Job Related Information

This document includes information about the role for which you are applying and the information you will need to provide with your application.

1. Role Details

<table>
<thead>
<tr>
<th>Vacancy reference</th>
<th>15306</th>
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<tbody>
<tr>
<td>Job title:</td>
<td>Post Doctoral Research Associate</td>
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<tr>
<td>Reports to:</td>
<td>Professor Uwe Grimm, Mathematics and Statistics</td>
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<tr>
<td>Salary:</td>
<td>£30,395 to £39,609 depending on qualifications and experience</td>
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<td>Terms and conditions:</td>
<td>Research Staff</td>
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<tr>
<td>Grade</td>
<td>AC1/AC2</td>
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<tr>
<td>Duration of post:</td>
<td>36 months; the successful candidate should be in post by 1 April 2019</td>
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<td>Working hours:</td>
<td>Full Time</td>
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<td>Location:</td>
<td>Milton Keynes</td>
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<td>Closing date:</td>
<td>12:00 noon on 28 November 2018</td>
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<td>Type of application form accepted:</td>
<td>Short Application Form CV Covering letter detailing how you meet the person specification</td>
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<td>Number of referees required:</td>
<td>3</td>
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<td>Unit recruitment contact:</td>
<td>Zoe Anderson</td>
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2. Summary of duties

Applications are invited for a Research Associate position in the School of Mathematics and Statistics at the Open University to work with Professor Uwe Grimm on the EPSRC-funded project *Lyapunov Exponents and Spectral Properties of Aperiodic Structures*.

The main aim of this project is to understand the relation between spectral measures that characterise aperiodically ordered systems. In particular, this concerns dynamical and diffraction spectra on the one hand, and spectra of Schrödinger operators on the other. The project combines methods and approaches from a number of different areas of mathematics, such as ergodic theory and dynamical systems, the spectral theory of Schrödinger operators and the mathematics of aperiodic order.

The Research Associate will join a vibrant research group with established international academic collaborations. Funding for exchange visits to collaborating partners is available.

The successful candidate will be supported in their career development with a range of different courses from the Staff Development programme at the Open University.

Main Duties

The post holder will be based in the School of Mathematics and Statistics at the Open University in Milton Keynes. The principal duties of the post are as follows.

- To carry out research relevant to the research project.
- To publish the results of this research in journals of international standing.
- To present the results of this research at conferences, workshops and seminars.
- To contribute to the research culture of the School.

3. Person specification

**Requirements  (E = Essential/ D = Desirable)**

**Education, qualifications and training**

Successful completion (or near completion) of a PhD in Mathematics (or a closely related field).

**Knowledge, work and other relevant experience**

**Essential:**

- Experience of undertaking research in a relevant area of mathematics.
- Good background knowledge in a relevant area of mathematics.
- Experience of publishing in journals of international standing or evidence that such output will be forthcoming in the near future.
- Ability to communicate research results effectively as demonstrated by a record of peer-reviewed publications and conference talks or posters.
Desirable:  
- Good knowledge of ergodic theory and dynamical systems and/or good knowledge of the spectral theory of Schrödinger operators.
- Basic knowledge of the mathematics of aperiodic order.

Personal abilities and qualities

Essential:  
- Ability to work independently as a researcher within a small team.
- Good communication, presentation and interpersonal skills.

Desirable:  
- Willingness to play an active role in promoting the profile of research within the School.
- Interest in public engagement activities relating to the research project.

4. Role specific requirements e.g. Shift working

N/A

5. About the unit/school

Faculty of Science, Technology, Engineering & Mathematics

The Faculty of Science, Technology, Engineering and Mathematics (STEM) comprises

- School of Computing & Communications
- School of Environment, Earth & Ecosystem Sciences
- School of Engineering & Innovation
- School of Life, Health & Chemical Sciences
- School of Mathematics & Statistics
- School of Physical Sciences
- Knowledge Media Institute
- Deanery including teams supporting Curriculum, Research and Enterprise, Laboratory Infrastructure and Faculty Administration

“We aspire to be world leaders in inclusive, innovative and high impact STEM teaching and research, equipping learners, employers and society with the capabilities to meet tomorrow’s challenges”

The Faculty of STEM consists of 700 staff and 1,800 Associate Lecturers. The Faculty delivers over 185 modules across undergraduate and postgraduate curriculum, supporting nearly 19,000 students (full time equivalents) which is 29% of the OU total.

