UNIVERSITY OF BIRMINGHAM

Job Description

Post Title	Postdoctoral Researcher in high-resolution spectroscopy – Exoplanets - 81193
Organisation Advertising Description	School of Physics and Astronomy in the College of Engineering and Physical Sciences
Salary	Full time starting salary is normally in the range £30,395 to £39,609. With potential progression once in post to £42,036 a year.
Duration of Post	Fixed term for up to 36 months

Job Summary

We invite inventive and talented individuals to apply for a postdoctoral research position and join the Sun, Stars and Exoplanet research group, at the University of Birmingham.

The successful candidates will join a vibrant group of astronomers. The Sun, Stars, and Exoplanet group consist of four permanent researchers: Amaury Triaud, Guy Davies, Andrea Miglio and Bill Chaplin, along two main research themes: exoplanets and asteroseismology. Three of us hold ERC grants. The group benefits from newly refurbished offices at the heart of a beautiful campus.

Members of the group have responsibilities in SPECULOOS, *TESS*, *Kepler* and the *PLATO 2.0* Mission.

The successful applicant will work primarily with Dr Amaury Triaud as part of the BEBOP radial-velocity survey for circumbinary planets, an ERC and Leverhulme Trust funded project with large observing allocations on HARPS (ESO) and SOPHIE (OHP). We particularly welcome applicants with expertise related with high-resolution spectroscopy, various statistical data analysis methods, data mining, algorithm development and machine learning. The position comes with a generous allowance to cover international travel and computing.

Mirroring the fact that exoplanets are diverse, we welcome applications from all backgrounds to enrich our research group.

Main Duties

- To contribute to the achievement of the School's research strategy by undertaking specified research activities in spectroscopic data analysis related to circumbinary planets.
- To plan and develop research contributions to subject area using methodologies, critical evaluations, interpretations, analyses and other appropriate techniques
- To contribute to writing bids for research grants
- To suggest and contribute to the development of research techniques, models and methods in collaboration with colleagues
- To disseminate research findings using appropriate and effective media such as publication, research seminars etc
- To provide guidance to other staff and students on own specialist area
- To contribute to the production of research reports and publications
- To prepare papers for Steering groups
- To analyze and interpret the results of own research and generate ideas based on outcomes

Person Specification

- Hold or be close to completing a PhD in Physics, Astronomy, Mathematics, or Computer Science
- Experience in at least one of: high-resolution spectroscopy, statistical modelling; machine learning; data mining
- Experience of programming in languages such as R/Python/Julia
- An understanding of astronomical time series analysis and astrophysics in general would be advantageous