

Job Title: NCEO Research Associate in Tropical Methane

Grade: 7

Salary: £39,355 to £45,413 per annum, pro-rata if part-time

Department: Physics and Astronomy

Hours/Contract: Full-time, fixed-term contract to 31 May 2028

Reference: 11638

Role Purpose

This work will be under the supervision of Dr Robert Parker, and will contribute fully to the large portfolio of research conducted by the Group and wider NCEO activities. Collaboration with national and international partners will also be a key focus.

To have specific responsibilities with an established research programme. To work collaboratively and independently as part of a research team to achieve defined milestones and produce high quality research as part of a wider programme.

Main Duties and Responsibilities

Research

- To produce wetland methane simulations with the JULES land surface model
- To evaluate methane model simulations against state-of-the-art Earth Observation data
- To generate/evaluate methane climate projections using the UK Earth System Model
- To undertake the publication of your research results and outcomes with a view to developing a national/international profile.
- Contribute to high quality nationally/internationally excellent research by publishing peer-reviewed papers in top journals.
- To represent the research group and NCEO by disseminating results/findings at national and international conferences and the broader research community.
- To contribute towards the development of ideas and writing of proposals for future research opportunities.
- To provide guidance to other staff and students, working collaboratively within the University and NCEO.
- To actively seek opportunities to carry out multi-disciplinary research with other research groups, with the approval of the Lead Scientist.

Professional Development

- To identify enhanced opportunities for professional development supported by a generous training budget.
- Undertake training courses provided by the University and by NCEO.

Impact and Knowledge Exchange

- Network and contribute to the maintaining and furthering of the wider NCEO research programme and research area.
- To engage positively and pro-actively in research impact.

Leadership and Citizenship

- Pro-actively build networks and collaborations.





- Providing mentoring and coaching to Early Career Researchers and research students

Internal and External Relationships

- You will work closely with Dr Robert Parker, the rest of Earth Observation Group at Leicester, NCEO colleagues and Project Partners involved in the FLF.
- You will have the opportunity to act as a Visiting Researcher at FLF Project Partners.

Planning and Organising

You will be required to effectively manage your time to plan your research activity and to deliver on the priorities of the project:

- Responsible for planning own workload with support and guidance from Lead Scientist;
- Plan for specific aspects of research incorporating issues such as deadlines, project milestones and overall research aims;
- Adapt daily and weekly plans to accommodate new developments and be flexible to the changing priorities of the research project;

Qualifications, Knowledge and Experience

Essential

- Hold (or soon to obtain) a PhD in a relevant research field, such as environmental science with ideally physics, maths or geography background
- Good or emerging publication record with significant contributions to peer-reviewed papers*
- Evidence of analytical problem-solving capability
- Experience working with land surface/climate models, ideally for methane emissions*
- Evidence of emerging scientific leadership and working towards ability to drive own research*

Desirable

- Research experience in Earth Observation, particularly relating to methane remote sensing*
- A good understanding of the factors influencing natural methane emissions*
- Experience communicating research results at international conferences

Skills, Abilities and Competencies

Essential

- Ability to generate own research ideas
- Ability to meet project deadlines
- Python programming knowledge
- Evidence of continued development of subject expertise
- Excellent communication skills – written and verbal evidenced by the ability to communicate complex information
- Evidence of working effectively as part of a team and the ability to work independently
- Familiarity with operating or evaluating land surface models
- Familiarity with using Linux/Unix in a HPC environment
- Familiarity with evaluating climate model projections (e.g. CMIP6)



Desirable

- Familiarity with the JULES land surface model
- Familiarity with atmospheric transport modelling

****Criteria to be used in shortlisting candidates for interview***

Reason for Fixed Term Contract

The reason for the fixed term contract is stated in section 1.9 in the summary of contractual terms in your contract of employment.

Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

Supporting University Activities

As a University of Leicester citizen, you are expected to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We expect all staff as citizens to work flexibly across the University if required.

University Values

Inclusive - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

Inspiring - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

Impactful - As Citizens of Change we will generate new ideas which deliver impact and empower our community

Equity and Diversity

We believe that equity, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equity support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equity, diversity and inclusion.

