UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Constraining Uncertainty of Multi-decadal Climate Projections – CONSTRAIN, Faculty of Environment



Salary: Grade 7 (£33,797 – £40,322 p.a.)

Reference: ENVEE1495

Fixed-term until 30 June 2023 – due to external funding

We will consider job share / flexible working arrangements

Research Fellow in Constraining Uncertainty of Multi-decadal Climate Projections - CONSTRAIN
School of Earth and Environment, Faculty of Environment

Are you an ambitious researcher looking for your next challenge? Do you have a background in climate science? Do you want to play a central role in an exciting European Project working with world-leaders in climate research? Do you want to further your career in one of the UK's leading research-intensive Universities?

You will join a team of climate scientists at the University of Leeds to work on an EU Horizon 2020 funded project (Constraining Uncertainty of Multi-decadal Climate Projections – CONSTRAIN). The research at Leeds will play the central role as part of a large consortium project in collaboration with 13 other leading institutions across Europe. You will have opportunity for secondment and travel to these leading institutions if travel restrictions ease.

Working with Professor Piers Forster and Dr Amanda Maycock, you will contribute to the development of physically-based emulators of complex climate models to enhance future projections of climate change. These emulators have an important role in translating physical science into decision-making contexts by capturing the climate response simulated by comprehensive Earth System models within a computationally efficient tool. In particular, you will develop regional emulators capable of reproducing patterns of change in mean and extreme climate variables (e.g., temperature, wind) due to a variety of radiative forcing agents (e.g., greenhouse gases, aerosols). A significant part of the project will involve knowledge translation to make the latest climate science accessible to mitigation and adaptation decision makers.

You will have a PhD (or be close to completion) in the field of Atmospheric, Ocean or Climate Science and have extensive experience of using models and observations to study climate processes, as well as skills in statistical analysis and model development. You may also have excellent knowledge of radiative forcing, climate feedbacks and atmospheric dynamics.

You will have evidence of a strong commitment to publishing scientific results at an international level and of writing for a broader audience. Experience communicating your science to policy makers is desirable.





What does the role entail?

As a Research Fellow, your main duties will include:

- Working with and in support of Professor Forster and Dr Maycock to ensure the objectives and deliverables of the CONSTRAIN project are successfully met;
- Generating and pursuing original research ideas in the required subject areas;
- Developing research objectives and contributing to the direction of the research project in close collaboration with EU partners;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project;
- Contributing to joint synthesis reports and dissemination activities across the consortium;
- Contributing to the research culture of the Priestley Centre and School, where appropriate;
- Assisting with policy and public engagement efforts throughout the project.

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 Research Fellow you will have:

- A PhD or near completion - i.e. the initial thesis needs to have been handed in at the point of application in Atmospheric, Ocean or Climate Science or a closely allied discipline;
- Excellent knowledge of radiative forcing and/or the climate response to external forcing using observations datasets and climate model ensembles;





- A strong background in scientific programming (especially Python);
- Extensive experience of analysing complex climate datasets;
- Proven ability to write for expert and non-expert audiences;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A proven track record of peer-reviewed publications in high impact factor journals;
- Excellent written and verbal communication skills including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience of developing simple climate models;
- Experience of statistical methods for characterising extremes (e.g., extreme value theory);
- Experience of statistical methods for assessing regional patterns of climate response (e.g., pattern scaling methods);
- A willingness to spend up to a few weeks over the duration of the project seconded to other EU institutions (if travel restrictions allow);
- Experience of pursuing external funding to support research.

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.

Contact information

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

Piers Forster, Professor of Climate Physics
Email: p.m.forster@leeds.ac.uk

Dr Amanda Maycock, Associate Professor in Climate Dynamics
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 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.

A diverse workforce
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
Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on 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.

