

# Faculty Position in Probability

Department of Pure Mathematics and  
Mathematical Statistics

Closing Date: 1 December 2024  
Job Reference: LF43532



# Faculty Position in Probability

**Salary:**

£68,857

**Contract:**

Permanent

**Location:**

Centre for Mathematical Sciences

**Department:**

Department of Pure Mathematics and Mathematical Statistics

**Responsible to:**

Director of the Statistical Laboratory

**Working Pattern:**

Full Time

The University of Cambridge has a Hybrid Working Policy that aims to enable as many staff as possible to work in a hybrid way if they so wish, whilst recognising that some roles will include tasks that can only be performed on University premises.

**Purpose of the role**

The Department of Pure Mathematics and Mathematical Statistics at the University of Cambridge is seeking to recruit a new Faculty member who can contribute to research and teaching in Probability from September 2025 or as soon as possible thereafter.

Appointment will be made at the level of Professor (Grade 11) for a candidate who can demonstrate a track record of exceptional achievement and appropriate experience.

The successful candidate will be eligible for the University's merit-based promotions procedure leading to Professor (Grade 12).

Candidates should hold a PhD or equivalent in mathematics or statistics, or a closely related subject. The ideal candidate for this position will have a strong track record of research excellence and will be able to lecture a range of courses in mathematics at undergraduate and masters' level.

The successful candidate will have the ability, or potential, to secure research funding to support their research vision and build a network of collaborators. This will require you to act independently in initiating, planning and managing a research project/programme.

The post holder will be part of a world-leading department with strong interdisciplinary connections within Cambridge, the UK and internationally.

**Key Responsibilities**

- The responsibilities of a Faculty member in the Department are to engage in the teaching and research programmes of the Department and University under the direction of the Director of the Statistical Laboratory.

- The expected total teaching load for this position will conform to the normal load for academics within the Department (approximately two courses or 48 lectures per year, being typically, but not invariably, one undergraduate course and one Masters course).
- Academics will sometimes be asked to be available for teaching on Saturday mornings.
- Extra remuneration may also be received for additional College responsibilities.
- The postholder will be expected to perform other usual departmental duties, such as those associated with examinations and administration. They will be expected to investigate new areas of research and funding opportunities, and submit grant applications. They will also be expected to write papers for publication, attend conferences, network with national/international colleagues and give presentations.

Further general information regarding the Department of Pure Mathematics and Mathematical Statistics can be found at [www.dpmms.cam.ac.uk](http://www.dpmms.cam.ac.uk) and specific information about the Statistical Laboratory can be found at [www.statslab.cam.ac.uk](http://www.statslab.cam.ac.uk).

Informal enquiries should be directed in the first instance to Professor Richard Samworth via [LF43532@maths.cam.ac.uk](mailto:LF43532@maths.cam.ac.uk).



# Person Specification

Criteria	Essential	Desirable
<b>Education</b>		
Candidates should hold a PhD or equivalent in mathematics, statistics, or a closely related subject and have an outstanding research record in Probability.	✓	
<b>Academic</b>		
A developing bibliography of research publications	✓	
Demonstrate a firm commitment to teaching at both the undergraduate and postgraduate levels	✓	
A track record of securing research funding		✓
Experience of and willingness to take a leading role in the supervision of Research Students	✓	
An interdisciplinary and collaborative research approach		✓
Demonstrate an ability to lecture a range of courses in Mathematics.	✓	
<b>Leadership experience and achievements</b>		
Willingness to undertake management and administrative duties	✓	
Proven ability to lead and inspire a team and work with vision and foresight		✓

## Declaration on Research Assessment

The University of Cambridge is a signatory to the San-Francisco Declaration on Research Assessment (DORA), and in recruitment or promotion evaluations will assess research on the basis of its merits rather than the journal or venue in which it is published. Applicants should not include Journal Impact Factors or uncontextualized metrics in their applications. Full details are at: <https://www.research-strategy.admin.cam.ac.uk/research-policy/DORA>

# The Department

The Department of Pure Mathematics and Mathematical Statistics (DPMMS) is one of the two Mathematics Departments in Cambridge, the other being the Department of Applied Mathematics & Theoretical Physics. The Statistical Laboratory is a sub-department of DPMMS. Together with the Isaac Newton Institute, the two departments occupy the Centre for Mathematical Sciences (CMS). The CMS is a beautiful development west of the city centre and close to other Science Departments. The accommodation is of the highest quality and was designed by mathematicians and architects to facilitate the study of mathematics. It comprises offices, meeting rooms, seminar/lecture rooms, and common rooms, and is equipped with an excellent computer network. The research environment is very lively. Many regular seminar series meet weekly during term, and there is a steady stream of short- and long-term visitors from around the world. The proximity of the Isaac Newton Institute is a major advantage for mathematics in Cambridge.

