



Recent Research on Fractional Calculus: Theory and Applications

Guest Editors:

Dr. Faiçal Ndaïrou

Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia 1113, Bulgaria

Prof. Dr. Delfim F. M. Torres

Center for Research and Development in Mathematics and Applications (CIDMA), Department of Mathematics, University of Aveiro, 3810-193 Aveiro, Portugal

Deadline for manuscript submissions:

28 February 2025

Message from the Guest Editors

Dear Colleagues,

Fractional calculus is a theory that unifies differential and integral operators of arbitrary (integer and non-integer) orders to form differintegral operators. The theory is becoming more attractive due to its applicability to real-world problems, such as describing biological phenomena that are memory-dependent. The aim of this Special Issue is to contribute advancements in fractional calculus, both from theoretical and applicational points of view. We welcome papers on the following topics:

- Properties of fractional operators defined by new kernels functions;
- Static and dynamic optimization methods based on fractional operators;
- Fractional nonlinear dynamical systems and control;
- Mathematics of infectious diseases by fractional operators.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Author Benefits

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

High Visibility: indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank: JCR - Q1 (*Mathematics*) / CiteScore - Q1 (*General Mathematics*)

Contact Us

Mathematics Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/mathematics
mathematics@mdpi.com
X@MathematicsMDPI