

Special Issue

Nonlinear Fractional Maps: Dynamics and Control

Message from the Guest Editor

While fractional derivatives have become a classical mainstay in many areas of research, discrete fractional maps featuring them are, by comparison, far less explored, even though their properties greatly differ from those in their integer-order counterparts. This Special Issue is devoted to broadening the horizons of research on fractional maps, with a particular focus on examining novel dynamical phenomena and developing new control schemes. Furthermore, papers featuring concrete applications of fractional maps in any area, as well as the development and analysis of new fractional maps (whether they have integer-order analogies or not), are also welcome. The aim of this Special Issue is to invite colleagues to share their research concerning nonlinear fractional maps, including (but not limited to) the following categories:

- The development of novel fractional maps.
- The derivation of fractional maps from fractional differential equations.
- Differences in fractional and integer-order dynamics for families of similar maps.
- Transient processes in fractional maps.
- Control schemes for fractional maps.
- Stability analysis of equilibria in fractional maps.

Guest Editor

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Deadline for manuscript submissions

closed (20 April 2026)



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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).