Special Issue

Mathematical and Physical Analysis of Fractional Dynamical Systems, Second Edition

Message from the Guest Editors

Fractional dynamics is a field of study in mathematics and physics. The following is a list of possible topics welcome in this Special Issue "Mathematical and Physical Analysis of Fractional Dynamical Systems, Second Edition": various boundary value problems and the positivity/negativity of their solutions; Green's functions and their properties; the existing and unique solutions of nonlinear boundary value problems; optimization and control theory; stability theory; oscillation and non-oscillation; differential equations of heat and mass transfer; advances in the theory of stochastic processes and stochastic models: variational problems; use of functional differential equations in technology; and economics, biology, and medicine. We will cover mathematical problems in materials science, mathematical approaches to image processing with applications, applications of partial differential equations, recent advances in delay differential and difference equations, nonlinear optimization, variational inequalities and equilibrium problems, computational methods in analysis and applications, and all applied mathematical fields.

Guest Editors

Prof. Dr. Dimplekumar N. Chalishajar

Department of Applied Mathematics, Virginia Military Institute (VMI), Lexington, VA 24450, USA

Dr. Kasinathan Ravikumar

Department of Mathematics, PSG College of Arts & Science, Coimbatore 641014, Tamil Nadu, India

Deadline for manuscript submissions

30 April 2026



Fractal and Fractional

an Open Access Journal by MDPI

Impact Factor 3.3 CiteScore 6.0



mdpi.com/si/238425

Fractal and Fractional Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 fractalfract@mdpi.com

mdpi.com/journal/ fractalfract





Fractal and Fractional

an Open Access Journal by MDPI

Impact Factor 3.3 CiteScore 6.0



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

Prof. Dr. Carlo Cattani

Engineering School (DEIM), University of Tuscia, Largo dell'Università, 01100 Viterbo, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:

JCR - Q1 (Mathematics, Interdisciplinary Applications) / CiteScore - Q1 (Analysis)

Rapid Publication:

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).

