Special Issue

Numerical and Exact Methods for Nonlinear Differential Equations and Applications in Physics

Message from the Guest Editor

Nonlinear differential equations are generally used to create mathematical models of real-life problems and to obtain their solutions. Therefore, many researchers have achieved important results by developing new methods in terms of finding analytical, numerical and exact solutions to nonlinear differential equations. In these studies, the nonlinear differential equations generally discussed include integer and fractional derivatives. The aim of this Special Issue is to construct and apply analytical, numerical and exact methods for approaching nonlinear differential equations which have applications in the field of physics. In addition, this Special Issue will focus particularly on examining the physical behavior of the obtained results and analyzing them in detail. Researchers are encouraged to introduce and discuss their new original papers on the solutions to nonlinear differential equations in engineering and applied science.

Guest Editor

Dr. Yusuf Gürefe

Department of Mathematics, Faculty of Science, Mersin University, 33110 Mersin, Turkey

Deadline for manuscript submissions

closed (25 July 2024)

Fractal and Fractional

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 6.0

mdpi.com/si/150599

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

mdpi.com/journal/fractalfract

MDPI

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).