Special Issue

Advances in Complex Systems and Evolutionary Game Theory

Message from the Guest Editors

With the rapid development of network science, complex networks have become an important method and tool to describe the interactions among individuals within complex systems. Many complex systems in nature and society could be considered as networks composed of interacting units and analyzed by statistical physics methods. Also, the mechanisms of the spontaneous emergence and maintenance of cooperative behavior among selfish individuals have attracted continuous attention over the past several decades, among which evolutionary game theory provides a powerful theoretical framework to address them. The Special Issue is looking for original papers with novel research contributions in all aspects of the dynamical analysis of complex systems and evolutionary game dynamics. Topics include, but are not limited to:

- Complex network modeling;
- Complex system modeling;
- Network science;
- Dynamical analysis of complex networks;
- Evolutionary game dynamics: theory, modeling and application;
- Evolution of cooperation: experimental evidence;
- Mechanisms triggering cooperative evolution in social dilemmas;
- The application of complex system theory to multidisciplinary fields.

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Deadline for manuscript submissions

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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

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).