



UNIVERSITY OF CAMBRIDGE

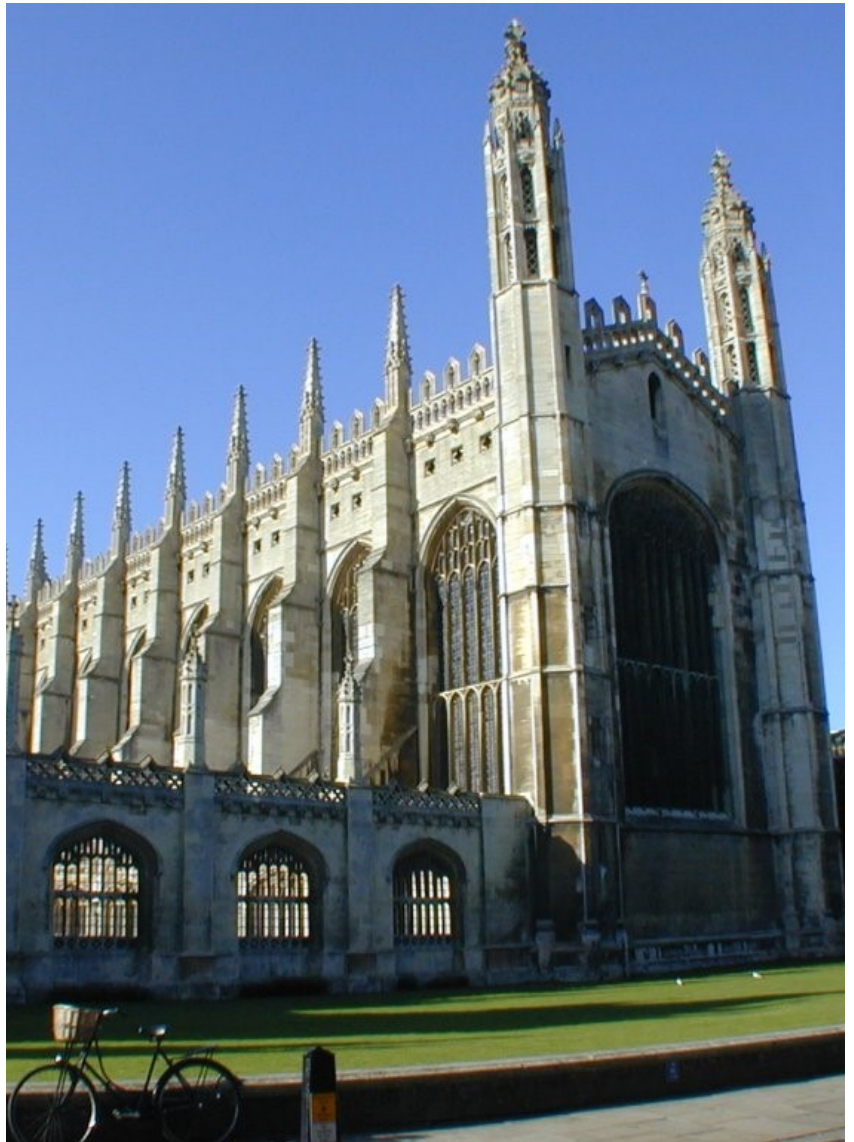
Department of Pure Mathematics and
Mathematical Statistics



Research Associate Department of Pure Mathematics and Mathematical Statistics

Closing Date: 1 January 2025

Job Reference: LF43422



Research Associate

Salary:

£36,024-£44,263

Contract:

Fixed Term for 2 years in the first instance

Location:

Centre for Mathematical Sciences

Department:

Department of Pure Mathematics and Mathematical Statistics

Responsible to:

Professor Richard Nickl

Working pattern:

Full time

Purpose of the role

The purpose of this role is to support and maintain the University's national and international reputation for excellence in teaching and research. Contribution to excellence in research will be as a member of a research team carrying out research at a similar level to that undertaken by lecturing staff and will provide substantial scope for academic judgement, originality, interpretation and presentation of results. The role holder will assist with grant administration and the writing of reports for funding bodies. Contribution to teaching will include assistance in the presentation of seminars and may include participation in the research group's teaching programme.

