Special Issue

Mathematical Methods in Pattern Recognition and Image Analysis

Message from the Guest Editors

Pattern recognition involves processing and analyzing various forms of information that characterizes phenomena in order to describe, identify, classify, and explain them. This area constitutes an important part of information science and artificial intelligence. Deep learning is the ruling approach in the field of pattern recognition and has been responsible for achieving breakthroughs in the field. However, for advanced perception, such as more complex reasoning processes across modalities or tasks or semantic-based applications (answering questions, human-computer interactions, autonomous driving decisions, etc.), some progress has been achieved. However, its implementation has not been improved upon until today. Therefore, combining mathematical methods for pattern recognition and comprehension and then using the results for decision planning is a promising direction requiring intensive future research. This Special Issue accepts high-quality, original research papers and reviews describing breakthroughs in pattern recognition through novel mathematical theories or methods, as well as those using new methods to obtain better practical applications.

Guest Editors

Prof. Dr. Pierre Gouton

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Dr. Amadou Tidjani Sanda Mahama

Deadline for manuscript submissions

closed (31 May 2025)

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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