



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

2 x Lecturer or Associate Professor in Machine Learning for Atmospheric and Climate Sciences, School of Earth and Environment



Salary: Grade 8 (£45,585 – £54,395 p.a.) or Grade 9 (£56,021 – £64,914 p.a.) 2 Posts

Reference: ENVEE1709

We are open to discussing flexible working arrangements

Lecturer or Associate Professor in Machine Learning for Atmospheric and Climate Sciences

School of Earth and Environment, Faculty of Environment

Are you an experienced and ambitious academic looking for your next challenge? Do you have experience in applying data science methods within atmospheric and climate science research? Do you have an excellent research record and proven success obtaining funding? Do you have experience of delivering an exceptional student experience in a research-intensive Russell Group University?

The School of Earth and Environment (SEE) is seeking to appoint 2 enthusiastic and self-motivated data scientists to complement existing expertise in the School. Your role will be to strengthen and expand the use of machine learning and artificial intelligence within research and teaching activities in SEE. We are looking for individuals who are keen to develop and integrate data science training into student education within the School at undergraduate and postgraduate levels. Your role will also be to strengthen and enhance SEE's excellent, internationally recognised profile in atmospheric and climate science research with a special focus on the exploitation of data science methods for scientific discovery. A proven record of research related to data science and atmospheric or climate science is essential. We particularly encourage applicants with interests in applying machine learning to study climate extremes, climate impacts, Earth Observation data and/or ocean-cryosphere interactions, which would build upon existing expertise. Willingness to engage with a wider set of researchers within the School who are applying machine learning to other environmental problems is essential. You will also engage with colleagues in the Centre for Environmental Modelling and Computation to develop a strategy to grow technical support for data science research in SEE.

You will have a PhD in data science, computing, climate science or allied subjects and substantial research expertise in the field of machine learning applications to atmospheric and climate science. You will also have experience of teaching or training in data science, with a track record of diverse collaboration with researchers from multiple disciplines. Finally, you will have experience of both teaching and assessment in a University setting, and of supervision of masters and PhD students.



What does the role entail?

As a Lecturer (Grade 8), your main duties will include:

- Undertaking innovative and collaborative research with an emphasis on machine learning applications in atmospheric and climate science;
- Developing a strategy to ensure that your research has the potential for impact beyond academia;
- Being actively involved in research, innovation and impact at a national and international level, as well as contributing to local School/Faculty activity;
- Maintaining a record of high quality publications of national and international standing;
- Attracting research funding individually and collaboratively to underpin high quality research activity and research programmes/projects;
- Promoting the integration of your own research area with other research interests within and, as appropriate, outside the School and Faculty;
- Providing research supervision and helping to attract students to the University;
- Leading the development and integration of data science into teaching activities at undergraduate and postgraduate level;
- Undertaking research-led teaching at different levels, including assessment and examinations and contributing towards module design, review and quality assurance mechanisms;
- Providing support, guidance and timely feedback to students, acting as a personal tutor, resolving issues and/or referring to specialist parties, where appropriate;
- Contributing effectively to the administrative processes and committee structures of the School/Faculty including taking on leadership roles and managing initiatives which facilitate School, Faculty or University performance or business.

As an Associate Professor (Grade 9) your main duties will also include:

- Pursuing, leading and developing the strategic direction of research, innovation and impact;
- Being recognised as an authority in your field, developing and maintaining an external profile as appropriate to the discipline;
- Playing a significant role in the design, development, planning and review of modules and programmes within the subject area as required;



- Managing or leading major initiatives or areas of work (as either sustained or one-off projects).

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Lecturer (Grade 8) you will have:

- A PhD in climate science or a closely aligned discipline;
- A track record of peer-reviewed internationally excellent research outputs within relevant areas such as climate change, climate impacts, climate modelling, climate mitigation;
- A successful record of obtaining external research funding with clear potential for obtaining further funding in the future;
- Proven ability to contribute to and develop interdisciplinary collaborative research projects in the area of climate change;
- A track record of translation of scientific output to policy relevant outputs;
- A proven record of teaching in a university environment, with an enthusiastic approach to teaching and the ability to interact with students in ways that will enhance the student experience;
- Experience of proactively developing new teaching approaches and materials in the area of climate science education, with a particular view to leading and developing cross faculty postgraduate level material;
- A high level of interpersonal and communication skills commensurate with evidence of successfully working in diverse teams;
- An ability to communicate effectively in writing and verbally with students, academic and external audiences;
- An ability to contribute to management and administrative processes and structures, including managing resources and/or staff;
- Experience of positively contributing to research culture within a previous role;
- Experience of providing postgraduate student supervision;
- Experience of contributing to academic leadership.



Additionally, for appointment at Associate Professor level (Grade 9), you will have:

- An international reputation, including a proven and sustained track record of raising research funds from national and international funding agencies;
- Significant experience of teaching effectively at all levels within higher education, including module and programme design, review and development;
- Outstanding communication, team working and networking including experience of collaboration on cross-disciplinary projects;
- A proven ability to provide academic leadership, including managing resources and/or staff;
- Experience of leading the creation of positive research culture within a previous role;
- Evidence of the ability to build trust to ensure engagement and commitment, and to treat staff fairly, with respect and dignity.

At both grades, you may also have:

- Evidence of engaging with stakeholders to develop business cases for investment in infrastructure for machine learning collaboration within higher education or between higher education and industry;
- Experience of interdisciplinary research;
- Evidence of generating research impact;
- Experience of outreach and/or public engagement with science;
- Experience of proactively developing new teaching approaches and materials in data science or atmospheric and climate science.

How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date. Your application should include:

- a **supporting statement** highlighting how you meet each of the criteria for the role and how you believe your existing knowledge and experience equips you for performing the role;
- a copy of your **curriculum vitae** giving full details of qualifications and experience.



Contact information

To explore the post further or for any queries you may have, please contact:

Professor Amanda, Maycock, Director of the Institute for Atmospheric and Climate Science

<https://environment.leeds.ac.uk/see/staff/1404/professor-amanda-maycock>

Tel: +44 (0)113 343 9793

Email: A.C.Maycock@leeds.ac.uk

Additional information

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

Find out more about the [Faculty of Environment](#)

Find out more about our [School of Earth and Environment](#)

Find out more about the [Institute for Climate and Atmospheric Science](#)

Find out more about [Equality and Inclusion](#) in the faculty

Our University

At the University of Leeds, we are committed to providing a culture of inclusion, respect and equity of opportunity that attracts, supports, and retains the best students and staff from all backgrounds *{and from across the world}. Whatever role we recruit for we are always striving to increase the diversity of our community, which each individual helps enrich and cultivate. We particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.



We have identified that women are currently underrepresented in this role and particularly welcome applications. Candidates will always be selected based on merit and ability.

As an international research-intensive university, we welcome students and staff from all walks of life. 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/School of «Name» 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, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

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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.

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 disclosure@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.

