Special Issue

Fractional Differential Equations: Theory and Application

Message from the Guest Editor

Fractional calculus is a generalization of classical calculus, dealing with integration and differentiation operations of any positive order (and it is called "fractional" for historical reasons). It is primarily known as the basis of many applied disciplines, including fractional geometry, fractional differential equations, and fractional dynamics. However, it can be considered a branch of mathematics dealing with integral-differential equations, where integrals are of the braided type. Although the tools of fractional calculus are available and applicable in various fields of science, the study of the theory of fractional differential equations has started relatively recently and seems to deserve a stand-alone development of its theory in parallel with the well-known theory of ordinary differential equations. Since efficient analytical and numerical methods still require special attention, the purpose of this Special Issue is to provide a collection of new articles that reflect recent mathematical results as well as some results in applied sciences untouched by the tools and techniques of fractional calculus.

Guest Editor

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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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