

Special Issue

Fractional-Order Circuit Theory and Applications

Message from the Guest Editors

The focus of this Special Issue is on the recent advances of these applications. The topics of interest include (but are not limited to):

- Analog and digital realization of fractional-order operators
- Approximations of the fractional-order derivatives and their applications in circuit design
- Circuit implementation, analysis, and fabrication of fractional-order components
- Fractional calculus models in physics, electrochemistry, and fluid mechanics
- Fractional-order control and its applications
- Fractional-order chaotic systems and their implementation
- Fractional-order bioimpedance models and biomedical circuits
- Fractional-order mem-elements, modeling and applications
- Fractional-order models for energy storage devices and systems
- Fractional-order circuits for machine learning
- Fractional-order nonlinear circuits and systems

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Deadline for manuscript submissions

closed (31 January 2022)



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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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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).