

## Special Issue

# Fractional Mathematical Modelling: Theory, Methods, and Applications—2nd Edition

### Message from the Guest Editors

This Special Issue is dedicated to recent advances in the theory, methods, and applications of fractional mathematical modelling. Fractional calculus has proven to be a powerful tool for capturing memory effects, hereditary properties, and anomalous diffusion in complex systems, and it is increasingly applied in disciplines such as physics, biology, engineering, economics, and control theory.

We welcome original research contributions focused on the development of fractional differential and integral equations, as well as the theoretical analysis of fractional-order systems. Of particular interest are papers introducing innovative fractional-order operators, analytical techniques, robust numerical schemes, and computational algorithms for solving fractional models. This Special Issue also aims to highlight the role of fractional calculus in modeling real-world phenomena. Contributions that integrate fractional modeling with emerging approaches such as machine learning, stochastic analysis, or hybrid modeling frameworks are also welcome.

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### Guest Editors

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### Deadline for manuscript submissions

16 June 2026



## Fractal and Fractional

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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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### Editor-in-Chief

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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).