UNIVERSITETET I BERGEN

University of Bergen
Department of Earth Science

Jobbnorge ID: 268314
Deadline: 11/25/2024
Website: https://www.uib.no/om/84775/ledige-stillinger-ved-uib
Scope: Fulltime
Duration: Fixed Term

Lead AI postdoctoral research fellow position within Earthquake Seismology

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Video: https://www.youtube.com/watch?v=oyaThmlq6Kg

Lead AI postdoctoral research fellow position within Earthquake Seismology

At the Department of Earth Science, there is a vacancy for a postdoctoral research fellow position within Earthquake Seismology.

The position is for a fixed term of 3 years and is associated with the Norwegian National Seismic Network.

The position is open to an incoming candidate, see LEAD AI mobility rules.

About the project/work tasks

About the host research group and research theme

The Norwegian National Seismic Network operates a network of more than 40 seismic stations across Norway to monitor earthquake activity in the region. The data are used in various research activities to better understand the distribution and nature of earthquakes. The coastal areas of both southern and northern Norway are the most active on the mainland. Study of earthquakes offshore southern Norway is important due to the vicinity to hydrocarbon extraction, and planned CO2 injection. Northern Norway is known for its intraplate swarm activity that has been studied in detail over recent years.

The Arctic Archipelago of Svalbard presents an active intraplate area that has been investigated to understand large earthquakes within the regional tectonic context. Offshore, the Mid-Atlantic ridge plate boundary falls into the region of monitoring interest, producing the largest earthquakes close to Norway. Furthermore, the network has monitoring stations on the volcanically active island of Jan Mayen. In recent years, the research group linked to the seismic network has collected data from ocean bottom seismographs and temporary land deployments from various areas to address specific research questions. While the group has started to apply machine learning tools to a number of data sets, the seismic network still operates based on conventional tools.

The goals of this position are to (1) develop machine learning based approaches to characterize seismicity, (2) apply these to different datasets in Norway to advance the understanding of earthquake distribution and causes, and (3) fully implement machine learning into the seismic network processing workflow.

About the LEAD AI fellowship programme

LEAD AI is the University of Bergen's career and mobility fellowship program for training 19 postdoctoral fellows in artificial intelligence.

The program has received funding from the European Union’s Horizon Europe research and innovation programme under the Marie Skłodowska-Curie Grant Agreement No. 101126560.

The LEAD AI programme offers high-quality inter- and transdisciplinary research and training opportunities in the area of artificial intelligence supported by a dedicated supervision and mentoring, encouraging inter-sectoral exposure, in particular

- academic freedom
- benefits from knowledge and skills transfer between disciplines, organisations and sectors
- structured, skill-based training
- high-quality working conditions
- personal career support
- equal opportunities

For more information see the LEAD AI webpage or send an email to leadai@uib.no

Qualifications and personal qualities:

- Applicants must hold a Norwegian PhD or an equivalent degree in Geophysics with specialization in Earthquake Seismology 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.
- Experience with scientific programming is a requirement.
- Experience with the development and analysis of earthquake catalogues is a requirement.
- Applicant should have a genuine interest in AI, and the research proposal must be related to artificial intelligence.
- Experience with AI-related research and/or innovation is an advantage.
- Experience with machine learning based tools to detect and process earthquake data is an advantage.
- Experience with the operations of a seismic network (e.g., data acquisition, field work, metadata preparation, processing of earthquake data) is an advantage.
- The LEAD AI mobility rules must be followed.
- Applicants cannot previously have been employed as a postdoctoral fellow at UiB and they cannot be employed by any other institution for the time of the fellowship.
- Applicants must be able to work independently and in a structured manner and have the ability to cooperate with others.
- Applicants must have excellent skills in oral and written English (self-assessed in the CV and demonstrated in the application).
- The application and relevant documents must be in English.

Personal and relational qualities will be emphasized. Research experience, ambitions and potential will also be considered during candidate evaluation.

Special requirements for the position

The University of Bergen is subjected to the regulation for export control system. The regulation will be applied in the processing of the applications.

About the position of postdoctoral research fellow:

The postdoctoral position is a fixed term position with the primary objective of qualifying the appointee for work in top academic positions.

For all LEAD AI fellows, a Personal Career Development Plan (PCDP) will be developed jointly by the fellow, supervisor, and co-supervisor by the end of Month 3 of the fellowship, including a plan for the individual research budget, and information on additional funding where applicable.

It is a requirement that the project is completed in the course of the period of employment.

What we offer

- An engaged and professionally stimulating working environment.
- Position as postdoctoral fellow (code 1352 in the basic collective agreement) and a gross annual salary of NOK 624 500 (equivalent to pay grade 64) upon appointment. Further increases in salary are made according to length of service in the position. A higher salary may be considered for a particularly well-qualified applicant.
- Welfare benefits* and social benefits including pension-saving in the Norwegian Public Service Pension Fund, occupational injury insurance, full salary during sick leave for 52 weeks, and paid parental leave**.
- Extension of the position term (work contract) due to sick leave and parental leave.
- Norwegian language courses free of charge.
- High standards for working hours, holidays, place of work, health, and safety.
- Access to specific training activities exclusively provided within the framework of the LEAD AI programme.

*) Subject to membership in the Norwegian National Insurance Scheme.

**) Right to paid parental leave requires 6 months paid work before first day of leave. See full requirements.

How to apply:

Before starting the online application process, please familiarise yourself carefully with our application requirements in the Guide for Applicants and Application templates. It is essential that all required attachments (see next section) are uploaded via our electronic recruiting system JobbNorge. Before uploading any documents in the portal (to minimise repetition of information):

- In the 'JobbNorge-application field': Only write your name.
- In the 'JobbNorge-CV form': Only fill in your 1) personal details, 2) information about your PhD-degree (in the field 'Academic qualifications') and 3) recent relevant work experience.
- You **do not need to fill in any other sections in the JobbNorge form**, as all the information we need will be provided by you when attaching the mandatory elements listed in the next section.

Your application must include:

- A research proposal outlining your contribution towards the thematic area and host research group described above. The research proposal should follow the provided template and be developed in consultation with the scientific contacts given below.
- A brief account of your motivation for applying for the position.
- CV with list of any works of scientific nature (publication list)
- Mobility declaration
- Ethics and security issues: self-assessment form
- An initial self-assessment of opportunities for mandatory and recommended open science practices.

- Names and contact information for two referees. One of these should be the main PhD supervisor.
- Letters of recommendation from the graduating university or previous employers are encouraged but not mandatory.
- Transcripts and diplomas. If you have not yet completed your PhD degree, please submit a statement from your institution confirming that the thesis has been submitted.
- Relevant certificates/references

The application and appendices with certified translations into English must be uploaded at JobbNorge.

Evaluation

We anticipate the whole evaluation procedure to take approximately 4 months from application deadline. Eligible applicants will be evaluated by three internationally renowned experts and assessed against criteria addressing excellence, impact, implementation, quality of the researcher and training, knowledge transfer. Details are stated in the Guide for applicants.

General information:

For further details about the position, please contact Professor Lars Ottemöller or Professor Stéphane Rondenay.

For HR related questions please contact adviser Mathilde Høgalmen.

The state labour force shall reflect the diversity of Norwegian society to the greatest extent possible. Age and gender balance among employees is therefore a goal. 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.

Information about applicants may be made public even if the applicant has asked not to be named on the list of persons who have applied. The applicant must be notified if the request to be omitted is not met.

Further information about our employment process can be found here.

About The University of Bergen (UiB)

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:

Allégaten 41 5007 Bergen (Bergen Municipality)