EGU21-12728
https://doi.org/10.5194/egusphere-egu21-12728
EGU General Assembly 2021

Meandering channels over ice: Cooler and unique?

Roberto Fernández
University of Hull, Energy and Environment Institute, Hull, United Kingdom of Great Britain – England, Scotland, Wales (r.fernandez@hull.ac.uk)

Experimental work on small-scale meltwater meandering channels over ice and field observations have identified similarities and differences between their planform morphologies and those of meandering channels in other media (e.g. alluvial, bedrock). Qualitatively and quantitatively, planform characteristics, including sinuosity, wavelength-to-width ratios, coefficient of skewness and fatness, suggest that most meandering channels behave in certain ways and within certain ranges. However, what makes meltwater meandering channels over ice unique? In this contribution, I highlight the different aspects that set meltwater meandering channels over ice apart from meandering channels in other media and share ongoing work focusing in their planform morphologies, curvature signals, and cross section geometry.