



## New Trends in Stochastic Processes, Probability and Statistics

Guest Editors:

**Prof. Dr. Alexander  
Tikhomirov**

**Prof. Dr. Vladimir Ulyanov**

**Prof. Dr. Elena Yarovaya**

Deadline for manuscript  
submissions:

**closed (30 April 2024)**

### Message from the Guest Editors

The primary focus of this Special Issue is modern areas of the theory of stochastic processes and mathematical statistics. Topics of interest but are not limited to:

1. Processes enabling the study of the particle systems' evolution where each particle is born, dies and moves through space in different environments as well as their applications in various fields, from statistical physics to population dynamics;
2. Prevalent ideas in the field of branching processes, including controlled random processes, branching random walks in inhomogeneous and random environments, and Markov and non-Markov processes with discrete or continuous time;
3. Study of stochastic processes, combining the martingale technique and spectral approach for analysis of the spectrum of high-dimensional random matrices;
4. Statistical approaches that might be employed to recognize the effect of intermittency on empirical data, and to show that external randomization can enable test statistics to be better approximated due to their limiting distributions;
5. Identification of the parameters of random processes and the development of nonparametric statistical methods.





## Editor-in-Chief

### **Prof. Dr. Francisco Chiclana**

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

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

**Journal Rank:** JCR - Q1 (*Mathematics*) / CiteScore - Q1 (*General Mathematics*)

## Contact Us

---

*Mathematics* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/mathematics](http://mdpi.com/journal/mathematics)  
[mathematics@mdpi.com](mailto:mathematics@mdpi.com)  
[X@MathematicsMDPI](https://twitter.com/MathematicsMDPI)