

# Special Issue

## Theory and Applications of Fractional Models

### Message from the Guest Editors

The Special Issue is dedicated to new research in fractional calculus, related to actual generalizations of the fractional integrals and derivatives. We encourage investigations of fractional differential systems with different types of fractional orders: constant, distributed, or variable types. Furthermore, fractional systems with delayed arguments (retarded or neutral types) or those without delay, as well as articles dedicated to partial fractional equations with fractional derivatives are welcome. The works can contain results concerning fundamental theory, different kinds of their qualitative properties, mainly various types of stability, etc. We encourage works that compare the advantages of fractional derivatives with integrable singular kernels and those with regularized kernels, calculating not only the mathematical convenience but also convenience, namely fractional models with which type of kernels give a more adequate description of the dynamics of the studied real-world phenomena. Qualitative results concerning the neural networks or fractional variants of well-known classical models in different scientific areas are also welcome, as well as new applications.

### Guest Editors

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### Deadline for manuscript submissions

20 August 2025



## 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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