DPMMS comprises at present about 40 tenured staff, more than 50 post-doctoral members of the Department and more than 90 PhD students. Cambridge University is the only European University to be ranked in the top 5 for Mathematics in the QS World Rankings for each of the last 5 years. It gained a world leading profile in the 2021 Research Excellence Framework with 98% of all research outputs designated as world leading or internationally excellent (UK average for Mathematics was 47%) (see: [www.ref.ac.uk](http://www.ref.ac.uk)).

The Faculty holds an Athena SWAN Bronze award, a national framework used to support and transform gender equality within higher education and also supports the LMS Good Practice Scheme in seeking to advance women's careers in the mathematical sciences. The Department is also a signatory to the Declaration on Research Assessment (DORA) which recognises the need to improve the ways in which researchers and the outputs of scholarly research are evaluated. New staff are mentored, and all staff are offered advice on career and promotion opportunities.

DPMMS is responsible with DAMTP for teaching the undergraduate and Masters courses in mathematics. The student body is quite remarkable in size and quality and is a privilege to teach. We admit around 250 new mathematics undergraduates each year, leading to graduation after three or four years of study. First and second year lectures are generally held in the Centre of Cambridge, a short distance from CMS, while third year lectures are held in CMS.

Each student is admitted to the University and to one of the Colleges (of the University). Undergraduates generally reside in their College and are taught there by subject supervisors. Undergraduate teaching takes place during three 8/9-week terms; in the final term of the academic year, lecturing occupies the first 4 weeks, and examining the remainder. The teaching of undergraduates in small groups is an essential element of the success of mathematics education in Cambridge and is a College responsibility.

The fourth-year Masters (also known as Part III of the Mathematical Tripos course) attracts a substantial number of strong students from all parts of the world. Up to 300 students enrol each year, the majority of whom come from outside the United Kingdom. A very wide range of courses are given (in excess of 75 this academic year), ranging across the whole of Pure and Applied Mathematics, Statistics, and Theoretical Physics.

## Academic Staff

The responsibilities of an Academic (University Teaching Officer; UTO) are to engage in the teaching and research programmes of the Department and University as prescribed in the University Statutes, under the direction of the Head of Department. UTOs are all expected to conduct small group teaching of undergraduates and/or taught postgraduate students and, where appropriate, to contribute to directing studies for programmes within their subject area. Lecturers are expected to supervise PhD students, to apply for research grants, and to participate in administration and examining.

The usual lecturing load for a member of DPMMS is approximately two courses or 48 lectures per year, being typically, but not invariably, one undergraduate course and one Masters course. All teaching is to specialist mathematicians; there is no service teaching. These comments are to be viewed as a guide to current practice only.



# The School

The School of the Physical Sciences is one of six Schools making up the academic work of the University. It covers Astronomy, Chemistry, Earth Science, Geography, Materials Science and Metallurgy, Mathematics and Physics.

The School's aim is to contribute to our understanding of the physical world through excellence in observational, theoretical and experimental science and to extend quantitative, qualitative and combined methodologies to address problems in the fields of biology, technology, medicine, social science and the humanities. In pursuit of these goals, the School coordinates objectives in research, teaching, and infrastructure.

## **About the School**

The School of the Physical Sciences comprises the following Departments:

[Applied Mathematics and Theoretical Physics \(DAMTP\)](#)

[Chemistry](#)

[Earth Sciences](#)

[Geography \(including the Scott Polar Research Institute\)](#)

[Institute of Astronomy](#)

[Isaac Newton Institute of Mathematical Sciences](#)

[Materials Science and Metallurgy](#)

[Physics \(Cavendish Laboratory\)](#)

[Pure Mathematics and Mathematical Statistics \(DPMMS\)](#)

The School is responsible for allocating core funds to departments and provides broad strategic focus across its constituent departments in a number of areas including research activity, undergraduate and graduate education, estate needs, fundraising and human resources.

As part of the University's annual planning cycle, the School prepares a financial and academic plan which sets out strategic objectives, determines budgets as well as the flow of resources to departments. The School manages a wide range of administrative activities and projects across its departments and works alongside other Schools to further interdisciplinary research.

The School has over 1500 members of staff, over 3000 students and an annual budget of over £100 million.



