Aston University
BIRMINGHAM UK

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Postdoctoral Research Associate

Reference: R210149

Salary: Grade 8, £35,845 per annum

Contract Type: Fixed Term (36 months)

Basis: Full Time

Closing Date: 23.59 hours BST on Wednesday 30 June 2021

Interview Date: Friday 23 July 2021

UNIVERSITY OF THE YEAR 2020 The Guardian

TEF Gold Teaching Excellence Framework

Athena SWAN Silver Award

Positive About Disabled People

Job description

Job Purpose:
To contribute to, develop, and lead research activities on the Leverhulme Trust funded project entitled “A Mathematical Approach to Taming Optical Turbulence” in the Department of Mathematics. The successful applicant will be expected to be research active, with a growing reputation at an international level with a background ideally in fluid dynamics or nonlinear optics. The research project will focus on the instability of coherent structures in nonlinear optical fibres governed by the nonlinear Schrödinger equation and its extensions. The research activities will include applications using theories of hydrodynamic stability and turbulence as well as performing high performance numerical simulations.

Main duties and responsibilities

- To perform research according to the allocated and awarded research project.
- To design and develop an appropriate research methodology in order to address the research objective.
- To supervise and manage research projects.
- To write and publish the outcomes of research in international leading journals.
- To pursue a research programme consistent with the College’s research priorities that will make a significant impact by increasing knowledge and understanding of applied mathematics and its applications.
- To collaborate in research initiatives with colleagues in and beyond the College of Engineering and Physical Sciences as appropriate.
- Contribute to Departmental/College research-related activities and research-related administration.
- Supervise students on research related work and provide guidance to PhD students where appropriate to the discipline.
- To coach junior colleagues in research.
- To participate in and develop external networks.
- To contribute to the peer review process and to the organisation of appropriate conferences, workshops and seminars.
- To identify sources of funding, develop and submit funding applications, securing external research funding.

Additional responsibilities

- Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- Ensure and promote the personal health, safety and wellbeing of staff and students.
- Carry out duties in a way which promotes fairness in all matters and which engenders trust.
- Promote equality of opportunity and support diversity and inclusion as well as working to support the University’s environmental sustainability agenda and practices.

Person specification

	Essential	Method of assessment
Education and qualifications	First class or upper second undergraduate degree in Mathematics, Physics, or related subject. A PhD in Mathematics, Physics, or a related area.	Application form
Experience	Experience of initiating, conducting, and leading independent research. A track record of publications in leading international journals and presentations at conferences. Experience in the fields of fluid dynamics and/or nonlinear optics.	Application form, interview, and presentation
Aptitude and skills	Ability to work effectively in a team. Ability to contribute to the planning of research projects. Ability to deliver research objectives, deliverables and milestones in a timely manner. Excellent verbal and written communication skills. Ability to prepare written communications to a high standard. A willingness and desire for performing scientific computation.	Application form, interview, and presentation

	Desirable	Method of assessment
Experience	Experience with the nonlinear Schrödinger equation. Experience with theories of hydrodynamic stability.	Application form, interview, and presentation

	Desirable	Method of assessment
	Knowledge of wave turbulence. Experience in high performance scientific computing using languages such as C++/FORTRAN/Python.	
Aptitude and skills	Ability or potential to contribute to the development of future research projects and funding proposals. Ability to help mentor PhD and MSc students and guide then in related projects. Ability to communicate the principles and implications of optical turbulence to a non-technical audience.	Application form, interview, and presentation

