



**Job Title:** Research Associate  
**Salary:** £38,205 per annum pro rata, due to funding restrictions  
**Grade:** 7  
**Department:** Physics and Astronomy  
**Hours/Contract:** Full time, fixed term contract until 31 August 2028  
**Job Family:** Teaching and Research  
**Job Reference:** 10449

## Role Purpose

To have specific responsibilities within the Planetary Science Group at the University of Leicester regarding the NERC-funded RISER project (Radio Investigations for Space Environment Research). To conduct research into the impact of the solar wind on the terrestrial magnetosphere, in collaboration with partners at RAL Space, the University of Bath, and the MetOffice. To work collaboratively on understanding how Interplanetary Scintillation (IPS) measurements from radio observatories can be used to provide long-range (up to 4 days) predictions of adverse space weather. The University of Leicester contribution to the project is to use a wide range of magnetospheric and ionospheric observations to study the terrestrial response to predicted solar wind structures observed in the inner heliosphere by IPS. As Research Associate it would be your role to undertake high quality research to fulfil the aims of RISER and to disseminate the results in scientific journals, at national and international conferences, and at RISER workshops.

## Main Duties and Responsibilities

### Research

- Working with Prof Steve Milan to undertake research in the field of solar wind-magnetosphere-ionosphere coupling to fulfil the aims of the RISER project
- Working with RISER PIs to understand how long-range predictions of the incoming solar wind can provide advance warning of adverse space weather
- To lead in the collection, evaluation and interpretation of the research data in experimental design and performance, and work autonomously to attain project milestones.
- To contribute to the development of the choice of techniques, critiques, approaches, models and methods
- To contribute to the overall research programme using innovative research models, novel approaches and techniques.
- To contribute to research outputs as a co-author to journal articles, technical papers, monograph, book chapter.
- To provide guidance to other staff and students (involved in the research programme).
- Represent the research group by disseminating results at national and international conferences and meetings, and to interact with all collaborators on the project, including national and international partners.
- To undertake such duties consistent with the grade of the post as may be reasonably required.





## Professional Development

- Duties and opportunities to engage in work that support your own professional development.

## Impact and Knowledge Exchange

- Network and contribute to the maintaining and furthering of the wider research programme and research area
- To consult effectively on own specialism directly with people external to the University
- To engage positively and pro-actively in research impact

## Leadership and Citizenship

- Guidance to other team members both research staff and students
- Pro-actively build networks and collaborations.
- Providing mentoring and coaching to Early Career Researchers and research students.

## Internal and External Relationships

- Work closely with collaborators within the Planetary Science Group and wider School of Physics and Astronomy with interests in planetary science.
- Coordinate research and work closely with the principal investigator, graduate students and external collaborators on the project.
- Contribute to the supervision of graduate students and undergraduate students working on related projects.
- Provide advice and support to research staff and post graduate students working on this and similar research projects.
- Network and contribute to the maintenance of the wider research programme.

## Planning and Organising

- Plan and manage workload and resources as required to achieve the aims, objectives and deliverables of the project.
- Assist the principal investigator and collaborators in the planning, organisation and dissemination of the wider research programme.
- Provide assistance in the day-to-day planning and organisation of the wider research programme, and preparation and planning for research proposals.
- To foster new collaborations and to maintain a network of other research scientists elsewhere in the UK and overseas.





## Qualifications, Knowledge and Experience

### Essential

- To hold, or expect shortly to hold, a PhD in a research area relevant to space plasma physics or planetary science. \*
- A good honours degree. \*
- Knowledge of space plasma physics or planetary science at an international research level. \*
- A record of productive research in space plasma physics or planetary science, and to have demonstrated the ability to produce published research papers. \*
- Evidence of experience in presenting results at national & international meetings. \*

### Desirable

- Experience in working with ground- and space-based observations of the terrestrial magnetosphere/ionosphere system.
- Strong publication record in peer-reviewed journals.
- Experience of collaboration.

## Skills, Abilities and Competencies

### Essential

- High level of proficiency in English, sufficient to undertake research, teaching and administrative activities utilising English Language materials and to communicate effectively with staff and students. \*
- Computer programming skills; the ability to program in scientific computing languages such as Python, IDL, or similar; experience of UNIX/Linux systems. \*
- Evidence of good time management, organisational and problem-solving skills.
- Willingness to travel nationally and internationally for collaboration and dissemination of research outcomes.
- Evidence of the ability to work both independently and as part of a wider research team.

### Desirable

- Ability to develop novel ideas and to promote own research agenda.
- Flexible and adaptable approach to work over a range of research duties.
- Willingness to foster new collaborations with national and international partners.
- Demonstrable success in producing publications of the very highest standard.
- Proven ability to work as part of a team.
- Ability to collaborate with scientists from different institutions and research areas.

***\*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 equality 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 equality, diversity and inclusion.

