

University Lectureship in Mathematics

Applications are invited for the post of University Lecturer in Mathematics.

This University Lectureship is jointly funded by Newnham College and shall be held in conjunction with a College Lectureship at Newnham College, where the successful applicant will carry the title of the Sheila Edmonds Lecturer in Mathematics. As a College Lecturer at Newnham, the person appointed will enjoy the full benefits of senior membership of the College and shall have equal employment rights. In accordance with the College Statutes made under the Oxford and Cambridge Act 1923, College Lecturers, if women, are elected into a Fellowship in Category A (Official Fellowship) of the College.

This exciting new post will combine teaching, research and other activities aimed at promoting women's participation and achievement in Mathematics. The successful candidate will need to demonstrate the potential to be a strong role model to female mathematicians.

The successful candidate will hold a PhD in Mathematics or equivalent, will have a track record of excellent research publications, and will be expected to lead and pursue a research programme of the highest standard.

The successful candidate will be expected to contribute to the teaching programmes of the both the Department and Newnham College at undergraduate and graduate level. They will contribute, as appropriate, to the academic administration of the Department and the College.

The Department

The Department of Applied Mathematics and Theoretical Physics is one of the largest and strongest departments of its kind in Europe. The Department currently consists of 29 Professors (9 of whom are FRS), 9 Readers, 1 Senior Lecturer and 11 Lecturers, approximately 80 Post-doctoral Fellows and approximately 110 Research Students. Over 800 undergraduate and postgraduate students are enrolled in Parts I to III (years 1 to 4) of the Mathematical Tripos. Part III is not only the 4th year of the undergraduate course, but attracts more than 100 students each year from outside Cambridge, who take it as a one-year postgraduate course, leading to a Masters degree.

DAMTP shares responsibility for teaching in the Mathematical Tripos with its sister Department, the Department of Pure Mathematics and Mathematical Statistics (DPMMS). DAMTP also has responsibility for teaching mathematics to undergraduates taking Natural Sciences. DAMTP and DPMMS are accommodated, along with the Isaac Newton Institute for Mathematical Sciences and the Betty and Gordon Moore Library (covering mathematics, physical sciences and technology) at the Centre for Mathematical Sciences, a purpose-built complex in Wilberforce Road.

The Faculty of Mathematics is a supporter of the Good Practice Scheme developed by the London Mathematical Society's Women in Mathematics Committee (<http://www.lms.ac.uk/women/good-practice-scheme>). The Faculty is actively engaged with the Athena SWAN Award Scheme (holding a Bronze Award

from 2013). The Departments would particularly welcome applications from women, since women are, and have historically been, underrepresented on our academic staff.

Research

Current research in DAMTP is loosely organised into eight broad subject areas: Applied and Computational Analysis, Astrophysics, Geophysics, Fluid and Solid Mechanics, Mathematical Biology, Quantum Information, High Energy Physics and General Relativity and Cosmology. The boundaries between the areas are not rigid and evolve with time. Many members of staff contribute to more than one area and this is regarded as a key factor in the continuing success of DAMTP.

Research in each of DAMTP's subject areas involves collaboration with strong groups nationally and internationally, and participation in numerous interdisciplinary projects and programmes. Many members of DAMTP have valuable links with industry and other non-academic sectors. For more information please see: <http://www.damtp.cam.ac.uk/research>.

The Department has a large amount of computing power, consisting mainly of a sophisticated heterogeneous network of UNIX workstations and Linux PCs, but also incorporating some Windows and Macintosh systems. At University level there is larger-scale provision via the University High Performance Computing Service (<http://www.hpc.cam.ac.uk/>). Alongside this, DAMTP itself hosts important parts of the STFC-funded DiRAC-2 facility.

The Department is home to the GK Batchelor Laboratory, in which numerous fluid mechanical and biophysical experiments are undertaken. The laboratory has extensive infrastructure, including facilities for microfluidics, confocal microscopy and micromanipulation, high-speed imaging, tracking microscopy, cell growth and molecular biology. A dedicated, centrally funded machine/electronics shop provides world-class device fabrication and technical expertise in the service of the experimental groups.