The Faculty generates more research income (circa £17M) than any other Faculty in the University, supported by a comprehensive laboratory infrastructure.

We are proud of our distinctive values and capabilities underpinning our aspiration:
We are inclusive:
- We transform people’s lives, ensuring STEM education is openly accessible to many thousands of students from diverse backgrounds – our students express high satisfaction with their study experience
- We engage the public in exciting citizen science and engineering, including through free open educational resources, multi-platform broadcasting, outreach to inspire the next generation and with programmes to encourage more women into STEM

We are highly innovative:
- We are at the forefront of innovative developments in teaching practical science and engineering at a distance, through simulated and remote access laboratories and practical experimentation
- Our high quality teaching and curriculum are informed by world-leading research, strong links with professional bodies and communities of practitioners, as well as by scholarship focused on continuously improving our STEM pedagogy

We deliver significant social and economic impact:
- We provide STEM higher education at a scale and reach unsurpassed in the UK, with a sizeable international reach and further growth potential
- We inject transferable STEM skills and knowledge direct into the workplace for immediate employee and employer benefit, as students combine study while working
- The employability value of our courses is underpinned by accreditation from leading STEM Professional Bodies and Learned Societies, as well as partnerships and sponsorship with leading employers
- Our high quality, applied and academically relevant teaching and research addresses real-world issues, delivering impact for industry and society, including addressing pressing STEM skill shortages across the UK

School of Mathematics and Statistics
The School is the largest UK provider of higher education mathematics and statistics teaching, with well over 15,000 student registrations each year. Many of our courses are also taught outside the UK and this is an expanding part of our profile. The School’s research and teaching covers a broad range of topics in mathematical sciences, across Applied Mathematics, History of Mathematics, Mathematics Education, Pure Mathematics, Statistics and Theoretical Physics.

Within the School there is a vibrant research environment, with about 50 academic members of staff together with postdoctoral researchers and PhD students. Our staff include two LMS Whitehead Prize winners, an IoP Maxwell Medallist, a Fellow of the American Statistical Association and a Fellow of the Institute of Mathematical Statistics, and our emeritus staff include an AMS Whiteman Prize winner and a RSS Bradford Hill Medallist. In the 2014 Research Excellence Framework, 75% of our research outputs were rated as world leading or internationally excellent. The School runs a popular mathematics seminar series with weekly talks by visitors. The aperiodic order research group has well established collaborations with regular exchange visits to groups in Europe and in North America.

The School provides a friendly and flexible working environment and is actively striving to achieve gender equality in terms of opportunity and success for all, both within the School and for our students. The School holds an Athena SWAN bronze award and is currently working towards a silver award. Further information about the School of Mathematics and Statistics is available at http://www.mathematics.open.ac.uk/.
6. How to obtain more information about the role or application process

If you would like to discuss the particulars of this role before making an application please contact Professor Uwe Grimm on 01908 659991 or by email to uwe.grimm@open.ac.uk.

If you have any questions regarding the application process please contact Zoe Anderson on +44 (0)1908 332313 or email: STEM-Recruitment@open.ac.uk.

7. The application process and where to send completed applications

| Your application should contain: | Short Application Form  
| CV  
| Cover letter |
| Please ensure that your application reaches the University by: | 12:00 noon on 28 November 2018 |
| E-mail your application to: | STEM-Recruitment@open.ac.uk |
| Or post it to Name/Job title: | Zoe Anderson, Staffing Adviser |
| Department/Unit: | Deanery, Faculty of Science, Technology, Engineering & Mathematics |
| Address: | The Open University, Walton Hall, Milton Keynes, MK7 6AA |

8. Selection process and date of interview

| The interview panel will be chaired by: | Dr Robert Brignall, Director of Research, School of Mathematics and Statistics |
| The other members of the interview panel will be: | Dr Silvia Barbina, Professor Uwe Grimm, Dr Ian Short |
| The interviews will take place on: | TBC |
| The selection process for this post will include | Panel Interview  
| As part of the final selection process shortlisted candidates will be invited to give a presentation on their research.  
<p>| The decision on the appointment rests solely with the Appointing Committee. |</p>
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<th>We will let you know as soon as possible after the closing date whether you have been shortlisted for interview. Further details on the selection process will also be sent to shortlisted candidates. Applications received after the closing date will not be accepted.</th>
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