



UNIVERSITETET I BERGEN

University of
Bergen
Department of
Mathematics

Jobbnorge ID: 175691

Deadline: 10/15/2019

Website: <https://www.uib.no/om/84775/ledige-stillinger-ved-uib>

Scope: Fulltime

Duration: Temporary

Researcher position in applied and computational mathematics - computational mechanics for fractured porous media (temporary position)

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Video: <https://www.youtube.com/watch?v=JRdMR-PhbBQ&t=4s>

Research scientist

The [Department of Mathematics](#) has a vacancy for a temporary position as researcher for a period of 1 year from 1 January 2020. The position is part of the project "Thermo-Mechanical Energy Storage (TheMSES)", which is part of the "Excellent Research" (Norwegian: Toppforsk) scheme of the Research Council of Norway.

The project is conducted in the Porous Media research group, a team of approximately 30 people, including faculty, researchers, postdoctoral researchers, PhD students and MSc students.

About the project/work tasks:

The main objective of the TheMSES project is establish the mathematical models and numerical methods required to assess and develop subsurface energy storage.

The researcher project related to this announcement concerns the understanding of how fractures can be created and opened as a consequence of change in flow and temperature in the subsurface when hot fluids are pumped down at elevated pressures and later produced. The current announcement pertains to Work Package 1, where main goal is to develop mathematical models and associated numerical solution methods to understand how different subsurface processes are coupled and interact. Particular attention will be directed towards effects of repeated storage and production in the same formation. Development of mathematical and numerical models to understand the interaction of different mechanisms for fracture opening and propagation will be central tasks in the project.

The TheMSES project involves all faculty in the porous media group, and four PhD students and one postdoctor have already been recruited. Please see <http://themses.b.uib.no> for further information.

More information about the institute can be found at <https://www.uib.no/en/math>

Qualifications and personal qualities:

- The applicant must hold a Norwegian PhD or an equivalent degree in applied and computational mathematics, or, alternatively, in physics, geoscience or equivalent; or must have submitted his/her doctoral thesis for assessment prior to the application deadline. It is a condition of employment that the PhD has been awarded.
- Solid background in mathematical modelling, partial differential equations, numerical methods and numerical simulation is an advantage.
- Experience with applications in fracture mechanics and possibly also flow in porous media is an advantage.
- Ability to work independently and in a structured manner, and to cooperate with others.
- Fluency in both written and oral English.

Personal and relational qualities will be emphasized. Research experience, ambitions and potential will also count when evaluating the candidates.

We can offer:

- A good and professionally challenging working environment
- Salary at pay grade 59 (code 1109 / pay range 24, alternative 3) according to the state salary scale upon appointment. This constitutes a gross annual salary of NOK 523 200,-. For particularly highly qualified applicants, a higher salary may be considered. Further promotions are made according to length of service.
- Enrolment in the Norwegian Public Service Pension Fund
- Good [welfare benefits](#)

Your application must include:

- A brief account of the applicant's research interests and motivation for applying for the position.
- The names and contact information for two reference persons. One of these must be the main advisor from the PhD programme
- CV
- Transcripts and diplomas and official confirmation that the doctoral thesis has been submitted
- Relevant certificates/references
- List of any works of a scientific nature (publication list)
- Relevant publications in your name.

The application and any attachments along with certified translations in English or another Scandinavian language must be uploaded to JobbNorge.

General information:

Further information about the position can be obtained from: Professor Jan Martin Nordbotten, jan.nordbotten@uib.no

The state workforce shall reflect the diversity of Norwegian society to the greatest extent possible. People with immigrant backgrounds and people with disabilities are encouraged to apply for the position.

We encourage women to apply. If multiple applicants have approximately equivalent qualifications, the rules pertaining to moderate gender quotas shall apply.

The University of Bergen applies the principle of public access to information when recruiting staff for academic positions.

For further information about the recruitment process, click [here](#).

About The University of Bergen

The University of Bergen is a renowned educational and research institution, organised into seven faculties and approximately 54 institutes and academic centres. Campus is located in the centre of Bergen with university areas at Nygårdshøyden, Haukeland, Marineholmen, Møllendalsveien and Årstad.

There are seven departments and several centres at Faculty of Mathematics and Natural Sciences. [Read more about the faculty](#) and [departments](#).

Additional information

Place of service:

Matematisk institutt 5020 Bergen (Bergen Municipality)