

Special Issue

Application of Fractal Processes and Fractional Derivatives in Finance

Message from the Guest Editor

Over the past four decades, the fractional calculus has represented a rapidly growing research area, both in the theory and applications to practical problems arising in various fields such as econophysics as well as mathematical finance, in which self-similar processes, such as the Brownian motion, the Levy stable process and the fractional Brownian motion, are used. The applications in finance bring about some new stochastic analysis problems. The fractional diffusion processes are also used to model dynamics of underlying assets. The option price under the fractional diffusion setting induces the fractional partial differential equations involving the fractional derivatives with respect to the time. Some closed-form solutions might be found via transform methods in some cases of applications, and numerical methods to solve fractional partial differential equations are developing.

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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