Current Trends on Fractional-Order Systems: Bifurcations, Synchronization, and Chaos

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Message from the Guest Editors

Fractional calculus is an exciting and powerful tool for addressing problems involving non-integer order integration and differentiation. In fact, from a Dynamical Systems perspective, fractional calculus has helped us to understand and to model nonlinear phenomena, for example, chaotic behavior, synchronization, bifurcations, and population dynamics, among others.

This Special Issue aims to provide a forum for presenting state-of-the-art theoretical, numerical, and experimental results regarding the modeling, analysis, and implementation of dynamical systems described by fractional order differential equations as well as the study of nonlinear phenomena, for example, chaos, bifurcations, and synchronization, occurring in (networks of) fractional order systems, emerging either as a consequence of the interaction among them or due to a variation in the fractional order of the derivative.

Special Issue