



## SESSIONS EUCOP6\_ 2023

**Session title:** Drained Lake Basins in lowland permafrost regions

**Names, affiliations and emails of the conveners:**

- Helena Bergstedt. bgeos, Austria; [helena.bergstedt@bgeos.com](mailto:helena.bergstedt@bgeos.com)
- Louise Farquharson. Geophysical Institute Permafrost Laboratory University of Alaska Fairbanks, USA; [lmfarquharson@alaska.edu](mailto:lmfarquharson@alaska.edu)
- Guido Grosse. Permafrost Research Section, Alfred Wegener Institute for Polar and Marine Research Potsdam, Germany; [guido.grosse@awi.de](mailto:guido.grosse@awi.de)

**Summary:** Drained lake basins (DLBs) are some of the most common landforms in lowland permafrost regions. DLB formation and drainage can form a complex mosaic on the landscape that reflects asynchronous periods of permafrost aggradation and degradation. The presence of DLBs and their relative distribution on the landscape influence permafrost-region topography, hydrology, carbon cycling, habitat diversity, and can play an important role in human land use practices including agriculture. This session is intended as a forum for current research on DLBs in permafrost-affected landscapes. We seek contributions that reflect diverse scientific fields, approaches, geographic locations and a range of temporal (e.g. decadal to millennial) and spatial scales (e.g., local observation to large scale studies). We particularly encourage contributions that (a) provide data on DLB geology, cryostratigraphy, and geomorphology; (b) outline new strategies to improve process understanding; (c) interface with neighbouring fields of science or apply innovative technologies and methods; (d) investigate model validation, model uncertainty, and scaling issues; (e) couple models of diverse processes or scales, and (g) foster our understanding of the geologic history, current state, and future fate of DLBs and associated permafrost conditions and surrounding terrain.