



Generalized Fractional Dynamics in Graphs and Complex Systems

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Message from the Guest Editors

Random walks are among the most fundamental stochastic processes that occur ubiquitously in various interdisciplinary contexts, such as in biological networks, the foraging of animals, epidemic spreading, financial markets, human mobility patterns, friendship networks, communication in online networks, aging of living systems, anomalous transport and diffusion, and generally in the dynamics of “complex systems”.

It has become apparent that there are deep connections of several aspects of the “complexity” of a system and fractional dynamic behavior exhibiting long-range correlations and self-similarity (scaling laws) with non-Markovian long memory features.

This Special Issue aims to gather research articles or reviews with recent advances in wider interdisciplinary areas such as continuous-time random walks, stochastic motions in networks with long-range jumps, turbulent diffusion and motions, random search, anomalous transport phenomena, Lévy flights, stochastic motions in directed graphs, epidemic spreading, quantitative models of aging phenomena in living systems, models on fractal aspects of stochastic motions and related topics.





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Message from the Editor-in-Chief

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