



## Advances in Markovian Dynamic and Stochastic Optimization Models in Diverse Application Areas

Guest Editor:

**Prof. Dr. José Niño-Mora**

Department of Statistics, Carlos  
III University of Madrid, 28903  
Getafe (Madrid), Spain

Deadline for manuscript  
submissions:

**closed (31 August 2023)**

### Message from the Guest Editor

Dear Colleagues,

Markovian dynamic and stochastic optimization is an active research area concerning the design and analysis of optimal or nearly optimal policies for Markov decision models of stochastic systems evolving over time. Such models arise in a wide variety of application areas, including manufacturing, marketing, service operations, finance, call centers, and cloud service systems.

In this Special Issue, we shall collect recent theoretical and application-oriented advances regarding Markovian dynamic and stochastic optimization models in any application area. This includes the design and analysis of optimal and nearly optimal policies, performance analysis, large-scale systems, queueing systems, bandit models, and computational studies.

Prof. Dr. José Niño-Mora

*Guest Editor*





an Open Access Journal by MDPI

## 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, Grosspeteranlage 5  
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)