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Whither Cold Regions Hydrology under Changing Climate Conditions

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Deadline for manuscript submissions:

closed (31 July 2021)

Message from the Guest Editors

Dear Colleagues,

Ongoing and future climate conditions have affected and will profoundly modify the hydrology of cold regions. Indeed, increasing air temperature and ensuing changes in the albedo of the cryosphere have already dramatically altered the water and environmental states of cold regions. Changes in seasonal snow dynamics, glacier mass-balance, river ice formation and decay, and soil freezing have induced and could further modify runoff patterns and seasonal shifts in runoff, redefining hydrological risks and water resource availability. The need to document and foresee these changes calls for renewed observational and modelling studies to better understand and quantify the ensuing effects of changing climate conditions on the hydrology of cold regions. This Special Issue calls for innovative contributions to this theme, focusing on the following aspects: effects of glacier mass balance changes on hydrology; changes in snow accumulation and ablation processes and their effects on hydrological variability; [...]

For further reading, please follow the link to the Special Issue Website at:

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Special Issue



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Message from the Editor-in-Chief

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Journal Rank: JCR - Q2 (*Water Resources*) / CiteScore - Q1 (Water Science and Technology)

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