



Candidate Information

Position:	Research Fellow in spectroscopy of laser-produced plasmas
School/Department:	Astrophysics Research Ctre
Reference:	24/111562
Closing Date:	Monday 19 February 2024
Salary:	£37,841 - £43,838 per annum
Anticipated Interview Date:	TBC
Duration:	Fixed term contract for 36 months

JOB PURPOSE:

To be an active member of the research project/team assisting in the planning and delivery of research on the spectroscopy of laser-produced plasmas to identify new transitions in heavy elements of importance in kilonova modelling.

MAJOR DUTIES:

1. Undertake research in high resolution optical and infrared spectroscopy of laser-produced plasmas to identify new transitions in heavy elements of importance in the modelling of kilonova spectral observations. Research activities will include the setting up and running of laser experiments, obtaining high resolution optical and infrared spectra of heavy element samples, and analysing the spectra to identify new transitions and their associated energy levels.
2. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
3. Write up results of own work and contribute to the production of research reports, publications and proposals.
4. May contribute to introductory courses, e.g. on the use of research methods and equipment.
5. Undertake undergraduate supervision / demonstrating / teaching duties under direction.
6. Undertake routine administrative duties as requested, e.g. arranging research group meetings, maintaining research group website.
7. Read academic papers, journals and textbooks to keep abreast of developments.
8. Carry out any other duties designated by a line manager, and which fall within the general ambit of the post.

ESSENTIAL CRITERIA:

1. Degree or equivalent in Physics or physics-related subject. Must have PhD in experimental plasma physics or has submitted thesis.
2. Specific, relevant experience in spectroscopy of laboratory plasmas.
3. A publication record in plasma physics commensurate with stage of career.
4. Practical problem solving skills, independence of thought and initiative.
5. Ability to assess and organise resources.
6. Ability to effectively interact with research colleagues and support staff.
7. Ability to analyse and communicate results effectively.
8. Demonstrable intellectual ability and ability to work in small group.
9. Evidence of experimental leadership.
10. Some attendance at experiments both elsewhere in the UK and abroad for up to several weeks at a time.

DESIRABLE CRITERIA:

1. PhD in laser-produced plasma physics.
2. Experience in high resolution optical and/or infrared spectroscopy of laser-produced plasmas.