

Job Title:	Research Associate
Department/Division/Faculty:	Pure Mathematics Section, Department of Mathematics, Faculty of Natural Sciences
Campus location:	South Kensington Campus
Job Family/Level:	Research Family, Research Associate*
Responsible to:	Professor Martin Hairer (Chair in Probability and Stochastic Analysis)
Key Working Relationships (internal):	Professor Martin Hairer and the stochastic analysis research group
Contract type:	Full Time Fixed term for 12 months

Purpose of the Post

The post holder will work on a problem related to the analysis of singular stochastic PDEs or other space-time stochastic processes. The concrete problem(s) will be determined after discussion with the successful candidate.

The post holder is also expected to contribute to the academic life of Professor Hairer's research group and the wider stochastic analysis group at Imperial, in particular to interact scientifically with other research staff and students, as well as organise and participate in seminars.

Key Responsibilities

The main duties of the Research Associate will include:

- To take initiative in the planning of research
- To direct the work of small research teams including undergraduate and postgraduate students
- To identify and develop suitable techniques, and apparatus, for the collection and analysis of data
- To conduct data analysis
- To ensure the validity and reliability of data at all times
- To maintain accurate and complete records of all findings
- To write regular (monthly) internal reports
- To write reports for submission to research sponsors
- To prepare material for presentation in oral and poster formats
- To take responsibility for organising resources and effective decision making in support of research
- To attend relevant workshops and conferences as necessary
- To promote the reputation of the Group, the Project, the Department and the College
- To present findings to colleagues and at conferences
- To draft publications and prepare them for submission to refereed journals
- To submit publications to refereed journals
- To contribute to writing bids for research grants
- To provide guidance to staff and students
- To undertake instruction of MSc and PhD students as agreed
- To supervise practical work and advise students on techniques
- To develop contacts and research collaborations within the College and the wider community

Administration and other activities

- To undertake appropriate administration tasks
- To be responsible for ensuring that data is accurate, up-to-date and complete

- To contribute to the Department's teaching activities as appropriate
- To attend relevant meetings
- To voluntarily undertake limited teaching duties in joint agreement with the Department of Mathematics

*Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant within the salary range £35,477 - £38,566 per annum.

Person Specification

Requirements	Essential (E)/ Desirable (D)
Candidates/post holders will be expected to demonstrate the following	
Education	
A PhD (or equivalent) in Mathematics	E
Experience	
Experience with stochastic PDEs or related areas	E
Clear evidence of outstanding promise and originality in research, with a good publication record, commensurate with career stage	E
Experience of writing research papers	D
Experience of giving talks at internationally recognised conferences and workshops	D
Knowledge	
A strong background in probability theory	E
A strong background in analysis	E
Some teaching experience	D
Skills & Abilities	
Excellent written communication skills and the ability to write clearly and succinctly for publication	E
Excellent verbal communication skills including the ability to deal with a wide range of people, and to communicate complex information clearly	E
Ability to identify, develop and apply new concepts, techniques and methods	E
Ability to keep accurate records of research results and activity	E
Ability to exercise initiative and judgement in carrying out research tasks	E
Ability to conduct a detailed review of recent literature	E
Creative approach to problem-solving	E
Ability to organise own work with minimal supervision	E
Ability to prioritise own work in response to deadlines	E
Ability to work effectively in a team	E
High level analytical capability	E
Ability to assess resource requirements and deploy them effectively	E
Ability to encourage research culture in others	E
Ability to deliver high quality scientific talks	E
Ability to direct the work of a small research team and motivate others to produce a high standard of work	D
Ability to motivate and guide the work of others	D
Other Requirements	
Willingness to work as part of a team and to be open-minded and cooperative	E
Commitment to meeting deadlines	E
Commitment to maintaining and enhancing facilities and training others in their use	E
Flexible attitude towards work	E

Discipline and regard for confidentiality and security at all times	E
Willingness to travel both within the United Kingdom and abroad to conduct research and attend conferences/workshops and other meetings	E

Please note that job descriptions cannot be exhaustive and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the [7 Imperial Expectations](#) detailed below:

- 1) Champion a positive approach to change and opportunity
- 2) Encourage inclusive participation and eliminate discrimination
- 3) Communicate regularly and effectively within and across teams
- 4) Consider the thoughts and expectations of others
- 5) Deliver positive outcomes
- 6) Develop and grow skills and expertise
- 7) Work in a planned and managed way

Employees are also required to comply with all College policies and regulations paying special attention to:

- Confidentiality
- Conflict of Interest
- Data Protection
- Equal Opportunities
- Financial Regulations
- Health and Safety
- Information Technology
- Smoking
- Private Engagements and Register of Interests

They must also undertake specific training and assume responsibility for safety relevant to specific roles, as set out on the [College Website Health and Safety Structure and Responsibilities](#) page.

The College is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see <https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/>

The College believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes where their use is shown to be necessary for developing new treatments and making medical advances. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in the College's care are treated with full respect, and that all staff involved with this work show due consideration at every level.

<http://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/animal-research/>

Committed to equality and valuing diversity, we are an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Disability Confident Employer and work in partnership with GIRES to promote respect for trans people.

October 2020