Special Issue

Modeling and Dynamic Analysis of Fractional-Order Systems

Message from the Guest Editors

The present Special Issue is dedicated to new research on the modeling and dynamic analysis of fractional-order systems. Fractional-order models have garnered extensive applications across varied scientific and engineering disciplines, including rheology, quantum mechanics, control theory and robotics, electrochemistry, electromagnetic fields, bio-medicine, transportation, and finance. Dynamic analysis is a pivotal method for investigating the dynamic behaviors of systems. In the context of fractional-order models, dynamic analysis encompasses stability analysis, response characteristic analysis, and studies of bifurcation and chaotic behavior. **This Special Issue primarily covers the following areas:**

- Fractional-order system modeling;
- Stability analysis of fractional-order systems;
- Reduction methods for fractional-order systems;
- Research on bifurcation and chaos in fractional-order systems;
- Numerical methods for fractional-order systems;
- Analysis of fractional-order neural networks;
- Analysis of discrete-time fractional-order systems;
- Other practical applications of fractional-order systems.

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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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