Special Issue

Heat Transfer and Diffusion Processes in Fractal Domains

Message from the Guest Editor

The aim of studying heat transfer and diffusion processes in fractal domains is to explore the intricate and complex phenomena that arise when heat and mass are exchanged within objects with non-integer (fractal) dimension. By investigating these processes, researchers aim to unravel the principles governing the behavior of heat transfer and diffusion in fractal systems, enabling the design of more efficient heat exchangers, materials, and industrial processes. Additionally, exploring these phenomena may provide valuable insights into natural phenomena, such as heat diffusion in porous media or nutrient diffusion in biological tissues. Topics that are invited for submission include (but are not limited to):

Fractal dimension and heat transfer behavior Multi-scale heat transfer modeling of fractal structures

Multi-dimensional diffusion in fractal media Fractal heat exchangers: design and optimization Heat and mass transfer in biology with fractal characteristics

Numerical modeling of heat transfer in fractal systems.

Guest Editor

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Deadline for manuscript submissions

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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 peerreviewed, open access journal that publishes high quality original research articles, review papers and short communications.

Editor-in-Chief

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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).