

Special Issue

Stochastic Processes and Random Fields

Message from the Guest Editor

Many practical problems in hydrodynamics, physical oceanography, physics of the atmosphere, and other areas of science are formulated in terms of stochastic differential equations (SDEs) or stochastic partial differential equations (SPDEs); for example, investigating passive scalar evolution in a random velocity field or modeling Lagrangian motion in stochastic flows. Not less important is the inverse problem: estimating parameters of velocity and dissipation under observations of a passive scalar or Lagrangian trajectories. This Special Issue addresses forward and inverse problems in SDEs and SPDEs with possible applications in any area of science and engineering.

Guest Editor

Prof. Dr. Leonid Piterbarg

Department of Mathematics, University of Southern California, Los Angeles, CA 90089, USA

Deadline for manuscript submissions

closed (10 January 2022)



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Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).