Special Issue

Mathematical Foundations and Advanced Applications of Machine Learning in Image Processing and Computer Vision

Message from the Guest Editors

Machine learning has become a central tool in image processing and computer vision, enabling groundbreaking advances in fields ranging from autonomous vehicles to healthcare, robotics, and multimedia. However, bridging the gap between cuttingedge algorithmic developments and their practical, domain-specific implementations remains a critical challenge. The purpose of this Special Issue is to provide a platform for the latest research on advanced applications of machine learning in visual computing. We aim to highlight both theoretical innovations and real-world use cases where machine learning has enhanced visual understanding, interpretation, and synthesis. We welcome submissions of original research articles, reviews, and short communications that reflect novel approaches, performance evaluations, or interdisciplinary applications involving machine learning in image processing and computer vision.

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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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