

Special Issue

Advanced Hydrologic Modeling in Watershed-Scale

Message from the Guest Editor

Watershed-scale hydrologic modeling is essential to water quantity and quality management. Such large-scale modeling involves a series of complex hydrologic processes and their interactions across surface and subsurface systems under the influence of climate, anthropogenic activities, and other factors. This special issue aims to stimulate discussions on the advances and recent trends in watershed-scale hydrologic modeling methodologies, development of watershed modeling tools, as well as real-world applications. The topics include, but are not limited to: DEM-based watershed delineation methods and tools, watershed characterization and parameterization, extraction of drainage networks and flow routing, catchment-wide hydrologic connectivity analysis, utilization of high-resolution GIS data for improved watershed modeling, DEM resolution effects and scaling issues, large-scale distributed and lumped hydrologic modeling, integrated modeling of surface and subsurface hydrologic systems, and applications of existing watershed hydrologic modeling systems (e.g., SWAT, HSPF, HEC-HMS, TOPMODEL, and MIKE SHE) at different geographical locations and under varying climate conditions.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2020)



Water

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Impact Factor 3.0
CiteScore 6.0



mdpi.com/si/37225

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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

Dr. Jean-Luc PROBST

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