

Special Issue

Recent Advances of Neural Network Optimization and Algorithms in Deep Learning

Message from the Guest Editor

In recent years, neural networks, as one of the hottest artificial intelligence technologies, have made breakthroughs and driven the rapid development of science and technology. However, due to the complexity of neural network structures and algorithm optimization, their future development still faces many challenges. The optimization of neural networks is a key factor in improving their performance. This Special Issue aims to demonstrate (1) weight initialization, optimization and regularization of neural network algorithms; and (2) adaptive learning, distributed learning and reinforcement learning in neural networks. Original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Weight initialization, optimization and regularization in neural network algorithms;
- Adaptive learning, distributed learning and reinforcement learning in neural networks;
- A review of recent advances of neural network optimization and algorithms.

Guest Editor

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Deadline for manuscript submissions

30 April 2026



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/201531

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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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