

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

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Deadline for manuscript submissions

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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.

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).