VN 23/25 Research Fellowship at ECMWF

The Research Fellow will join the Earth System Assimilation Section in the Research Department at the European Centre for Medium-range Weather Forecasts (ECMWF). They will work alongside ECMWF scientists taking active part in research and development activities to improve the interpretation of satellite information and its assimilation into the ECMWF weather forecast system. The main focus will be the assimilation of infrared radiance observations from EUMETSAT's MTG program (as well as other GEO satellites). These radiances are an important contributor to today's weather forecast skill, and the optimised and extended use of these observations is a continuous challenge for Numerical Weather Prediction centres. Developments will also target a successful early exploitation of data from the newly deployed FCI instrument on MTG-I.

ECMWF is both a research institute and a 24/7 operational service, producing numerical weather predictions for its Member and Co-operating States as well as users around the world. ECMWF carries out scientific and technical research and analysis aiming to continuously improve global prediction. ECMWF processes in its high-performance computing facility large amounts of observations to provide up-to-date global analyses and climate reanalyses of the atmosphere, ocean and land surface. For details, see www.ecmwf.int/

ECMWF has recently become a multi-site organisation, with its headquarters based since its creation in Reading, UK, its new data centre opening in 2021 in Bologna, Italy, and new offices in Bonn, Germany, which opened in 2021.

Duties

The fellowship activities will involve the following topics:

- General enhancement of the assimilation of infrared radiances in the ECMWF system, including the refined treatment of uncertainties, data sampling, and
- Evaluation of radiance products from new satellites, including preparations for the use of MTG-FCI, MTG-IRS, etc.
- Real-time monitoring and assessment of the quality of radiance products from infrared sounders

LOCATION
Reading, UK

QUALIFICATIONS
University degree covering Physics, Maths and Meteorology or equivalent and relevant research experience, ideally including PhD or equivalent study.

LANGUAGES
Candidates must be able to work effectively in English and a good knowledge of one of the ECMWF's other working languages (French or German) is desirable.

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observation operator developments;
- Research regarding the extended use of infrared radiances in challenging conditions, such as extensions to the all-sky use of radiances (i.e. in clear and cloudy conditions);

on different geostationary satellites (MSG, MTG, GOES, HIMAWARI, etc) in the operational ECMWF assimilation system;
- Updates of the assimilation of radiance observations in line with operational system changes and support of radiance data usage in re-analysis activities.

Skills and Experience

- The Fellow should have a good university degree covering Physics, Maths and Meteorology or equivalent and relevant research experience, ideally including PhD or equivalent study. Further experience in satellite data analysis, data assimilation and/or radiative transfer is particularly desirable.
- Strong computing skills are essential, as the job will involve (a) understanding and modifying the forecasting system, which is mainly written in Fortran-90 and Unix scripts, and (b) making statistical analyses and scientific figures using tools like Python, IDL or Metview.
- Good interpersonal and team working skills are required, along with strengths in scientific analysis, synthesis and presentation.
- Candidates must be able to work effectively in English and a good knowledge of one of the ECMWF's other working languages (French or German) is desirable but not essential.

Employment Conditions

The Fellowship is for a maximum period of three years. The initial contract offered is for one-year, with the possibility of an extension for two more years.

The successful candidate will be recruited at the A2 grade, according to the scales of the Co-ordinated Organisations. The annual basic salary if based in the UK will be **GBP 68,374.56 net of tax**. This position is assigned to the employment category **STF-PS** as defined in the Staff Regulations of ECMWF, with the exception of the removal expenditure which will be reimbursed within the agreed ceiling laid down by EUMETSAT.

Full details of salary scales and allowances are available on the ECMWF website at www.ecmwf.int/en/about/jobs, including the ECMWF's Staff Regulations regarding the terms and conditions of employment.

The role is expected to be based at the ECMWF Headquarters in the Reading area, in Berkshire, United Kingdom. The start date will be 1 October 2023, or as soon as possible thereafter.

The successful applicant and members of their family forming part of their household will be

exempt from immigration restrictions.

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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