

Postdoctoral Research Associate in Fluid Mechanics



OPPORTUNITY

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Reference: 0224-24

Grade: 8

Salary: £34,980 to £39,347, per annum, depending on experience

Contact Type: Fixed term (6 months)

Basis: Full time

Job description

Job Purpose:

We seek a highly motivated individual for this postdoctoral research position in the general area of fluid mechanics to contribute to, develop and lead research activities of the Department of Applied Mathematics and Data Science either independently or as part of a team. The role will be to support the delivery of a project entitled "[Developing an accurate non-Newtonian surface rheology model](#)". This project aims to develop a mathematical model that can reliably reproduce experimental findings in order to better understand how to control the interfacial oxidation process observed in liquid metal flows. The candidate should have excellent mathematical and computational skills and a solid background in fluid mechanics.

Main duties and responsibilities

- ▶ To carry out research work, analytically and numerically, jointly with the investigators to address the project aims as stated above.
- ▶ To develop, under the supervision of the principal investigator, a numerical scheme that is able to accurately capture the two-way coupling between a liquid metal flow and an oxide layer.
- ▶ To work closely with the project partner to ensure that new methods and techniques are appropriately informed by experimental observations.
- ▶ To disseminate the work through high-quality journal publications and presentations at national and international conferences. To present papers, posters, reports at seminars, conferences etc.
- ▶ Any other duties appropriate to the role of PDRA.

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	A PhD in a relevant discipline, e.g., Applied Mathematics, Engineering, or related subject.	Application form
Experience	<p>Active research in the area of mathematical/computational modelling applied to fluid mechanics problems.</p> <p>Experience of writing up/contributing to the write up of research for high quality publications.</p> <p>Experience of producing papers, posters, reports presenting at seminars, conferences etc.</p> <p>Experience of positive collaboration within and outside of candidate's immediate research team.</p>	Application form and interview
Aptitude and skills	<p>Experience of producing papers, posters, reports presenting at seminars, conferences etc.</p> <p>Ability to present data in both a clear and concise manner that is visually appealing.</p> <p>Ability to prepare written communications to a high standard.</p> <p>Ability to develop and maintain a research programme and to publish in high quality publications.</p> <p>Strong mathematical and computational skills.</p>	Application form and interview

