



The University of Manchester

THE UNIVERSITY OF MANCHESTER
PARTICULARS OF APPOINTMENT
FACULTY OF SCIENCE & ENGINEERING
SCHOOL OF NATURAL SCIENCES
DEPARTMENT OF MATHEMATICS
LECTURER IN FINANCIAL MATHEMATICS
VACANCY REF: S&E-016103

Salary: Grade 7, £41,526 to £51,034 per annum

Hours: Full time

Duration: Available from April 2021 and Permanent

Location: Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:

Name: Dr Ian Hall, Head of the Probability & Statistics Group

Email: Ian.Hall@manchester.ac.uk

Or

Name: Professor Goran Peskir

Email: Goran.Peskir@manchester.ac.uk

Job Description

Applications are invited for the above post, to start in April 2021 or at a mutually agreed alternative date. We are looking for an expert in mathematical finance of outstanding ability, who is seeking a friendly, supportive and collegial environment in which to develop as a world-class researcher and teacher, and who will contribute to the continued development of the Probability & Statistics Group and to the life of the Department of Mathematics, in the School of Natural Sciences.

Applicants are sought in any area of financial mathematics that complements or extends existing expertise in the Department. The Department runs successful undergraduate and postgraduate courses in financial mathematics and is keen both to strengthen its teaching provision and to further develop its research capacity in this area.

Applicants should have an outstanding track record of research in financial mathematics and a genuine commitment to, and enthusiasm for, teaching, research and the development of others.

Research

You will be expected to enhance the international reputation of the Department and University by:

- undertaking high quality research, in collaboration with colleagues in the University and other institutions as appropriate, and publishing the results in world-leading journals, books or other appropriate outlets;
- attending relevant conferences and workshops, presenting papers, and disseminating recent research results;
- seeking grants and funding to support their research from relevant bodies;
- seeking to attract and supervise postgraduate research students and research assistants, associates and fellows;
- contributing to the research life of the Department of Mathematics by participating in and organising research events and activities;
- undertaking knowledge transfer or industrial engagement activities that enhance the impact of research.

Teaching

You will be expected to contribute to the delivery of a world-class educational programme by:

- working independently and with colleagues to teach undergraduate and postgraduate students by means of lectures, seminars, tutorials and examples classes, assuming responsibility for courses where appropriate, including delivery of blended learning;
- supervising undergraduate and postgraduate projects in financial mathematics;
- setting and marking assignments and examination papers in accordance with the Department's agreed procedures;
- developing teaching material and learning experiences for students in the light of current educational practice;
- participating in the planning and development of courses within the framework of Departmental, School and Faculty committees;
- acting as an academic advisor to undergraduate students in accordance with the Department's current practice;
- supervising postgraduate students in their research and in their preparation of dissertations and theses.

Administration

You will undertake managerial and administrative tasks attached to their responsibilities in teaching and research, and any others as requested by the Head of the Department of Mathematics, commensurate with their background and experience.

Other Requirements

- Depending on previous experience, successful applicant may be required to attend the University's training programme for new academic staff.

- All staff are expected to adhere to all policies and procedures of the University including those relating to Equal Opportunities, Harassment, Health and Safety, and Smoking at Work.
- Candidates will be expected to contribute from time to time in outreach activities or other forms of external engagement.

Person Specification

It is **essential** that you have:

- a PhD or equivalent research experience in financial mathematics or a closely related area;
- a strong record of original research in an area of financial mathematics of strategic importance to the Department, evidenced by high quality publications in internationally leading journals and appropriate esteem indicators;
- the potential and willingness to obtain external funding to support their research;
- a genuine enthusiasm for, and commitment to, excellent teaching at both undergraduate and postgraduate levels;
- a willingness and ability to supervise postgraduate research students and taught postgraduate dissertations;
- a willingness and ability to contribute to the life of the Department through appropriate service and leadership activities;
- the skills to communicate effectively with staff, students and external collaborators.

