

Special Issue

Fractional-Order Circuits and Systems

Message from the Guest Editor

The field of fractional-order circuits and systems refers to a class of electronics that incorporate concepts from fractional calculus into their modeling and design. These concepts, focused on non-integer order differentiation and integration mathematical operations, are being explored across many fields of science and engineering. The focus of this Special Issue is to continue to advance research on topics relating to the theory, design, implementation, and application of fractional-order circuits and systems. Topics that are invited for submission include (but are not limited to):

- Fractional-order circuit theory;
- Fractional-order filter and oscillator designs and realizations;
- Fractional-order control systems and implementation;
- Digital and analog approximations for realization of fractional-order systems;
- Active and passive designs of fractional-order elements;
- Applications of fractional-order circuit models for biology and biomedicine;
- Applications of fractional-order circuit models for energy storage elements.

Guest Editor

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Deadline for manuscript submissions

closed (31 January 2021)



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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 19.3 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).