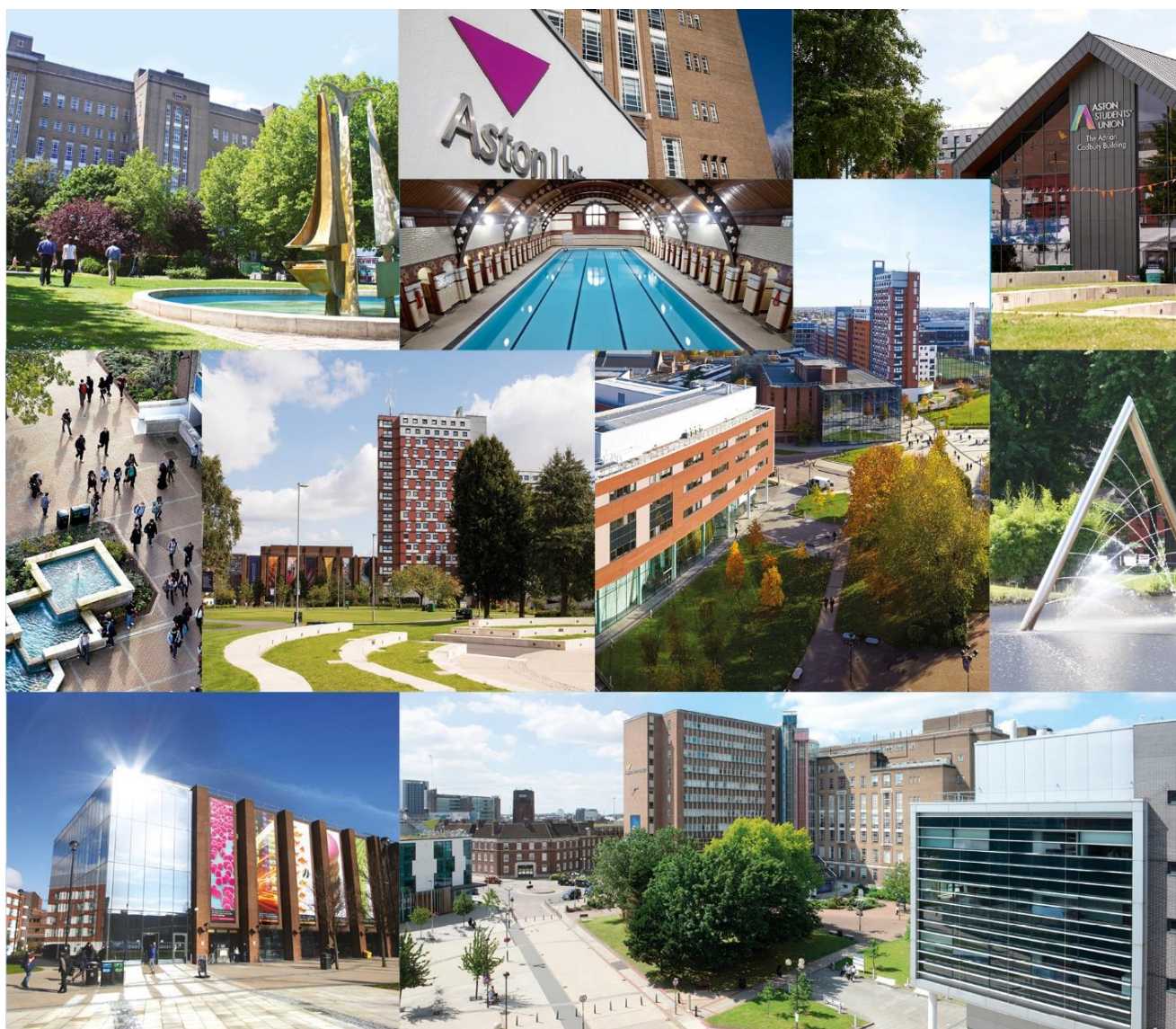
How to apply

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

Applications should be submitted by 20/05/2024 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: Paul Griffiths

Job Title: Senior Lecturer in Applied Mathematics

Email: p.griffiths1@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: [Benefits and Rewards | Aston University](#)

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: You should ensure that you meet the eligibility requirements, including meeting the [English language standards](#). If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful. Please see UKVI guidance for further information on eligibility, knowledge of English requirements and approved test centres <https://www.gov.uk/tier-2-general>

With the end of free movement for EU/EEA/Swiss nationals from 1 January 2021, the UK's new immigration system applies to all non-UK/Irish nationals who require a visa.

Where an individual is subject to UK immigration control, they will require a visa to work in the UK.

The following individuals do not need a visa for the UK, but do still have to prove their right to work before employment can commence:

- **British Citizens or Irish Nationals**
- **EU/EEA/Swiss nationals with Settled or Pre-settled status under the EU Settlement Scheme**
- **Non-EEA nationals with Indefinite Leave to Remain/Settlement in the UK**

The main routes available for those who need a visa to work in the UK are **Skilled Worker**, **Global Talent** and the **Graduate Route**.

You can find further information about each of these visa routes on our [candidate immigration page](#).

If you will conduct research in your role, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application. Please see below for further details.

Academic Technology Approval Scheme (ATAS): If you will conduct research in your role and you apply for a Skilled Worker or Temporary Worker GAE visa, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application.

This process can take at least 6 weeks to process, and Aston will consider this when confirming your expected start date. Processing times will increase between April and September and can longer to complete.

There is no fast-track option available. ATAS certificates will be processed in order of receipt.

You can find more information about ATAS on our [candidate immigration page](#).

Before you start and Right to Work

90-day entry vignette

If you have applied for your visa outside of the UK, you will receive a vignette in your passport which is usually valid for 90 days. Please make sure to travel to the UK within the 'valid from' and 'valid to' dates on this visa. If you entered the UK before or after these dates, you would not 'activate' the visa and you would need to leave and re-enter the country.

You will also receive a decision letter confirming details about your immigration permission and where to collect your Biometric Residence Permit.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents in and around Birmingham that can help you find suitable accommodation. The [Midland Landlord Accreditation Scheme](#) provides a list of professional agencies and landlords who have applied with them for accreditation. Whilst accreditation is not a guarantee of quality, it provides some reassurance about the standard of the service they provide.

You can also use property search websites such as [Rightmove](#) or [Zoopla](#).

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>

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