Special Issue

Application of Various Hydrological Modeling Techniques and Methods in River Basin Management, 2nd Edition

Message from the Guest Editors

Hydrological models (conceptual, semi-distributed, or fully distributed) are valuable and informative tools in determining and finding different ways to combat environment-related problems and stabilize the water balance of the watershed. In addition, machine learning algorithms (MLAs) have great potential and have been promising in simulating hydrologic processes. For instance, streamflow estimation is crucial for efficient water management and decision-making in any given catchment, especially for drought and flood hydrology, crop modeling, flood forecasting, crop water requirement, major reservoir operations, freshwater allocation, as well as freshwater utilization and management. The complex nature of hydrological processes such as evapotranspiration, soil moisture, and baseflow among the land–water–plant ecosystems hinders the accurate streamflow estimation at the watershed scale. The present Special Issue of *Water* focuses on the developments in new techniques and perspectives in catchment modeling, the adaptation of remotely sensed data for hydrological modeling, and the application of MLAs in predicting water balance components.

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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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