

**Job Title:** Research Associate (Planet Mercury)

**Salary:** £39,355 to £45,413 per annum

**Grade:** 7

**Department:** Physics and Astronomy

**Hours/Contract:** Full-time, fixed term contract for 36 months from October 2025 (or soon after)

**Job Family:** Teaching and Research

**Job Reference:** 12005

## Role Purpose

To conduct postdoctoral research to achieve the aims on the STFC-funded Large Grant “Planet Mercury: Origins, Evolution, and Interactions” consortium with University of Leicester, Open University and Imperial College. Work collaboratively and independently as part of the local research group, the “Planet Mercury” consortium, and the international MIXS team, to achieve defined milestones and produce high quality research outputs.

## Main Duties and Responsibilities

### Research

- Responsible for independent and collaborative research in the field of planetary surface geochemistry, resulting in significant contributions to peer-reviewed journal papers (often as lead author).
- To lead in the visualisation and interpretation of data from the MIXS instrument on board BepiColombo, principally as part of the PI-led team based at the University of Leicester.
- To apply modelling and analysis techniques developed in-house to convert the MIXS datasets into elemental abundance ratios and eventually elemental abundances on Mercury’s surface.
- To interpret the MIXS datasets using knowledge of planetary (ideally Mercury’s) surface – in terms of geochemical units, geological units, and planetary differentiation processes such as mantle partial melting and volcanism, and impact cratering.
- To develop Python-based data processing tools for the visualisation of the MIXS data, and any other complementary datasets, and to support these via Github for the benefit of the community.
- Represent the research group, STFC Large grant consortium, and MIXS team by disseminating results at national and international conferences and meetings, and to interact with all collaborators on the project, including national and international partners.
- Contribute to the overall BepiColombo science goals by collaborating with other instrument teams (e.g. SIXS, MERTIS, Simbio-Sys)
- Contributing to determining the direction of the programme consistent with reaching the research goals. This will include adapting research priorities in line with the progression of the overall mission.
- To undertake such duties consistent with the grade of the post as may be reasonably required (e.g. providing support for UG and PG student projects as necessary).



Athena  
Swan  
Silver Award



Race  
Equality  
Charter  
Bronze Award



AWARDEE  
ORGANISATION



## Professional Development

- Engage in work that support your own professional development, including, for example, seeking independent funding opportunities.
- Providing mentoring and coaching to Early Career Researchers and research students.

## Impact and Knowledge Exchange

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

## Leadership and Citizenship

- The appointee will be encouraged to engage with outreach and Open Day activities at the University, National Space Centre and beyond
- Pro-actively build networks and collaborations.

## Internal and External Relationships

- Work closely with collaborators within the Space Instrumentation and Planetary Science Groups, School of Physics and Astronomy, Institute for Space and Space Park Leicester.
- Establish strong partnerships with key external members of the consortium and with the international MIXS science team.
- Liaison with external collaborators on the BepiColombo mission, including those in Europe, Japan, and in the USA.
- Coordinate research and work closely with the Principal Investigator, Co-Is, graduate students and external collaborators on the project.
- Contribute to the supervision of graduate students and undergraduate students working on related projects.

## 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:

- Prioritise tasks within agreed work schedules;
- 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

- To hold a PhD in a research area relevant to planetary science, preferably including geochemistry\*
- A good honours degree in a relevant discipline e.g. Physics, Geoscience
- Evidence of research experience and skills in Planetary Science\*
- Evidence of experience in presenting results at national and international meetings\*
- To have a record of productive research in planetary science, and to have demonstrated the ability to publish high quality peer-reviewed papers in international literature\*
- Evidence of proven data handling capability using (ideally) Python coding\*
- Experience in working with spacecraft data as part of multinational teams\*

### Desirable

- Demonstrate an understanding of planetary origins, evolution, and interactions
- Laboratory experience of preparing and analysing planetary surface analogues\*
- Experience of data analysis from previous space missions
- Student supervisory experience

## Skills, Abilities and Competencies

### Essential

- Capability to develop innovative approaches to interpretation of X-ray fluorescence observations of planetary surfaces
- 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
- Evidence of good time management, organisational and problem-solving skills
- Willingness to travel nationally and internationally for research meetings and data dissemination to collaborators
- Evidence of the ability to work both independently and as part of a wider research team\*
- Commitment to Continuous Professional Development (CPD) for yourself, and encourage commitment to learn and develop in others.

### 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
- 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 encouraged to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We encourage all staff as citizens to work flexibly across the University if required. If supporting these activities is likely to affect your workload, please speak to your line manager in the first instance

## 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.