There are strong links with the Isaac Newton Institute for Mathematical Sciences. At any time the Institute runs two parallel research programmes, each usually lasting six months and attracting several dozen mathematical scientists nationally and internationally. In several areas there are also links to research in DPMMS <https://www.dpmms.cam.ac.uk/>, including in general relativity and the analysis of Einstein's equations, and to other Departments within the School of Physical Sciences <http://www.physsci.cam.ac.uk/researchinsps>.

Further general information about the University of Cambridge, the Department of Applied Mathematics and Theoretical Physics, and Mathematics in Cambridge may be found on the websites: <http://www.cam.ac.uk>, <http://www.damtp.cam.ac.uk> and <http://www.maths.cam.ac.uk>.

Newnham College

Newnham College was founded in 1871 to promote excellent academic education for women, and is still the largest women's College in Cambridge. There are circa 60 Senior Members, 375 undergraduate and 270 postgraduate students, and over 80 non-academic staff. The College is located on a single 18-acre site, most of the buildings being listed. It is directly opposite the University's Sidgwick Site Faculties and Libraries, and close to many other Departments. Newnham remains a pioneer in further education for women and admits only female undergraduates and graduates.

The College continues to be a thriving intellectual community, and to be an excellent springboard for all that the University of Cambridge has to offer.

The College is a registered charity: it aims to advance women's education, learning and research.

Further Information about Newnham College can be found on the website <http://www.newn.cam.ac.uk>.

Appointment Process

This post is available from 1 October 2017 although sooner if the right candidate is available and appointment will be to the retirement age, subject to satisfactory completion of an initial probationary period of five years. The salary is in the range £39,324-£49,772, and the post-holder will be eligible for membership of the Universities Superannuation Scheme. (Fuller details at <http://www.pensions.admin.cam.ac.uk/>). Subject to compliance with Statutes and Ordinances relating to leave, full time officers are entitled in any holiday year to take a minimum of 5.6 weeks annual paid holiday. These periods are inclusive of public holidays that fall outside of Full Term.

In exceptional circumstances, it may be possible to offer a supplement to the salary range stated for this role of up to £10,000. Any such supplement would be awarded on the basis of a demonstrable history of exceptional achievement and is entirely at the discretion of the University.

Informal enquiries should be directed in the first instance to either Professor Peake (Head of Department) LE11309@maths.cam.ac.uk or the Senior Tutor (Newnham College) senior.tutor@newn.cam.ac.uk.

To submit an application for this vacancy, please click on the link in the 'Apply online' section of the advert published on the University's Job Opportunities pages. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

You will need to upload a letter of application, a full curriculum vitae, a list of publications and one page of A4 detailing research interests and future plans. You should also include the contact details of three academic referees. Please ensure that at least one of your referees is contactable at any time during the selection process, and is made aware that they will be contacted by the Mathematics HR Office Administrator to request that they upload a reference for you to our Web Recruitment System; and please encourage them to do so promptly.

All applications must be received by 24th March 2017

Pre-employment Checks

We have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. If you do not have the right to work in the UK already, any offer of employment we make to you will be conditional upon you gaining it. If you need further information, you may find the Right to Work page within the 'Applying for a job' section of the University's Job Opportunities pages helpful (please see <http://www.jobs.cam.ac.uk/right/have/>).

The University of Cambridge

The University of Cambridge is one of the world's oldest and most successful Universities, with an outstanding reputation for academic achievement and research. It was ranked first in the 2011 QS World University Rankings and its graduates have won more Nobel Prizes than any other university in the world. The University comprises more than 150 departments, faculties, schools and other institutions, plus a central administration and 31 independent and autonomous colleges.

The University and the Colleges are linked in a complex historical relationship. The Colleges are self-governing, separate legal entities which appoint their own staff. They admit students, provide student accommodation and deliver small group teaching (supervisions). The University awards degrees and its faculties and departments provide lectures and seminars for students, determine the syllabi for teaching and conduct research.

There is much more information about the University at <http://www.cam.ac.uk/univ/works/index.html> which we hope you will find helpful.

