

## Special Issue

# Unlocking the Potential of AI for Advancing Scientific Research

### Message from the Guest Editor

AI continues to advance at an unprecedented pace and has become a transformative force in various domains, including science. After its emergence as a game-changing technology with the potential to revolutionize scientific research, AI-powered approaches are enabling breakthroughs in various scientific domains from natural language processing to computational biology. However, there are still challenges and limitations of AI technology, including issues related to field-specific professionalism, interpretability, ethical considerations, benchmarking, and human–AI collaboration.

We welcome original research papers, reviews, case studies, and position papers from researchers, practitioners, and interdisciplinary collaborations. Topics of interest include, but are not limited to:

- Natural language processing for scientific text analysis, text generation, and summarization;
- Applications of AI technology in scientific domains, such as drug discovery, climate modeling, genomics, and materials science;
- Human–AI collaboration, including approaches for combining human expertise with AI capabilities to accelerate scientific discovery.

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### Guest Editor

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### Deadline for manuscript submissions

closed (20 February 2025)



## Applied Sciences

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## 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.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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