The role holder will participate in the overall contribution of the department/faculty, as appropriate.

Appointment

Recruitment to a role at this level is determined only by personal merit and the application of criteria related to the duties of the role. Either, posts are advertised and an appointment made by open competition, or posts are filled by promotion from a role at the level of Research Assistant.

All applicants are legally required to demonstrate the right to work/permission to work in the UK. The requirement for any higher level pre-employment checks is dependent on the role and is detailed in the advert and/or further particulars. Offers of employment will be conditional upon the satisfactory outcome of all required pre-employment checks and whether an outcome is satisfactory will be determined by the University.

Promotion

Progression from one grade to another is not automatic and requires a positive recommendation from the department/faculty. Promotion to Senior Research Associate requires the approval of the relevant faculty board (or equivalent body) and the role holder must meet the criteria for a role at that level.



Research Associate

Key responsibilities

- Research and scholarship: develop research objectives and proposals for own or joint research; conducts individual collaborative research projects; write up research work for presentation and publication; continually update knowledge and understanding in field or specialism; translate knowledge of advances in the subject areas into research activity; manage own research and administrative activities, with guidance if required. Assist in the preparation of proposals and applications to external bodies, e.g. for funding and contractual purposes; communicate material of a specialist or highly technical nature.
- Teaching and learning support: may assist in the supervision of student projects; provide limited supervision/instruction to classes; may assist in the development of student research skills; may plan and deliver seminars relating to research area.
- Liaison and networking: liaise with colleagues and students; build internal and external contacts and participate in networks for the exchange of information and to form relationships for future collaboration.
- Plan the use of research resources, laboratories and workshops as appropriate; plan and manage own research activity in collaboration with others; contribute to planning of joint research projects led by principal investigator.



Research Associate

Person specification

	Essential	Desirable
Education		
PhD in Mathematics with relevant background knowledge in mathematical statistics and probability theory.	✓	
Experience and knowledge		
The role holder will possess some research experience with sufficient breadth/depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.	✓	
Will continually update knowledge in the specialist areas and engage in continuous professional development.	✓	
Experience with managing own workload.		✓
Experience of communicating research to non-expert audiences		✓



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.

DPMMS comprises at present about 40 tenured staff, more than 50 post-doctoral members of the Department and more than 90 PhD students. It gained an excellent quality profile in the 2014 Research Excellence Framework (see: www.ref.ac.uk).

The research environment in DPMMS 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 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 in excess of 230 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 the CMS, while third-year lectures are held in the CMS.

Each student is admitted to the University and also 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. Approximately 250 students enrol each year, the majority of whom come from outside the United Kingdom. A very wide range of graduate level courses are given; in excess of 75 this academic year ranging across the whole of Pure and Applied Mathematics, Statistics, and Theoretical Physics.

Lecturers

The responsibilities of a University Lecturer 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. University Teaching Officers 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.

Further Information about Mathematics in Cambridge

Further information about the Department may be found via the Departmental website at <http://www.dpmms.cam.ac.uk/>; Information about mathematics in Cambridge is also available at <http://www.maths.cam.ac.uk/>.

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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.



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

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

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](#)

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 will be made on a fixed-term basis for a period of 2 years in the first instance, due to limited funding. Appointments will be subject to satisfactory completion of the probationary period detailed in your contract of employment.

Hours of Work and Working Pattern

The appointment is full-time, Monday - Friday.

Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a defined benefits pension scheme. For further information please visit:

www.pensions.admin.cam.ac.uk

Annual leave

Full time employees are entitled to annual paid leave of 41 days inclusive of public holidays. For new part-time employees, annual leave will be pro rated based on days worked.

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 to you 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.

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.

References

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

Equality and Diversity

The University actively supports equality, diversity and inclusion and encourages applications from all sections of society. We particularly welcome applications from women and/or candidates from a BAME background for this vacancy as they are currently under-represented at this level in our Department.

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 HR Office Administrator who is responsible for recruitment to this position by email at hr-office@maths.cam.ac.uk.



