



**UiT Norges
arktiske
universitet
Fakultet for
naturvitenskap og
teknologi - Institutt
for geovitenskap**

PhD Candidate in Marine Geophysics -study of near-surface deformation across Arctic passive margins

UiT The Arctic University of Norway, Faculty of Science and Technology, has a PhD position vacant for applicants who wish to obtain the degree of Philosophiae Doctor (PhD).

The appointment is for a period of 4 years. The nominal length of the PhD program is three years. The fourth year is distributed as 25 % of each year, and will consist of teaching or other duties for the department. UiT The Arctic University of Norway funds the position.

The PhD position is for a fixed term, with the objective of completion of research training to the level of a doctoral degree. Admission to a PhD programme is a prerequisite for employment, and the programme period starts on commencement of the position. The PhD candidate shall participate in the faculty's organized research training, and the PhD project shall be completed during the period of employment. Information about the application process for admission to the PhD programme, application form and regulations for the degree of Philosophiae Doctor (PhD) are available at the following address: [NT-Faculty](#).

The position's field of work

The position is affiliated with the research project SEAMSTRESS - Tectonic Stress Effects on Arctic Methane Seepage funded by the Tromsø Research Foundation (<https://tfstiftelse.no/?lang=en>) and is closely associated with the Center for Arctic Gas Hydrates, Environment and Climate (CAGE, <https://cage.uit.no/>). The project SEAMSTRESS will investigate the stress field exerted at Arctic passive margins and how these stresses influence near-surface fluid dynamics and seafloor gas release. The project shall significantly advance the current understanding of the mechanisms controlling gas seepage at passive continental margins. In addition, the project's outcome will be relevant for studies of submarine landslides in the Arctic, neotectonic phenomena at passive margins, methane-dependent seabed ecosystems and gas hydrates dynamics.

The position is related to task 1 in the project: *Quantification of regional stresses on near-surface sediments*. The main goal of this task is to constrain the present day state of stress with in-situ stress estimations using geomechanical and seismological data. The PhD position is related to this task. Seismological data recorded in Ocean Bottom Seismometers (OBSs) deployed in the study area will be analysed to identify events that allow construction of focal mechanisms. Type and orientation of principal stresses will be derived from focal mechanisms. The main focus will be the west-Svalbard margin. However, if time allows the approach implemented for the west-Svalbard margin can be extended to areas in the western Barents Sea.

The data used for the task consist of P-wave and S-wave seismographs from long-term recording OBSs deployed in the study area for ca. one year. Data from 3 instruments are already available for preliminary analysis of the type of seismic events recorded in the area. The main data for the the PhD project will result from seismological experiments starting in 2019 and 2020. There is a possibility for the PhD candidate to work in a comparison between stress fields derived from seismological information and in-situ stress estimations from the upper 10s of meters of sediments as result of a geomechanical experiment.

It is expected that the appointed candidate participates in different activities related to the project, including: geoscientific expeditions (on board R/V Helmer Hanssen and/or R/V Kronprins Haakon) to collect cross-disciplinary data; workshops with team members and external collaborators; seminar series at the department and the University; and presentation of results in national and international conferences.

Further information about the position is available by contacting Researcher Andreia Plaza-Faverola,

- email: andreia.a.faverola@uit.no
- phone: 77645702

Affiliation and collaboration

The SEAMSTRESS project and related PhD position are closely associated with the Center for Arctic Gas Hydrate Environment and Climate (CAGE) hosted by the Department of Geosciences. The appointed PhD candidate will benefit from cooperation with cross-disciplinary groups within CAGE, as well as with other groups at the department working with relevant problems in Geosciences. In addition, SEAMSTRESS has established collaborations with the Norwegian Geotechnical Institute (NGI), the Geological Survey of Norway (NGU), Uppsala University, Sweden, the French Institute for Exploration of the Sea (Ifremer), the Center for Earth Evolution and Dynamics (CEED) at the University of Oslo, Norway, and the Alfred Wegener Institute (AWI), Germany.

Work place

The successful candidate will live and work in Tromsø, and is expected to engage herself/himself in the ongoing development of the Department of Geosciences and the University as a whole. The project will be conducted in a cross-disciplinary, interactive and stimulating working environment. The candidate will receive guidance and support to identify and apply to relevant research grants.

Work place will be the Department of Geosciences at UiT The Arctic University of Norway in Tromsø. However, the candidate may also spend periods abroad working at partner institutions.

The appointment is for a period of 4 years, and the nominal length of the PhD program is three years. The fourth year is distributed as 25 % of each year, and will consist of duty work for the department. This may include teaching (e.g. supervision and evaluation of student exercises) at various levels, as well as performance of other duties relevant for the department.

Qualifications

The successful candidate will have an MSc in seismology, geophysics, geodynamics, or similar. Experience with the use of seismological or seismic software is a requirement. The candidate must have a good understanding of fault's kinematics and the type of stresses associated with different faults. Good programming skills (e.g., in Matlab, C-shell, Python) is an advantage.

The results shall be presented at national and international conferences/workshops, as well as published in peer-reviewed scientific journals. Therefore, a good communication level and documented fluency in English, both written and oral, is required. Applicants not being able to communicate in Norwegian will be encouraged to learn the language within a reasonable time.

To gain admission to the PhD programme, you must have a grade average of C or better. Further information about requirements for admission to PhD studies are available here: <https://uit.no/nt/phd>

The assessment will emphasize motivation and personal suitability for the position. You must be willing to engage in the ongoing development of your discipline and the university as a whole. During this assessment process, emphasis will be put on your potential for research as shown by the Master's thesis, the project description and any other academic works. In addition, we may consider work experience, teaching qualifications or other activities of significance for the PhD studies.

Application

Your application must include:

- CV and application letter
- Diplomas and transcripts (diploma supplement)
- Documentation on English language [proficiency](#)
- References
- Master thesis
- Project description

You may present a description outlining the academic basis of the PhD project. You may also submit academic works which you wish us to consider during the assessment process.

For those who are near to completion of their master's degree, submit a draft version of the thesis. You must have completed before the 1st of February 2019. You should also attach a statement from your supervisor.

All documentation have to be in English or a Scandinavian language. Submit applications electronically through Jobbnorge.

Terms of employment

Remuneration of PhD positions are in salary code 1017, and normally start at salary grade 51 on the pay scale for Norwegian state employees. There is a 2% deduction for contribution to the Norwegian Public Service Pension Fund.

You have to be qualified for and participate in our PhD study program. As many 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.

More information about moving to Norway: <http://uit.no/mobility>

General

We make the appointment in accordance with the regulations in force concerning State Employees and Civil Servants, and guidelines at UiT. At our website, you will find more information for applicants. UiT The Arctic University of Norway has HR policy objectives that emphasize diversity, and encourages all qualified applicants to apply regardless of their age, gender, functional ability and national or ethnic background. The university is an IW (Inclusive Workplace) enterprise, and we will emphasize making the necessary adaptations to the working conditions for employees with reduced functional ability.

We process personal data given in an application or CV in accordance with the Personal Data Act. You may request to not be registered on the public list of applicants, but the University may decide that your name will be made public. You will receive advance notification in the event of such publication.

Jobbnorge ID: 161593, Deadline: Closed