What the University can offer you

One of our core values at the University of Cambridge is to recognise and reward our staff as our greatest asset. We realise that it's our people who have built our outstanding reputation and that we will only maintain our leading position in the academic world by continuing to attract and retain talented and motivated people. If you choose to come and work with us, you will find that we offer:

- **Excellent benefits** – You will be eligible for a wide range of competitive benefits and services, including numerous discounts on shopping, health care, financial services and public transport. We also offer defined benefits pension schemes and tax-efficient bicycle, car lease and charity-giving schemes.

We will help you balance your home and work life by providing you with generous annual leave entitlement and procedures for requesting a career break or flexible working arrangements if you need them. You will also have access to a range of well-being support services, including in-house Occupational Health and Counselling services. If you have childcare responsibilities, you may also benefit from the enhanced maternity/adoption pay, two nurseries and a holiday play scheme that we provide.

The University Accommodation Service (<http://www.accommodation.cam.ac.uk/>) will also be available to help you find suitable rented accommodation and to provide advice on renting arrangements and local facilities, if required. In addition, certain academic and academic-related appointments are eligible for the Shared Equity Scheme which offers financial assistance with the purchase of living accommodation.

- **A welcoming and inclusive environment** - We will help you settle into your new role and working environment through a central University induction event, local induction activities and our online induction package. Where appropriate to your role, you will have a probation period to provide a supportive framework for reviewing your progress and discussing your training and development needs.

If you are relocating to Cambridge, you and your family will be welcome to attend the Newcomers and Visiting Scholars Group, which provides an opportunity to find out more about Cambridge and meet other people new to the area.

- **Extensive development opportunities** - The encouragement of career development for staff is one of the University's core values. We put this into practice through various services and initiatives, including:
 - A wide-range of training courses and online learning packages.
 - The Staff Review and Development (SRD) Scheme, which is designed to enhance work effectiveness and facilitate career development post-probation.
 - Leave for career and personal development, including long-term study leave for assistant staff and sabbatical leave for academic staff.
 - Reduced staff fees for University of Cambridge graduate courses.
 - The opportunity to attend lectures and seminars held by University departments and institutions.
 - Policies and processes dedicated to the career development of researchers and the implementation of the principles of the Concordat, which have led to the University being recognised with an HR Excellence in Research Award by the European Commission.

You can find further details of the benefits, services and opportunities we offer can be found in our CAMBens Employee Benefits web pages at <http://www.hr.admin.cam.ac.uk/pay-benefits/cambens-employee-benefits>. A range of information about living and working in Cambridge is also available to you within the University's web pages at <http://www.jobs.cam.ac.uk/> and <http://www.hr.admin.cam.ac.uk/hr-staff/information-staff>.

Equality of Opportunity at the University

We are committed to a proactive approach to equality, which includes supporting and encouraging all under-represented groups, promoting an inclusive culture and valuing diversity. We make selection decisions based on personal merit and an objective assessment against the criteria required for the post. We do not

treat job applicants or members of staff less favourably than one another on the grounds of sex (including gender reassignment), marital or parental status, race, ethnic or national origin, colour, disability (including HIV status), sexual orientation, religion, age or socio-economic factors.

We have various diversity networks to help us progress equality; these include the Women's Staff Network, the Disabled Staff Network, the Black and Minority Ethnic Staff Network and the Lesbian, Gay, Bisexual and Transgender Staff Network. In addition, we were ranked in the top 100 employers for lesbian, gay and bisexual (LGB) staff in Stonewall's Workplace Equality Index 2013 and we hold an Athena SWAN silver award at organisation level for promoting women in Science, Technology, Engineering and Medicine.

We are supportive of staff with caring responsibilities, such as through our flexible working, career break and returning carers schemes. We encourage individuals to include details of any breaks in employment due to caring responsibilities in applications for employment so that these can be taken into consideration in assessments made, where appropriate.

Information if you have a Disability

The University welcomes applications from individuals with disabilities and we are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so, and, if successful, to assist them during their employment. Information for disabled applicants is available at <http://www.admin.cam.ac.uk/offices/hr/staff/disabled/>.