# Terms of Appointment

## Tenure and probation

Appointments are to the retiring age for established academic positions.

**Working Pattern** - The appointment is full time.

## Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a hybrid pension scheme. If you are already a member of the NHS Pension scheme, you may be eligible to continue in the scheme and should contact the Pensions section of the University: [www.pensions.admin.cam.ac.uk/](http://www.pensions.admin.cam.ac.uk/).

## Annual leave

Subject to compliance with the Statutes and Ordinances relating to leave, full time officers are entitled in any holiday year to take a minimum of 28 days annual paid holiday. These periods are inclusive of public holidays that fall outside Full Term.

## Sabbatical leave

Cambridge is generous in having statutory provision for leave of absence of one term for every six terms of service. Academic staff use this opportunity for study and research.

## College membership

Membership of a College adds an important social and many of the University's academic community find attractive. Appointment to a College fellowship is a separate matter from a University appointment. Most colleges expect their fellows to take part in undergraduate supervision and College administration, for which the College provides modest remuneration additional to University salary. Many academic staff will be invited to join a College as a teaching fellow, but it is not compulsory for academic staff to be a member of a College. The Head of Institution or senior colleagues can offer more advice.

## Residence

It is a requirement of the role that you are resident in the University during term-time. Further information can be found here: <https://www.admin.cam.ac.uk/univ/so/2019/cha/pter11-section1.html#indexterm-d358e257>

## General information

### Pre-employment checks

#### Right to work in the UK

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 will be conditional upon you gaining it.

### Health declaration

Once an offer of employment has been made the successful candidate will be required to complete a work health declaration form.

### References

Offers of appointment will be subject to the receipt of satisfactory references.

### Qualifications

The person specification for this position lists qualifications that are essential and/or desirable. Please note that if you are offered the post, you will be asked to provide your relevant original certificates of these qualifications.

### Equality and Diversity

We particularly encourage women and /or candidates from a Black, Asian and Minority Ethnic background to apply for this vacancy as they are currently under-represented at this level within our University.



### Information if you have a disability

The University welcomes applications from individuals with disabilities. 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 the Department Administrator, who is responsible for recruitment to this position at [hr-office@maths.cam.ac.uk](mailto:hr-office@maths.cam.ac.uk).



# The University

The University of Cambridge is consistently ranked one of the best universities in the world, achieving academic excellence through its Faculties, Departments and other Institutions, together with the 31 Colleges.

The University is renowned for its record of discovery and innovation. It is one of the great institutions, with a regional, national and global reach, attracting the very best and brightest minds. Our staff and students shape the world around us for the better: we attract and partner with like-minded people.

Whether contributing to the development of new anti-cancer drugs, adding to the understanding of how black holes are formed, revolutionising the study of ancient settlements, convening academic expertise to offer solutions to the climate crisis, or analysing public attitudes towards democracy around the world, the University's research is remarkable in its breadth, quality and impact. The University also sits at the heart of Europe's largest technology cluster and has catalysed more than 1,500 high-tech companies. And yet what inspires our 24,000 students and 13,000 staff is not what has already been achieved, but what is possible in the future.

The education and experience of our students, based on a partnership between the University's academic Departments and Faculties and the 31 Colleges, is second to none. Every student is a member of one of the Colleges, each a community of students, academics and staff drawn from across the University's comprehensive range of subject areas.





The University is a self-governing community, with a system for decision-making that provides a high degree of accountability and transparency to its members. Each Department and Faculty is part of one of six academic Schools, but each of them, and each individual academic, has a great deal of autonomy. The Colleges are independent and self-governing, working in a symbiotic relationship with the University.

The University has a number of Institutions that are independent of any Faculty or Department and are not part of the academic Schools. These include the Institute of Continuing Education (which provides high-quality education to adults throughout their lives), the Fitzwilliam Museum, Kettle's Yard (an historic house and gallery that holds important collections of modern art) and the University Library. In addition to their diverse contributions to University and public life, these non-School Institutions are also important centres of teaching and research.

Cambridge University Press & Assessment provides academic publishing, examinations and learning materials worldwide, supporting the dissemination of research, academic development at school and in higher education, and international student mobility. Legally, the Press & Assessment is a department of the University. It provides very important funds to invest in the academic purposes of the University.

The University has made truly remarkable contributions to the sum of human understanding, with breakthrough ideas and discoveries that have changed the way we understand ourselves, our planet, and the universe around us. Yet the global and national contexts in which it operates are fast-changing and increasingly filled with uncertainty. In a world that is becoming - politically, economically, socially, and technologically – ever more interconnected but even less equal, the University's mission – “to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence” – has never been more relevant.



