

Special Issue

Mathematical Modeling of Evolutionary Dynamics

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.

Guest Editors

Prof. Dr. Efim Ya. Frisman

Institute for Complex Analysis of Regional Problems, Far Eastern Branch, Russian Academy of Sciences, Birobidzhan 679016, Russia

Dr. Oksana L. Zhdanova

Institute for Automation and Control Processes, Far Eastern Branch, Russian Academy of Sciences, Vladivostok 690041, Russia

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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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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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