THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF SCIENCE & ENGINEERING

SCHOOL OF NATURAL SCIENCES

DEPARTMENT OF MATHEMATICS

SENIOR LECTURER OR READER IN COMPUTATIONAL STATISTICS (TEACHING & RESEARCH)

VACANCY REF: SAE-027186

Salary:	Grade 8 £58,596 to £69,757 per annum, depending on relevant experience for Senior Lecturer extending to £76,125 for Reader, per annum, depending on relevant experience
Hours:	1 FTE
Duration:	Permanent
Location:	Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:
Name: Head of the Probability & Statistics Group within the Department of Mathematics, Professor Korbinian Strimmer
Email: korbinian.strimmer@manchester.ac.uk

Job Description

Applications are invited for the above post, to start in September 2025 or at a mutually agreed alternative date. We are looking for an academic of outstanding ability, who is seeking a friendly, supportive and collegial environment in which to develop as world-class researcher and teacher.

Applicants should hold a PhD or equivalent in Statistics or a closely related field and be able to demonstrate an outstanding research record in an area of Computational Statistics as well as the ability to lecture a range of courses in Statistics and related areas at both undergraduate and postgraduate level.

The successful candidate will strengthen one or more of the following strategic research areas in the Department: biomedical data analysis, computational statistics and machine learning, foundations of data science and AI, high-dimensional data analysis, and uncertainty quantification.

We expect a genuine commitment to and enthusiasm for both teaching and research and the development of others. The successful candidate will carry out research in Statistics and supervise research (PhD) students. They will teach undergraduate and masters-level courses and to contribute to the ongoing curriculum development. Furthermore, they will provide project supervision to students at undergraduate and masters-level in programmes offered by the Department. They will also perform other usual departmental duties, including examinations and further administrative tasks.

Research

The successful applicant 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;
- attracting distinguished visitors to the Department;
- providing leadership to colleagues, to enhance research;
- managing staff in such a manner as to enhance their research and maximise their career development,

Teaching

The successful applicant 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 both blended and traditional learning;
- supervising undergraduate and postgraduate projects;
- 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.
- providing leadership in the development and delivery of teaching to students in the Department and on the University's programmes.

Administration

The successful applicant 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, the 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.

Expectations

- Strong interpersonal skills to communicate effectively with staff, students and external collaborators;
- a strong personal commitment to equality, diversity, inclusion and accessibility;
- willingness to contribute to the life of the Department through appropriate service and leadership activities.

Person Specification - Senior Lecturer in Computational Statistics

It is **essential** that the individual appointed as Senior Lecturer in Computational Statistics has:

- a PhD or equivalent research experience in Statistics or a closely related area;
- a strong record (commensurate with career stage) of original research in computational statistics that strengthens one or more strategic research areas in the Department (including biomedical data analysis, computational statistics and

machine learning, foundations of data science and AI, high-dimensional data analysis, and uncertainty quantification), evidenced by high quality publications in internationally leading journals and appropriate esteem indicators;
- a record of successful supervision of research students;
- a record of securing external research funding commensurate with career stage and background;
- a record of excellent teaching, including class-room or online delivery, at undergraduate and/or postgraduate level;
- experience of supervising undergraduate and postgraduate dissertations;
- a strong personal commitment to Equality, Diversity, Inclusion and Accessibility, as evidenced by a record of activity in this area;
- experience of successful service and leadership in their institution or externally.

It is **desirable** that the the individual appointed as Senior Lecturer in Computational Statistics demonstrates:

- ✦ evidence of ability to lead a successful research group.
- ✦ a record of development in the content, delivery or assessment of the curriculum;

Person Specification - Reader in Computational Statistics

For appointment as Reader in Computational Statistics **the essential and desirable criteria** are as written in the Senior Lecturer specification, plus in addition (**essential**):

- an established record and continuing trajectory of output of high-quality, peer-reviewed research publications or other equivalent recognised forms of research output appropriate to the discipline;
- a sustained record of successful supervision of research students;
- a continuing record of securing external research funding commensurate with career stage and background;
- a sustained record of excellent teaching, including course development and/or contribution to programme development;
- evidence of developing reputation in the relevant international research communities;
- evidence of making a positive contribution to the research development of others;
- evidence of leadership of, and/or a record of service to, relevant external academic or professional institutions or networks.

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** (https://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 (https://www.manchester.ac.uk/discover/bicentenary/) 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 University of Manchester consistently ranks among the leading universities in the world and in Europe (https://www.manchester.ac.uk/study/experience/reputation/rankings/). The University has more than half a million alumni in 190 countries.

Digital Futures (https://www.digitalfutures.manchester.ac.uk/) is a cross faculty initiative that connects over 1700 researchers from 30 different disciplines. As part of Digital Futures, Manchester's Institute for Data Science & Artificial Intelligence acts as an access point to the University's expertise in data science and artificial intelligence. Manchester has an engaged data science community of over 600 investigators. Manchester is also a member of the Turing network, working directly with the Alan Turing 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 https://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 https://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** (https://www.maths.manchester.ac.uk) is one of the larger integrated mathematics schools/departments in the UK, with approximately 90 permanent academic staff, 30 research assistants and fellows, 1,500 undergraduate students and 200 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 2021 Research Excellence Framework, 99.5% 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. Manchester 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.

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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. Members of the Department work with the Institute for Data Science and Artificial Intelligence, and the national Alan Turing Institute. The Department offers a suite of MSc courses and a vibrant programme of research seminars. Dedicated research space in the Alan Turing.