

## Special Issue

# Fractional Vibrations: Theory and Applications

### Message from the Guest Editors

Dear Colleagues Fractional vibrations have attracted interest from researchers in various fields, ranging from mechanical engineering to mechanics of materials. The topic of this Special Issue is the Theory and Applications of Fractional Vibrations, and its focus is two-fold: the theory of fractional vibrations, such as the responses and dynamics of fractional vibrators, and applications, such as theoretical explanations of the Rayleigh damping assumption or structure–fluid coupling vibrations. Specifically, the goal of this Special Issue is to develop the theory and applications of fractional vibrations except conventional nonlinear ones. We are interested in mechanical engineering applications, and recent advances in the theory of fractional vibrations with a mathematics or mechanics approach. High quality papers, including research articles and reviews, are invited in, among others, the following areas:

- Theory and applications of fractional vibrations.
- Fractional multi-degree-of freedom vibrations.
- Theoretical explanations of the Rayleigh damping assumption.

Dr. Mohammad Hossein Heydari

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### Guest Editors

Prof. Dr. Ming Li

Prof. Dr. Carlo Cattani

Dr. Mohammad Hossein Heydari

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### Deadline for manuscript submissions

closed (31 December 2021)



## Fractal and Fractional

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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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### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

#### Journal Rank:

JCR - Q1 (Mathematics, Interdisciplinary Applications) /  
CiteScore - Q1 (Analysis)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 19.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).