Special Issue

Recent Advances in Machine Learning Methods for Medical Imaging Analysis

Message from the Guest Editors

Machine learning, especially deep learning, has become prevalent in medical imaging analysis to assist in the detection, diagnosis, and treatment of various diseases. Despite the success of deep learning in medical imaging analysis, the main bottleneck in medical imaging analysis is the lack of large-sized and properly annotated datasets, which are very costly to establish. Recently, many studies have attempted to use various mathematical models to improve deep learning to address this challenge. In particular, semi-supervised, self-supervised, and unsupervised deep learning algorithms have showed promising results in medical imaging analyses, including image registration, detection, classification, and segmentation. The topics of interest for this SI include, but are not limited to the following: machine learning; medical imaging analysis; computer vision; deep learning; supervised learning; unsupervised learning; self-supervised learning; semi-supervised learning; classification; segmentation; registration; detection; attention; vision transformer

Guest Editors

Dr. Xiaopeng Yang

School of Global Entrepreneurship and Information Communication Technology, Handong Global University, Pohang 37554, Gyeongbuk, Republic of Korea

Dr. Danila Germanese

Institute of Information Science and Technologies (ISTI), National Research Council (CNR), 56124 Pisa, Italy

Deadline for manuscript submissions

28 February 2026

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.

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

Author Benefits

High Visibility:
indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank:
JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:
manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).