The University

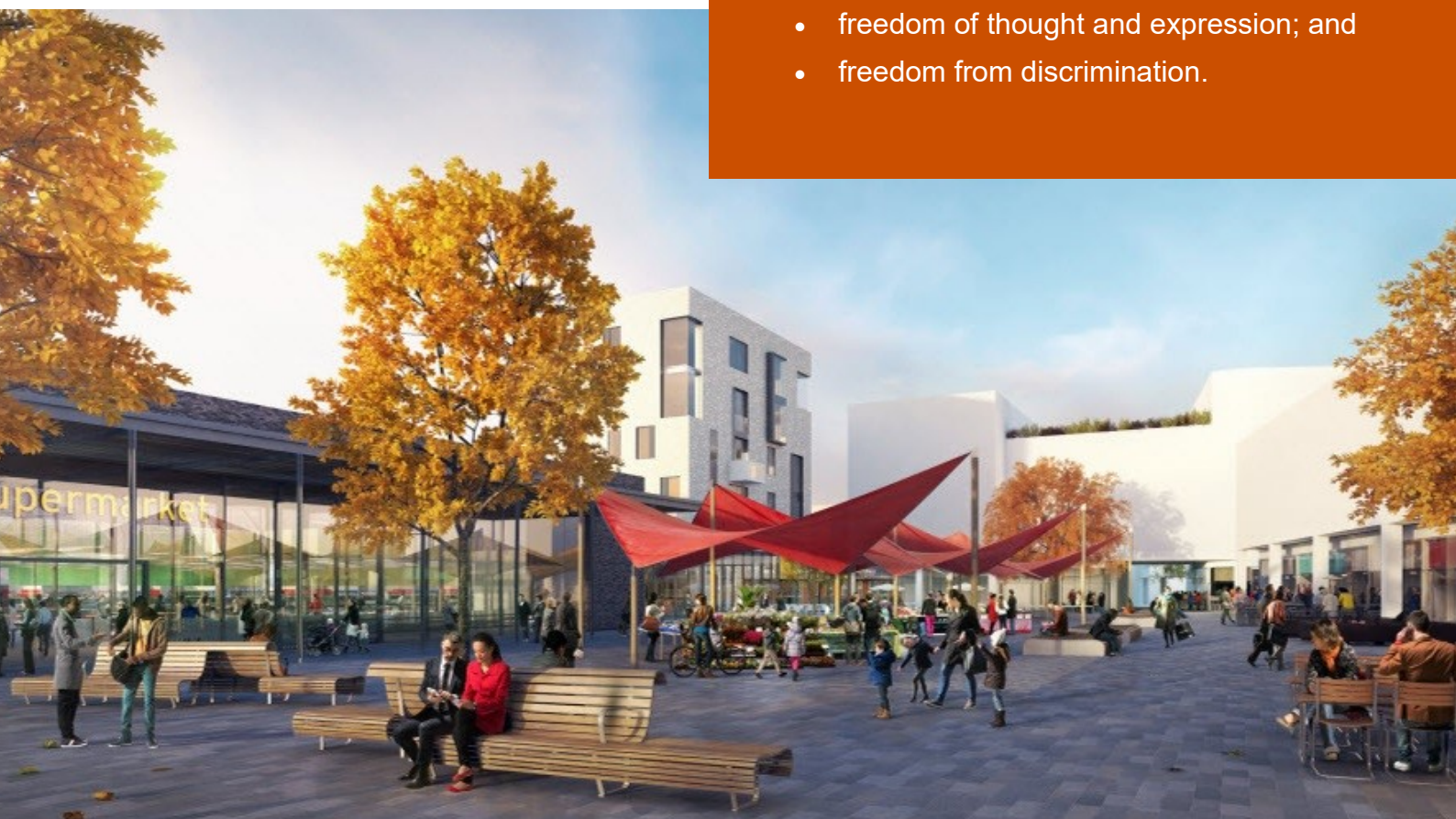
The University of Cambridge is one of the world's oldest and most successful universities. We are a renowned centre for research, education, and scholarship that makes a significant contribution to society. The University is consistently ranked amongst the top universities in the world. Our affiliates have won more Nobel Prizes than any other University.

