

ACADEMIC POSITIONS

- 10/2021-ongoing Senior Researcher, b.geos, Korneuburg, Austria
Research focus: Arctic landscapes, permafrost dynamics, remote sensing (multispectral, microwave remote sensing), local to pan-Arctic scale analysis, landscape and vegetation dynamics, interactions of the natural and build environment
- 12/2019-09/2021 Post-doctoral scholar, University of Alaska Fairbanks, Institute for Northern Engineering
- 10/2015-09/2019 Research Assistant (Wissenschaftliche Mitarbeiterin), Interfaculty Department of Geoinformatics - Z_GIS, University Salzburg
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EDUCATION

- 10/2015-09/2019 Doctoral College GIScience, University Salzburg, Austria
PhD in Applied Geoinformatics
Research focus: permafrost, microwave remote sensing, landscape dynamics, arctic and alpine regions, freeze/thaw
- 10/2011-03/2015 Freie Universität Berlin, Germany
Master of Science in Geographical Science
Focus: Environmental Hydrology
- 10/2008-01/2012 Technische Universität Bergakademie Freiberg, Germany
Bachelor of Science in Geoökologie/Earth System Science
Focus: Hydrology
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MEMBERSHIPS and ACTIVITIES

- 2022-ongoing Austrian Representative for the IASC Cryosphere Working Group
- 2020-2022 co-Lead IPA Action Group on Drained Lake Basins
- 2020-2022 Council member Permafrost Young Researchers Network (PYRN)
- 2020-2021 PYRN Representative BOD, US Permafrost Association
- 2018-2020 President of PYRN
- 2016-2018 Member of the Executive Committee of PYRN
- Other Professional Memberships: Austrian Polar Research Institute, European Geoscience Union, Association of Polar Early Career Scientists, American Geophysical Union, US Permafrost Association, Permafrost Young Researchers Network
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SELECTED PUBLICATIONS

- 2018 Kroisleitner, C.; Bartsch, A.; Bergstedt, H. (2018): Circumpolar patterns of potential mean annual ground temperature based on surface state obtained from microwave satellite data. *The Cryosphere*, 12, 2349-2370.
- Bergstedt, H.; Zwieback, S.; Bartsch, A.; Leibman, M. (2018): Dependence of C-Band Backscatter on Ground Temperature, Air Temperature and Snow Depth in Arctic Permafrost Regions. *Remote Sensing*, 10(1), 142.
- 2019 Bartsch, A.; Leibman, M.; Strozzi, T.; ... Bergstedt, H. (2019): Seasonal Progression of Ground Displacement identified with Satellite Radar Interferometry and the Impact of unusually warm conditions on permafrost at the Yamal Peninsula in 2016. *Remote Sensing*.
- 2020 Bergstedt, H.; Bartsch, A.; Neureiter, A.; Höfler, A.; Widhalm, B.; Pepin, N.; Hjort, J. (2020): Deriving a frozen area fraction from Metop ASCAT backscatter based on Sentinel-1. *IEEE Transactions on Geoscience and Remote Sensing*.
- Bergstedt, H.; Bartsch, A.; Duguay, C. R.; Jones, B. M. (2020): Influence of surface water on coarse resolution C-band backscatter: Implications for freeze/thaw retrieval from scatterometer data. *Remote Sensing of Environment*.
- 2021 Bergstedt, H.; Jones, B.M.; Hinkel, K.; Farquharson, L.; Gaglioti, B.V.; Parsekian, A.D.; Kanevskiy, M.; Ohara, N.; Breen, A.L.; Rangel, R.C.; Grosse, G.; Nitze, I. (2021): Remote Sensing-Based Statistical Approach for Defining Drained Lake Basins in a Continuous Permafrost Region, North Slope of Alaska. *Remote Sens.*, 13, 2539.
- 2022 Kanevskiy, M., Shur, Y., Walker, D.A., ... Bergstedt, H. and Breen, A.L., (2022): The shifting mosaic of ice-wedge degradation and stabilization in response to infrastructure and climate change, Prudhoe Bay Oilfield, Alaska, USA. *Arctic Science*, 8(2), pp.498-530.
- Bergstedt, H., Jones, B.M., Walker, D., Peirce, J., Bartsch, A., Pointner, G., Kanevskiy, M., Reynolds, M. and Buchhorn, M., 2022. The spatial and temporal influence of infrastructure and road dust on seasonal snowmelt, vegetation productivity, and early season surface water cover in the Prudhoe Bay Oilfield. *Arctic Science*.
- 2023 Bartsch, A., Bergstedt, H., Pointner, G., Muri, X., Rautiainen, K., Leppnen, L., Joly, K., Sokolov, A., Orekhov, P., Ehrich, D., and Soininen, E. M.: Towards long-term records of rain-on-snow events across the Arctic from satellite data, *The Cryosphere*, 17, 889915; 2023.