Special Issue

Unlocking Scientific Insights: Data Mining, Large Models, and AI-Driven Discovery

Message from the Guest Editor

This Special Issue seeks to explore how innovative AI techniques and methodologies can significantly improve the way scientific data are mined, analyzed, and interpreted. The scope of this Special Issue includes, but is not limited to, the following topics:

- **AI-driven data mining techniques:** Exploring novel algorithms for identifying patterns, correlations, and anomalies in large scientific datasets, focusing on high-dimensional, noisy, and incomplete data typical in scientific research.
- **Large models:** The role of large language models (LLMs), deep neural networks, and other advanced AI models in processing, analyzing, and generating scientific insights from diverse sources of data such as text, images, and time-series data.
- **AI for scientific domains:** Practical applications of AI in key scientific areas, such as drug discovery, climate science, genomics, and materials science.
- **Interdisciplinary collaboration:** Developing frameworks for integrating AI with domain-specific knowledge to enhance human-AI collaboration and foster cross-disciplinary research.

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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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