UiT The Arctic University of Norway
Department of Physics and Technology

Jobbnorge ID: 193017
Deadline: 10/28/2020
Website: https://uit.no/startsida
Scope: Fulltime
Duration: Fixed Term

Faculty of Science and Technology

PhD Fellow in Space Physics

The position

The Department of Physics and Technology announces one vacant PhD position in the area of Space Physics at UiT The Arctic University of Norway. The fellow will conduct research related to the EISCAT 3D infrastructure.

The position is for a fixed term of four years. The nominal length of the PhD program is three years. The fourth year is normally distributed with 25% of the student's ongoing effort devoted to teaching or other duties for the Department of Physics and Technology. The objective of the position is to complete 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 fellow shall participate in the faculty's organized research training, and the PhD project shall be completed during the period of employment.

The Department of Physics and Technology consists of six research groups: Complex Systems Modelling, Earth Observation, Renewable Energy, Machine Learning, Space Physics, and Ultrasound, Microwaves and Optics. The department provides education at Bachelor, Master, and PhD levels; and hosts 22 permanent academic staff, and a technical / administrative staff of 12 persons.

The workplace is at UiT in Tromsø. You must be able to start in the position in Tromsø within a reasonable time, within 6 months after receiving the offer.

Studentship affiliation

The position is attached to the Space Physics group at the Department of Physics and Technology, located in the Tromsø campus of UiT. The Space Physics group has a long tradition in using the radar instruments of the EISCAT Scientific Association in Northern Scandinavia, and plays an important role in preparing for the new advanced atmospheric radar facility, EISCAT 3D. Scientists in the group conduct research on topics including auroral ionosphere; ionospheric modification; space weather; laboratory plasmas; space debris; planetary radar techniques and observations; dusty plasma in the mesosphere; long-term trends in the ionosphere; and planetary magnetospheres.

Field of research and the role of the PhD Fellow

The EISCAT 3D radar infrastructure is currently under development in Northern Scandinavia and will provide a major, state-of-the-art upgrade of the current EISCAT incoherent scatter radar system to allow volumetric imaging of the ionosphere, and become the central piece of the international network of instruments monitoring the Earth's upper atmosphere and space environment in the first half of the twenty-first century.

This PhD position is part of a strategic support to the EISCAT 3D infrastructure project and the associated research outcomes. Two strands of projects are offered here: the first strand is based on the study of so-called plasma lines, signals that can be measured by the incoherent scattering technique, a topic related to `micro' plasma physics. The second strand involves the coupling of the ionosphere with the thermosphere, and falls within the realm of `macro' plasma physics. The projects from both strands can, in practice, be observational, modelling-based, or a combination of both. There will be opportunities for the students to travel and visit collaborators abroad during the project.

Contact

Further information about the position, UiT, and project details is available by contacting:

- Professor Patrick Guio: patrick.guio@uit.no, phone: +44 798557490; or
- Head of Department, Professor Yngve Birkelund: yngve.birkelund@uit.no, phone: +47 77645191

Qualifications

The position requires a Norwegian Master's degree, or a foreign completed degree (M.Sc.-level) within space physics, ionospheric / plasma physics, physics or similar.

Suitable candidates should be proficient in both written and oral English, and should be able to work within an international collaboration. Documented fluency in English as stated here is required: Proficiency in English - PhD level studies

Excellent skills in scientific programming and knowledge of numerical methods, signal processing or radar theory is an advantage. Other required qualification skills include:

- Excellence in Master's thesis work and from grade transcripts
- Independence and self-motivation
- Creative thinking
- Excellent work ethic and commitment to the job

The assessment for the position will emphasize your potential for research, motivation and personal suitability for the position.

Admission to PhD programme

The position requires admission to the PhD programme. If you get appointed to the position, you are at the same time given preliminary admission to the PhD programme. Admission requires that the applicant has at least 5 years of higher education, equivalent to 300 ECTS. The applicant must have a Master's thesis evaluated equivalent to 30 ECTS or more, or 20 ECTS for an integrated Master's degree. The applicant must have an average grade of C or better.

Applicants with a foreign education will be evaluated on whether the educational background is equivalent to Norwegian higher education. We use national guidelines according to NOKUT. Applicants from some countries will have to document additional higher education in order to be admitted.

You can find more information about the PhD programme in Science here: PhD Faculty of Science and Technology

Application

Your application must include:

- Application and motivation letter (maximum 1 page)
- CV (maximum 2 pages)
- Documentation of English language proficiency
- Three references, preferably including the Master's thesis supervisor
- Master's thesis and any other academic works, up to ten
- Diplomas and transcripts (diploma supplement) for both Bachelor and Master level education

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 document successful completion of your degree before commencement in the position.

All documents and letters must be in English or a Scandinavian language. Thesis and other academic works should preferably be in English or a Scandinavian language. The application must be submitted electronically through Jobbnorge within the deadline.

We offer

- Involvement in an interesting research project
- Good career opportunities
- A large degree of independence in work
- Opportunities to travel and meet other leading scientists within the field
- A state collective pay agreement
- Pension scheme through the state pension fund

The UiT campus is located near the centre of Tromsø, a vibrant city located in Northern Norway with approximately 75000 inhabitants, surrounded by the stunning landscape of Northern Scandinavia. The location also offers ample opportunities for e.g., sighting aurora, hiking and skiing.

More practical information for working and living in Norway can be found here: Welcome to UiT!

Terms of employment

Remuneration of PhD positions are in salary code 1017, and normally start at salary grade 54 on the pay scale for Norwegian state employees, corresponding to approximately 39900 NOK/month. There is a 2% deduction for contribution to the Norwegian Public Service Pension Fund.

UiT has good welfare arrangements for employees, including beneficial arrangements for pension, insurances and loans in 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 organised research training; thus, if you already hold a PhD, or have equivalent competence, we will not appoint you to this position.

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.

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. UiT 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 (Offentleglova). According to Offentleglova 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.

UiT - Developing the high north

UiT is a multi-campus research university in Norway and the northernmost university of the world. Our central location in the High North, our broad and diverse research and study portfolio, and our interdisciplinary qualities make us uniquely suited to meet the challenges of the future. At UiT you can explore global issues from a close-up perspective.

Credibility, academic freedom, closeness, creativity and commitment shall be hallmarks of the relationship between our employees, between our employees and our students and between UiT and our partners.

Additional information

Place of service:

Hansine Hansens veg 18 9019 Tromsø (Tromsø - Romsa Municipality)