UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Atmospheric Remote Sensing Scientist

National Centre for Atmospheric Science, Faculty of Environment

Salary: Grade 8 (£51,753- £59,966)

Reporting to: Ryan Neely, Associate Professor in Observational Atmospheric Science

Reference: ENVNC1038

Contract: 100% FTE, Ongoing

Location: Based at the National Centre for Atmospheric Science, University of Leeds

Overview of the Role

We are looking for an Atmospheric Remote Sensing Scientist at the University of Leeds to provide research leadership for AMOF's emerging Cloud and Boundary Layer Observatory and to ensure that new NCAS dual-frequency cloud-radar capability is translated into a nationally leading, scientifically ambitious observing system. The role will combine observatory design, radar-science development, community-facing capability building, data-product development and delivery of a clear programme of original research, positioning Leeds at the centre of next-generation UK cloud and boundary-layer observation.

The principal purpose of the role will be to establish and grow an internationally visible research programme that leverages the Observatory capability to deliver high-quality publications, attract external research funding, develop new collaborations and partnerships, and strengthen the wider NCAS and Leeds research portfolio in atmospheric remote sensing.

If you want to be part of a centre of excellence for radar and remote sensing then we want to hear from you!

About NCAS

The National Centre for Atmospheric Science (NCAS) is a world-leading research organisation funded by the Natural Environment Research Council (NERC). With over 270 staff embedded across 12 UK universities and research institutes, NCAS delivers cutting-edge science in air pollution, climate change, and weather extremes, while providing national capability in atmospheric measurement, modelling, and data services. Originally created by the Natural Environment Research Council to provide scientific research and related services in atmospheric science, NCAS has grown to provide substantial support and advice across government, public policy, industry and charity sectors.

To learn more about our organisation please visit https://ncas.ac.uk

About AMOF

The Atmospheric Measurement and Observation Facility (AMOF) is a UK research facility that enables advanced measurements of the atmosphere.

AMOF is part of the National Centre for Atmospheric Science and funded by the Natural Environment Research Council.

AMOF manages a comprehensive suite of mobile instrumentation, observatories and laboratories; and provides a joined-up service for the atmospheric science community.

AMOF experts provide continuing support to research and industry professionals, from planning and making world-class measurements to ensuring quality assessments and archival of open-access data products.

AMOF works collaboratively with the international atmospheric science community to achieve bespoke measurement solutions and are committed to remaining at the forefront of a fast-changing research and technology landscape.

Leeds is the base site of NCAS's new dual-frequency (Ka/W-band) scanning Doppler cloud radar - the core instrument around which the Cloud & Boundary Layer Observatory is to be developed. Leeds is also the NCAS centre of excellence for radar and remote sensing. This post is the key component required to ensure a user service and capability is delivered to the community by NCAS-AMOF. The NCAS team in Leeds, will provide logistical and operational support.

Background:

The new NCAS Cloud & Boundary Layer Observatory will be a fully deployable, containerised, multi-sensor atmospheric observatory built around NCAS's new dual-frequency (Ka/W-band) scanning Doppler cloud radar. This capability is among the very small number of such systems currently operating in the cloud remote-sensing community and is unique in being designed for full mobility. The observatory will also integrate NCAS's scanning Doppler lidar, ceilometer, and scanning microwave radiometer to provide the complementary measurements needed for a holistic characterisation of clouds and boundary-layer processes. For Leeds and AMOF, this is a strategic step-change: rather than deploying individual instruments separately, it brings key observing capabilities together within a single coordinated platform that is more efficient, more robust, and more sustainable to operate.

Main duties and responsibilities

To realise the full value of this investment and transform a collection of advanced instruments into a nationally distinctive research capability, delivering high-impact science.

To provide scientific leadership for the development of the Observatory, shape its future direction, build external partnerships, drive innovation in observing strategies and data products, and ensure that the capability is translated into internationally competitive science, wider community benefit, and future research income.

The postholder will provide leadership for the scientific and technical development of the Observatory capability, ensuring that its integrated hardware, software, and data-product ecosystem remains world-leading and at the forefront of atmospheric observing-system innovation.

The role will also drive the development of synergistic observations, services, and products, while contributing to postgraduate supervision and the broader academic and research environment.

Qualifications and skills

Essential

- PhD in Atmospheric Science or a related field with a focus on novel multi sensor remote sensing of the boundary layer, clouds, and precipitation;
- An internationally recognized record of peer-reviewed publications that demonstrates your ability to lead and contribute to world-leading science;
- A track record of contributing to and leading funding bids to support your research;
- Ability to lead the development of innovative, high-value observational products that exploit dual-frequency radar capability and integrate synergistically with complementary microwave radiometer, lidar, and related measurements;
- Ability to define and deliver the scientific strategy for the Cloud and Boundary Layer Observatory, establishing a clear vision for its development and scientific priorities;
- Ability to maintain and develop new strategic and financial partnerships across UK and international research organisations, observational networks, and user communities;
- The ability to maintain a strong overview of developments in cloud and boundary-layer remote sensing and ensure that advances in the field are translated into the capability, methods, and scientific offerings provided through AMOF;

- Ability to develop, maintain, and promote FAIR NCAS data standards for radar and lidar observations, with appropriate attention to interoperability with operational and research observing networks;
- The ability to identify, shape, and respond proactively to scientific innovation and technology-development opportunities.

Desirable

- Experience in leading and supporting staff and students, including in postgraduate research development;
- Experience in the application of AI/ML to cloud, boundary layer and precipitation observations;
- Experience in lecturing to undergraduate and or postgraduate students.

Additional information

Our University

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Environment, we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.

We are keen to improve the diversity of our workforce and especially want to hear from candidates including women and those from minoritised communities. Please let us know if you have any accessibility requirements that we can provide support with to enable you to fully participate in the recruitment process.

The Faculty of Environment has received a prestigious Athena SWAN silver award from Advance HE, the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Find out more about the National Centre for Atmospheric Science and its relationship with the School of Earth and Environment

Find out more about the School of Earth and Environment

Find out more about the Faculty of Environment

Find out more about our Research and associated facilities.

Find out more about Equality in the Faculty.

Working at Leeds

We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our Working at Leeds information page.

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at foehr@leeds.ac.uk.

Criminal Record Information

Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.

Visa Eligibility

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route, but first-time applicants might need to qualify for salary concessions. For more information please visit: www.gov.uk/skilled-worker-visa