VN 23/33 Research Fellowship at KNMI

EUMETSAT is now inviting applications from suitably qualified data scientists from its Member States for a Research Fellowship at KNMI on improved earth modelling of atmospheric and ocean coupling, exploiting the international virtual constellation of ocean surface vector winds from satellites.

The Royal Netherlands Meteorological Institute (KNMI) offers an inspiring working environment in an international setting. KNMI provides currently state-of-the-art wind services for all wind scatterometers as part of the EUMETSAT Ocean and Sea Ice Satellite Application Facility and the EU Copernicus marine service.

The Research Fellow will join the Active-Sensing Satellite research group at KNMI (De Bilt, The Netherlands). She or he will work alongside KNMI scientists, taking active part in research and development activities to improve the exploitation of satellite wind information. The fellows' work will focus on aspects of ocean forcing and data assimilation at the interface between the atmosphere and the ocean, providing improvements to both weather and ocean forecasting. Moreover, improved descriptions of the intimate coupling of the ocean and the atmosphere, over more than 70% of the earth surface, will benefit climate change studies. The leading experience at KNMI on satellite wind retrieval from an international virtual scatterometer constellation will in particular be exploited by the fellow to investigate its enhanced use for weather and climate. A close collaboration is foreseen with international scientists in the field, in particular from ICM in Barcelona, Spain, and with ECMWF. The main challenge will be to empirically characterize wind biases and errors of ocean forcing in coupled models, developing a profound knowledge of the resolved dynamics and physical parameterizations affecting the atmosphere-ocean interface. Machine Learning (ML) is exploited to better describe and understand the complex interplay between atmosphere and ocean.

LOCATION

De Bilt,

The Netherlands

QUALIFICATIONS

University degree in Physics, Maths, Meteorology, Engineering, or equivalent, and relevant research experience, including PhD or at the level thereof.

LANGUAGES

Candidates must be able to work proficiently in English, both verbally and written.

DEADLINE

1 October 2023

Duties

The proposed fellowship activities as data scientist will therefore be dedicated to

- Scatterometer wind data assimilation;
- Coupled ocean forcing

scientific research in the following areas:

experiments;
- Process-based coupled model error attribution with ML.

Skills and Experience

- The Fellow should have a university degree in Physics, Maths, Meteorology, Engineering, or equivalent, and relevant research experience, including PhD or at the level thereof. Experience in satellite data analysis and/or data assimilation is desirable, particularly when related to ocean surface winds.
- Good computing skills are essential, with the job requiring the ability to (a) understand and develop existing processing systems, which are mainly written in Fortran-90 and Unix scripts, and (b) make statistical analyses and scientific graphs using tools like Python or equivalent. Experience with ML will be much appreciated.
- Good interpersonal and team working skills are also required, along with strengths in scientific analysis, synthesis and presentation.
- Candidates must be able to work proficiently in English, both verbally and written.

Employment Conditions

The fellowship is offered for one year, with possibility of extension for up to two additional years.

The successful post-Doc candidate will be recruited at the Dutch Civil Servant sale 11, based on the number of years of experience.

EUMETSAT is committed to providing an equal opportunities work environment for men and women.
Please note that only nationals of EUMETSAT Member States may apply. The EUMETSAT Convention requires that Staff shall be recruited on the basis of their qualifications, account being taken of the international character of EUMETSAT.

About EUMETSAT

EUMETSAT is Europe’s meteorological satellite agency. Its role is to establish and operate meteorological satellites to monitor the weather and climate from space - 24 hours a day, 365 days a year. This information is supplied to the National Meteorological Services of the organisation's Member States in Europe, as well as other users worldwide.

EUMETSAT also operates several Copernicus missions on behalf of the European Union and provide data services to the Copernicus marine and atmospheric services and their users.

As an intergovernmental European Organisation, EUMETSAT has 30 Member States (Austria,

Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.)

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