Scientific assistant for the remote sensing team for the E-CONTRAIL project

Introduction

The Royal Meteorological Institute of Belgium (RMI) is looking to hire a scientific assistant for the remote sensing from space team to participate in the project E-CONTRAIL funded by Horizon Europe. Information on the team can be found at https://remotesensing.meteo.be/ and about the project at https://www.econtrail.com/.

The overall purpose of the E-CONTRAIL project is to develop artificial neural networks (leveraging remote sensing detection methods) for the prediction of the climate impact derived from contrails and aviation-induced cloudiness, contributing, thus, to a better understanding of the non-CO2 impact of aviation on global warming and reducing their associated uncertainties as essential steps towards green aviation.

Within E-CONTRAIL, the team at RMI is in charge of the remote-sensing of contrails using geostationary imagers and of the atmospheric modeling of contrails by radiative transfer simulations. The other parts of the project are carried out at the University Carlos III of Madrid (project coordinator), the KTH Royal Institute of Technology in Stockholm, and the Royal Belgian Institute for Space Aeronomy.

For inquiries about the position, contact Pierre de Buyl (pierre.debuyl AT meteo.be) and Nicolas Clerbaux (nicolas.clerbaux AT meteo.be).

Job description

You will:

- Use existing cloud properties retrieval algorithms
- Generate corresponding datasets over several years of observation data
- Perform and analyze radiative transfer simulations
- Collaborate with the partners of E-CONTRAIL about the techniques and the datasets in the different work packages.
- Communicate about your work in (international) team meetings, conferences, and publications
- Validate the radiative forcing dataset across different instruments (Meteosat Third Generation, EarthCARE, GERB)

Your profile

Required competences:

- A degree in science or engineering with an interest in remote-sensing or atmospheric physics/chemistry
- If you obtained your master's degree outside the Benelux, you must also have a equivalence recognition from a foreign diploma or certificate in Flanders (NARIC) or Wallonia (CFWB) for the master's degree
- Knowledge of scientific programming. C and Python are preferred. The knowledge of another tool and the willingness to learn Python are also accepted
- Good working knowledge of English

In addition, the following elements will be considered when evaluating the applications

- You carried out an internship, or M.Sc. thesis in remote-sensing or atmospheric physics/chemistry
- You are able to write reports and documentation
- Knowledge of Linux for scientific computing

We offer

- A full-time contract at the level SW1 of the Federal Belgian Scientific career for 20 months at the Royal Meteorological Institute of Belgium in Uccle
- Reimbursement of home-work commute by public transport
- Possibility of partial teleworking

Gender equality & gender mainstreaming

In February 2022, RMI adopted a Gender Equality Plan (GEP). This is an action plan to promote gender equality and gender mainstreaming within the RMI, https://www.meteo.be/en/about-rmi/gender-equality-gender-mainstreaming. Through this GEP, RMI commits itself in a formal and/or substantial way to contribute to the realization of gender equality. RMI is proud to be able to build a professional and scientific environment that is increasingly inclusive and responsive to today's societal challenges.

Procedure

- Send a CV and a cover letter (both in PDF) to Pierre de Buyl (pierre.debuyl AT meteo.be)
- Applications are welcome until 27 august 2023 and will be evaluated at that moment. We will proceed to interviews in the beginning of September. If the position has not been filled at that time, late applications will be considered.