# About Us

**The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public representing one of the country's highest concentrations of internationally important collections.**

The University has an annual income of £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 million per annum and continues to grow.

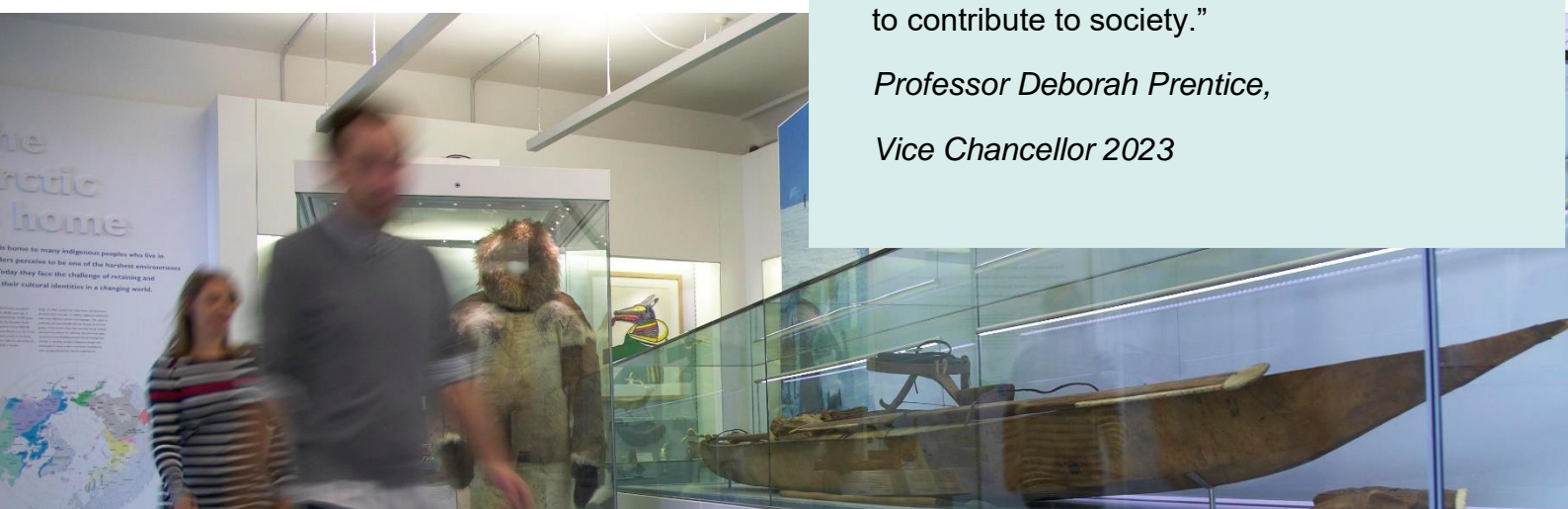
The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support. The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit undergraduate students, provide student accommodation and pastoral support and deliver small group teaching for undergraduates.

The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

“Through its outstanding education, research and innovation, the University of Cambridge has made – and continues to make – a lasting contribution to human knowledge and is flourishing. By working at the University of Cambridge, you will be joining a vibrant community of students, scholars and professional services staff committed to supporting and enhancing the University's mission to contribute to society.”

*Professor Deborah Prentice,  
Vice Chancellor 2023*



# Working at the University

**Working at Cambridge you will join a diverse, talented and innovative community, with more than 24,000 students and over 13,000 staff from all walks of life and corners of the world.**

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels.

The University offers a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment.

## Equality, Diversity and Inclusion

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity groups, including the Women's Staff Network, Race Equality Network and LGBT+ Staff Network. More details are available here:

<http://www.equality.admin.cam.ac.uk/>

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a science and technology campus to the west of the city centre, and is expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with their continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and continues to redevelop its historic city centre sites demonstrating a clear determination to ensure that we can offer the best facilities and opportunities for our staff and students.



The University has a bronze Race Equality Charter award, with a framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's silver Athena swan award recognises and celebrates good practice in recruiting, retaining and promoting gender equality.

# Living in Cambridge

Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances at the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the Visit Cambridge website.

