

## Special Issue

# Recent Advances in AI-Enabled Wireless Communications and Networks

### Message from the Guest Editors

In recent years, research works have provided promising results in applying AI to different use cases, ranging from physical to application layers, from edge to core network services and applications. However, although the generalized large model shows artificial intelligence technology has rapidly developed in recent years, it still contradicts with future communication systems in terms of green, real-time performance guarantees and other requirements. The aim of this Special Issue is to publish recent research achievements in this field, thereby promoting the harmonious integration of AI technologies into future wireless communications systems. Topics of interest include (but are not limited to) the following:

- The machine-learning-driven design and optimization of modulation and coding schemes;
- Machine learning techniques for channel estimation, channel modeling, and channel prediction;
- Machine-learning-driven techniques for radio environment awareness;
- Machine learning frameworks for joint communication and control;

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### Guest Editors

Dr. Zhuo Sun

Prof. Dr. Fabrizio Granelli

Prof. Dr. Wenbin Guo

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### Deadline for manuscript submissions

closed (30 May 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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