PhD Research Fellowship in Fluid Mechanics (Capillary flow)

Job description

Position as PhD Research Fellowship in Fluid Mechanics available at the section for Mechanics at the Department of Mathematics, University of Oslo.

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo.

The fellowship will be for a period of 3 years with no compulsory work. Starting date no later than 01.10.2020.

The position is part of the project “Nano- and micro- poro-elastic fog nets for water harvesting” funded by the Research Council of Norway. Access to fresh water is the foundation for life on Earth that poses severe restrictions and requirements for life in regions that contended with water scarcity. A fog net is a low cost, efficient and simple technology for harvesting water from the atmosphere. The goal of this project is to develop novel fog nets with poro-elastic materials. The planned work will involve development of theoretical models, numerical tools and computational investigations of capillary flow of droplet on poro-elastic materials. Field work is planned in Africa where the concepts developed in the projects will be tested and there are opportunities to work with international collaborators.

The PhD student will:

- Develop theoretical models for droplet capillary flow on poro-elastic materials
- Implement and solve numerically the multiphase flow model
- Collaborate with experimentalists
- Work in an interdisciplinary team with expertise in mechanics, physics and biophysics

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition is to be among Europe’s leading communities for research, education and innovation. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

- Applicants must hold a Master’s degree or equivalent in mechanics, fluid mechanics, physics or applied mathematics
- Foreign completed degree (M.Sc.-level) corresponding to a minimum of four years in the Norwegian educational system
- Fluent oral and written communication skills in English
- Earlier involvement in research projects or/and a strong background in fluid mechanics will also be considered positively
- Good social and collaboration skills and ability to work independently and in an interdisciplinary scientific environment

Candidates without a Master’s degree have until 1 August, 2020 to complete the final exam.

Grade requirements:

The norm is as follows:

- the average grade point for courses included in the Bachelor’s degree must be C or better in the Norwegian educational system
- the average grade point for courses included in the Master’s degree must be B or better in the Norwegian educational system
- the Master’s thesis must have the grade B or better in the Norwegian educational system
- English requirements for applicants from outside of EU/EEA countries

http://www.mn.uio.no/english/research/phd/application/application.html

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

The fellowship requires admission to the PhD program at the Faculty of Mathematics and Natural Sciences. The application to the PhD program 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/

We offer

- Salary NOK 479 600 - 523 200 per annum depending on qualifications and seniority as PhD Research Fellow (position code 1017)
- Attractive welfare benefits and a generous pension agreement
- Vibrant international academic environment
• Career development programmes
• Oslo’s family-friendly surroundings with their rich opportunities for culture and outdoor activities
• Possibility to work in an interdisciplinary and diverse research team

**How to apply**

The application must include

- Cover letter including a description of scientific interests and the motivation for applying for the position
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of educational certificates, transcript of records and letters of recommendation
- Documentation of English proficiency if needed (please see admission criteria)
- 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)

The application with attachments must be delivered in our electronic recruiting system, please follow the link “apply for this job”. Foreign applicants are advised to attach an explanation of their University's grading system. Please note that all documents should be in English (or a Scandinavian language).

Applicants will normally be called in for an interview.

**Formal regulations**

Please see the [guidelines and regulations](#) for appointments to Research Fellowships at the University of Oslo.

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According to the Norwegian Freedom of Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

The University of Oslo has an [agreement](#) for all employees, aiming to secure rights to research results etc.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

**Contact information**

For further information please contact: Associate Professor Andreas Carlson, phone: +47 22857223, e-mail: acarlson@math.uio.no

For questions regarding the recruitment system please contact: HR adviser Nina Holtan, phone: +47 22854424, e-mail: nina.holtan@mn.uio.no

**About the University of 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.

**Department of Mathematics** is part of the Faculty of Mathematics and Natural Sciences. The Department is engaged in research covering a wide spectrum of subjects within mathematics, mechanics and statistics.

Jobbnorge-ID: 186096, Søknadsfrist: 18. mai 2020