Special Issue

Fractional Differential Equations and Dynamical Systems

Message from the Guest Editors

This Special Issue will explore new research and trends in dynamical systems focused on problems involving fractional differential equations. The motivation of fractional order equations and the theory are able to describe complex processors and systems, including the effect of “memory” on describing a system by considering fractional derivatives and differences instead of integer jumps in the growth of physical processors. They appear in a wide range of scientific applications in the fields of engineering, physics, chemistry, and biology, as well as in financial mathematics and health informatics. There is a strong demand to develop both functional analysis theory and approximation schemes to find both analytical solutions and their approximations. This Special Issue will focus on manuscripts that enrich and complement the area of fractional calculus and dynamical systems.

Guest Editors

Dr. Nicholas Fewster-Young

Department of Mathematics, University of South Australia, Adelaide, SA 5000, Australia

Dr. Gabriella Bretti

Istituto per le Applicazioni del Calcolo “M. Picone” Consiglio Nazionale delle Ricerche, Via dei Taurini 19, 00185 Rome, Italy

Deadline for manuscript submissions

closed (30 April 2025)

Axioms

an Open Access Journal by MDPI

Impact Factor 1.6

mdpi.com/si/201922

Axioms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
axioms@mdpi.com

mdpi.com/journal/axioms

Axioms

an Open Access Journal by MDPI

Impact Factor 1.6

mdpi.com/journal/axioms

MDPI

About the Journal

Message from the Editor-in-Chief

Axioms is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Humberto Bustince
Department of Statistics, Computer Science and Mathematics, Public University of Navarra, 31006 Pamplona, Spain

Author Benefits

Open Access

— free for readers, with article processing charges (APC) paid by authors or their institutions.

High visibility:

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

Journal Rank:

JCR - Q2 (Mathematics, Applied)