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

If you prefer to discuss any special arrangements connected with a disability, please contact, Ms Julie Bazin in the HR Office, who is responsible for recruitment to this position, on 01223 764289 or by email on hr-office@maths.cam.ac.uk or by post to the Faculty of Mathematics, Wilberforce Road, Cambridge CB3 0WB. Alternatively, you may contact the HR Business Manager responsible for the department you are applying to via hrenquiries@admin.cam.ac.uk.

Newnham College

College Lecturers – Job Description

College Lecturers undertake a variety of duties, and normally have other duties in the College, in the University, or both, or in other research institutions. The duties carried by an individual lecturer at a given time may vary with the College's needs. There are however some essential aspects of the job: these include supervising, participation in the admissions process, and directing studies when required to do so.

1. College Lecturers may be required to direct studies. A College Lecturer who is a University Teaching Officer may seek permission from the Senior Tutor to exchange a proportion of their teaching hours either for Tutorial duties or for Directing Studies. A College Lecturer in this case is described as UTO Category AA/A, which carries an expectation to teach 80/120 hours per year, which is approximately four/six hours per week during the Michaelmas and Lent Terms, and during the first four weeks of the Easter Term. In the event of a College Lecturer doing less than 80/120 hours teaching, then an adjustment may be made to the stipend at the end of the academic year.

All changes in College Lecturers' responsibilities are organised with and through the Senior Tutor, who is responsible for reporting these changes to the Academic Planning Committee and seeking Council agreement to any substantial changes. Changes that require Council agreement include: exchanges of one sort of duty for another; short term leave; other leave arrangements, including sabbatical arrangements; arrangements to take on additional responsibilities or duties which may be additionally remunerated.

2. Directors of Studies are responsible for organising teaching in their subjects. College Lecturers are expected to consult with the relevant Director(s) of Studies, and to apply their teaching in the first instance for the benefit of the College, either by teaching Newnham students, or, if appropriate, as exchange with supervisors in other colleges who then provide equivalent hours of teaching for Newnham students.

Exchange Teaching (with some variety of nomenclature) is widely practised around the University though its precise mechanisms are varied by custom and practice in different departments and faculties. It may vary from explicit trading with other colleges, to simple participation in departmentally-organised supervision schemes. Directors of Studies will advise the Senior Tutor as to whether a Lecturer's teaching falls in this category. Other teaching may be undertaken as a private arrangement between the College Lecturer and another college, but does not attract an enhanced rate of payment and is not paid through the Newnham payroll.

College Lecturers may be asked to advise the Director of Studies about supervisors if they are unable themselves to cover all the teaching in their own subject, and adjacent areas and, where appropriate, to facilitate contact. They may also be asked to contribute to setting and marking College examinations.

3. College Lecturers are also expected to take part in selecting candidates for admission in their subjects. This work may include reading submitted work and application forms, interviewing and assessing students' potential. Most admissions work is done outside Full Term. They are also expected to take some part in recruitment activities, for example, by attending open days from time to time and by telling visiting teachers and school pupils about their subjects.
4. College Lecturers are expected to contribute to the academic life of the College in more general ways. They are either full members of Governing Body or entitled to attend Governing Body; full members of the Governing Body are expected to attend meetings of the Governing Body. College Lecturers are members of the Education Committee and expected to attend its meetings. If they are Directors of Studies, then they are members of the Directors of Studies Committee and expected to attend its meetings. They offer specialist subject-related advice to students; they make proposals for awards and prizes. They advise about library books in their subjects. They inform Directors of Studies of any developments in their Department/Faculty and, when appropriate, represent the College's interests in their Faculty or Department.
5. Research is also a substantial component of a Lecturer's College Duties and, if invited by the Faculty or Department to submit work to the Research Excellence Framework [REF], or equivalent, College Lecturers are obliged by the terms of their appointment to do so.
6. The post or office is subject to the Newnham College Senior Members Handbook and Policies & Procedures [October 2011]; a copy of which, including subsequent updates, will be enclosed with your letter of appointment. You should read this carefully and by signing a copy of your appointment letter, you are confirming your acceptance of its terms and conditions.

If you have any questions relating to this college job description, please address them to the Senior Tutor of Newnham (email: senior.tutor@newn.cam.ac.uk).