

Special Issue

AI in Game Theory: Theory and Applications

Message from the Guest Editors

In Game Theory, every agent tries to maximize their own profit (utility, payoff, ...), in possible competition (mutual dependence) with each other, and, therefore, optimal decisions occur in the presence of utility tradeoffs. In comparison to a simple multi-objective optimization problem, in Game Theory, the payoff functions of the players vary, showing an interdependence, a kind of indirect interaction, since the payoff of one player depends also upon the strategies of the other players; any player directly affects the payoffs of the others. Often, when binding agreements are allowed, the complex nature of the interaction does not allow us to find compromised solutions in closed-forms. In this case, solving the problem consists of computing (or approximating) a representative boundary of Pareto optimal solutions. In this Special Issue, we encourage submissions providing possible applications of AI in Game Theory. The topics of interest for this publication include, but are not limited to, the following: Artificial Intelligence in Game Theory.
Artificial Intelligence in decision-making.
Evolutionary algorithms in Game Theory.
Machine learning in Pareto fronts.

Guest Editors

Dr. Alessia Donato

Department of Engineering, University of Messina, 98100 Messina, Italy

Prof. Dr. David Carfi

1. Department of Mathematics, University of California, Riverside, CA 92521, USA

2. Department of Economics, University of Messina, 98122 Messina, Italy

Deadline for manuscript submissions

31 December 2026



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/221119

Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)





Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)



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

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).