

Special Issue

Recent Advances in Nonlocal Problems Involving the Fractional Laplacian Operators

Message from the Guest Editor

The study of fractional Sobolev spaces and their corresponding nonlocal equations has been exposed to tremendous popularity, since it not only involves mathematical challenges (in particular, inhomogeneity) but also many applications. This Special Issue will focus on new aspects of the recent developments in the theory and applications of fractional Laplacian equations, stationary problems involving singular nonlinearities, nonlocal problems with variable exponents, and problems involving the fractional magnetic operator, subject to various boundary conditions. Contributions to the Special Issue may address (but are not limited) to the following aspects:

- Existence and multiplicity of solutions of fractional differential equations;
- Existence and multiplicity of solutions of nonlocal problems with variable exponent;
- Existence and multiplicity of solutions of nonlocal problems of Kirchhoff type;
- Stationary problems involving singular nonlinearities;
- Regularity of solutions for fractional differential equations.

Guest Editor

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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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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).