

## Special Issue

# Innovations in Water Resource Management: Integrating Advanced Analytics, AI, and System Modeling

### Message from the Guest Editor

This Special Issue aims to showcase cutting-edge research at the intersection of data science and water engineering, highlighting the integration of advanced analytics, AI, and system modeling to address complex water challenges. We invite contributions on a broad range of topics. Topics of interest include, but are not limited to, the following:

- AI and machine learning applications in hydrology and water resources;
- Hybrid modeling: combining physics-based and data-driven approaches;
- Data-driven approaches for agricultural water management, including precision irrigation, evapotranspiration modeling, and yield forecasting;
- Development of digital twins for urban and rural water systems;
- Predictive modeling for flood, drought, and water quality forecasting;
- Data analytics and optimization for water distribution and treatment systems;
- Smart sensing, IoT applications, and big data analytics for water management;
- Climate change impact assessment using advanced computational methods;
- Decision support systems for sustainable and integrated water management;
- Innovations in real-time monitoring, control, and automation of water infrastructure.

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### Guest Editor

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### Deadline for manuscript submissions

20 November 2026



## Water

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## About the Journal

### Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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### Editor-in-Chief

Dr. Jean-Luc PROBST

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#### Journal Rank:

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