THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF SCIENCE & ENGINEERING

SCHOOL OF MATHEMATICS

BEYER CHAIR IN APPLIED MATHEMATICS

VACANCY REF: S&E-13226

Salary:	Professorial scale according to relevant experience
Hours:	1 FTE
Duration:	Permanent. the position is usually full time, but a part time appointment may be considered.
Location:	Oxford Road, Manchester

Enquiries about vacancy shortlisting and interviews:
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Job Description

Applications are invited for the above post to start on 1 September 2019, or at a mutually agreed alternative date. The Beyer Chair was founded by an endowment in 1881 and previous holders have became pre-eminent in the field of Applied Mathematics. We seek a new holder for the chair with an outstanding reputation or recognised future potential in Applied Mathematics to join a friendly, supportive and collegial environment.

You will have a track record of research in one or more areas of Applied Mathematics, defined in its broadest sense, that complements and extends existing research within the School of Mathematics. You will play a leading role in the life of the School, by providing inspiring leadership in research, and also through appropriate teaching and service activities.

The duties of the post include

- undertaking research of the very highest quality, and publishing the results in prestigious learned journals, books and similar outlets;
- providing inspirational leadership to colleagues, and attracting research students,

assistants and fellows and distinguished visitors to the School;

- contributing to the School's lecturing and supporting teaching at both undergraduate and postgraduate level;
- seeking funding from external bodies to support ambitious programmes of research;
- contributing to administration, management and strategy of the Applied Mathematics Group, the School of Mathematics and/or the University in appropriate service and leadership roles.

You will be required to adhere to all policies and procedures of the University.

Person Specification

It is **essential** that you should

- have a track record of research in applied mathematics of the very highest quality;
- be, or have clearly demonstrated potential to become, recognised as a world-leading researcher in one or more areas of applied mathematics;
- be able to provide inspirational leadership to colleagues and research students within the applicant's area and the wider applied mathematics community;
- have a genuine enthusiasm for, and a commitment to excellence in, teaching at both undergraduate and postgraduate levels.

It is **desirable** that you should

- display clear evidence of eminence and reputation within the field, such as significant prizes, fellowships of major national academies, or editorships of the most prestigious international journals;
- have a sustained track record of excellent teaching;
- have a sustained track record of obtaining funding to support research;
- have demonstrated ability to develop and lead a successful research group;
- be able to serve as a role model to students and staff from a broad range of backgrounds.

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 the 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 £1billion, over 12,000 staff and more than 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 2017 Shanghai Jiao Tong Academic Ranking of World Universities rated Manchester as the 38th best university in the world and 8th best in Europe. The University is a partner of the Alan Turing Institute, the UK's national institute for data science and artificial intelligence.

The **School of Mathematics** (www.maths.manchester.ac.uk) is one of the larger mathematical sciences departments in the UK, with approximately 80 permanent academic staff, 30 research assistants and fellows, 1,100 undergraduate students and 250 postgraduate students. Based in the purpose-built Alan Turing Building, we pride ourselves on providing a friendly, supportive and collegial environment to foster world-class research and teaching. In the 2014 Research Excellence Framework, 90% of the School's research was rated as internationally excellent or world-leading. The School is divided for management purposes into three groups, with focus respectively on Pure Mathematics, Applied Mathematics, and Probability & Statistics.

The Beyer Chair was founded in 1881 and since then has been held by Sir Arthur Schuster FRS, Sir Horace Lamb FRS, Sydney Chapman FRS, Edward Milne FRS, Douglas Hartree FRS, Sydney Goldstein FRS, Sir James Lighthill FRS, Fritz Ursell FRS, Philip Hall and David Abrahams (presently Director of the Isaac Newton Institute, University of Cambridge). While former holders of the Chair have worked predominantly in physically-based mathematics, particularly fluid mechanics, there is no requirement that future holders should work in this field. The next holder should however work within a branch of applied mathematics that complements and extends current research in the School.

Research in Applied Mathematics within the School of Mathematics is organised into groups covering Continuum Mechanics, Dynamical Systems, Industrial Mathematics, Inverse Problems, Mathematical Finance, Mathematics in the Life Sciences, Numerical Analysis & Scientific Computation and Uncertainty Quantification & Data Science. Interfaces between these areas are porous and interactions with groups in Pure Mathematics and Probability & Statistics are strongly encouraged. The University offers numerous opportunities for collaboration across Science, Engineering and other disciplines, exemplified for example by the Manchester Centre for Nonlinear Dynamics (with the School of Physics & Astronomy) and the Wellcome Trust PhD Programme in Quantitative and Biophysical Biology (with the Faculty of Biology, Medicine & Health).

Families and Work-life Balance. The School 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 School 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 in this area see http://www.maths.manchester.ac.uk/about-us/women-in-maths/.