Special Issue

Advances in River Ice Science and Its Environmental Implications

Message from the Guest Editors

Ice formation, growth, and breakup in rivers modify flow configuration and hydrodynamic forces in ways that can impact aquatic life, water quality, and sediment transport, as well as cause the flooding of riverside communities and damage to infrastructure. River ice can also interfere with road transportation and navigation. Field and laboratory observations enhance the understanding of physical processes, which in turn, leads to the development of predictive tools such as quantitative relationships and mathematical models. This Special Issue aims to gather high-quality papers that will improve the state-of-the-art. Submitted papers will undergo a peer-review process performed by independent reviewers. Original research papers and reviews are invited to the Special Issue. **Relevant topics include:**

- Hydroclimatic aspects of freeze-up, winter, and breakup processes;
- River ice impacts on stream ecology, including floodplains and deltas;
- Ice-affected water quality and sediment transport;
- Ice jam flooding potential, including forecasting, remediation, and risks to infrastructure;
- Hydrodynamic processes resulting from ice jam releases.

Guest Editors

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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

Dr. Jean-Luc PROBST
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