Special Issue

Hydrological Modelling and Extreme Event Analysis under Climate Change

Message from the Guest Editor

Ongoing climate change issues have led to changes in the global hydrological cycle and its regional manifestations. For societal activities and ecosystem dynamics, the state of the terrestrial water budget may be either favourable or unfavourable. However, when it is stable, human societies and ecosystems develop resilience and mitigate extreme outbreaks, such as floods and droughts. With climatic change, the business as usual becomes impossible, because the frequency and magnitude of extreme outbreaks change. The scientific community faces two related and vitally important challenges:

- to strengthen our ability to develop process-based hydrological models that can operate in a wide range of environmental conditions that include inadvertent and controlled anthropogenic components;
- to develop tools to assess extreme events that emerge (or will emerge) under ongoing climate change, to anticipate future events, and to offer solutions that allow societies to mitigate detrimental consequences of projected changes and benefit from positive consequences of projected changes.

With this in mind, we invite you to contribute to this Special Issue.

Guest Editor

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Deadline for manuscript submissions

closed (31 May 2024)

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/si/171902

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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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