

## Special Issue

# Hydrological Modelling in Cold Regions

### Message from the Guest Editors

Climate change has resulted in strong hydrology perturbation in cold regions and high mountains, where a seasonal or permanent cover of snow and ice exist. This has been accompanied by a smaller snowfall proportion in precipitation, the advanced melting of snowpack and ice, glacier retreat, and enhanced thawing in frozen soil and permafrost. As a result, there are urgent needs to improve our understanding of how snow and glaciers will respond to changes in precipitation and temperature, how meltwater and subsurface water will interact in a changing climate, and how hydrological modelling can inform adaptation and mitigation strategies for water resource management. Toward this goal, we are seeking submissions in a wide range of topics, including new modules and new techniques for the representation of snow, glaciers, frozen soil and permafrost in hydrological models, new algorithms for the interaction between melting water and subsurface moisture, influence of climate changes on hydrological behaviours, and other related areas. For more details, please find at: [https://www.mdpi.com/journal/water/special\\_issues/7E9OCZHN00](https://www.mdpi.com/journal/water/special_issues/7E9OCZHN00)

### Guest Editors

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### Deadline for manuscript submissions

closed (30 September 2023)



## Water

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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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### Editor-in-Chief

Dr. Jean-Luc PROBST

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