



Application of Symmetry/Asymmetry in Fractional Differential Equations

Guest Editors:

Prof. Dr. Gómez Aguilar José Francisco

Department of Solar Materials,
Renewable Energy Institute,
National Autonomous University
of Mexico, Priv. Xochicalco s/n.
Col. Centro, Temixco Morelos,
Mexico

Dr. Derya Avci

Department of Mathematics,
Balikesir University, Balikesir,
Turkey

Deadline for manuscript
submissions:

closed (30 November 2022)

Message from the Guest Editors

Dear Colleagues,

Due to its applicability in many domains of applied sciences such as mathematics, engineering, chemistry, physics, finance, and social sciences, researchers are interested in the exploration of symmetry and asymmetry fractional calculus in recent decades. These examples demonstrate the value of fractional calculus. As a result, various fractional derivative definitions have arisen in the literature. Used to provide more realistic representations of real-world events, a few well-known examples of fractional derivatives include Riemann–Liouville, modified Riemann–Liouville, Riesz, Grunwald–Letnikov, Caputo, ErdélyiKober, and Hadmard and Marchaud.

Fractional calculus was proposed very recently. Although it has always played an important role in mathematics, it has recently grown in significance in several branches, including but not limited to topological indices, polynomials in graphs, molecular descriptors, differential of graphs, alliances in graphs, domination theory, complex systems, symmetry, asymmetry, geometry, fractional differential equations, fractional integral inequalities, and more...





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Sergei D. Odintsov

1. Institució Catalana de Recerca
i Estudis Avançats (ICREA),
Passeig Luis Companys, 23,
08010 Barcelona, Spain
2. Institute of Space Sciences
(ICE-CSIC), C. Can Magrans s/n,
08193 Barcelona, Spain

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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), CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (General Mathematics)

Contact Us

Symmetry Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/symmetry
symmetry@mdpi.com
X@Symmetry_MDPI