# Special Issue

# Fractal Theory and Models in Nonlinear Dynamics and Their Applications

## Message from the Guest Editors

Fractal structures emerge organically in nonlinear dynamics, and their phase space represents complex dynamic systems. An increased understanding of such constructions is helpful for obtaining information about the future behavior of complex dynamic systems, since this provides fundamental knowledge about the relation between these systems, uncertainty and indeterminism. Currently, using a fractal-fractional calculus to capture self-similarities in chaotic attractors facilitates an enhanced understanding of stability, bifurcations, and intermittency in dynamic systems. Nonlinear dynamics occur in mathematical physics; engineering applications; theoretical and applied physics, such as quantum mechanics; and signal analysis, among others. This Special Issue aims to advance research on topics relating to the theory, design, implementation, and application of fractal theory and models in nonlinear dynamics and their applications.

## Guest Editors


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## Deadline for manuscript submissions

closed (31 December 2024)


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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.

### Editor-in-Chief

Prof. Dr. Carlo Cattani
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