

Special Issue

Research on Reaction–Diffusion Equations and Population Dynamics

Message from the Guest Editor

The Special Issue "Research on Reaction–Diffusion Equations and Population Dynamics" addresses fundamental questions in spatial ecology through the application of reaction–diffusion equations. It explores the impacts of population interactions and environmental heterogeneity on population dynamics, enhancing our understanding of critical ecological phenomena and mechanisms. Key topics include population growth, predator–prey relationships, inter-specific competition, and responses to environmental variability. The Issue features a blend of theoretical analyses, such as stability and pattern formation, alongside empirical validations, highlighting the role of spatial processes in regulating population distribution and persistence. By integrating mathematical modeling with ecological insights, this Issue contributes valuable perspectives for ecological conservation, resource management, and informed policy-making.

Guest Editor

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Deadline for manuscript submissions

30 June 2026



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



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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.

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