

Special Issue

Matrices and Matrix Arithmetic for Machine Learning

Message from the Guest Editor

Dear Colleagues, This Special Issue on "Matrices and Matrix Arithmetic for Machine Learning" seeks to explore the transformative role of matrices and matrix operations in the evolving field of machine learning. As fundamental structures, matrices facilitate efficient data representation, transformations, and model computations. This Special Issue aims to cover novel methodologies, theoretical advancements, computational algorithms, and real-world applications that leverage matrix-based techniques. Topics of interest include, but are not limited to, matrix decompositions, matrix factorization approaches, low-rank approximations, optimization techniques involving matrices, and their integration into large-scale machine learning models. Contributions that delve into theoretical analysis, explore the role of matrices in deep learning, or present breakthroughs in matrix arithmetic for accelerating ML processes are especially welcome. Through this focused discourse, we aim to bring together research that advances both the mathematical understanding and the practical capabilities of matrix-oriented machine learning methods.

Guest Editor

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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.

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