

## Special Issue

# Theoretical Development and Application in Analytical and Numerical Methods for Fractional Differential Equations

### Message from the Guest Editors

Fractional differential equation is a new research branch of nonlinear science. Its development has been a great boost to many science fields such as viscoelasticity, neurons, electrochemistry, control, biomedical physics, porous media, and electromagnetism. Therefore, the new advancements in fractional calculus, including theories and applications in analytical and numerical methods to solve fractional differential equations, will greatly improve people's ability to understand and control the corresponding natural phenomena in many disciplines. The aim of this Special Issue is to report on the latest achievements and recent development of fractional differential equations, which include but are not limited to, fractional calculus theories, analytical and numerical methods for solving fractional differential equations, the practical application of fractional models, etc.

### Guest Editors

Dr. Xinguang Zhang

Prof. Dr. Yonghong Wu

Prof. Dr. Chuanjun Chen

### Deadline for manuscript submissions

closed (31 July 2025)



## Fractal and Fractional

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 6.0



[mdpi.com/si/215927](https://mdpi.com/si/215927)

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

[mdpi.com/journal/](https://mdpi.com/journal/)

[fractalfract](https://fractalfract.com)





# Fractal and Fractional

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 6.0



[mdpi.com/journal/  
fractalfract](https://mdpi.com/journal/fractalfract)



## 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).