



UiO : Universitetet i Oslo

The University of Oslo is Norway's oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

The geosciences are the studies of planet Earth; the atmosphere, the hydrosphere and cryosphere, the earth's surface and it's interior. The Department of Geosciences is Norway's widest ranging academic geoscience research environment, encompassing four sections (Meteorology and Oceanography, Geography and Hydrology, Geology and Geophysics, Physics of Geological Processes) and one Centre of Excellence (Centre of Earth Evolution and Dynamics). In addition we participate in other centres and hold several ERC grants. The staff consists of 40 professors and associate professors, in addition to postdoctoral fellows, PhD students, researchers, technical staff and administrative personnel, to a total number of 240.



PhD Research Fellowship in Cryospheric Sciences and atmospheric water cycle dynamics

Position as PhD Research fellow available at Department of Geosciences,

The fellowship is for a period of 3 years. No one can be appointed for more than one fixed-term period at the same institution.

Job/ project description:

The SNOWPACE project aims to identify where moisture sources for the Norwegian winter snow pack are located, and how variable they are. The work will include a combination of laboratory and field measurements from ship, stations and surface transects, and the development and use of advanced isotope-enabled atmospheric models for their interpretation. In order to contribute to the larger aim of using stable isotopes to constrain the water cycle in atmospheric models, we seek curious and creative candidates with a relevant background in the fields stable isotope analysis and modelling, atmospheric science, hydrology, glaciology or numerics.

The PhD project at UiO will be centered around the collection of snow samples and the analysis of water vapor source regions for the snow pack measurements using different model tools. Work will be conducted in close coordination with a postdoctoral research position at the Geophysical Institute of the University of Bergen.

The candidate for the PhD position will be part of a motivated research team with a high number of early career scientists working together in a highly interdisciplinary environment. The position will be hosted within the LATICE ("Land-ATmosphere Interactions in Cold Environments" <http://mn.uio.no/lattice>) research group, together with scientists with expertise on permafrost, hydrology, vegetation, and atmospheric modeling. LATICE is a strategic research area by the Faculty of Mathematics and Natural Sciences at the University of Oslo dedicated to improving our knowledge on cold environment processes and their representation in Earth System Models (ESMs). Hydrology and Cryospheric Sciences play a key integrating topic bringing together other activities in the LATICE initiative and coupling process studies with numerical modeling.

Qualifications:

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their peers with respect to academic credentials. Applications are encouraged from dedicated candidates with excellent writing skills and the ability to work in a highly team-orientated environment. Creativity and innovation are valued as is a demonstrated high working capacity, passion for research, and self-motivation.

Previous experience with any of the following should be highlighted:

- Knowledge of stable isotope processes on different time scales in theory and practice
- Experience in laboratory work, knowledge of analytical procedures, in particular in relation to water isotopes
- Creative approach to field work in challenging natural environments
- Participation and readiness for field work including ship and an Alpine environments
- Previous experience with numerical weather prediction models, numerical parameterization, numerics or programming

The successful candidate must have a M.Sc. or other corresponding education equivalent to a Norwegian Master degree in Geosciences, or a related Physical Sciences discipline; e.g., a Physics, Mathematics, or Computer Sciences with demonstrated knowledge of earth sciences. The successful candidate should further demonstrate:

- Technical expertise in scripting (e.g. Python, R) or programming (e.g. C, C++)
- Experience with linux clusters, handling large datasets, and modeling environments
- Good writing and communication skills

- Evidence of creativity and capability of independent research

The purpose of the fellowship is research training leading to the successful completion of a PhD degree.

The fellowship requires admission to the PhD programme at the Faculty of Mathematics and Natural Sciences. The application to the PhD programme must be submitted to the department no later than two months after taking up the position. For more information see:

<http://www.uio.no/english/research/phd/>

<http://www.mn.uio.no/english/research/phd/>

A good command of English is required.

Salary:

Position code 1017, Salary: NOK 432 700 - 489 300 per year, depending on qualifications and seniority.

The application must include:

- Application letter
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of educational certificates, transcript of records and letters of recommendation
- Documentation of English proficiency
<http://www.mn.uio.no/english/research/phd/application/application.html>
- List of publications and academic work that the applicant wishes to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

Foreign applicants are advised to attach an explanation of their University's grading system. Please remember that **all** documents should be in English or a Scandinavian language.

In accordance with the University of Oslo's equal opportunities policy, we invite applications from all interested individuals regardless of [gender](#) or ethnicity.

UiO has an agreement for all employees, aiming to secure rights to research results a.o.

For further information please contact: Professor John F. Burkhart, phone: +47 96 82 50 11, e-mail: john.burkhart@geo.uio.no

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