## **Special Issue**

## Modeling and Simulation for Optimizing Complex Dynamical Systems

## Message from the Guest Editor

The modeling and simulation (M&S) of dynamical systems are essential for solving problems across various fields of applied mathematics, including physics, biology, engineering, economics, and beyond. By employing diverse mathematical modeling techniques to better understand system behavior, improve and optimize performance, and even design new systems. This Special Issue aims to compile the latest research achievements in the field of dynamical system M&S. We particularly seek contributions that not only focus on M&S but also explore the optimization of complex dynamical systems based on M&S. We welcome original research articles and comprehensive review papers on topics including, but not limited to, the following: Mathematical modeling methodologies for dynamical systems;Efficient and accurate computational simulation methods:Simulation-based optimization techniques; Data-driven and machine learning approaches; Applications across various fields.

#### Guest Editor

Dr. Seon Han Choi Department of Electronic and Electrical Engineering, Ewha Womans University, Seoul, Republic of Korea

#### Deadline for manuscript submissions

31 January 2026



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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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