Special Issue

Continuous/Discrete-Time Fractional Systems: Modelling, Design and Estimation

Message from the Guest Editors

In the last thirty years, Fractional Calculus has become an integral part all scientific fields. Although not all the formulations are suitable for being used in applications, there are several tools that constitute true generalizations of classic operators and are suitable for describing real phenomena. In fact, many systems can be classified as either shift-invariant or scale-invariant and have fractional characteristics either in time or in frequency/scale. This means that some of the known fractional operators, namely those described by ARMAtype equations, are very useful in many areas, such as: diffusion, viscoelasticity, fluid mechanics, bioengineering, dynamics of mechanical, electronic and biological systems, signal processing, control, economy, and others. The focus of this Special Issue is to continue to advance research on topics such as modelling, design and estimation relating to fractional order systems. Manuscripts addressing novel theoretical issues, as well as those on more specific applications, are welcome.

Guest Editors

Prof. Dr. Gabriel Bengochea Academia de Matemática, Universidad Autónoma de la Ciudad de México, Ciudad de México 09790, Mexico

Dr. Manuel Duarte Ortigueira

CTS-UNINOVA and LASI, NOVA School of Science and Technology, NOVA University of Lisbon, Quinta da Torre, 2829-516 Caparica, Portugal

Deadline for manuscript submissions

31 August 2025



an Open Access Journal by MDPI

Impact Factor 3.6 CiteScore 4.6



mdpi.com/si/169295

Fractal and Fractional 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 3.6 CiteScore 4.6





About the Journal

Message from the Editor-in-Chief

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 23.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2024).