Special Issue

Federated Learning Strategies for Machine Learning

Message from the Guest Editors

Federated learning introduces new perspectives in machine learning by enabling model training across decentralised devices. Participants only share the model updates without exchanging local data samples in full compliance with the General Data Protection Regulation. This approach offers many advantages for large-scale applications, from preserving data privacy to providing faster training and effective learning transfer among models exposed to data collected in different environments. Advanced techniques are still needed to integrate this paradigm into real-world scenarios and effectively address communication overhead issues, privacy and security vulnerabilities, the lack of standardisation, and model aggregation for non-independent and identically distributed data.

Guest Editors

Dr. Lavinia Ferariu

Prof. Dr. Constantin Florin Caruntu

Dr. Carlos Pascal

Deadline for manuscript submissions

31 December 2025

Σ

Mathematics

MDPI

Σ

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

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 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).