

# Nanna B. Karlsson, Ph.D.

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## Education

- 2010 » **Ph.D.**, Department of Geography, The University of Hull, UK, and The British Antarctic Survey, Cambridge, UK.  
Thesis title: *Radio-echo Sounding of Pine Island Glacier, West Antarctica: Understanding the Past from Observations, Analysis and Modelling of Internal Layering.*
- 2007 » **Master's degree (cand.scient.) in Geophysics**, The Niels Bohr Institute, University of Copenhagen, Denmark.
- 2004 » **Bachelor's degree (bach.scient.) in Physics and Geophysics**, The Niels Bohr Institute, University of Copenhagen, Denmark.

## Experience

- Aug. 2017 - present » **Senior Researcher**, Department of Glaciology and Climate, Geological Survey of Denmark and Greenland.
- Jan. 2016 - Jun. 2017 » **Postdoctoral researcher and project manager**, Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany.
- Nov. 2010-Dec. 2015 » **Postdoctoral researcher**, Centre for Ice and Climate, University of Copenhagen, Denmark.

## Adjunct Appointments

- 2023 - present » **Adjunct Professor**, DTU Space, Technical University of Denmark, Kongens Lyngby, Denmark.
- 2011 - 2016 » **Affiliated Scientist**, Greenland Climate Research Centre, Nuuk, Greenland.

## Recent Projects and Grants

### Recent Research Grants

- 2021 - present » **Principal Investigator**, Villum Experiment: *Observing the Unknown Winter Freshwater in Greenland Fjords* funded by the Velux Foundation.
- 2020 - present » **Co-principal Investigator**, The Polar+ programmes: *4DGreenland* funded by the European Space Agency.
- 2019 - 2023 » **Principal Investigator**, Research Infrastructure project: *New Insights into the Recent Past of the Greenland Ice Sheet from Old Radar Data* funded by the Carlsberg Foundation.
- 2021 - 2023 » **Co-principal Investigator**, GeoCenter Denmark project: *Konsbalance på geofagene i Danmark: Hvor taber vi talent?* (English title: *The Gender Balance of the Danish Geosciences – where are we losing talent?*).
- 2018 - 2020 » **Co-investigator**, *Cryoegg: a novel wireless instrument for exploring deep ice*, Engineering & Physical Sciences Research Council, UK. PI: L. Bagshaw, Cardiff University, UK.  
» **Co-investigator**, *Magnetotelluric Analysis for Greenland and Postglacial Isostatic Evolution*, The Research Council of Norway. PI: K. Selway, Macquarie University, Australia.

## Recent Projects and Grants (continued)

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### Project Management

- 2021 - present      » **Lead scientist** of the GEUS GC-Net project's northern and interior sites, responsible for co-developing science strategy and research development, and responsible for planning and executing fieldwork campaigns.
- 2018 - present      » **Project Manager.** I manage GEUS's contribution to the cross-institutional outreach website *PolarPortal*.
- 2017 - 2018        » **Project Manager** for *Camp Recovery*. I led a million-Euro consultancy project involving stakeholders from foreign government agencies and multi-national industry partners.
- 2016 - 2017        » **Project Manager** I managed the German contribution to the European *Oldest Ice* pre-site survey and planned the data collection campaign in Antarctica.

## Academic Service

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### Editorial Experience

- 2020 - present      » **Co-editor-in-chief**, *The Cryosphere*, European Geosciences Union, Copernicus Publishing.
- 2019 - 2020        » **Scientific guest editor**, *Annals of Glaciology*, The International Glaciological Society.
- 2018 - 2020        » **Scientific editor**, *The Cryosphere*, European Geosciences Union, Copernicus Publishing.

### Reviewing Activities

- Reviewer            » I have served as a scientific reviewer for several international research councils including the National Science Foundation, USA, the National Research Council, UK, the Helmholtz Association of German Research Centres, and the European Research Council's Marie Skłodowska-Curie scheme.
- Panel member      » Panel member for the NASA Research Opportunities in Space and Earth Science funding scheme.

### Conference Organisation

- 2016 - present      » **Convener** of three scientific sessions and **co-convener** of five scientific sessions, European Geosciences Union (EGU) General Assembly, Vienna, Austria.
- 2020                » **Main organiser** of the Nordic Branch meeting of the International Glaciological Society, Copenhagen, Denmark (online).
- 2015 - 2017        » **Convener** of one short course sessions and **co-convener** of eight short courses, European Geosciences Union (EGU) General Assembly, Vienna, Austria.
- 2015                » **Co-organiser** of the Nordic Branch meeting of the International Glaciological Society, Copenhagen, Denmark.

## International Organisations

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- 2021 – present      » **Vice-President** of the Cryosphere Division, European Geosciences Union.
- 2020 – present      » **National Representative**, Cryosphere Working Group, International Arctic Science Committee (IASC).

## International Organisations (continued)

- 2020 – 2022      » **Chair** of the Ad-hoc Committee for Actions on Diversity and Inclusion, The International Glaciological Society.
- 2018 – 2022      » **Elected council member**, The International Glaciological Society.
- 2017 – 2022      » **Steering committee member**, The AntArchitecture Action Group, International Science Council, Scientific Committee on Antarctic Research (SCAR).
- 2017 – 2019      » **Coordinator** of the Outstanding Student Poster and PICO Awards, Cryosphere Division, European Geosciences Union.
- 2016 – 2018      » **Chair** (2017-2018) and **co-chair** (2016-2017) of the geophysics consortium, *East Greenland Ice Core Project*.
- 2014 - 2016      » **Early career scientist representative**, The Cryosphere division, European Geosciences Union.

