UNIVERSITETET I OSLO

Jobbnorge ID: 294610
Deadline: 3/1/2026
Website: http://www.uio.no/
Scope: Fulltime
Duration: Temporary

PhD Research Fellows in geosciences, planetary or exoplanetary sciences - up to three positions

About the position

Up to three positions as PhD Research Fellow in geosciences, planetary or exoplanetary sciences are available at the Centre for Planetary Habitability (PHAB), Department of Geosciences, Faculty of Mathematics and Natural Sciences, University of Oslo (UiO).

Starting date no later than October 1, 2026.

The fellowship period is three years.

A fourth year maybe considered and it will involve 25 percent of other career-promoting work. Other career-promoting work may consist of teaching, supervision, and/or research assistance. This is dependent upon the qualification of the applicant and the current needs of the department.

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

Place of work is the Centre for Planetary Habitability (PHAB), Department of Geosciences, at Blindern, Oslo.

Job description

Applications are invited for up to three PhD research fellow positions at the Centre for Planetary Habitability (PHAB). PHAB is a Norwegian Centre of Excellence funded by the Research Council of Norway and organized as a section at the Department of Geosciences. PHAB's main goal, based on detailed studies of Earth and the solar system, is developing predictive models to identify habitable planets around other stars. Within three different research themes: (1) Planets and Early Earth, (2) Modern Earth and (3) Exo-Earths, we want to explore the interior and external driving forces that makes a planet like the Earth habitable and inhabited. The successful candidates will work on one of the following open research questions:

1. Project: Ediacaran Habitability (L.H. Liow, M. Domeier, E. Mitchell)
Explore the biotic and abiotic environmental conditions that made the Ediacaran habitable using integrative approaches from paleobiology, statistical modelling and paleogeography, using new fossil and geological field data from Mistaken Point and Discovery Geopark, Newfoundland, Canada, which the PhD fellow can help to collect.

2. Project: True Polar Wander on a Snowball Earth (M. Domeier, C.P. Conrad)
Explore how solid-body rotation (true polar wander) caused by the interplay of Earth's interior dynamics and large-scale glaciation (snowball Earth) periods, slowly or abruptly change the local and global climate conditions and planetary habitability, using paleogeography, paleoclimate and dynamical modelling of Earth's interior.

3. Project: Pulsating Convection within a laterally heterogeneous planet (C.P. Conrad, M. Domeier)
Explore links between rapid volcanic events (e.g., the mid-Cretaceous volcanic pulse), long periods with a stable magnetic field (e.g., the mid-Cretaceous superchron), and convection patterns within planetary mantles that include large lateral heterogeneities.

4. Project: Dating stars and planetary systems (K. Herbst, V. Maupin)
Explore the suitability of methodologies within asteroseismology and gyrochronology and the potential of different photometric data to determine the age of planetary systems through dating their central star.

5. Project: Revisiting the young faint Sun problem (K. Herbst, T.H. Torsvik)
Explore the feasibility of warming Earth's early atmosphere due to the Sun's evolving magnetic activity and high-energy output, which may have prevented the Earth from experiencing runaway cooling and permanent icehouse conditions under the early Sun, which was fainter (by 25-30%). Additionally, examine whether atmospheric proxy data, along with surface, ocean, and atmospheric reflectivity (albedo), lead to reasonable estimates of Earth's temperature.

6. Project: Early atmospheric evolution of Venus, Earth, and Mars (S.C. Werner, T.H. Torsvik)
Explore which geophysical processes (interior processes, magnetic dynamo, tectonics, atmospheric loss) have the strongest effect on transforming the composition of an atmosphere.

7. Project: Crater record on the Moon, Mars and the projectile populations (S.C. Werner, R. Brasser)
Explore crater size frequency distributions on the Moon and Mars in comparison to the small body populations, and whether they have changed through time. Crater statistics is the only measure of planetary surface ages, and the shape of the distribution has been debated for decades.

What skills are important in this role?

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.

Required qualifications:

- Master's degree or equivalent in geosciences, (exo)planetary sciences, astrophysics or a closely related discipline
- 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

Candidates without a master's degree have until **June 30, 2026** to complete the final exam.
We seek candidates who have strength and experience in one or more of the below listed backgrounds depending on the preferred project(s):

1. Project: Ediacaran Habitability
Palaeobiology, sedimentology, geology, palaeogeography

2. Project: True Polar Wander on a Snowball Earth
Geophysics, palaeogeography, paleoclimate, dynamical modelling of Earth's interior.

3. Project: Pulsating Convection within a laterally heterogeneous planet
Geophysics, dynamical modelling of Earth's interior.

