

# Functietitel: Researcher FED-tWIN project ARCHWAY: Climate Modeling

- Apply until 24/02/2022 23:59 (Brussels time)
- Discipline: Climate Modeling
- 50% Assistant professor tenure track
- Reference number: 202112/WE/ZAP/009

The Royal Meteorological Institute (RMI) and Ghent University  
are recruiting

1 full-time lecturer/researcher for the FED-tWIN project

Advancing Regional Climate modeling to High resolutions with Worldwide Applications (ARCHWAY) (Prf-2021-024)

## CONTEXT

Climate change affects the spatial and temporal patterns of precipitation worldwide. For instance, through an intensification of the water cycle in the tropics and a drying of the subtropics, both of which have been observed and are expected to continue. However, depending on the local environment, these changes can vary, due to interactions between atmosphere and land. The most important tools for understanding such interactions are regional climate models for which the RMI has already built a strong expertise. Although most climate simulations have been carried out in Belgium and Europe, the RMI has recently extended its modelling efforts to regions outside Europe.

Understanding the water cycle using regional climate modeling with a focus on land-atmosphere interactions in tropical regions is particularly challenging. In addition, the efforts will be integrated into international projects such as Coordinated Regional Downscaling Experiment (CORDEX) and Global Energy and Water cycle Exchanges (GEWEX), both core projects of the World Climate Research Programme (WRCP). This will be done by generating ALARO climate forecasts for several CORDEX regions outside Europe that comply with the new IPCC guidelines, and by answering pressing research questions from GEWEX. The integration into these international projects is very important in the current context, as the assessment of model uncertainty has become an important topic in climate studies. In the discipline of regional climate modelling, this problem is addressed using ensembles of climate simulations.

The first two years will focus on setting up the instruments needed for this regional downscaling with an emphasis on transferability, and on providing a case study. This will focus on understanding precipitation climate and surface hydrology in the Ethiopian Highlands. Ethiopia's highly complex climate is a good example of a region where the added value of regional models relative to the global climate models has been demonstrated. The RMI and Ghent University have a close existing collaboration in this scientific domain.

The position of full-time researcher for the FED-tWIN project ARCHWAY (Prf-2021-024) is part of the FED-tWIN programme of the federal science policy, and is intended to combine and mutually strengthen the expertise of the RMI and Ghent University by funding a long-term research project in the field of high-resolution climate models. The ARCHWAY project is a joint initiative of the Royal Meteorological Institute (RMI) and Ghent University. Prof. Jan Nyssen and Dr. Bert Van Schaeybroeck are the promoters.

The position to be held consists of a half-time position at the RMI and a half-time position at Ghent University. The candidate must be prepared to hold both half-time positions and must also apply for both positions. It is **not possible** to apply for one of the two half-time positions only.

## ABOUT GHENT UNIVERSITY

Ghent University is one of the most important educational and research institutions in the Low Countries. More than 9,000 employees and 41,000 students make the motto "Dare to Think" come true every day. High-quality education, internationally valued research and a pluralistic social responsibility characterize the mission of Ghent University.

## ABOUT THE RMI

The **Royal Meteorological Institute** (RMI) is a household name in Belgium. Everyone knows the RMI from the weather forecasts, but the institute does much more. The RMI is the **national data, research and knowledge centre for weather and climate**. As a federal knowledge institute in the field of weather and climate, the RMI focuses entirely on its public **tasks**. These include the preparation of general weather forecasts and warnings for hazardous weather conditions, the monitoring of the climate, the collection, control and archiving of meteorological and geophysical data, the management of the required infrastructure, model development and scientific research.

The RMI is active twenty-four hours a day and combines **infrastructure, technology, science and services**. The RMI's products and services meet high quality standards.

The RMI attaches great importance to competences and recruits without any form of discrimination.

## PLACE OF EMPLOYMENT

- Het Koninklijk Meteorologisch Instituut, Wetenschappelijke Dienst Meteorologisch en Klimatologisch Onderzoek, Ringlaan 3, B-1180 Brussel.
- Universiteit Gent, vakgroep Geografie: Krijgslaan 281, gebouw S8, B-9000 Gent.

## ASSIGNMENT

### Academic education

You contribute to the department's teaching activities. You will teach courses in the Geography and Geomatics programme, more specifically in the Major in Physical Geography. You supervise master's theses and PhD studies.

### Scientific research

You will be part of the Physical Geography research unit of the Department of Geography of Ghent University and the Scientific Service Meteorological and Climatological Research of the RMI.

Your research will strengthen the research domains of these units. In line with recent epistemological confirmations that climate is an essential part of geography, you will be in charge of the development of a "climate pole" within the Physical Geography research group, focusing on research, development and education.

You are further assumed to:

- publish in leading and high-ranking journals in climatology and hydrology;
- attract research funding;
- contribute to the research reputation of the research units.

More information about the research unit Physical Geography can be found on the website: <http://www.geografie.ugent.be/research-units/fg>

More information about the Scientific Service Meteorological and Climatological Research can be found on the website: <https://www.meteo.be/en/about-rmi/structure/meteorological-and-climatological-research-scientific-service>  
<https://www.meteo.be/en/about-rmi/structure/meteorological-and-climatological-research-scientific-service>

### Scientific service provision

You are expected to contribute to the internal and external service provision and to the valorisation and communication of research results of both institutions.

