Special Issue

Integrated Hydrologic Modeling and Data-Driven Decision Support

Message from the Guest Editors

The aim of this Special Issue is to publish original research, review papers, and case studies on advanced hydrologic modeling and data-driven decision support for water resources planning and management.

Main themes include, but are not limited to, the following:

(1) Integration of physical process-based and data-driven models: Studies on how machine learning, data-driven analysis, and statistical approaches can enhance the parameterization, calibration, uncertainty quantification, and predictive capability of physical hydrologic models, while demonstrating how process understanding improves the interpretability and reliability of data-driven models.

(2) Integrated surface water, groundwater, and water quality modeling: Studies representing interactions among surface water, groundwater, water quality, ecosystems, and management practices across watershed, regional, or urban systems.

(3) Uncertainty analysis, scenario assessment, and decision support: Probabilistic frameworks, ensemble simulations, optimization, and decision-support methodologies that support adaptive water resources management under changing climate, land use, and management conditions.

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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.

Editor-in-Chief

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