Postdoctoral Research Fellow in porous media physics at PoreLab - Center of Excellence

Job description

A four year position as Postdoctoral Research fellow in porous media physics is available at the Center of Excellence PoreLab at the Department of Physics.

No one can be appointed for more than one Postdoctoral Research Fellowship at the University of Oslo. Starting date is no later than January 1. 2021.

The successful candidate is expected to take an active role in teaching at the Department, with an average teaching load of 25% over the four years.

More about the position

The project is a collaboration between PoreLab and the Earth Physics Institute (IPGS), University of Strasbourg.

The Center aims to describe the flow in porous media on scales ranging from micrometers to kilometers and for highly different media. The approach is based on a combination of theory, simulations and experiments. The successful candidate will work on both theoretical, computational, and experimental aspects of fracturing, hydro-fracturing and multiphase flow in porous media. The experimental work involves laboratory tests of fracturing, pattern formation and flow in porous and deformable porous media. Advanced data and image analysis methods will be employed to reveal the characteristics of the patterns and their evolution, and experimental results will be compared to analytical and numerical model predictions.

Postdoctoral fellows who are appointed for a period of four years are expected to acquire basic pedagogical competency in the course of their fellowship period within the duty component of 25%.

The main purpose of a postdoctoral fellowship is to provide the candidates with enhanced skills to pursue a scientific top position within or beyond academia. To promote a strategic career path, all postdoctoral research fellows are required to submit a professional development plan no later than one month after commencement of the postdoctoral period.

Qualification requirements

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 class with respect to academic credentials.

The applicant must hold a PhD degree (or equivalent) within geophysics/physics. Doctoral dissertation must be submitted for evaluation by the closing date. Only applicants with an approved doctoral thesis and public defence are eligible for appointment.

We are seeking an ambitious candidate with a proven track record in some of the following areas:

- Theory, simulations and experiments of fracture dynamics and/or flow in porous media.
- Development of analytical and numerical models
- Statistical physics and continuum mechanics
- Geophysics
- Combining theory, simulations and experiments

High-level oral and written English skills are required.

Personal skills

The successful candidate should be creative, with a strong ability to work problem-oriented and collaborate with others who use different methods. He/she should enjoy interdisciplinary research and take keen interest in learning and working in teams.

We offer

- Salary NOK 523 200 - 605 500 per annum depending on qualifications in position as Postdoctoral Research Fellowship (position code 1352)
- Attractive welfare benefits and a generous pension agreement
- Professionally stimulating working environment
- Vibrant international academic environment
- Postdoctoral development programmes
- Oslo’s family-friendly surroundings with their rich opportunities for culture and outdoor activities

How to apply
The application must include:

- Cover letter (statement of motivation, summarizing scientific work and research interest)
- CV (summarizing education, positions, pedagogical experience, administrative experience and other qualifying activity)
- Copies of educational certificates, academic transcript of records and letters of recommendation
- A complete list of publications and up to 5 academic works 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.

Interviews with the best qualified candidates will be arranged.

It is expected that the successful candidate will be able to complete the project in the course of the period of employment.

**Formal regulations**

Please see the guidelines and regulations for appointments to Postdoctoral fellowships at the University of Oslo.

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**

Professor Knut Jørgen Måløy, e-mail k.j.maloy@fys.uio.no

Professor Eirik Grude Flekkøy, e-mail flekkko@fys.uio.no

For technical questions regarding the application system, please contact HR Adviser Elin Thoresen, +47 22 85 71 96, e-mail: elin.thoresen@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.

The research at the Department of Physics covers a broad range of subfields within physics and technology: From space research to medical physics. A good proportion of the research is interdisciplinary, and conducted in close cooperation with collaborators in Norway and abroad. Education and teaching are other essential activities.

We offer a broad range of courses, and the Department is involved in several study programmes at bachelor’s and master’s level. Some of the best lecturers in Norway are amongst our employees, and we are proud of our prizewinning teaching and learning environment. The Department has 200 employees, of which 50 are permanent scientific positions. On a yearly basis 20 students complete their Ph.D. and 50 finish their M.Sc. degree.

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