

# Special Issue

## Applications of Deep Neural Networks in Biomedical Informatics

### Message from the Guest Editors

Deep neural networks (DNNs) have emerged as transformative tools in biomedical informatics, enabling breakthroughs in healthcare through their capacity to analyze complex, high-dimensional data such as medical images, genomics, electronic health records (EHRs), and drug compounds. Advances in architectures like convolutional neural networks (CNNs), graph neural networks (GNNs), and transformer models have driven innovations in disease diagnosis, drug discovery, and personalized medicine, while techniques such as federated learning and multimodal data fusion address challenges of data privacy and holistic patient modeling. However, persistent hurdles underscore the need for interdisciplinary collaboration to translate algorithmic research into real-world impacts. This Special Issue seeks to bridge these gaps by highlighting cutting-edge methodologies and applications, spanning technical advances, biomedical use cases, and translational considerations. By uniting computational innovation with clinical and biological expertise, this issue aims to accelerate the development of robust, equitable, and deployable AI solutions that redefine healthcare delivery and patient outcomes.

### Guest Editors

Dr. Wenming Cao

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### Deadline for manuscript submissions

20 January 2026



## Mathematics

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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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### Editor-in-Chief

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