## Recent Talks at Advanced Schools and Meetings

- 2023      » *Oliver lectureship Award*, Institute for Geophysics, The University of Texas at Austin, USA.  
            » Scott Polar Research Institute, University of Cambridge, UK.  
            » *Invited speaker*, NASA/NSF Future of Greenland Ice Sheet Science Workshop (declined).
- 2022      » Department of Earth Sciences, University of Oxford, UK.  
            » Potsdam Institute for Climate Research Impact, Potsdam, Germany.  
            » *The Vice-President's "Science and Career Talks"* University of Tübingen, Germany.  
            » Department of Geography, Durham University, UK.  
            » School of Geosciences, University of Edinburgh, UK.
- 2021      » Institut des Géosciences de l'Environnement, Université Grenoble Alpes, France.
- 2020      » Lamont Doherty Earth Observation, Columbia University, New York, USA  
            » Institute of Geosciences, University of Kiel, Germany.
- 2019      » School of Earth and Ocean Sciences, Cardiff University, UK.  
            » School of Geography & Sustainable Development, University of St. Andrews, UK.

## Talks on Gender Balance in Geoscience

- 2023      » Institute for Geophysics, The University of Texas at Austin, USA.  
            » Physics of Ice, Earth and Climate, the Niels Bohr Institute, University of Copenhagen, Denmark.  
            » GeoCenter Denmark directorate.  
            » Dansk Geologisk Forening (Danish Geological Society).  
            » Department of Science Education, University of Copenhagen, Denmark.
- 2022      » Department of Earth Sciences, University of Oxford, UK.  
            » GLOBE Institute, University of Copenhagen, Denmark.  
            » *The Vice-President's "Science and Career Talks"* University of Tübingen, Germany.
- 2021      » University of Bergen, Norway.

## Teaching, Supervision and Mentorship

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### Teaching

- 2022 - present >> Co-organiser of the international Karthaus Summer School.
- 2012-2015, 2017-2019 >> Lecturer at the international Karthaus Summer School.
- 2016 >> Lecturer and developer of masters-level course at University of Bremen, Germany, on glaciological data analysis and interpretation.
- 2013 >> Lecturer on “Is og Klima” course for undergraduate students in their third year at the Niels Bohr Institute, University of Copenhagen, Denmark.  
>> Teaching assistant at “Matematik for fysikere” course for undergraduate students in their first year at the Niels Bohr Institute, University of Copenhagen, Denmark.
- 2008 >> Teaching assistant at “Introduction to GIS” for first year geography students at University of Hull, UK.

### Supervision

- Undergraduate >> I have supervised or co-supervised 9 undergraduate students.
- Graduate >> I have supervised or co-supervised 7 Master students/ERASMUS graduate students and 2 DTU synthesis projects.
- Ph.D. >> **2024 - 2027**, Co-supervisor of M. Kruse, DTU Space, Technical University of Denmark.  
>> **2020 - present**, Ph.D. committee member for N. Jullien, University of Fribourg, Switzerland.  
>> **2011 - 2015**, Co-supervisor of A. Messerli, Centre for Ice and Climate, the Niels Bohr Institute, University of Copenhagen, Denmark.

### Mentorship

- 2021 - present >> Mentor for post-doctoral researcher T. Rieckh, University of Bergen, Norway.
- 2020 - 2022 >> Mentor for scientist S. H. Larsen, Geological Survey of Denmark and Greenland.

## Fieldwork

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### Leadership

- 2021 - 2023 >> **Field leader** of four GC Net campaigns including leading different international teams and overseeing complicated logistics.
- 2023 >> **Field leader** of the PROMICE Upernavik campaign for weather station maintenance.
- 2020 >> **Field leader** of the PROMICE Upernavik campaign for weather station maintenance.
- 2018 >> **Field leader** of the *Camp Recovery* field campaign. This was a challenging tent-based spring campaign on the Greenland ice sheet with extensive radar surveys.
- 2017 >> **Science trench leader** of the ice-core processing team at the East Greenland Ice Core Project camp. This was a diverse team working in extreme conditions.

### Participation

- 2011 - 2023 >> In total, I have participated in 16 field campaigns in Greenland and 1 field campaign in Antarctica.

## Additional Courses and Certifications

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- 2020 >> Supervision of BSc and MSc Students, Department of Science Education, University of Copenhagen.
- 2018 >> Basic Project Methods, CAMPUS e-learning, Danish Ministry of Energy, Utilities and Climate.
- 2014 >> Project Research Management for Researchers - Module 1, University of Copenhagen.
- 2011 >> Introduction to University Pedagogy, Department of Science Education, University of Copenhagen.
- 2008 >> Project Managing Your Research Degree, The Grad School, University of Hull, U.K

## Outreach

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### Popular Science Talks

- 2015-2022 >> 5 talks at the Danish Institute for Study Abroad.
- 2021 >> Det Grønlandske Selskab (The Greenlandic Association).  
>> Brorfelde Observatorium, Holbæk, Denmark.
- 2018 >> Lecturer and guide on Albatros Travel Ocean Atlantic, 4 weeks.
- 2015-2016 >> Lecturer at a course on Arctic Science at "Folkeuniversitetet" (Danish Open University).
- 2015 >> Statens Naturhistoriske Museum, Mars thematic day.  
>> The Niels Bohr Institute day for high school teachers.