Special Issue

Innovations and Applications of Machine Learning Techniques

Message from the Guest Editors

Over the past decade, machine learning (ML) has emerged as a powerful tool for tackling complex problems across diverse fields, including mathematics. ML techniques have been integrated into areas such as linear algebra, graph theory, differential equations, mathematical optimisation, topology, geometry, and numerical methods, among others. This versatility is reflected in transformative advancements across various application domains. We have developed a Special Issue focusing on the latest ML developments, exploring their methodologies and applications across disciplines. Contributions should feature mathematical analysis, the development of novel optimisation algorithms, advancements in performance metrics, or insightful theoretical explorations, as well as critical evaluations and comprehensive interpretations of results. This Special issue welcomes review articles, regular articles, and short communications. We encourage contributions from multidisciplinary, interdisciplinary, and cross-disciplinary perspectives, aiming to foster a broad dialogue that drives the future of machine learning.

Guest Editors

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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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