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>14135</th>
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<tbody>
<tr>
<td>Job title:</td>
<td>Research Associate in Pure Mathematics</td>
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<tr>
<td>Reports to:</td>
<td>Professor of Pure Mathematics</td>
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<tr>
<td>Salary:</td>
<td>£29,799 to £38,833 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 depending on qualifications and experience</td>
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<tr>
<td>Duration of post:</td>
<td>36 months; the successful candidate must be in post by 1 April 2018</td>
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<tr>
<td>Working hours:</td>
<td>Full-time</td>
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<tr>
<td>Location:</td>
<td>Walton Hall, Milton Keynes</td>
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<td>Closing date:</td>
<td>TBA</td>
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<tr>
<td>Type of application form accepted:</td>
<td>Short</td>
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<td>Number of referees required:</td>
<td>Three</td>
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<td>Unit recruitment contact:</td>
<td>Helen Gordon</td>
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2. Summary of duties

Overall Job Purpose

To carry out research on the EPSRC-funded project entitled ‘Classifying wandering domains’, led by Professor Gwyneth Stallard and Professor Phil Rippon of the School of Mathematics and Statistics. For more details of the project, see: http://gow.epsrc.ac.uk/NGBOViewGrant.aspx?GrantRef=EP/R010560/1

The project and the research context

The aim of the project is to complete the classification of the different types of dynamical behaviour that can occur within the components of the Fatou set of a transcendental entire function. A complete classification of periodic Fatou components exists and a complete description of the dynamical behaviour within multiply connected wandering domains was given in a recent joint paper by Professors Rippon and Stallard together with Professor Walter Bergweiler. This project aims to give a complete description of the dynamical behaviour within the remaining case of simply connected wandering domains.

There are many types of simply connected wandering domains. The project will begin by analysing examples of wandering domains that can be thought of as escaping versions of the different types of periodic Fatou components, and using a range of techniques to construct new examples. The project will then address the more challenging task of constructing new examples of wandering domains that do not escape and classifying such domains.

The work will be carried out in collaboration with members of the holomorphic dynamics group at the Universitat Autonoma de Barcelona.

Main Duties

The post holder will be based at the Open University in Milton Keynes and their main duties will consist of the following:

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

3. Person specification

Requirements  (E = Essential/ D = Desirable)

<table>
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<tr>
<th>Education, qualifications and training</th>
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<tr>
<td>Essential:</td>
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<tr>
<td>- Successful completion (or near completion) of a PhD in pure mathematics.</td>
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Knowledge, work and other relevant experience

Essential:
- Experience of undertaking research in transcendental dynamics or a closely related area of complex analysis.
- Experience of publishing in journals of international standing or evidence that such output will be forthcoming in the near future.

Desirable:
- Experience of presenting research results at conferences and seminars.

Personal abilities and qualities

Essential:
- The ability to work independently as a researcher within a small group.
- Good communication, presentation and interpersonal skills.

Desirable:
- A willingness to play an active role in promoting the profile of research within the School.

4. Role specific requirements e.g. Shift working

N/A

5. About the unit/department

Faculty of Science, Technology, Engineering & Mathematics

The newly formed 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. The staff include two LMS Whitehead Prize winners, an IoP Maxwell Medallist, an AMS Whiteman Prize winner, a RSS Bradford Hill Medallist, and one of the twenty-five most highly cited mathematicians/statisticians worldwide. In the 2014 Research Excellence Framework, 75% of our research outputs were rated as world leading or internationally excellent.

The Research Associate would join the complex analysis group which, in addition to Professors Stallard and Rippon, includes Dr Ian Short, three full-time PhD students and one part-time PhD student. The group has a weekly lunchtime meeting including an informal talk, usually given by a member of the group. There are also regular visitors giving talks in the weekly Mathematics seminar. The group has joined together with the groups at the University of Liverpool and Imperial College to form the LMS Scheme 3 group in holomorphic dynamics, holding regular joint research meetings.

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 Gwyneth Stallard (gwyneth.stallard@open.ac.uk) or Professor Phil Rippon (phil.rippon@open.ac.uk).

If you have any questions regarding the application process please contact Helen Gordon on +44 (0) 1908 653350 or email: STEM-Recruitment@open.ac.uk.

7. The application process and where to send completed applications

| Your application should contain: | (1) a short application form completed in full; |
| | (2) an up to date curriculum vitae that includes details of relevant research experience, publications, and professional activities. Please remove any information from your CV that might give an indication of your race, religion or belief, or sexual orientation, as these details are irrelevant to your application. You should include your current salary details; |
| | (3) a letter (maximum 1250 words) explaining how your experience and skills match the person specification. |

Please ensure that your application reaches the University by: Noon 13 December 2017

E-mail your application to: STEM-Recruitment@open.ac.uk

Or post it to Name/Job title: Helen Gordon, 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, Research Director, School of Mathematics and Statistics |
| The other members of the interview panel will be: | Professor Gwyneth Stallard, Professor of Pure Mathematics, School of Mathematics and Statistics |
| | Professor Phil Rippon, Professor of Pure Mathematics, School of Mathematics and Statistics |
| The interviews will take place on: | 15th January 2018 |
| 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.  
The decision on the appointment rests solely with the Appointing Committee. Members of the panel will be notified to shortlisted candidates. |
|---|---|
| **i** | 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. |