

Special Issue

Data-Driven Modeling, Prediction and Control of Fractional-Order Systems

Message from the Guest Editors

The aim of this Special Issue is to show the control engineering research community the usefulness of the data-driven discovery of fractional-order systems, ranging from modeling to control prediction. It is our sincere hope that this Special Issue can show the important theoretical significance and practical values of data-driven modeling, prediction, and control of complex systems, and inspire further research of this topic. Topics of this Special Issue include, but are not limited to, the following:

- Data-driven modeling and identification for fractional-order ODE/PDE systems;
- Data-driven learning and prediction of fractional-order ODE/PDE systems;
- Data-driven controller design for fractional-order ODE/PDE systems;
- Data-driven optimal control of fractional-order ODE/PDE systems;
- The applications of advanced fractional data-driven modeling, prediction, and control methods in climate, epidemiology, finance, robotics, turbulence, etc.

We look forward to your contributions.

Guest Editors

Dr. Fudong Ge
Dr. Ying Luo
Prof. Dr. Yangquan Chen

Deadline for manuscript submissions

30 May 2026



Fractal and Fractional

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 6.0



mdpi.com/si/241418

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

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





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 19.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).