4. Project: Dating stars and planetary systems
Stellar physics and/or geophysics with a strong background in computational methods and signal processing.

5. Project: Revisiting the young faint Sun problem
Space physics, climate science, geophysics

6. Project: Early atmospheric evolution of Venus, Earth, and Mars
Geophysics, atmosphere chemistry, planetary evolution

7. Project: Crater record on the Moon, Mars and the projectile populations
Remote sensing, statistics

This is a project that requires thinking outside the box and navigate multiple sub-disciplines while collaborating with Earth and other planets' specialists.

Desired qualifications:

- Cross-disciplinarity background
- Experience in scientific writing
- Experience in giving oral presentations
- Experience with programming
- Quantitative and analytical skills

Language requirement:

- Good oral and written communication skills in English
- English requirements for applicants from outside of EU/ EEA countries and exemptions from the requirements: https://www.mn.uio.no/english/research/phd/regulations/regulations.html#toc8

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

The purpose of the fellowship is research training leading to the successful completion of a PhD degree. For more information see:
http://www.mn.uio.no/english/research/phd/

All candidates and projects will have to undergo a check versus national export, sanctions and security regulations. Candidates may be excluded based on these checks. Primary checkpoints are the Export Control regulation, the Sanctions regulation, and the national security regulation.

What are we looking for in you?

Personal skills:

- Good communication and interpersonal skills
- Ability to create and contribute to a well-functioning, inclusive and productive research environment
- Ability to work independently as well as in multidisciplinary teams
- Ability to give and receive constructive scientific criticism

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

We can offer you

- 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
- Career development programmes
- Membership in the Statens Pensjonskasse, which is one of Norway's best pension schemes with beneficial mortgages and good insurance schemes
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities
- Salary in position as PhD Research Fellow, position code 1017 in salary range NOK from 550 800 - 595 000, depending on competence and experience. From the salary, 2 percent is deducted in statutory contributions to the State Pension Fund

We need different perspectives in our work

UiO is an open and internationally oriented comprehensive university that strives to be an inclusive and diverse workplace and academic environment. You can read more about UiO's work on equality, inclusion, and diversity at uio.no.

We fulfill our mission most effectively when we draw upon our variety of experiences, backgrounds, and perspectives. We are looking for great colleagues, could you be the next one?

We will do our best to accommodate your needs. Relevant adjustments may include modifications to working hours, task adaptations, digital, technical, or physical adjustments, or other practical measures.

If you have an immigrant background, a disability, or CV gaps (Norwegian), we encourage you to indicate this in the job application portal. We always invite at least one qualified candidate from each group for an interview. In this context, disability is defined as an applicant who identifies as having a disability that requires workplace or employment-related accommodations. For more details about the requirements, please refer to the Employer portal (Norwegian).

The selections made in the job application portal are used for anonymized statistics that all state employers include in their annual reports. More information about gender equality initiatives at UiO can be found here.

We hope you will apply for the position with us.

How to apply

The application must include:

- Cover letter - statement of motivation and research interests, in the context of the preferred project(s)
- CV (summarizing education, positions and academic work - scientific publications)
- Copies of the original Bachelor and Master's degree diploma and transcripts of records
- Documentation of English proficiency if applicable
- 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)

Application with attachments must be submitted via our recruitment system Jobbnorge, click "Apply for this job". Foreign applicants should attach an official explanation of their University's grading system.

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.

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 can't, you will hear from us.

Please refer to Regulations for the Act on universities and colleges chapter 3 (Norwegian), Guidelines concerning appointment to post doctoral and research posts at UiO (Norwegian) and Regulations for the degree of Philosophiae Doctor (PhD) at the University of Oslo.

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

About the 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.

Centre for Planetary Habitability (PHAB) is a Norwegian Centre of Excellence that provides a stimulating and well-funded research environment. PHAB's main goal, based on detailed studies of Earth and our solar system, is to develop predictive models to identify habitable planets around other stars. PHAB research activities comprise three interrelated research themes: (1) Planets and Early Earth, (2) Modern

Earth and (3) Exo-Earths. The centre was established in 2023 and will consist of approximately 70 full time and part time professors and researchers, PhD Research Fellows and Postdoctoral Research Fellows.

Additional information

Contact persons:

- Stephanie C. Werner, Professor
  Phone: | E-mail: stephanie.werner@geo.uio.no
- Kaja M. H. Mathisen, HR Adviser
  Phone: | E-mail: k.m.h.mathisen@mn.uio.no

Place of service:

Sem Sælands vei 2 A, Blindern 0371 Oslo (Oslo Municipality)