## PROFILE

### Knowledge/experience

- The successful candidate should hold a PhD in Physics, Mathematics, Geography or Civil Engineering or is the holder of a diploma or certificate that is recognized as equivalent;
- Your PhD is closely linked to the content of the regional climate modelling domain;
- You have already carried out high-quality scientific research in the field of numerical modelling of weather and climate with publications in high-level international journals;
- You have a good general knowledge of meteorology, this includes a thorough knowledge of interactions between land and atmosphere, as well as of climate change;
- You have expertise in regional climate modelling and have experience in running numerical models for weather or climate applications;
- You have at least two years of post-doctoral experience on the 1st of September 2022. The term of 2 years is determined on the basis of the date stated on the diploma requested above.
- You have already proven that you can attract external funding for research projects;
- You have experience with outreach of research results;
- You have experience in teaching at university level and in supervising students.
- You have experience with High-Performance Computing (HPC) on Linux

### Intended as a recommendation

- You have insight into surface hydrology;
- You can demonstrate managerial experience.

## ADMISSION

- You are the holder of a doctorate degree or of a diploma or certificate that is recognized as equivalent (Article V.20 [Codex Hoger Onderwijs](#)).

*When assessing a foreign (non-EU) diploma, an attestation of equivalence may still have to be requested from [NARIC](#); we advise you – if applicable – to start the recognition procedure at NARIC as soon as possible. You must have this recognition no later than the date of appointment.*

- The PhD was obtained a maximum of 12 years prior to the proposed deadline for submission of the candidate files. This 12-year period is extended by one year for each absence due to pregnancy, parental or adoption leave, as well as any long-term absence due to illness of the candidate and/or long-term absence due to illness of a first-degree family member.
- You master the Dutch language at level B2, or you are prepared to achieve this level within 5 years after your appointment [article II.270 §2 Codex Higher Education <https://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14650#578>]

## APPOINTMENT INFORMATION

A half-time employment contract of indefinite duration (19 hours per week) with the RMI as SW2, in combination with a half-time appointment at Ghent University as a assistant professor (50%) tenure track for a term of five years. In the event of a favourable assessment by the university board, the part-time (50%) position of assistant professor will be converted into a permanent appointment in the degree of associate professor.

If you already hold a position as a senior academic staff member or an equivalent position in another university or research institution, you may immediately be appointed to the degree of lecturer, without prejudice to the possibility offered for a temporary appointment in Article V.28 of the Higher Education Codex.

Employment is possible at the earliest from 1 September 2022.

## OUR OFFER

### Advantages Ghent University

The Professorial Staff (ZAP) career policy is based on talent development and growth, in which vision development and strategy – both personally and at group level – are central. Ghent University focuses on career guidance and coaching of the senior academic staff member in the various phases of the career.

[More info about the Professorial Staff \(ZAP\) career](#)

The FED-tWIN researcher is entitled to a number of advantages such as a bicycle allowance, reimbursement of the public transport commuter season ticket, childcare, a wide range of sports, eco-vouchers... See the complete overview of our [staff benefits](#).

The FED-tWIN researcher is entitled to a "[BOF Starting Grant](#)" at Ghent University, and has access to internal and external additional research funding (to be acquired).

## GENDER AND DIVERSITY

Ghent University has an equal opportunities policy and encourages everyone to apply. Ghent University also strives for a gender balance in which a maximum of 60% of the PhD-holding members of the academic staff are of the same sex. Applications from women are therefore particularly welcome. As long as this target is not met at the level of a scientific group concerned, the university board shall, in principle, give priority to candidates of the under-represented sex for positions within that scientific group in the event of equal qualifications. This priority is not automatic and unconditional, since the assessment must always take into account the personal situation of each candidate.

## SELECTION

After the registration deadline, the applications will be examined separately by the RMI and Ghent University for admissibility. The admissible applications are assessed separately by the committees of both institutions, after which each committee draws up a list with a maximum of 5 preselected candidates. After merging the two lists, the preselected candidates are invited for an interview with the members of the selection committee of the RMI and Ghent University.

After this, the selection committee draws up a ranking of the suitable candidates and the existing procedure for Fed-tWIN projects is followed within each institution to recruit or appoint the nominated candidate.

Candidates are asked to further explain their five academic achievements with the most impact. In addition to scientific publications, the candidate can also present merits such as knowledge transfer through science vulgarization, social valorization, public awareness, seminars or presentations at conferences. These competencies are taken into account in the assessment of the candidates.

The assessment of the requested international mobility is broad; in addition to long stays abroad, other forms of internationalization are also taken into account.

Maternity leave, long-term sick leave, parental leave, career leave or other absences are taken into account when assessing the time available to realise scientific output.

## APPLICATION

Solicitation is through email to [dir@meteo.be](mailto:dir@meteo.be), until 24/02/2021, 23:59 CET.

We do not accept late applications.

Please add the following documents to your application:

- The completed standard UGent application form for senior academic staff (available via <https://www.ugent.be/nl/vacatures/zap/sollicitatieformulieren-zap/sollzapambt.docx> + all listed attachments, merged as one-PDF file
- Motivation letter
- Diploma: the copies of the PhD diploma. If you have a foreign diploma in a language other than our national languages (Dutch, French or German) or English, you must attach a corresponding translation into one of the above languages.
- Certificate of equivalence: only if you obtained your diploma outside the European Union: an attestation of equivalence from NARIC (if already in your possession)

## ADDITIONAL INFORMATION

For additional information about the project and the position, please contact the promoters: prof. Jan Nyssen ([jan.nyssen@ugent.be](mailto:jan.nyssen@ugent.be)) or dr. Bert Van Schaeybroeck ([bertvs@meteo.be](mailto:bertvs@meteo.be)).

For additional information about the selection procedure, please contact [dir@meteo.be](mailto:dir@meteo.be).

Do you have a question regarding the online application process? Please read our [FAQ](#).