



## THE POST

<b>College:</b>	<a href="#"><u>College of Engineering, Mathematics and Physical Sciences</u></a>
<b>Post:</b>	<b>Postdoctoral Research Fellow</b>
<b>Reference No:</b>	<b>P69078</b>
<b>Grade:</b>	<b>F</b>
<b>HERA:</b>	<b>RFEL</b>
<b>Reporting To:</b>	<b>Peter Challenor</b>

### Job Description

#### **Main purpose of the job:**

The post will develop spatio-temporal models for short term prediction of bio-geochemical ocean variables in the shelf seas around the UK. These predictions will be used to build probabilistic prediction systems for extreme conditions such as harmful algal blooms. The spatio-temporal models will also be used to guide robotic ocean measuring systems, such as gliders and Autonomous Surface Vehicles, to monitor 'interesting' regions rather than follow set paths.

#### **Main duties and accountabilities:**

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;
  - Identifying sources of funding and contributing to the process of securing funds;
  - 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 generating income and promoting research area;
  - 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;
  - 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.

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**

<b>Competency</b>	<b>Essential</b>	<b>Desirable</b>
Attainments/Qualifications	PhD or equivalent qualification/experience in statistics, applied mathematics or a closely related subject.  Able to code in a high level language.	Experience in uncertainty quantification.  Experience of coding in one or more of R, Matlab or Python.
Skills and Understanding	Possess sufficient specialist knowledge in the discipline to develop/follow research programmes and methodologies.	Experience of spatio-temporal modelling, preferably using SPDE-INLA.
Prior Experience	Experience of independent research and to have demonstrated potential at managing research projects and research teams.	Experience of undergraduate / postgraduate teaching and supervision.  Experience of acting as principal investigator on research projects.
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.  Ability/willingness to take part in field work

### **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.