



# Torbjørn Kagel

PhD student at NORCE

- January 07, 2001
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## Links to accounts –

- ORCID [↗](#)
- Projects on Github [↗](#)
- LinkedIn [↗](#)

## Languages

- German ●●●●●
- English ●●●●●
- Norwegian ●●●●●
- Python ●●●●●

## Skills

- (Geospatial) data analysis
- Airborne remote sensing
- Radar processing + interpretation
- Evaluation and validation
- Data visualization
- Collaboration + communication

## References

- Lu Zhou, Assistant Professor at Utrecht University (l.zhou@uu.nl)
- Christian Haas, Professor at University of Bremen (chaas@awi.de)

## Relevant work- & research experience

- From May 2026** **PhD researcher** NORCE Research AS, Tromsø  
Development of an UAV-borne SAR system for cryosphere science  
Supervisors: Rolf-Ole Jenssen, Robert Ricker, Juha Vierinen, Svein Jacobsen
- 2025-2026 (6 months)** **Research assistant** Alfred-Wegener Institute, Bremerhaven  
· Integration and operation of the NORCE snow radar on board RV *Polarstern* for the Summer Weddell Outflow Study in Antarctica.  
· Recomputing a multi-sensor snow-on-sea-ice dataset from NASA's Operation IceBridge airborne mission.  
Supervisor: Christian Haas
- 2025 (6 months)** **Research internee** NORCE Research AS, Tromsø  
· Interface detection in (UAV-borne) radar measurements of snowy targets. [↗ Preprint: \*Pathfinder: Efficient Snow Depth, Stratigraphy And Uncertainty Determination From Radar Measurements\*](#)  
· Adaption of the NORCE snow radar to be a ship-mounted prototype for snow depth measurements from RV *Polarstern*.  
Supervisors: Robert Ricker, Rolf-Ole Jenssen
- 2024 - 2025 (6 months)** **Master thesis** Utrecht University  
Revisiting NASA's Operation IceBridge snow-on-sea-ice measurements in the Arctic. Analyzing airborne data to understand strengths and weaknesses for satellite evaluation exercises.  
[↗ Link to Thesis](#), [↗ Link to EGU25 abstract](#), [↗ Link to Poster](#)  
Supervisors: Lu Zhou, Peter Bijl | Reviewer: Christian Haas  
**Grade: 8.9** (Dutch system: 10 - highest, 0 - lowest)
- 2024 (7 months)** **Student assistant** Utrecht University  
Community network analysis of the Science4Sustainability theme of the University [↗ Link](#)
- 2022 - 2023 (9 months)** **Research assistant** University of Hamburg  
Building an unified dataset for snow and ice profile data from the MOSAiC expedition.  
[↗ In-ice light measurements during the MOSAiC expedition](#)  
Supervisors: Niels Fuchs, Dirk Notz
- 2022 (3 months)** **Research internee** Alfred-Wegener Institute, Bremerhaven  
Hydrological modelling of snow melt and melt pond preconditioning from surface topography.  
[↗ Predicting melt pond coverage on Arctic sea ice from pre-melt surface topography](#)  
Supervisors: Niels Fuchs, Niklas Neckel
- 2023 – 2025** **M.Sc. Marine Sciences** University of Utrecht  
· Courses on: coastal ecology, morphodynamics, ice-ocean-atmosphere interactions, reactive transports, ocean law and policy  
· "Remote Sensing of the Cryosphere" @UNIS, Svalbard  
· Snow fieldwork course in the French Alps organized @Université Grenoble Alpes  
· Teaching assistant in the M.Sc course *Morphodynamics of Tidal Systems*  
· Thesis and internship (30 ECTS each) on airborne remote sensing of snow and sea ice  
**Grade: 8.37 (cum laude)** (Dutch system: 10 - highest, 0 - lowest)
- 2020 – 2023** **B.Sc Geophysics/ Oceanography** University of Hamburg  
Focus on Oceanography  
· Courses on theoretical oceanography. modelling, tidal and wave analysis, coastal processes  
· Planning and execution of a 2-week cruise in the Wadden Sea  
· Bachelor thesis: Three dimensional particle movement in a wind-driven submesoscale flow [↗ Link to thesis](#)