



## Mathematical Modeling of Evolutionary Dynamics

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### Message from the Guest Editors

Basic concepts of general biology considering population evolution and ecosystem dynamics were developed with the idea that ecology can influence evolution and vice versa, even over short timescales—i.e., ecological and evolutionary processes are interrelated. It took several decades to experimentally confirm that natural selection based on life history and genetic variation can influence population dynamics. As a result, there has recently been a higher level of research interest in eco-evolutionary dynamics. There has still been no complete synthesis of ecological and genetic theories and ideas. Meanwhile, the ecological-genetic approach provides new prospects for understanding the evolutionary dynamics of natural populations and communities; moreover, it allows for predicting changes associated with altering external conditions and anthropogenic impacts.

This Special Issue aims to select and publish original research articles, review papers, and perspective papers presenting achievements in the theory and applications of mathematical models in various fields of evolutionary dynamics.





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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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