methods of fractional order signal processing are favored by many researchers due to their unique characteristics. With the demand for big data and real-time signal processing, sparse fractional order transformations and extensions, as well as fast algorithms, have been developed and widely applied in spectral sensing, image recognition and fusion, compressed sampling, and sparse representation. With the continuous emergence of large-scale irregular high-dimensional signals, fractional order graph signal processing has been developed.

Guest Editors

Dr. Yuan-Min Li

School of Mathematics and Statistics, Xidian University, Xi'an 710071, China

Prof. Dr. Deyun Wei

School of Mathematics and Statistics, Xidian University, Xi'an 710071, China

Deadline for manuscript submissions

31 March 2026

Fractal and Fractional

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 6.0

mdpi.com/si/242432

Fractal and Fractional
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
fractalfract@mdpi.com

mdpi.com/journal/fractalfract

Fractal and Fractional

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 6.0

mdpi.com/journal/fractalfract

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).