

Special Issue

Cold Region Hydrology and Hydraulics

Message from the Guest Editors

Over the past half century, with the growing interest in cold region hydrology and hydraulics, significant progress has been made. Many cutting-edge studies on all aspects of river ice hydraulics, fluvial hydraulics under ice-covered flow condition, and snow hydrology, have been published. However, to help researchers continue this innovative research work in the right direction, a more comprehensive understanding of the impact of river ice on fluvial hydraulics, the generation of flow from snowmelt, or the rain-on-snow process, is required.

This Special Issue calls for renewed contributions that improve the knowledge of this theme, including—but not limited to—river ice hydraulics, the effects of ice on mixing and transport, ice-induced deformation of the riverbed, the impacts of river ice on the operation of hydropower plants and other water infrastructure, watershed study and hydrological modeling in cold regions, and the impacts of climate change and anthropogenic activities on ice processes. Research regarding channel navigation in cold regions and the impacts of ice and snow on environmental and aquatic systems are also welcome.

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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.

Editor-in-Chief

Dr. Jean-Luc PROBST

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