Researcher – IcyAlert Project

UPDATE 20.03.2026: update to the participation conditions

Our references	Activity group	Recruitment class	Apply until
202601ICYALERT	I. Scientific research and experimental development	SW1	03.04.2026

This vacancy is a courtesy translation and is only open in Dutch and French.

Job description

We are looking for a highly motivated PhD student within the Dynamical Meteorology and Climatology Unit (https://climdyn.meteo.be/) of the Research Department at the Royal Meteorological Institute of Belgium (RMI) in the context of the IcyAlert project ("*Intelligent Climate Early Warning Alert for Arctic Ice-Free Summers*", https://icyalert.github.io/).

The IcyAlert project is funded by the Danish Novo Nordisk Foundation and spans from October 2025 to September 2031. The goal of IcyAlert is to improve predictions of Arctic ice-free summers and their climate impacts at multi-seasonal timescale using global climate models, causal methods and machine learning tools. The project is led by the Danish Meteorological Institute (DMI), in collaboration with RMI and the Technical University of Denmark (DTU).

The PhD student will be based at RMI during 4 years and will be co-supervised by both Dr. David Docquier (RMI) and Prof. François Massonnet (Université catholique de Louvain [UCLouvain], Belgium), with multiple collaboration opportunities with colleagues in the two research institutes, as well as with collaborators in the two Danish IcyAlert partners (DMI and DTU) and RMI external partner institutes.

Main tasks

Within the IcyAlert project, the PhD student will participate in the development of an early warning system for ice-free Arctic predictions and their climate impacts. More particularly, he / she will be involved in the following main tasks:

- Analyze existing dynamical predictions of summer Arctic sea ice coming from a variety of climate models, e.g. model simulations from the Decadal Climate Prediction Project (DCPP)

of the Coupled Model Intercomparison Project Phase 6 (CMIP6). Causal methods will be used to evaluate the strength of drivers affecting summer sea-ice predictability.

- Apply causal and explainable artificial intelligence (AI) methods to dynamical predictions performed within the project across multiple initialization strategies in order to refine probabilistic predictors of ice-free Arctic summers and identify key drivers of summer sea-ice predictability.
- Develop observation-driven probabilistic predictions of summer Arctic sea ice up to one year ahead using state-of-the-art and near-real time Copernicus Climate Change Service (C3S) products, with a focus on causal interpretation and quantitative skill assessment against baseline methods.
- Assess sectoral impacts of ice-free Arctic summers, including navigability of ice-breaking and open-water vessels in the Arctic Ocean.

To achieve these tasks, the PhD student will closely collaborate with DMI and DTU. He / she will have access to computing resources (including High Performance Computing [HPC] servers) at RMI, UCLouvain, DMI, DTU and the European Centre for Medium-Range Weather Forecasts (ECMWF).

The PhD student will publish articles as a first author in international journals and will regularly participate in international and national conferences, seminars and workshops to present his / her work. He / she will also participate in IcyAlert project meetings and will regularly visit collaborators at DMI and DTU (Denmark) in order to improve his / her knowledge in climate modeling and machine learning and extend his / her international collaboration network.

The PhD student will also be encouraged to participate in dissemination activities from time to time (e.g. blog post writing and presentations targeting the general public) in order to raise awareness of the general public to climate change in polar regions.

Employer

There is one position available in the Dynamical Meteorology and Climatology Unit (Research Department) at the Royal Meteorological Institute of Belgium (address: Avenue Circulaire 3, 1180 Uccle / Brussels).

The function activity group is: I. Scientific research and experimental development.

The **Dynamical Meteorology and Climatology Unit**, currently composed of 6 researchers, studies fundamental aspects of atmosphere and climate dynamics, in particular their variability and predictability. Different numerical weather and climate models as well as different time series analysis techniques are used. The Unit uses tools from nonlinear dynamics and information theory, including causal methods, to characterize relationships between climate variables. The Unit is active in several national and international projects, and has many international collaborations. More information about the Unit is available online: https://climdyn.meteo.be/.

