



## PhD position on interpretation of the climate signal in ice cores from Antarctica- Marie Sklodowska-Curie

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### PhD position

There is a vacancy for a PhD position in climate science at the [Geophysical Institute](#) at University of Bergen, Norway. The position is for a fixed-term period of 3 years. The Early-Stage Researcher (PhD student) position is part of EU HORIZON2020 funded framework of the Marie Sklodowska-Curie Innovative Training Network (ITN) DEEPICE.

### About the project/work tasks:

The focus of the project is to improve interpretation of the water isotope climate signal on the East Antarctic plateau through continuous measurements of isotopic composition of water vapour, precipitation, surface snow and sub-surface snow.

The water isotope climate record measured in ice cores provide key information about past temperature and atmospheric circulation changes. However, in areas such as the Antarctic plateau where low accumulation causes the snow to exchange with the atmosphere, post-depositional effects are dominating the climate signal. Therefore, in order to be able to accurately use the water isotope proxy record for climate reconstruction from the Beyond EPICA ice core it is crucial to quantify these processes. This project will develop laboratory and field experiments to quantify the dominant post-depositional processes relevant for the Beyond EPICA site. The PhD-project will specifically focus on a selection of the following challenges: characterizing the transfer functions between temperature and water isotopic composition of water vapor and precipitation on the cold Antarctic plateau; quantifying the post-deposition effects on this site that modify isotopic composition of water from precipitation and water vapour to surface and subsurface snow. Finally, these transfer functions can be implemented in climate models equipped with water isotopes.

DEEPICE is a research and training network on understanding deep ice core proxies to infer past Antarctic climate dynamics. It is funded by the EU HORIZON2020 programme and consists of 10 academic partner organisations from 10 European countries plus 9 collaborating institutions from academia and industry. In total 15 early-stage researchers (PhD students) will be employed after a competitive recruitment process and work together within the European DEEPICE consortium. Each early-stage researcher will be supervised by his/her local main supervisor and a co-supervisor within the consortium. For each of the early-stage researcher positions a recruitment panel adhering to strict gender equality and equal opportunity rules will be set up consisting of the two supervisors and a third DEEPICE representative. Selection criteria will encompass the potential as researchers, creativity, level of independence, teamwork ability, knowledge, and communication experience and availability for the intended start date. Start date of the positions can be as early as July 2021 but all positions must be filled by October 2021.

### Qualifications and personal qualities:

- Applicants must hold a master's degree or equivalent education in atmospheric sciences, physics, engineering, math, geophysics, or environmental sciences, or must have submitted his/her master's thesis for assessment prior to the application deadline. It is a condition of employment that the master's degree has been awarded.
- Keen interested and solid knowledge in (paleo-) climate sciences, atmospheric sciences, isotope geochemistry, physics or related disciplines is a requirement.
- Expertise in scientific scripting and programming and data analysis (e.g., Python, Matlab, R, C++, FORTRAN) is an advantage.
- Experience from field or laboratory work is an advantage.
- Applicants must be able to work independently and in a structured manner and demonstrate good collaborative skills.
- Evidence of independent research and writing skills.
- Ability to actively communicate and co-operate within a larger research team.
- Applicants must be proficient in both written and oral English.

Personal and relational qualities will be emphasized. Ambitions and potential will also count when evaluating the candidates.

### Special requirements for the position

The candidate for this position can have any nationality but must not have resided or carried out their main activity (work, studies, etc.) in Norway for more than 12 months in the 3 years immediately before the recruitment date. The candidate must be willing to spend an extended time at secondments with other DEEPICE partner institutions and doing field work in Antarctica.

In addition, the successful candidate should satisfy at the time of the recruitment the following mandatory characteristics:

- having not more than 4 years of equivalent research experience (i.e., working as researcher after obtaining your master's degree)
- having not been awarded a title of PhD.

### About the research training:

As a PhD candidate, you must participate in an approved educational programme for a PhD degree within a period of 3 years. The deadline for applying for admission to the PhD programme at The Faculty of Mathematics and Natural Sciences is 2 months after you start your position or after the start of the research project that will lead to the PhD degree. It is a condition that you satisfy [the enrolment requirements for the PhD programme](#) at the University of Bergen.

As a PhD, you will be part of a dynamic group at the Geophysical Institute, and you will also be affiliated with the Bjerknes Centre for Climate Research (BCCR). BCCR is the largest climate research centre in the Nordic countries and among the leading centres in Europe. The working environment is highly international with around 200 scientists from 37 countries. You will also be part of the national research school on Changing Climates in the Coupled Earth System (CHESS).

### We can offer:

- a good and professionally stimulating working environment.
- salary at pay grade 54 (Code 1017/Pay range 20, alternative 10) in the state salary scale. This constitutes a gross annual salary of NOK 482 200, -. Further promotions are made according to length of service in the position.
- enrolment in the Norwegian Public Service Pension Fund
- good [welfare benefits](#)

### Your application must include:

- an account of the applicant's research interests and motivation for applying for the position.
- the names and contact information for two referees. One of these should be the main advisor for the master's thesis or equivalent thesis.
- CV
- transcripts and diplomas showing completion of the bachelor's and master's degrees. If you have not yet completed your master's degree, please submit a statement from your institution confirming that the master's thesis has been submitted.
- relevant certificates/references
- approved documentation of proficiency in English (if required, cf. [English language requirements for PhD admission](#))
- a list of any works of a scientific nature (publication list)
- any publications in your name

The application and appendices with certified translations into English or a Scandinavian language must be uploaded at Jobbnorge.

### General information:

For further details about the position, please contact Research Professor Hans Christian Steen-Larsen, University of Bergen, [Hans.Christian.Steen-Larsen@uib.no](mailto:Hans.Christian.Steen-Larsen@uib.no)

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. It is also a goal to recruit people with immigrant backgrounds. People with immigrant backgrounds and people with disabilities are encouraged to apply for the position.

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.

The successful applicant must comply with the guidelines that apply to the position at all times.

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

### Life as a PhD candidate at UiB

Marion Claireaux tells about life and work as a PhD candidate at UiB.

Video: <https://www.youtube.com/watch?v=nrt6VxMeJ4&index=2&list=PLf8ZIYfAO0qjhROTj6SthDbSScg0ISO6G>

## 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](#).

