University of Reading

Human Resources

Job Description

Title	Details
Job title	Postdoctoral Research Scientist
Department/Unit	Meteorology, School of Mathematical, Physical and Computational Sciences (SMPCS)
Job Type	Full-time, fixed term
Grade	Grade 6
Accountable to	Professor Ted Shepherd
Accountable for	NA
Vacancy reference	SRF54674

Purpose

To develop a novel statistical approach to frame extreme event storylines in likelihood space, using conditional probabilities to separate dynamical and thermodynamic effects.

Team Structure

The appointee will be working within the EXTREME-FUTURES research project (https://gtr.ukri.org/projects?ref=UKRI2165), led by Professor Hayley Fowler FRS at Newcastle University, which aims to create a seamless framework for attribution, forecasting and climate change risk assessment of extreme weather events.

Main duties and responsibilities

- Perform independent research using climate storylines and conditional probabilities to monitor changing risks, establish robust event attribution based on large-scale dynamics, and generate high-impact event ensembles using emergent constraints on regional weather, leading to original publications in peer-reviewed scientific journals.
- Present the research results at national and international scientific meetings.
- Participate in activities and meetings of the EXTREME-FUTURES research project, and contribute to the University research environment (e.g. seminars, group meetings).
- Interact and collaborate with other members of research group(s) to share ideas and best practices.

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Supervision received

Professor Ted Shepherd FRS, Grantham Chair in Climate Science

Professor Hayley Fowler FRS, Professor of Climate Change Impacts (Newcastle University)

Supervision given

Supervise MSc projects and summer research internships, as the opportunity arises.

Contact

Members of the AUSPICE research project, as appropriate.

Terms and conditions

This post is based at Reading University and is full-time, requiring flexible hours.

This post is fixed-term until 31 December 2029.

This document outlines the duties required for the time being of the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time which do not change the general character of the job or the level of responsibility entailed.

Date assessed: 10 October 2026

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Person Specification

Job Title	School/Department
Postdoctoral Research Scientist	SMPCS/Meteorology

Which stage these Criteria be assessed
A = Application
I = Interview

Criteria	Essential	Desirable
Skills Required	• Atmospheric data analysis (A and I) • Creativity (A and I) • Initiative (A and I) • Capability of independent thought (I) • Scientific programming (A and I) • Good oral and written communication skills (A and I) • Ability to work collaboratively as part of a team (I) • Strong problem-solving skills (I)	
Attainment	• PhD (or PhD near completion) or equivalent (in either qualification or experience) in meteorology or a related subject (A)	
Knowledge	• Multivariate statistical modelling (A and I) • Atmospheric dynamics (A and I) • Extreme weather events (A and I) • Climate variability and change (A and I) • Weather and climate modelling (A and I)	• Machine learning (A and I) • Causal effect networks (A and I) • Impact modelling (A and I) • Climate storylines (A and I)
Relevant Experience	• Proven track record in research, demonstrated through excellent peer-reviewed publications (A)	• Experience presenting research findings at scientific conferences, workshops or seminars (A and I)

Completed By: Professor Ted Shepherd

Date: 10 October 2026

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