EUMETSAT

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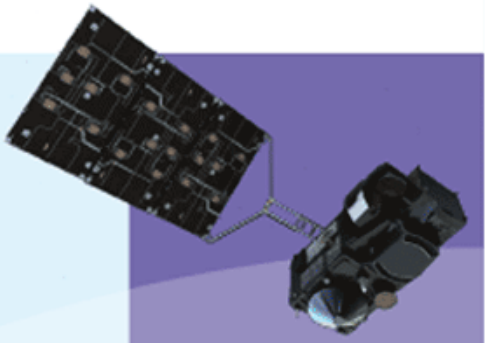

VN 20/05 REISSUE RESEARCH FELLOWSHIP ON MICROWAVE RADIANCE ASSIMILATION AT ECMWF

The Research Fellow will join the Earth System Assimilation Section in the Research Department at ECMWF (Reading, UK) where they will be part of the microwave team. The team pioneered the all-sky assimilation of satellite radiances and continues to push scientific boundaries in the use of satellite observations. The work of the Fellow will be centred around the assimilation of microwave radiances in clear, cloudy and precipitating areas (all-sky assimilation). These radiances are increasingly being exploited for their direct information on water vapour, clouds and precipitation, and indirect information on wind, all of which are used to improve ECMWF's analyses and global forecasts through 4D-variational assimilation. The radiances are further sensitive to the surface, so as ECMWF develops its Earth-System approach, exploitation of the information on aspects such as snow and sea-ice will become ever more important.

ECMWF is an inter-governmental organisation supported by 34 Member and Co-operating States. It is both a research institute and a 24/7 operational service, producing and disseminating numerical weather predictions to its Member States. ECMWF carries out scientific and technical research directed to the improvement of its forecasts, collects and processes large amounts of observations, and manages a long-term archive of meteorological data. Satellite and in situ observations provide the information for up-to-date global analyses and climate reanalyses of the atmosphere, ocean and land surface. For details, see www.ecmwf.int.

At ECMWF, we consider an inclusive environment as key for our success. We are dedicated to ensuring a workplace that embraces diversity and provides equal opportunities for all, without distinction as to race, gender, age, marital status, social status, disability, sexual orientation, religion, personality, ethnicity and culture. We value the benefits derived from a diverse workforce and are committed to having staff that reflect the diversity of the countries that are part of our community, in an environment that nurtures equality and inclusion.

LOCATION

European Centre for Medium-Range Weather Forecasts

Shinfield Park

Reading, Berkshire
RG2 9AX, UK

QUALIFICATIONS

University degree in Physics, Maths or Meteorology or equivalent

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) would be desirable.

DEADLINE

16 June 2020

DUTIES

Responsibility for current and future microwave imagers in the ECMWF system: The Fellow will carry out real-time monitoring and assessment of the quality of the observations and will update the operational forecasting system accordingly.
Of particular importance will be preparation for the use of data from the Microwave Imager (MWI), a new instrument expected to be launched in 2023 on EUMETSAT's second-generation polar satellite system (EPS-SG).

Research and development targeted at an advanced exploitation of MW imagers in the ECMWF system:
This will be confronting some key challenges in the field of satellite data assimilation, including:
exploiting information on land surfaces, snow and sea-ice;
improving data assimilation methodologies, such as dealing with correlated observation error;
improving radiative transfer modelling in cloud and precipitation;
using the observations to improve the macro- and micro-physical description of cloud processes in the forecast model.

SKILLS AND EXPERIENCE

The Fellow should have a good university degree in Physics, Maths and Meteorology or equivalent and relevant post-graduate research experience, ideally including a PhD or equivalent study.

Further experience in satellite data analysis, radiative transfer and/or data assimilation is highly desirable.

Good interpersonal and team working skills are required, along with strengths in scientific analysis, synthesis and presentation.

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.

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) would be desirable.

EMPLOYMENT CONDITIONS

The Fellowship is offered initially for one-year, with the possibility of additional two-year extensions, up to a maximum of five years. The start date is expected to be August 2020, or soon thereafter. Owing to COVID-19, it may be possible to delay the start of the Fellowship or the relocation of the successful candidate until after lockdown restrictions are eased.

The successful candidate will be recruited at the A2 grade, according to the scales of the Co-ordinated Organisations and the annual basic salary will be £60,590.64 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 is 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 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 and Cooperating 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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