UiT The Arctic University of Norway
Department of Physics and Technology

Jobbnorge ID: 267343
Deadline: 10/9/2024
Website: https://uit.no/startsida
Scope: Fulltime
Duration: Fixed Term

Faculty of Science and Technology

PhD Fellow in satellite altimetry to characterize sea ice ridges

The position

A 3-year PhD position in the area of satellite altimetry to characterise sea ice ridges is available at the Department of Physics and Technology. The workplace is in Tromsø at The Arctic University of Norway (UiT), but the position is also connected to NTNU and DTU.

The position's objective is to complete research training to the level of a doctoral degree. This will provide qualification for work both in academic positions and industry afterwards. The position is funded by the IceWise project - a grant from the Norwegian Research Council (NFR), which is a collaboration between NTNU, UiT, DTU and several industry partners. This project aims at improving our understanding of sea ice ridges and their impact on offshore structures using a combination of satellite data, in situ observations and probabilistic modelling.

The successful candidate will work in the Earth Observation (EO) Group. This group currently consists of four permanent academic staff members, six postdoctoral fellows and six other PhD fellows. As the EO Group is specialized on remote sensing with a focus on Arctic sea ice and snow applications and developing data analysis methods, the PhD candidate will benefit from collaborations within the group.

You must be able to start in the position within a reasonable time after receiving the offer.

The position's field of research

The position will be 100% devoted to research and development tasks (i.e. no teaching duties).

The candidate will be conducting research for the first work package within the IceWise project: This involves the development of new techniques to study sea ice ridges using satellite laser altimetry observations, in-situ measurements and Copernicus data. It will reveal novel insights into the characteristics and interconnections of sea ice and specifically sea ice ridges with other climate variables. The outcome of this PhD will then facilitate other components of the IceWise project assessing the impact of ice loads on marine structures like offshore wind turbines. The PhD fellow is also expected to collaborate with project partners, participate in project meetings, communicate with funders, and contribute to reporting. Spending some time at NTNU or DTU to enhance these collaborations is also possible.

Roles and responsibilities of the PhD fellow:

The candidate's specific research tasks will include:

- Calculating sea ice ridge parameters from ICESat-2 satellite laser altimetry data
- Combining and validating the satellite-based retrievals with in-situ field data
- Understanding sea ice ridge dynamics and connections with other parameters
- Developing and implementing novel methods, including statistical analysis and machine learning
- Dissemination of sea ice statistics to project partners

It is expected that the candidate will publish their results in scientific, peer-reviewed journals (goal: 3 papers), present them at project meetings and international conferences and finally write up and defend a PhD thesis.

Contact

For further information about the position, please contact:

- Postdoctoral Research Fellow Anne Braakmann-Folgmann (UiT) by email anne.braakmann@uit.no
- Associate Professor Jack Landy (UiT) by email jack.c.landy@uit.no
- Professor Anthony. P. Doulgeris (UiT) by email anthony.p.doulgeris@uit.no

Qualifications

This position requires a master's degree or equivalent in a relevant discipline (e.g. physics, geosciences, computer science, mathematics/statistics, geodesy, environmental science, etc.). If you are near completion of your master's degree, you may still apply.

The suitable candidate must have:

- A relevant master's degree (see above)
- Good programming skills (preferably python or MATLAB)
- Experience with using satellite remote sensing data (ideally altimetry data, polar applications)
- Strong background in statistics
- Fulfilled the requirements for admission to the PhD program (next section)
- Documentation of fluency in English, and be able to work in an international environment. Nordic applicants can document their English capabilities by attaching their high school diploma.

Other desired skills include:

- High self-motivation and interest in the topic
- Ability to work independently
- Great analytical and problem-solving skills
- Excellent work ethic and commitment to the job
- Norwegian or another Scandinavian language is considered an advantage
- International experience is an advantage

Emphasis is also given to personal suitability and motivation.

In the assessment, the emphasis is on the applicant's potential to complete a research education based on the master's thesis or equivalent, and any other scientific work. In addition, other experience of significance for the completion of the doctoral programme may be given consideration.

As many people as possible should have the opportunity to undertake organized research training. If you already hold a PhD or have equivalent competence, we will not appoint you to this position.

Admission to the PhD programme

For employment in the PhD position, you must be qualified for admission to the PhD programme at the Faculty of Science and Technology and participate in organized doctoral studies within the employment period.

Admission normally requires:

- A bachelor's degree of 180 ECTS and a master's degree, or an integrated master's degree.

UiT normally accepts higher education from countries that are part of the Lisbon Recognition Convention.

In order to gain admission to the programme, the applicant must have a grade point average of C or better for the master's degree and for relevant subjects of the bachelor's degree. A more detailed description of admission requirements can be found here.

If you are employed in the position, you will be provisionally admitted to the PhD programme. Application for final admission must be submitted no later than two months after taking up the position.

Applicants with a foreign education will be subjected to an evaluation of whether the educational background is equal to Norwegian higher education, following national guidelines from Norwegian Directorate for Higher Education and Skills. Depending on which country the education is from, one or two additional years of university education may be required to fulfil admission requirements, e.g. a 4-year bachelor's degree and a 2-year master's degree. UiT normally accepts higher education from countries that are part of the Lisbon Recognition Convention.

