Special Issue

Evaluation and Applications of Hydrologic Modeling in Catchment

Message from the Guest Editors

This Special Issue focuses on advancing hydrological modeling techniques to assess and predict water resource dynamics in a changing environment. Climate change, land-use modifications, and anthropogenic activities are altering hydrological processes, impacting both water quantity and quality. Despite significant progress, challenges remain in accurately simulating key hydrological components such as precipitation, evapotranspiration, runoff, and extreme events. This Special Issue invites high-quality research on innovative modeling techniques, including downscaling methods, hydrological simulations, and uncertainty assessments. Contributions exploring applications of hydrological models in regional and global contexts, particularly in relation to flood and drought prediction, ecosystem impacts, and hydropower sustainability, are highly encouraged. Research on the interactions between hydrological cycles and water quality—such as pollutant transport, sedimentation, and groundwater contamination—will also be considered.

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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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