Diffusion Processes Associated with Growth Curves: Probabilistic and Inferential Analysis

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closed (30 November 2019)

Message from the Guest Editors

The main aim of this Special Issue of *Mathematics* is to publish original research papers that cover the study of several topics related to diffusion processes. The focus will especially be on the study of diffusion processes that model dynamic phenomena governed by growth curves, including the modification of existing ones by incorporating additional information to the one proposed by the dynamic variable under study. Both the probabilistic study of the introduced models and the applications to research areas are welcome. Among the fields of application, we can mention biology, economics, medicine, energy, etc. The inference in the considered processes will be another of the points of interest of this issue, including the use and ad hoc adaptation of stochastic and metaheuristic optimization procedures.

Potential topics include:

- stochastic biological models
- sigmoidal growth curves
- computational methods for diffusion processes
- inference in diffusion processes
- first-passage-times
- applications in risk theory, insurance, and mathematical finance
- applications in biosciences and environmental sciences
- applications in cell proliferation

Special Issue

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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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