

# Special Issue

## New Trends in Fractional Differential Equations with Applications

### Message from the Guest Editor

This Special Issue, titled "New Trends in Fractional Differential Equations with Applications", aims to explore the latest advancements in the theory and applications of fractional differential equations (FDEs). It will focus on emerging methodologies for solving FDEs, including innovative analytical, numerical, and computational approaches. The Special Issue will also examine the growing applications of fractional models across various fields such as physics, engineering, biology, and finance, particularly in modeling complex systems with memory effects and non-local interactions. Furthermore, the Special Issue will delve into the role of fractional calculus in understanding chaotic systems, emphasizing how fractional derivatives provide a more accurate description of chaotic dynamics and long-term behaviors in systems with non-local or historical dependencies. By presenting cutting-edge research, this Special Issue seeks to highlight new trends, foster interdisciplinary collaboration, and stimulate further development in the field of fractional calculus.

Keywords:

- fractional differential equations
- fractional calculus
- chaotic systems
- applications

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### Guest Editor

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## Mathematics

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## About the Journal

### 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.

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### Editor-in-Chief

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