Advances in Fractional Operators and Their Applications in Physical Sciences

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Message from the Guest Editors

This Special Issue (SI) is mainly focused on addressing a broad range of fractional order operators, and their uses in different directions of physics, chemistry and engineering. In this SI, we invite and welcome review, expository and original and high quality research papers dealing with the new advances on the topics of fractional derivatives and integrals in addition to their applications in physical sciences:

Topics

- Fractional order derivatives and integrals with their applications.
- Fractional order dynamical processes.
- Applications of fractional calculus in fluid mechanics.
- Use of fractional derivatives in quantum mechanics.
- Application of fractional derivatives in Chaos theory.
- Fractional differential equations arising in biological systems.
- Fractional differential equations arising in economics.
- Analytical and numerical techniques for fractional order differential equations.
- Fractional optimal control problems.
- Fractional complex systems.

Special Issue

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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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