Special Issue

The Applications of Fractional Calculus in Control Engineering, Dynamical Systems and Signal Processing

Message from the Guest Editor

I invite you to submit your recent and novel work in this Special Issue of *Mathematics*. Fractional-order calculus deals with derivatives and integrals in which the order is non-integer. There is an increasing interest in the study of fractional-order systems because fractional-order dynamics can model complex phenomena, which is not possible with integer-order dynamics. An important characteristic of fractional-order systems is the memory associated with the kernel of the derivative, which in most cases can be non-local, non-singular or both. Memory plays an important role in fractional-order systems because it allows us to model non-local behavior, and, in most cases, to predict future events in the systems. All these properties, among others, are allowing the development of new investigations in areas such as control engineering, dynamical systems, signal processing, and so on. I encourage the submission of novel investigations on the use of fractional-order dynamics, fractional-order control systems, signal processes, and any novel work related to fractional-order calculus. I am sure your important contributions will expand the state of the art in fractional-order systems.

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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