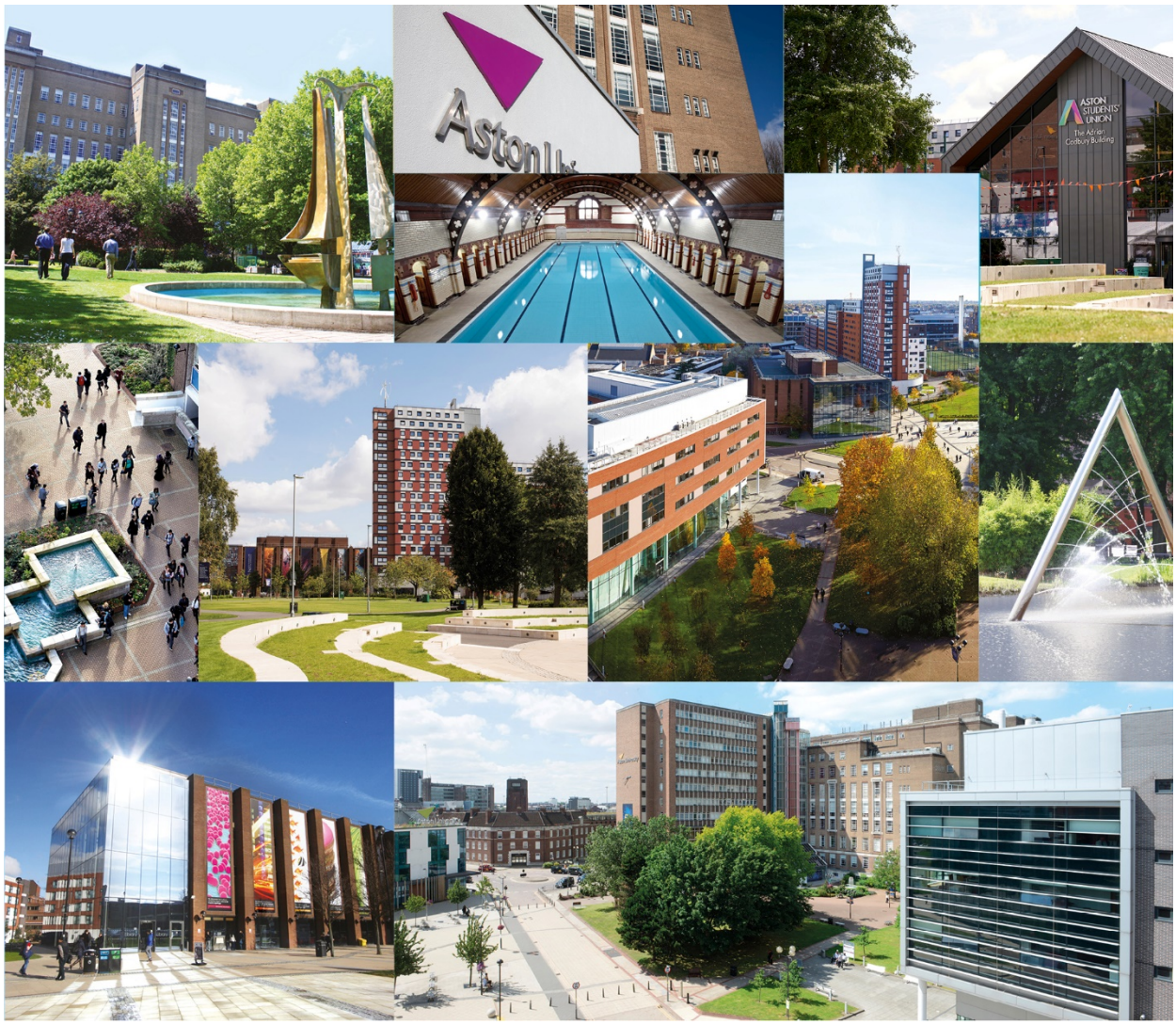
How to apply

You can apply for this role online via our website https://www2.aston.ac.uk/staff-public/hr/jobs.

Applications should be submitted by 23:59 hours on the advertised closing date.
All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted.

If you require a manual application form then please contact the Recruitment Team via jobs@aston.ac.uk.



Contact information

Enquiries about the vacancy:

Name: Dr Jason Laurie
Job Title: Lecturer
Email: j.laurie@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:
Recruitment Team via jobs@aston.ac.uk or 0121 204 4500.

Additional information

Visit our website https://www2.aston.ac.uk/staff-public/hr for full details of our salary scales and benefits Aston University staff enjoy

Salary scales: https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index

Benefits: https://www2.aston.ac.uk/staff-public/hr/Benefits-and-Rewards/index

Working in Birmingham: https://www2.aston.ac.uk/birmingham

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK: Candidates who are not citizens of the United Kingdom, or another EEA member country, should check their eligibility to enter or remain the UK in advance of making any job application via the UKVI website https://www.gov.uk/browse/visas-immigration/work-visas. Before applying you should ensure that you meet the requirements, including meeting the English language standards. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful

Equal Opportunities: Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

Data Protection: Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at https://www2.aston.ac.uk/data-protection. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at https://www2.aston.ac.uk/staff-public/hr/policies

Aston University
Birmingham
B4 7ET, UK.
+44 (0)121 204 3000
aston.ac.uk