Special Issue

Hydrological and Environmental Modeling: from Observations to Predictions

Message from the Guest Editors

Mathematical modelling offering increasing predictive capabilities for hydrological processes. Such reliability is affected by the tradeoff between model complexity and data availability. Thus, we need to improve monitoring systems to increase observations in space and time. Traditional observations (e.g. streamflow measurements, sediment concentration, aquifer level) are often limited. Remote sensing (RS) observations are helping to achieve better description of variables (e.g., basin morphology, soil moisture, vegetation state, river stage) and hydrological cycle. The issue focuses on the difficulties, methodologies and advances in the implementation of hydro-environmental models and on the understanding of the interactions between water, vegetation, sediments, and compounds. We welcome the following topics:

- Potential of RS observations to improve hydro-environmental knowledge;
- Use of RS observations for data assimilation and model calibration;
- Model and Multi-objective calibration;
- Models up-scaling and down-scaling;
- Definition of new model performance metrics and statistics;
- Uncertainty propagation from observations to estimated parameters and/or model results.

Guest Editors

Prof. Dr. Félix Francés

Dr. Salvatore Manfreda

Prof. Dr. Zhongbo Su

Deadline for manuscript submissions

closed (31 December 2019)

Water

MDPI

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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