Inclusion and diversity

UiT The Arctic University of Norway is working actively to promote equality, gender balance and diversity among employees and students, and to create an inclusive and safe working environment. We believe that inclusion and diversity are a strength, and we want employees with different competencies, professional experience, life experience and perspectives.

If you have a disability, a gap in your CV or immigrant background, we encourage you to tick the box for this in your application. If there are qualified applicants, we invite at least one in each group for an interview. If you get the job, we will adapt the working conditions if you need it. Apart from selecting the right candidates, we will only use the information for anonymous statistics.

We offer

- The chance to work on a cutting-edge project funded by the Norwegian Research Council
- Conducting research with a direct industry application
- Collaborations both with other scientists from the field (at UiT, NTNU and DTU) and industry partners
- A fantastic, lively work environment with nice and social colleagues
- Opportunities to travel and flexible working hours
- Good remuneration and contributions to the state pension scheme
- A cosy hometown of Tromsø surrounded by the stunning landscape of Northern Scandinavia
- PhD Fellows are normally given a salary of 532 200 NOK/year with a 3% yearly increase
- If you have to relocate to Tromsø then the Faculty of Science and Technology may reimburse your moving costs. Further details regarding this matter will be made available if you receive an offer from us.

Norwegian health policy aims to ensure that everyone, irrespective of their personal finances and where they live, has access to good health and care services of equal standard. As an employee you will become member of the National Insurance Scheme which also include health care services.

More practical information about working and living in Norway can be found here: https://uit.no/staffmobility

Application

Your application must include:

- Introduction and motivation letter (max 1 page)
- CV (max 2 pages)
- Diploma for bachelor's and master's degree
- Transcript of grades/academic record for bachelor's and master's degree
- Explanation of the grading system for foreign education (Diploma Supplement if available)
- Documentation of English proficiency
- Contact information for 3 references
- Master's thesis (thesis draft if applicable), and any other academic works

Qualification with a master's degree is required before commencement in the position. If you are near completion of your master's degree, you may still apply and submit a draft version of the thesis and a statement from your supervisor or institution indicating when the degree will be obtained. You must still submit your transcript of grades for the master's degree with your application.

All documentation to be considered must be in a Scandinavian language or English. Diplomas and transcripts must also be submitted in the original language, if not in English or Scandinavian. If English proficiency is not documented in the application, it must be documented before starting in the position. We only accept applications and documentation sent via Jobbnorge within the application deadline.

General information

The appointment is made in accordance with State regulations and guidelines at UiT. At our website, you will find more information for applicants.

Remuneration for the position of PhD Fellow is in accordance with the State salary scale code 1017. A compulsory contribution of 2 % to the Norwegian Public Service Pension Fund will be deducted. You will become a member of the Norwegian Public Service Pension Fund, which gives you many benefits in addition to a lifelong pension: You may be entitled to financial support if you become ill or disabled, your family may be entitled to financial support when you die, you become insured against occupational injury or occupational disease, and you can get good terms on a mortgage. Read more about your employee benefits at: spk.no.

A shorter period of appointment may be decided when the PhD Fellow has already completed parts of their research training programme or when the appointment is based on a previous qualifying position PhD Fellow, research assistant, or the like in such a way that the total time used for research training amounts to three years.

We process personal data given in an application or CV in accordance with the Personal Data Act (Offentleglova). According to the Personal Data Act information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure. You will receive advance notification in the event of such publication, if you have requested non-disclosure.

Eallju - Developing the High North

UiT The Arctic University of Norway is a multi-campus comprehensive university at the international forefront. Our vision is to be a driving force for developing the High North. The Northern Sami notion eallju, which means eagerness to work, sets the tone for this motive power at UiT. Along with students, staff and the wider community, we aim to utilise our location in Northern Norway and Sápmi, our broad and diverse research and study portfolio and interdisciplinary advantage to shape the future.

Our social mission is to provide research-based education of high quality, perform artistic development and carry out research of the highest international quality standards in the entire range from basic to applied. We will convey knowledge about disciplines and contribute to innovation. Our social mission unites UiT across various studies, research fields and large geographical distances. This demands good cooperation with trade and industry and civil society as well as with international partners. We will strengthen knowledge-based and sustainable development at a regional, national and international level.

Academic freedom and scientific and ethical principles form the basis for all UiT's activities. Participation, co-determination, transparency and good processes will provide the decision-making basis we need to make wise and far-sighted priorities. Our students and staff will have the opportunity to develop their abilities and potential. Founded on academic integrity, we will be courageous, committed and generous in close contact with disciplines, people and contemporary developments.

We will demonstrate adaptability and seek good and purposeful utilisation of resources, so we are ready to meet the expectations and opportunities of the future. We will strengthen the quality and impact of our disciplines and core tasks through the following three strategic priority areas.

Additional information

Place of service:

Hansine Hansens veg18 9019 Tromsø (Tromsø - Romsa Municipality)