

Special Issue

Artificial Intelligence: Fundamental Research and Emerging Applications in the Era of Autonomous Systems

Message from the Guest Editor

Topics of Interest include (but are not limited to):

- Reliable & Fact-Grounded AI: Advanced techniques for hallucination detection, mitigation and verification in generative systems.
- Autonomous Systems & Open Ecosystems: Design of agentic workflows and contributions to open-source frameworks like OpenClaw.
- Interoperable AI Architectures: Standardizing data and tool interfaces through the Model Context Protocol and similar integration layers.
- Neuro-Symbolic & Causal AI: Integrating logic-based reasoning and causal discovery with deep learning for better interpretability.
- Edge Intelligence & Model Compression: Efficient deployment of high-performance models on resource-constrained devices.
- AI for Science: Applications in drug discovery, materials science and climate modeling using physics-aware constraints.
- Human-Centric AI & Safety: Innovations in Reinforcement Learning from Human Feedback, constitutional AI and bias mitigation.
- Scalable Cloud-AI Synergy: Architectures for distributed training and low-latency inference in multi-cloud environments.
- Privacy-Preserving Machine Learning: Federated learning, differential privacy and encrypted computation in sensitive domains.

Guest Editor

Prof. Dr. Wenbing Zhao

Department of Electrical Engineering and Computer Science, Cleveland State University, Cleveland, OH 44115, USA

Deadline for manuscript submissions

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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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.

Editor-in-Chief

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

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