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Hydrological Simulation and Forecasting Based on Artificial Intelligence

Guest Editor:

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Deadline for manuscript submissions:
10 January 2025

Message from the Guest Editor

With the development of modern artificial intelligence and parallel computing, the applications of these novel technologies in the field of hydrological and hydrodynamic modeling, flood simulation and forecasting, risk and uncertainty analysis, etc., have significantly improved accuracy, reliability, and computational efficiency in the domain of disaster defense. This Special Issue mainly focuses on the application and novel methods of flood simulation, forecasting and modeling, model parameter estimation, risk and uncertainty analysis, and data analysis, based on modern artificial intelligence and/or parallel computing technologies. We invite submissions including, but not limited to, the following topics:

(1) Artificial-intelligence-aided hydrological simulation and forecasting.

(2) Hydrodynamic modelling based on artificial intelligence technologies.

(3) Flood risk analysis, hydrological or hydrodynamic model uncertainty analysis based on intelligence optimization algorithms or other related artificial intelligence techniques.

(4) Model parameter optimization algorithms based on intelligence optimization algorithms.....

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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.

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