

## Special Issue

# Advances in Fractional-Order PID Control: Theory and Applications

### Message from the Guest Editors

This Special Issue aims to compile high-quality contributions on the theoretical development, analysis, and practical implementation of Fractional-Order PID (FOPID) controllers across a broad spectrum of complex systems. Given the growing interest in fractional systems as a robust mathematical framework for describing memory and the hereditary properties of various materials and processes, this Special Issue seeks to promote innovative research in fractional-order control, encompassing both fundamental advances and real-world applications.

Particular attention is devoted to topics that bridge the gap between theoretical control formulations and their deployment in engineering systems characterized by chaotic dynamics, distributed delays, nonlinearity, or hybrid behaviors. Contributions that address emerging challenges in automatic control, optimization, robustness analysis, and signal processing through fractional-order strategies are especially welcome.

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### Guest Editors

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### Deadline for manuscript submissions

30 June 2026



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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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### Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 19.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).