If you prefer the faster pace of life, London is a 45-minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes. Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

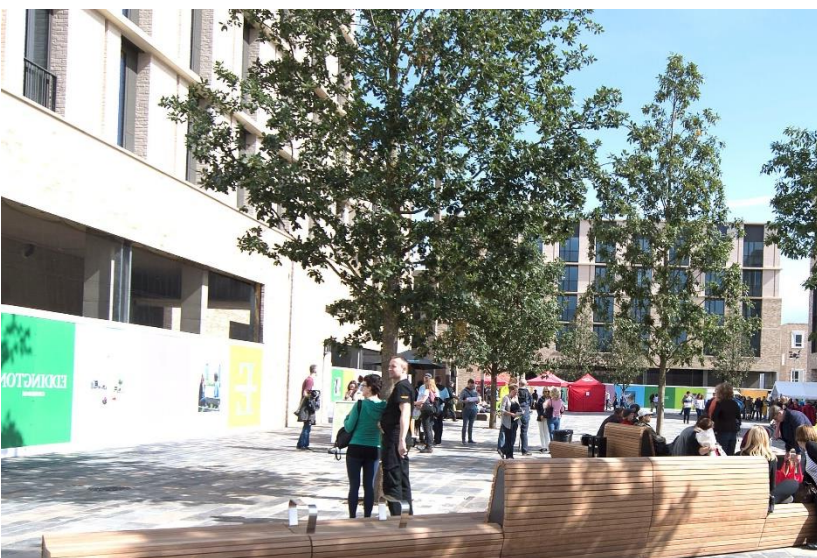
## Relocation Support

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit <https://www.accommodation.cam.ac.uk/RelocationService/>. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of

## Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit:

<https://www.accommodation.cam.ac.uk/>



# What Cambridge can offer

**We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work.**

The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a [career break scheme](#) for academic and academic-related staff, with additional flexible working policies for all other staff.

## Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings.



## CAMbens employee benefits

The University offers employees a wide range of competitive benefits, known as CAMbens. CAMbens offers something for everyone across a range of categories, including:

- Financial Benefits, including shopping discounts (both local and national) and a Payroll Giving scheme;
- Relocation and Accommodation Benefits, including relocation assistance and interest-free Rental Deposit Loans;
- Travel Benefits, including Cycle to Work, discounts on train season tickets and interest-free Travel to Work loans;
- Family Friendly and Lifestyle Benefits, including support with childcare and family friendly policies;
- Health and Wellbeing Benefits, including a University Staff Counselling Service, discounts at the University Sports Centre, and other local gyms, and healthcare schemes.



# What Cambridge can offer

## Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of family-friendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave entitlement of 26 weeks' full pay, and paid emergency leave for parents and carers.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high-quality holiday Playscheme are available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here:

<https://www.childcare.admin.cam.ac.uk/>

The Newcomers and Visiting Scholars Group (<https://www.nvs.admin.cam.ac.uk/>) is an organisation within the University that welcomes the partners and families of visiting scholars and new members of the University. Run by volunteers, the group offers opportunities to visit interesting Cambridge venues, learn about the community, take part in social events and gain local knowledge while developing a strong support network of both residents and other newcomers.

## Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. The University delivers The Festival of Wellbeing annually, which is a programme of stimulating talks and activities, which aim to promote wellbeing and good mental and physical health. The University also hosts the [Cambridge Festival](#), which is a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

## Development opportunities

We support new employees to settle in through various activities as well as supporting their professional and career development on an ongoing basis. Our Personal and Professional Development (PPD) team provide development opportunities for all University employees, including face-to-face sessions, online learning modules and webinars. All employees also have unlimited access to LinkedIn Learning to support their development. Both new and existing employees can undertake funded Apprenticeships, which lead to a range of vocational and professional qualifications. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. A range of University training providers also offer specialist learning and development in their own areas e.g. teaching and learning, digital literacy, finance, health and wellbeing, safety.



# How to apply

Applications should be submitted online via the University of Cambridge jobs page [www.jobs.cam.ac.uk](http://www.jobs.cam.ac.uk) by clicking “Apply online” in the job advert. You will need an email address to register for our online system.

Conversations about flexible working are encouraged at the University of Cambridge. Please feel free to discuss flexibility prior to applying (using the contact information below) or at interview if your application is successful.

As part of the application process, you will be asked to supply the names of three referees. Please note that (if you consent) your referees will be contacted once your application is complete and prior to shortlisting.

If you have any queries regarding the application process or any other informal queries they should be directed to: [LF43532@maths.cam.ac.uk](mailto:LF43532@maths.cam.ac.uk)

The closing date for applications is **1 December 2024**.

The interviews will take place **between 14 January and 31 January 2025**.

