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| THE UNIVERSITY OF NOTTINGHAM  ROLE PROFILE FORM |

**Job Title:** Assistant Professor in Mathematical Physics (Fixed-term)

**School/Department:**  School of Mathematical Sciences

**Salary:** £34,233 - £45,954 per annum pro rata depending on skills and experience. Salary progression beyond this scale is subject to performance

**Job Family & Level:** Research and Teaching Extended Level 5

**Contract Status:** Fixed term until 31 December 2016

**Hours of Work:** Full-time

**Location:** University Park

**Reporting to:** Head of School or nominee

# Main Duties and Responsibilities

* To give instruction through high quality lectures, tutorials or demonstrations in service and honours mathematics to classes of all grades of students.
* To provide pastoral support to students through tutoring as required.
* To develop excellent teaching materials.
* To undertake original research of international excellence in Mathematical Physics complementing existing activity within the School.
* To publish results of research in internationally leading peer-reviewed journals.
* To seek and secure research funding as appropriate.
* To disseminate teaching and research findings at international conferences, workshops and meetings.
* To forge collaborations within and outside the University as appropriate.
* To contribute to efficient and effective completion of the work of the School.
* To undertake further training consistent with continuous professional development.
* You will be expected to take part, without further payment, in examination procedures for initial and higher degrees and for diplomas of the University, and to act as invigilator in such examinations when required to do so. You may also be required to give occasional lectures or courses likely to appeal to members of the public.
* Any other duties appropriate to the grade and role of the post holder.

This job description may be subject to revision following discussion with the person appointed and forms part of the contract of employment.

**Person Specification:**

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|  | **Essential** | **Desirable** |
| **Qualifications/ Education** | * PhD or equivalent in Mathematics or a related subject. |  |
| **Skills/Training** | * Excellent communication skills. * Good time-management and multi-tasking skills. * Good pedagogical skills required to teach a range of mathematical physics and mathematics lectures (including service) modules at all undergraduate levels and MSc level. Ability to develop excellent teaching and learning materials. | * Ability to use and develop appropriate IT-based learning. |
| **Experience** | * Teaching in Higher Education * Proven track-record in publishing research work of international quality in some branch of Mathematical Physics, complementing existing research activity within the School. Particular areas of interest include, but are not limited to, Quantum Disordered Systems, Quantum Gravity and Quantum Information. * Potential for successful research interaction with other members of the School. * Successful research interactions with others, in mathematical sciences and in wider inter-disciplinary areas. | * Potential to develop impact and outreach activities. |
| **Personal Attributes** | * Flexibility. * Ability to work within a team. |  |

Informal enquiries may be addressed to Professor John Barrett, tel: +44 (0) 115 951 4956 or email: [john.barrett@nottingham.ac.uk](mailto:john.barrett@nottingham.ac.uk). Please note that applications sent directly to this email address will not be accepted. Information about the School is available at:

<http://www.nottingham.ac.uk/mathematics/index.aspx>.

Applicants will be considered on an equal basis, subject to the relevant permission to work in the UK as defined by the requirements set out by the UK Border and Immigration Agency. Please visit <http://www.ukba.homeoffice.gov.uk/> for more information.

**Assistant Professor in Mathematical Physics (Fixed-term)**

**School of Mathematical Sciences**

The School of Mathematical Sciences has undergone an exciting period of expansion and now has over 60 permanent academic staff, about 20 postdoctoral research fellows and about 80 research students. Further appointments are being made to sustain our position as an internationally-leading centre. In August 2011 the School moved into new purpose-built accommodation on the attractive University Park campus.

The School currently has around 850 undergraduates on its own courses. It offers single honours degree programmes (both BSc and MMath) in Mathematics, in Mathematics with Engineering, and in Financial Mathematics, together with three joint honours degree programmes in Mathematics with Economics, Management Studies, and Data Science. The School also delivers half of the Mathematical Physics degree (both BSc and MSci) and several broad-ranging taught MSc courses. In addition, the School offers service modules to the University at large, notably to students in Engineering and Science. Applications for the School's undergraduate degree programmes are buoyant and we regularly attract one of the best-qualified undergraduate intakes in Mathematics in the UK. The School was graded as excellent, with 23 points out of a possible 24, in the last subject review undertaken by the Quality Assurance Agency.

The School undertakes research in diverse areas of mathematics organised around seven Research Groups: Algebra and Analysis, Industrial and Applied Mathematics, Mathematical Medicine and Biology, Mathematical Physics, Number Theory and Geometry, Scientific Computation, Statistics and Probability. In the recent national Research Excellence Framework (REF) the School was ranked in the top 10 nationally within Mathematical Sciences for both 'research quality' and 'research power', with 32% of its research recognised as world-leading and a further 56% as internationally excellent. Its research environment was classified as 75% world-leading in vitality and sustainability, with the remaining 25% internationally excellent.

The School holds major research grants worth £15M in total value across the full range of its activities; it runs several series of research seminars, as well as numerous study groups for PhD students. The School has intensive collaborative links with research groups and centres around the world. The School is a founder member of the Academy of PhD Training in Statistics (APTS) and regularly hosts APTS weeks and contributes to its teaching programme. The School participates in the UK MAGIC group which includes 19 UK universities and runs a wide range of postgraduate-level lecture courses in mathematics, using Access Grid videoconferencing technology.

All staff offices are equipped with computers running Windows, Linux, or Mac OS X, which are linked to the School's file servers and the University's central computers. The University provides an HPC (High Performance Computing) facility with 1,600 processor cores, suitable for running highly parallel scientific codes. The facility is capable of running at over 12 teraflops (12 x 1012 calculations per second). There are also well-equipped computing laboratories in the School for undergraduate and postgraduate use. The School's computer officers are responsible for both hardware and software support, and the School is well served by the School Manager and professional support staff.

The George Green Library for Science and Engineering and most of the Engineering, Science and Medical Schools are in nearby buildings. This library is currently undergoing a £14M extension. The University also has excellent provision for access to online journals and databases.

**The University and the City of Nottingham**

The University of Nottingham is one of the UK's most popular universities with over seven applications for every undergraduate place. It has an excellent international reputation for its research and teaching, and is located in a beautiful park two miles from the centre of Nottingham - the thriving commercial and cultural capital of the East Midlands. Nottingham's accessibility from all parts of the UK and beyond reflects its central location and the quality of its road, rail and air links (East Midlands Airport, twenty miles away, has regular air connections to all major European cities).

The School is located on the main University campus, a 300 acre woodland park just within the western boundary of the city of Nottingham. Apart from its UK based operations, the School is involved with the delivery of programmes at the University of Nottingham Ningbo, China, and the University of Nottingham Malaysia Campus. In the UK, the University has over 32,000 full- and part-time students and 3000 academic and research staff distributed across six faculties. It is one of the UK's leading research universities, ranked 8th according to 2014 Research Excellence Framework.