Special Issue

Nonlinear Dynamics and Stochastic Modeling of Complex Systems

Message from the Guest Editors

In a wide range of phenomena in nature, complexity emerges through an interplay between nonlinearly interacting agents and stochastic effects. Examples include spreading phenomena such as the propagation of epidemics, forest fires, air pollution, chemical reactions, the foraging of animals, and anomalous transport processes in complex networks. The aim of this Special Issue is to gather contributions from across the disciplines combining methods from nonlinear science with stochastic modeling including random walk approaches. Subjects include but are not limited to stochastic resetting, population dynamics, epidemic spreading, compartment models, predator-prey models, nonlinear systems with random delay effects and memory, and stochastic chaos.

- stochastic resetting
- population dynamics
- epidemic spreading
- compartment models
- predator-prey models
- nonlinear systems with random delay effects and memory
- stochastic chaos

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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