Candidate Information

Position:	Research Fellow in Solar Physics
School/Department:	Astrophysics Research Ctre
Reference:	22/109540
Closing Date:	Monday 28 February 2022
Salary:	£34,304 - £39,739 per annum
Anticipated Interview Date:	Wednesday 16 March 2022
Duration:	Available until 31 March 2024

JOB PURPOSE:

To undertake a number of duties within the Astrophysics Research Centre of the School of Mathematics and Physics involving the analysis and interpretation of solar flare datasets.

MAJOR DUTIES:

1. Acquire Lyman-alpha datasets taken by space-based telescopes and from instrument archives.
2. Cross-reference datasets from a variety of different instruments.
3. Analyse and interpret relevant datasets, and compare with theoretical models where applicable.
4. Write publications and present the findings at conferences and workshops.
5. Suggest solutions for improving the acquisition of future observations.
6. Assist with the organisation and execution of training workshops.
7. Help supervise (as necessary) and support postgraduate and undergraduate students working in this area.
8. Read academic papers, journals and manuals to keep abreast of developments.
9. Carry out any other duties designated by a line manager and which fall within the general ambit of the post.

Planning and Organising:

1. Plan own day-to-day activity within the framework of the agreed research programme.
2. Contribute to the planning of research projects through proposals and publications etc.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Provide guidance as required to support staff and any students who may be assisting with research.

Internal and External Relationships:

1. Liaise with research colleagues and support staff on routine matters.
2. Make internal and external contacts, particularly with European and US partners, to develop knowledge and understanding and form relationships that will ensure the success of the project.
3. Organise, attend and contribute to relevant meetings.

ESSENTIAL CRITERIA:

1. A PhD in Solar Physics or a closely-related discipline either awarded or submitted by the time of taking up the post.
2. At least 3 years relevant research experience in the analysis and interpretation of solar/stellar observations and/or models and simulations.
3. A number of refereed publications and/or technical reports in the research field, commensurate with stage of career.
4. Ability to program in IDL and/or Python.
5. Ability to contribute to method improvement where required.
6. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.

7. Ability to interact with research colleagues and support staff.
8. Ability to analyse and communicate effectively.
9. Contribute to the School's outreach programme by links with industry, community groups etc.

DESIRABLE CRITERIA:

1. PhD awarded.
2. Experience with the interpretation and analysis of solar/stellar flare observations and/or models and simulations, including spectroscopy.
3. Experience at delivering presentations at conferences and/or workshops.
4. Experience in the analysis of solar datasets taken from multiple vantage points.
5. Ability to program in both IDL and Python.
6. May be required to spend considerable time away from home due to conferences and collaborative visits.