Special Issue

Fractional Calculus in the Design, Control and Implementation of Complex Systems, 2nd Edition

Message from the Guest Editors

Fractional derivatives are considered non-local operators because they provide the memory effect in temporary applications. The ability to describe the hereditary characteristics of a system and its memory is the most fundamental advantage of fractional calculus over integer calculus. If the fractional differential operator is introduced into a system, the system can produce new complex dynamic behaviors. Complex systems are of great significance in practical applications such as encryption, secure communication, random sequence, key design, signal processing, and signal detection. As such, it would be significant and necessary to control and analyze the complexity of these systems. At present, many new analytical techniques have been proposed to analyze and increase the complexity of these systems. However, there are still various theoretical and technical issues that should be addressed. This Special Issue aims to introduce and discuss new results and new methods related to fractional calculus applications and new results for control and analysis of non-linear complex systems.

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About the Journal

Message from the Editor-in-Chief

Fractal and Fractional (*Fractal Fract.*) is a scholarly online journal which provides a forum for discussion on new original models and methods in fractals and fractional calculus both from theory and applications. It is a peer-reviewed, open access journal that publishes high quality original research articles, review papers and short communications.

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