The **Royal Meteorological Institute of Belgium (RMI)**, located in Uccle (Brussels), is a center of excellence in meteorology and climatology in Belgium. The RMI observational infrastructure allows measuring several meteorological parameters, including temperature, humidity, atmospheric pressure, wind speed and direction, and precipitation. Within RMI, an advanced meteorological research center is composed of scientists and experts in climatology who study meteorological phenomena, climate models and long-term trends. Their research allows improving weather forecasts and better understanding climate change impacts on the environment. RMI plays a crucial role in providing meteorological information towards the public. The Weather Office provides weather forecasts and alerts to citizens, companies and authorities, contributing to the security and well-being of the population.

Skills

Behavioral skills

Demonstrating reliability: You act with integrity, in accordance with the organization's expectations, respecting confidentiality and commitments, and avoiding any form of bias.

Achieving objectives: You are committed and demonstrate drive and ambition to generate results, and you take responsibility for the quality of your actions.

Working as part of a team: You create and enhance team spirit by sharing your opinions and ideas and contributing to the resolution of conflicts among colleagues.

Supporting others: You mentor others, serve as a role model, and support them in their daily work.

Technical skills

- Proficiency in Linux commands and at least one programming language

Strengths

- Very good knowledge of written and spoken English
- High motivation to work on polar climatology in the context of the IcyAlert project
- Strong ability to communicate results both in writing and orally with colleagues and the international community
- Scientific rigor, critical thinking, creativity and perseverance

Participation conditions

Your profile

- You have a Master in Climatology / Earth Science / Oceanography with a good level in Mathematics / Statistics, or a Master in Physics / Mathematics / Statistics / Engineering / Informatics with a strong interest in climate science

- Students who are in their final year of the 2025–2026 academic year may participate in the selection procedure, subject to obtaining the required degree. They must include with their application a certificate of enrolment for the current academic year, clearly indicating the academic years, the year of study and the specialisation. If they are selected as successful candidates, they may only take up their position after having effectively obtained the required degree, and no later than the expiry date of the validity of the list of successful candidates resulting from this selection. (see section “final result – How long does this list remain valid?”)

Diploma required by the application deadline

/! *Individuals holding a diploma or certificate of study under a foreign system who apply for a scientific position whose tasks do not fall within the permanent missions of the institution are exempt from applying for equivalence of the diploma or certificate of study.*

Do you wish to apply but your diploma is not in French or Dutch?

We invite you to contact the person listed in the "Contacts" section (selection procedure) to find out if you need to take a language test: Article 7 - Level 1/A.

If so, you can register by clicking on the link www.travaillerpour.be/fr/tests-et-certificats/linguistique/inscription.

In this case, obtaining the language certificate is a prerequisite for selection. Therefore, please register for the language test as soon as possible.

Required experience

- Proficiency in Linux commands and at least one programming language (minimum experience of 3 months)

At least one of the three criteria below:

- Previous use of causal methods (minimum experience of 3 months)
- Previous use of machine learning tools (minimum experience of 3 months)
- Previous use of climate models and HPC servers (minimum experience of 3 months)

Experience with relevant methods or techniques acquired during the preparation of the thesis or final project may be taken into account in order to meet the experience requirements.

Offer

Contract and grade

Candidate recruited in class SW1

You will be hired under a fixed-term contract (maximum 4 years) as an assistant with the corresponding salary scale SW10 if you do not have recognized scientific seniority of at least two years.

Minimum salary : 46.435,92 EUR (SW10) (gross annual salary, indexed to the current rate, excluding statutory allowances).

