



Research Associate in electron kinetics of microwave current drive

Department: School of Physics, Engineering and Technology

Hours of work: Full-time | 37 hours per week

Contract type: Fixed term for up to two years

Salary: Grade 6 | £37,694 - £46,049 per year

Introduction

The [School of Physics, Engineering and Technology](#) brings physicists and engineers together to push the frontiers of knowledge, foster innovation and meet the grand challenges facing society. Our aim is to deliver world-leading research in both fundamental and applied areas whilst developing new technologies that work for the public good, in an environment where everyone can thrive.

As a School, equality, diversity, and inclusion are central to our culture and we strive to provide a working environment which allows all staff and students to contribute fully, to flourish, and to excel. We aim to ensure that there is a supportive and egalitarian culture at all levels and across all staff groups and offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff engagement forums, campus facilities and services to support staff from different backgrounds. We are proud to hold Juno Champion and Athena Swan silver awards, which recognise our commitment to creating an equitable and fully inclusive environment in which staff and students can thrive. We aim to inspire young people to engage with science and engineering through our outreach work.

Main purpose of the role

- To conduct research under the supervision of senior colleagues and to contribute to the production of research.
- To assist in the identification and development of potential areas of research and the development of proposals for independent or collaborative research projects.

Key responsibilities

(Role holders will be required to undertake some or all of the duties below)

- To conduct individual and collaborative research projects, duties to include: analysis and interpretation of research data; use of appropriate research techniques and methods; writing up of research results and dissemination through publications, seminar and conference presentations and public engagement and outreach activities; contributing to the identification of possible new areas of research.
- To contribute to the preparation of research proposals and applications to external bodies.
- To undertake appropriate organisational and administrative activities connected to the research project, including conference organisation, and the development of promotional or educational material including website maintenance and development.
- To develop and initiate collaborative working internally and externally, duties to include: the building of internal contacts and participation in internal networks; collaboration with colleagues on joint projects as required; participation in and identification of external networks in order to share information and identify potential opportunities for collaboration and possible sources of funding; attendance at and contribution to relevant meetings.
- To provide guidance to other staff and students, as required, as well as coordinating the work of small research teams.
- To support and foster an inclusive environment where people, especially students, can flourish.
- To assist with undergraduate teaching in own area of expertise.

- All staff have a statutory responsibility to take reasonable care of themselves, others, and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety & Emergency Procedures.

The above list of duties is not exhaustive and is subject to change. The post holder may be required to undertake other duties within the scope and grading of the post.

Person specification

	Essential / Desirable
Qualifications	
Undergraduate degree in physics or applied mathematics	Essential
PhD in fusion plasma physics or equivalent experience	Essential
Knowledge	
Knowledge in computational fusion plasma physics to engage in high quality research	Essential
Knowledge of a range of research techniques and methodologies	Essential
Research expertise in an area that will complement and enhance the department's research strategy and goals	Essential
Skills, abilities and competencies	
Ability to numerically simulate fusion plasmas using computer simulations	Essential
Highly developed communication skills to engage effectively with a wide ranging audience, both orally and in writing, using a range of media	Essential
Ability to write up research work for publication in high profile journals and engage in public dissemination	Essential
Ability to develop research objectives , projects and proposals for own and joint research, with the assistance of a mentor if required	Essential
Competency to conduct individual and collaborative research projects	Essential
Ability to identify sources of funding and contribute to the process of securing funds, with collaborators if required	Essential
Competency to make presentations at conferences or exhibit work in other appropriate events	Essential
Experience	
Experience of carrying out numerical simulations of fusion plasmas	Essential

Experience of carrying out both independent and collaborative research	Essential
Experience of writing up research work for publication	Essential
Ability to work as part of a team and also to work independently using own initiative	Essential
Personal attributes	
Attention to detail and commitment to high quality	Essential
Collaborative ethos	Essential
Interest in and enthusiasm for the subject matter of the project(s)	Essential
Positive attitude to colleagues and students	Essential
Willingness to work proactively with colleagues in other work areas/institutions	Essential
Ability to plan and prioritise own work in order to meet deadlines, including using initiative to plan research programmes	Essential
Commitment to personal development and updating of knowledge and skills	Essential