

THE POST

College:	College of Engineering, Mathematics and Physical Sciences
Post:	Postdoctoral Research Associate/Research Fellow (2 positions)
Reference No:	P65876
Grade:	E/F
HERA:	RFEL
Reporting To:	Dr Jennifer Catto (post 1) or Prof Mat Collins (post 2)
Responsible For:	Research into the science and projections of climate hazards

Job Description

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility.

Main purpose of the job:

Two posts are available in the NERC funded 'Emergence of Climate Hazards' (EMERGENCE) consortium project. This project seeks to improve understanding of future changes of climate hazards by making use of a number of Climate Modelling Intercomparison datasets available as part of the CMIP6 and in support of the next IPCC report.

The first post will focus on the mid-latitude storm tracks, working in Dr Jennifer Catto's group at the University of Exeter, with collaborators at Oxford University, Reading University, and Edinburgh University. The exact focus of the research will depend on the interests and expertise of the candidate, but may involve: investigating the impact of high resolution in models on projections of the storm tracks; understanding how warming in different regions impacts the storm tracks; how the storm tracks will impact precipitation extremes in the future.

The second post will focus on tropical rainfall changes, especially those associated with the El Nino Southern Oscillation. This post will be in Prof Mat Collins' group and will be co-supervised by Dr Hugo Lambert with collaborators at the Met Office (Rob Chadwick). It will use output from CMIP6, especially those models with high spatial resolution, and develop conceptual models for changes in rainfall that may be used as the basis for developing physical constraints.

Main duties and accountabilities (Postdoctoral Research Associate):

1. To undertake research as appropriate to the field of study including:
 - Writing up research work for publication
 - Developing research objectives and proposals for own or joint research
 - Making presentations at national and international conferences and similar events
 - Dealing with problems which may affect the achievement of research objectives and deadlines
 - Analysing and interpreting the results of own research and generating original ideas based on outcomes
 - Using new research techniques and methods
 - Using initiative and creativity to identify areas for research, developing new research methods and extending the research portfolio
 - Using creativity to analyse and interpret research data and draw conclusions on the outcomes

2. To contribute to teaching and to be involved in the assessment of student knowledge including assisting in the supervision of student projects and in the development of student research skills.
3. To work in collaboration with colleagues as appropriate to the field of study including:
 - Contributing to collaborative decision making within the research group
 - Contributing to the production of collaborative research reports and publications
 - Preparing papers and presenting information on research progress and outcomes to bodies supervising research, e.g. steering groups
4. To communicate complex information, orally, in writing and electronically.
5. To prepare proposals and applications to external bodies, e.g. for funding and contractual purposes
6. To contribute to the planning of research projects.
7. To use research resources, laboratories and workshops as appropriate and to take responsibility for reducing hazards and for the health and safety of others. Where appropriate, will also be responsible for conducting risk assessments.
8. To monitor research budgets as appropriate.
9. To engage in continuous professional development and to be responsible for continually updating knowledge and understanding in field of study or specialism and for developing skills.

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility. Please visit the Human Resources website to view the Research Fellow role profiles.

Person Specification (Postdoctoral Research Associate)

Competency	Essential	Desirable
Attainments/Qualifications	PhD (or nearing completion) or equivalent qualification/experience in a related field of study.	
Skills and Understanding	Sufficient knowledge in the discipline and of research methods and techniques to work within established research programmes.	Evidence of research activity and published research.
Prior Experience	Understanding of health and safety legislation Manipulation of complex climate model datasets and observational datasets.	Experience of undergraduate teaching Publications in climate science
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate material of a specialist or highly technical nature. Able to manage research and administrative activities and to balance the competing pressures of research and administrative demands and deadlines. Able to liaise with colleagues and students. Able to build contacts and participate in internal and external networks for the exchange of information and collaboration.	Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.

	<p>Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and advance thinking. Actively participate as a member of a research team.</p> <p>Able to balance the pressures of research, administrative demands and competing deadlines.</p> <p>Engage in continuous professional development.</p> <p>Understand equal opportunity issues as they may impact on areas of research content.</p> <p>Where appropriate to the role, willingness to undergo training in order to conduct risk assessments.</p>	
Circumstances	Willing to work flexibly to achieve project demands.	

Main duties and accountabilities (Postdoctoral Research Fellow):

1. To undertake research as appropriate to the field of study. The responsibilities may include all or some of the following:
 - Developing research objectives, projects and proposals
 - Conducting individual or collaborative research projects
 - Extending, transforming and applying knowledge acquired from scholarship to research and appropriate external activities
 - Writing or contributing to publications or disseminating research findings using media appropriate to the discipline
 - Making presentations at conferences or exhibiting work in other appropriate events
 - Assessing, interpreting and evaluating outcomes of research
 - Developing new concepts and ideas to extend intellectual understanding
 - Resolving problems of meeting research objectives and deadlines
 - Developing ideas for application of research outcomes
 - Deciding on /following research programmes and methodologies, often in collaboration with colleagues and sometimes subject to the approval of the head of the research programme on fundamental issues
2. To contribute to teaching and learning programmes in the School and to supervise postgraduate research students.
3. To act as research team leader including:
 - Mentoring colleagues with less experience and advising on their professional development
 - Coaching and supporting colleagues in developing their research techniques
 - Supervising the work of others, for example in research teams or projects
 - Developing productive working relationships with other members of staff
 - Co-ordinating the work of colleagues to ensure equitable access to resources and facilities
 - Dealing with standard problems and help colleagues to resolve their concerns about progress in research
4. To routinely communicate complex and conceptual ideas to those with limited knowledge as well as to peers using high level skills and a range of media and to present the results of scientific research to sponsors and at conferences.

5. As determined by the nature of the project and at the direction of the PI, to plan, co-ordinate and implement research programme activity including:
- Managing the use of research resources and ensuring that effective use is made of them
 - Monitoring and reporting on the use of research budgets
 - Helping to plan and implement commercial and consultancy activities
 - Where appropriate, to plan and manage own consultancy assignments

Person Specification (Postdoctoral Research Fellow)

Competency	Essential	Desirable
Attainments/Qualifications	PhD or equivalent qualification/experience in a related field of study.	Be a nationally recognised authority in the subject area.
Skills and Understanding	Possess sufficient specialist knowledge in the discipline to develop/follow research programmes and methodologies. Record of research output in high quality publications.	
Prior Experience	Manipulation of complex climate model datasets and observational datasets. Publications in climate science	
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate complex and conceptual ideas to a range of groups. Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and advance thinking. Able to participate in and develop external networks. Able to balance the pressures of research, administrative demands and competing deadlines. Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.	
Circumstances	Willing to work flexibly to achieve project demands	

The starting salary will be from £29,515 up to £34,189 on Grade E (PDRA level) or £35,211 up to £43,267 on Grade F (PDRF level) depending on level of appointment based on qualifications and experience.

Terms & Conditions

Our Terms and Conditions of Employment can be viewed [here](#).

Further Information

Please see our [website](#) for further information on working at the University of Exeter.