Advantages

We offer you an exciting job that has an impact on society, with many benefits:

- A good work-life balance
    - Flexible working hours within the 38-hour work week
    - Possibility of taking time off in lieu of overtime
    - Possibility of teleworking
    - 26 days of vacation and a closure between Christmas and New Year's Day
    - Access via public transport
- Numerous opportunities for self-development
    - Many training and learning opportunities (to be taken during working hours)
- Financial benefits
    - Possibility of receiving a bilingual (FR/NL) allowance
    - Advantageous hospital insurance
    - Supplementary pension (2nd pillar)
    - Free public transport for commuting between home and work
    - Meal vouchers
    - Teleworking allowance
    - Possibility of receiving a bonus for cycling to work
    - Attractive benefits and offers through the Benefits@Work card
    - Various social benefits

Assignment conditions

If you are selected, you must meet the following conditions on the date of assignment in order to be hired:

- Enjoy full civil and political rights
- Have complied with militia laws
- Be of a conduct befitting the position
- Hold the required diploma(s)
- Possess the specific skills and qualifications outlined in the job description

Procedure

Step 1 – Verification of participation conditions

You will be admitted to the selection process provided you meet all the required participation criteria. The selection committee will verify your eligibility based on the application you submit. The committee will decide whether your qualifications, merits and experience match the requirements of the position. If so, you will be invited to the next stage.

Depending on the number of applications received, the selection committee reserves the right to limit the number of candidates proceeding to the next stage by determining those it considers to be the most suitable for the position to be filled.

Step 2 – Interview

The interview will be held between 18 May 2026 and 30 June 2026 at RMI (Avenue Circulaire 3, 1180 Uccle) or online, depending on the candidates' location. You will receive an email from one of our staff members with further details.

The selection committee assesses whether your qualifications, merits and experience correspond to the requirements of the position.

In case of absence

If you do not attend the interview, you will be automatically excluded from the rest of the selection process unless you can demonstrate, within three days, that your absence was justified by one of the following reasons:

- Illness
- Emergency concerning a member of your household (= any person who lives with you) or family (= the candidate's spouse or partner, or the candidate's first or second-degree relatives)
- Essential presence for work
- Disruption or delay of public transport of at least 30 minutes
- Force majeure.

If necessary, you may request, within ten days of the aforementioned interview date, to be heard by the commission. A new date will then be proposed to you.

Notification

If you do not pass a particular stage, the process ends and you will not be invited to any subsequent stages of the same selection process.

You will receive a notification with the result at each stage.

Equal opportunities and reasonable accommodations

The Federal Administration is actively committed to diversity.

Are you a person with a disability, a learning disability, or an illness? You can request adjustments to the selection process. Please contact the person listed under "Contacts" ("selection procedure").

Facilities offered to pregnant or breastfeeding people

Are you pregnant or breastfeeding? If so, you can also request accommodations. We invite you to contact the person listed in the "Contacts" (“selection procedure”).

Final result

Are you selected?

At the end of the selection process, a group of successful candidates, not ranked among themselves, is formed. It is composed of those who have been judged the most suitable to perform the job in accordance with the participation conditions.

How long will this list remain valid?

A list of successful candidates is drawn up that remains valid for 6 months.

Apply

Do you want to apply? Please send your application by email to **humanres@meteo.be** with the job offer reference as a subject.

Your application should contain:

- The document “**CV - Fonctions scientifiques (FR) / Wetenschappelijke functies (NL)**”, which you can find on this page: https://nocdn.meteo.be/fr/a-propos-irm/travailler-a-l-irm
- A **motivation** letter
- A copy of the required **diploma** with all **appendices**. If the diploma is not written in French, Dutch, German or English, a translation in one of these languages needs to be added
- For students in their final year of the 2025–2026 academic year: a **certificate of enrolment** for the current academic year, clearly indicating the academic years, the year of study and the specialisation.
- Any other document proving your **experience**:
    - An informal CV of maximum 2 pages
    - Attestations of participation in scientific activities (attestations provided by employers, authorities providing funding, …)
    - A list of scientific publications if any

You can send your application until 3/04/2026 included.

Applications that do not respect this procedure will not be taken into account.

Contacts

About the job position:

For further information on the job position, please do not hesitate to contact:

DOCQUIER David - Researcher at RMI - david.docquier@meteo.be

About the selection procedure:
For further information about the selection, please do not hesitate to contact:
The RMI HR department, mentioning the job offer reference, by email (humanres@meteo.be) or by telephone (+32 2 373 05 08).

If you wish to request reasonable adjustments to the selection procedure or to obtain accommodations related to your pregnancy or breastfeeding, you can also contact the RMI HR department.