Special Issue

Applications of Machine Learning/Deep Learning Models and Algorithms in Biology and Medicine

Message from the Guest Editors

We welcome submissions that explore both the development of new mathematical machine learning models and their practical applications in biology and medicine. Topics of interest include, but are not limited to, the following: 1. Mathematical models for disease diagnosis and prognosis using ML in clinical settings.
2. Optimization techniques in ML applications for biological/imaging data and precision medicine.
3. Mathematical approaches to multi-omics data integration for uncovering disease mechanisms.
4. Stochastic modeling in medical data analysis for handling uncertainty in biological systems.
5. ML for real-time decision making in healthcare, guided by mathematical control theory.
6. Graph-based and network analysis for understanding biological networks and disease pathways.
7. Mathematical frameworks for predictive modeling in personalized healthcare.
8. ML in computational biology for protein folding, drug–target interactions, and system biology modeling

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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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