Special Issue

Fractional Functional Analysis and Applications

Message from the Guest Editor

Fractional functional analysis can be seen as a link between wavelet analysis, fractional geometry and, more generally, between different fields of applied functional analysis. In particular, fractional functional analysis extends the concept of function spaces to function spaces of fractional dimensions, opening new developments in both functional analysis and fractional calculus. In this Special Issue, we invite and welcome reviews, expository, and original papers dealing with recent advances in fractional calculus; and, from a more general point of view, all theoretical and practical studies in pure and applied mathematics focused on this topic. The main topics of this Special Issue include (but are not limited to):

- Fractional differential equations.
- Fractional function spaces.
- Commutators of fractional integral operators.
- Fractional calculus via Mittag-Leffler functions.
- Leibniz algebras, fractional calculus, and function spaces of symmetric functions.
- Fractional differential and integral equations.
- Fractional calculus, function space, and approximation theory.
- Fractional models in applied science.

Guest Editor

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Deadline for manuscript submissions

closed (29 February 2024)

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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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