

Job Description

Job Title:	Chapman Fellowship in Mathematics
Department/Division/Faculty:	Department of Mathematics, Mathematical Finance Section, Faculty of Natural Sciences
Campus location:	South Kensington Campus
Job Family/Level:	Research Family, Research Associate*
Responsible to:	Head of Department
Key Working Relationships (internal):	Staff and Students of the Department
Key Working Relationships (external):	The National and International Mathematics Community and Learned Societies
Contract type:	Full Time, Fixed Term for 2 years

Purpose of the Post

To help produce independent and original research within the Mathematical Finance Section of the Department of Mathematics, to submit publications to refereed journals and to help with teaching and administration. The postholders will be expected to undertake a self-directed program of research and scholarship, play a role in the national and international Mathematics community, in addition to teaching students at undergraduate level. There will be Teaching in the MSc Mathematics and Finance.

Key Responsibilities

Research Duties

- To undertake a self-directed program of research and scholarship.
- To take initiatives in the planning of research
- To direct the work of small research teams including undergraduate and postgraduate students
- 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 draft publications and prepare them for submission to refereed journals
- To contribute to writing bids for research grants
- To provide guidance to staff and students
- To undertake instruction of PhD students as agreed
- To supervise practical work and advise students on techniques
- To take responsibility for organising resources and effective decision making in support of

research

- To present findings to colleagues and at conferences.
- To submit publications in refereed journals.
- To attend relevant workshops and conferences as necessary.
- To develop contacts and research collaborations within the College and the wider community.
- To play a role in the national and international Mathematics community and learned societies.
- To promote the reputation of the Department and the College through scientific meetings and other activities.

Teaching Duties

- Teaching in the MSc Mathematics and Finance. Approximately half a typical teaching load will be expected.
- To contribute to the assurance and enhancement of the quality of teaching and learning and research within the Department, in line with College standards.

Other

- To undertake appropriate administration tasks
- To be responsible for ensuring that data is accurate, up-to-date and complete
- To attend relevant meetings
- To undertake any necessary training and/or development

Person Specification

Requirements	Essential (E)/ Desirable (D)
Candidates/post holders will be expected to demonstrate the following	
Education	
Hold a PhD (or equivalent) in Mathematics or a closely related subject	E
*Candidates who have not yet been officially awarded their PhD will be appointed as a Research Assistant within the salary range £36,694 - £39,888 per annum.	
Knowledge & Experience	
A proven research record in Mathematical Finance or a related field such as Stochastic Analysis, Optimal Control, Statistics, or Machine Learning	E

Job Description

The potential for strong leadership qualities in the subject, as illustrated, for example, through showing initiative on research projects.	E
An outstanding research record commensurate with their level of experience as demonstrated, for example, through an outstanding thesis, publications, conference presentations etc.	E
Skills & Abilities	
An exceptional ability in the chosen research area.	E
The ability to contribute significantly to the research environment of the Department of Mathematics as demonstrated, for example, through a proven track record of successful research interaction.	E
The ability to teach Mathematics at Undergraduate and Postgraduate level, as shown by a good level in written and verbal communication skills together with the ability to give effective presentations.	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
Ability to develop and apply new concepts	E
Creative approach to problem-solving	E
Excellent verbal communication skills and the ability to deal with a wide range of people	E
Excellent written communication skills and the ability to write clearly and succinctly for publication	E
Ability to organise own work with minimal supervision	E
Ability to prioritise own work in response to deadlines	E
Ability to direct the work of a small research team and motivate others to produce a high standard of work	E
High level analytical capability	E
Ability to communicate complex information clearly	E
Ability to apply relevant models, techniques and methods and develop new ones	E
Ability to assess resource requirements and deploy them effectively	E
Ability to encourage research culture in others	E
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
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
Flexible attitude towards work.	E
Willingness to undertake any necessary training for the role	E

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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 [Imperial Values & Behaviours framework](#). Our values are:

- Respect
- Collaboration
- Excellence
- Integrity
- Innovation

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 which are ultimately aimed towards finding new treatments and making scientific and medical advances, and where there are no satisfactory or reasonably practical alternatives to their use. 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. [Find out more about animal research at Imperial.](#)

We are committed to equality of opportunity, to eliminating discrimination and to creating an inclusive working environment for all. We therefore encourage candidates to apply irrespective of age, disability, marriage or civil partnership status, pregnancy or maternity, race, religion and belief, gender identity, sex, or sexual orientation. We are an [Athena SWAN Silver Award](#) winner, a [Disability Confident Leader](#) and a [Stonewall Diversity Champion](#).

April 2022