It is **desirable** that you have:

- the ability to serve as a role model to students and staff from a broad range of backgrounds;
- a sustained track record of excellent teaching at undergraduate and/or postgraduate level;
- a track record of obtaining funding to support their research;
- experience of knowledge transfer via interaction with industry or public engagement.

Background

Manchester is the largest city in Northern England, with a metropolitan area population of over 2.5 million. Traditionally a commercial and industrial powerhouse, and birthplace of the industrial revolution, today it is also a cosmopolitan centre of education, media, arts and sport. Internationally famed for spectator sport and nightlife, it also has world-class facilities for music, participation in sport, arts and shopping. Direct rail links connect to cities across the UK, and the international airport provides direct flights across Europe and to major hubs worldwide. Just outside the city, the Peak District National Park provides some of the country's best-loved terrain for outdoor activities, while the Yorkshire Dales, Snowdonia and Lake District National Parks are also easily accessible.

The **University of Manchester** (www.manchester.ac.uk) was formed in 2004 by combining the Victoria University of Manchester and UMIST. It is the largest non-federal university in the UK, with an annual income of over £1 billion, over 12,000 staff and over 40,000 students. It and its predecessor institutions have a distinguished history of research and teaching, tracing back to 1824 and having produced 25 Nobel laureates. Research highlights include Rutherford's work

on splitting the atom (leading to the 1908 Nobel prize for physics), the world's first stored-program computer (the Manchester University Mark I), the world's first steerable radio telescope (at Jodrell Bank), the birth of chemical engineering, and most recently the discovery of graphene (leading to the 2010 Nobel prize for physics). The Academic Ranking of World Universities currently rates Manchester as the 36th best university in the world and 9th best in Europe. The University has more than half a million alumni in 190 countries. The University is a partner of the Alan Turing Institute, the UK's national institute for data science and artificial intelligence.

Families and Work-life Balance. The Department and University are committed to the well-being and work-life balance of all staff. We have a package of family-friendly policies covering flexible working, career breaks and entitlement to paid maternity, paternity and adoption leave. For more details on these and other benefits

see <http://www.manchester.ac.uk/connect/jobs/benefits-working-here/>. The Department is fully committed to Athena SWAN principles to promote women in science and is a supporter of the LMS Good Practice Scheme; for more details of our activities relating to Social Responsibility see <http://www.maths.manchester.ac.uk/connect/social-responsibility/>. This is a full time post but applications from individuals seeking part time, job share or flexible working arrangements are welcome.

The **Department of Mathematics** (www.maths.manchester.ac.uk) is one of the larger integrated mathematics schools/departments in the UK, with approximately 80 permanent academic staff, 30 research assistants and fellows, 1,300 undergraduate students and 250 postgraduate students. Based in the purpose-built Alan Turing Building, the Department provides a friendly, supportive and collegial environment that fosters world-class research and teaching. In the 2014 Research Excellence Framework, 90% of the Department's research was rated as internationally excellent or world-leading. The Department is divided for management purposes into three groups, with focus respectively on Pure Mathematics, Applied Mathematics, and Probability & Statistics. The Manchester Institute for Mathematical Sciences (MIMS) provides a focus for research activities in the Department. It has dedicated space for research activities, including two seminar rooms, a hot-desking area, an AccessGrid room, and offices for research visitors.

Research in the Department is loosely organised into the following themes: Probability, Financial Mathematics and Actuarial Science; Statistics, Inverse Problems, Uncertainty Quantification and Data Science; Analysis, Geometry & Dynamical Systems; Numerical Analysis and Scientific Computing; Mathematics in the Life Sciences; Algebra, Logic and Number Theory; and Continuum Mechanics. Interfaces between these areas are porous and the University offers numerous opportunities for interactions with other disciplines. The Department offers a suite of MSc courses and a vibrant programme of research seminars. Dedicated research space in the Alan Turing Building also allows the Department to host numerous visitors, conferences and workshops.