



Jobbnorge ID: 280885
Deadline: 6/23/2025
Website: <http://www.uio.no/>
Scope: Fulltime
Duration: Engagement

Postdoctoral Research Fellow in Computational fluid mechanics and physics of porous media

About the position

Position as Postdoctoral Research Fellow available at the Njord Centre.

Starting date no later than 09/2025.

The appointment is a fulltime position and is for a period of 3 years.

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

More about the position / Project description

We seek a computational physicist for a 3-year PD position in the project MinMix (Mineralization as a fluid mixing process) funded by the Research Council of Norway. In this project, we will use advanced time-lapse imaging, numerical simulations, and reactive mixing theories to better understand and predict the role of fluid mixing as a driver for mineralization in porous media, a key knowledge gap for a wide range of environmental, engineering, and geological processes. Applications may include the remediation of contaminants, the restoration of cultural heritage, the sustainable exploitation of geothermal wells and the mineral trapping of CO₂ in the subsurface in a context of global climate change.

The project is carried out at the Njord Centre, the cross-disciplinary Centre for Studies of the Physics of the Earth at the University of Oslo, and the successful candidate will have the opportunity to perform research stays at the Geosciences Department at the University of Rennes (France) and at the Niels Bohr Institute at the University of Copenhagen (Denmark).

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.

Qualifications

The Faculty of Mathematics and Natural Sciences has a strategic ambition 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 degree equivalent to a Norwegian doctoral degree in physics, fluid mechanics, or applied mathematics
- Doctoral dissertation must be submitted for evaluation by the closing date. Only applicants with an approved doctoral thesis and public defense are eligible for appointment.
- Fluent oral and written communication skills in English
- Background in fluid mechanics
- A proven background in at least two of the following fields: computational physics, porous media physics, statistical physics.
- Experience with programming language (e.g., Matlab, Python)
- Fluent oral and written communication skills in English (see below)

Additional desired qualifications:

- Experience with the theoretical description of transport processes
- Skills in advanced computational methods (e.g., C++)

Personal skills

- Teamwork skills, as well as the ability to work independently
- Enthusiasm, personal drive, and ability to take initiative
- Attention to details
- Flexibility, ability to handle pressure and meet deadlines

Employment in the position is based on a comprehensive assessment of all qualification requirements applicable to the position, including personal skills.

We offer

- Exciting and meaningful tasks in an organization with an important societal mission, contributing to knowledge development, education, and enlightenment that promote sustainable, fair, and knowledge-based societal development.
- A pleasant and stimulating work environment.
- Good [welfare schemes](#).
- Opportunity of up to 1.5 hours a week of [exercise during working hours](#).
- A workplace with good development and career opportunities.
- Membership in the [Statens Pensjonskasse](#), which is one of Norway's best pension schemes with beneficial mortgages and good insurance schemes.
- Salary in position as Postdoctoral Fellow, position code 1352 in salary range NOK from 579 700 - 657 300, depending on competence and experience. From the salary, 2 percent is deducted in statutory contributions to the State Pension Fund.

Read more about the benefits of working in the public sector at [Employer Portal](#).

Inclusive worklife and diversity at UiO

Inclusion and diversity are a strength. The University of Oslo has a personnel policy objective of achieving a balanced gender composition. Furthermore, we want employees with diverse professional expertise, life experience and perspectives.

If there are qualified applicants with disabilities, employment gaps or immigrant background, we will invite at least one applicant from each of these categories to an interview.

We hope that you will apply for the position.

More information about gender equality initiatives at UiO can be found [here](#).

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.
- 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 three references (name, relation to candidate, e-mail and telephone number).

Application with attachments must be submitted via our recruitment system Jobbnorge, click "Apply for the position".

When applying for the position, we ask you to retrieve your education results from [Vitnemålsportalen.no](#). If your education results are not available through Vitnemålsportalen, we ask you to upload copies of your transcripts or grades. Please note that **all** documentation must be in English or a Scandinavian language.

General information

The best qualified candidates will invited for interviews.

If an applicant has applied for and been granted funding for a fulltime research stay abroad while being employed as a Postdoctoral Research Fellow, the employment will be prolonged with the equivalent time as the research stay, but for no longer than of twelve months (thus extending the employment to a maximum of four years)

No one can be appointed twice as a Postdoctoral fellow financed with funds from The Research Council of Norway (NFR).

Applicant lists can be published in accordance with [Norwegian Freedom of Information Act](#) § 25. When you apply for a position with us, your name will appear on the public applicant list. It is possible to request to be excluded from this list. You must justify why you want an exemption from publication and we will then decide whether we can grant your request. If we cannot, you will hear from us.

Please refer to [Regulations for the Act on universities and colleges chapter 3](#) (Norwegian) and [Guidelines concerning appointment to post doctoral and research posts at UiO](#) (Norwegian).

The University of Oslo has a [transfer agreement](#) with all employees that is intended to secure the rights to all research results etc.

University of Oslo

The University of Oslo is Norway's oldest and highest rated institution of research and education with 26 500 students and 7 200 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

Njord is a cross-disciplinary Geology-Physics center hosted by the Faculty of Mathematics and Natural Sciences at the University of Oslo. We focus on the fundamental physics of geological processes related to: transport and reactions in deformable porous media, fracturing and fragmentation processes, interface dynamics during geophysical flows, and intermittency and pattern formation in geological systems far from equilibrium.

We conduct research on earth systems that range in scale from atoms to continents and apply methods where fieldwork, numerical modelling, experiments and theory act in concert.

The center includes the Oslo-branch of PoreLab, which is a Center of Excellence (CoE), the former CoE, Physics of Geological Processes (PGP) and several externally financed projects. There are 10 professors and associate professors at the center, in addition to doctoral research fellows, postdoctoral fellows, researchers and technical and administrative staff - in total about 55 persons.

Additional information

Contact persons:

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Place of service:

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