

## Special Issue

# Recent Applications of Machine Learning and Data Mining in Bioinformatics

### Message from the Guest Editors

The integration of machine learning and data mining techniques with bioinformatics has advanced our understanding of complex biological processes. This Special Issue aims to showcase the latest developments and applications of machine learning and data mining methods in various areas of bioinformatics. This Special Issue invites original research papers that demonstrate the recent applications of machine learning and data mining in bioinformatics. The scope encompasses but is not limited to the following topics: 1) Genomics: Machine learning techniques for gene expression and genome-wide association studies (GWAS). 2) Proteomics: Applications of data mining to proteomic data. 3) Biomedical Data Integration: Integrative approaches that combine diverse biological data types to gain insights into biological systems. 4) Drug Discovery and Development: The use of machine learning models in drug target identification. 5) Pathway Analysis: Data mining techniques to uncover biological pathways from high-throughput data. 6) Single-Cell Analysis: Machine learning methods for analyzing single-cell RNA. 7) Biological Image Analysis: Applications of deep learning in biological images.

### Guest Editors

Dr. Gianni Costa

Institute of High Performance Computing and Networks (ICAR) of the National Research Council of Italy (CNR), 87036 Rende, Italy

Dr. Riccardo Ortale

Institute of High Performance Computing and Networks (ICAR) of the National Research Council of Italy (CNR), 87036 Rende, Italy

### Deadline for manuscript submissions

closed (31 January 2024)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/180417](https://mdpi.com/si/180417)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)

[appls](https://appls.mdpi.com)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )