

# Special Issue

## Mathematical Modeling and Computation in Systems Biology

### Message from the Guest Editor

Biological systems are inherently complex, encompassing multiple levels of biological functions—from molecular and cellular to ecological. Recent advances in high-throughput technologies have created a growing demand for systems biology to develop more precise models than can capture the intricate functions of genetic systems. However, the large number of interactions and competing processes often makes it difficult to grasp the full picture at once. Mathematical modeling provides a precise language describing and analyzing such complexity. The purpose of this Special Issue is to present recent advances in mathematical and computational modeling in systems biology, with a particular focus on the formulation and analysis of dynamical models for complex biological systems at the cellular or molecular levels. We invite submissions of original research articles and reviews addressing quantitative aspects of modeling and computation in systems biology, including but are not limited to ordinary differential equations, delay-differential equations, fractional differential equations, and machine learning.

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### Guest Editor

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### Deadline for manuscript submissions

31 July 2026



## Mathematics

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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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### Editor-in-Chief

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