Fractional and Anomalous Diffusions on Regular and Irregular Domains

Guest Editor:

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Message from the Guest Editor

Anomalous behavior can be regarded as the common property of a wide class of phenomena. Such a class includes motions driven by fractional equations and motions on irregular (or non-homogeneous) domains. Sometimes, this respectively agrees with the macroscopic or microscopic analysis of real phenomena. Indeed, in macroscopic analysis, we bear the fact that a motion exhibits its own anomalous dynamic; that is, the motion can be written as a time change of a base process where the governing equation is a fractional partial differential equation. The microscopic analysis aims to relate the anomalous behavior of the motion with the geometry of the medium (boundaries, interfaces, layers, etc.). The applications of fractional calculus in many fields of applied sciences attracted the increasing interest of many researchers in recent years. This Special Issue aims to collect recent perspectives in fractional calculus, applied to all problems arising in all fields of science, engineering applications, and other applied fields.

Special Issue