Our sustained pursuit of academic excellence is built on a long history of first-class teaching and research within a distinctive collegiate system. For eight centuries our ideas and innovations have shaped the world. Our principal goal is to remain one of the world's leading universities in an increasingly competitive global higher education sector. Today the University of Cambridge is at the centre of a cluster of over 4,300 businesses employing 58,000 people.

Our capital investment projects include the West Cambridge site, the North West Cambridge development and the growth of the Biomedical Campus in the south of the city. The North West Cambridge development includes the opening of a primary school – the first in the UK to be managed by a University. So we are deeply embedded in, and committed to serving, our local community. These are all conspicuous signs of a University that is not only adapting to new needs, but also anticipating the future.

Our mission is to contribute to society through the pursuit of education, learning, and research at the highest international levels of excellence. Our core values are:

- freedom of thought and expression; and
- freedom from discrimination.



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 students, provide student accommodation and deliver small group teaching.

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

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.

“Cambridge graduates and researchers have made – and continue to make – a colossal contribution to human knowledge and the understanding of the world around us. Their work touches on the lives and livelihoods of everyone from patients diagnosed with life-threatening diseases, to residents of areas critically affected by climate change, to children growing up in conflict zones. It has a lasting impact on our society, our economy and our culture: the world is truly a better place thanks to their efforts.”

Stephen Toope, Vice Chancellor 2019



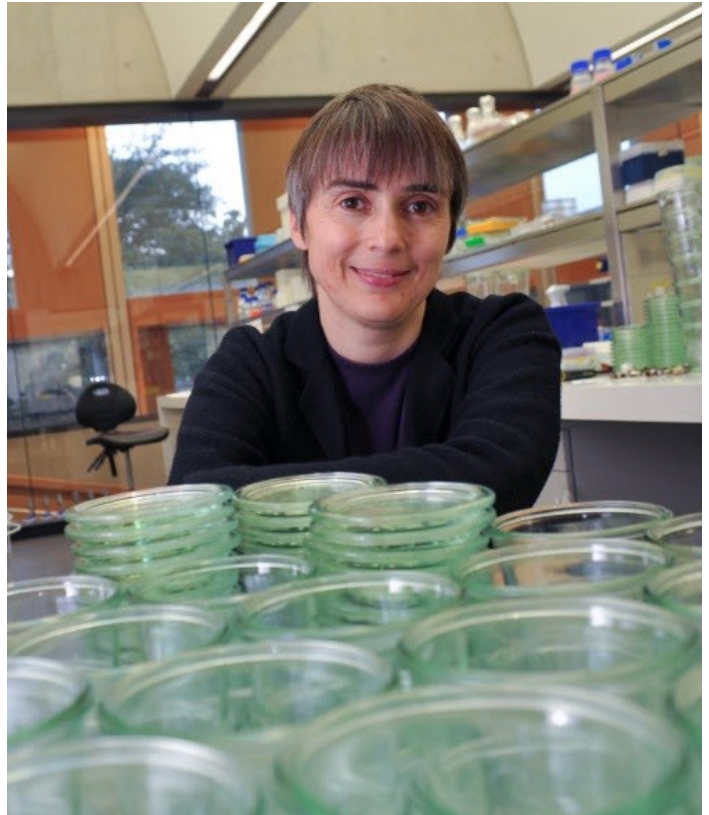
Working at the University

Working at Cambridge you will join a diverse, talented and innovative community, with more than 18,000 students and over 16,000 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.

We offer 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.

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a new science and technology campus to the west of the city centre, and is now expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with our 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 we continue to redevelop our historic city centre sites demonstrating our determination to ensure that we can offer the best facilities and opportunities for our staff and students.



Equality & diversity

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 networks for women, black and minority ethnic and lesbian, gay, bisexual and transgender staff. More details are available here: <http://www.equality.admin.cam.ac.uk/>

The University has a bronze Race Equality Charter award, with framework for improving the representation, progression and success of minority ethnic staff and students within higher education.

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.

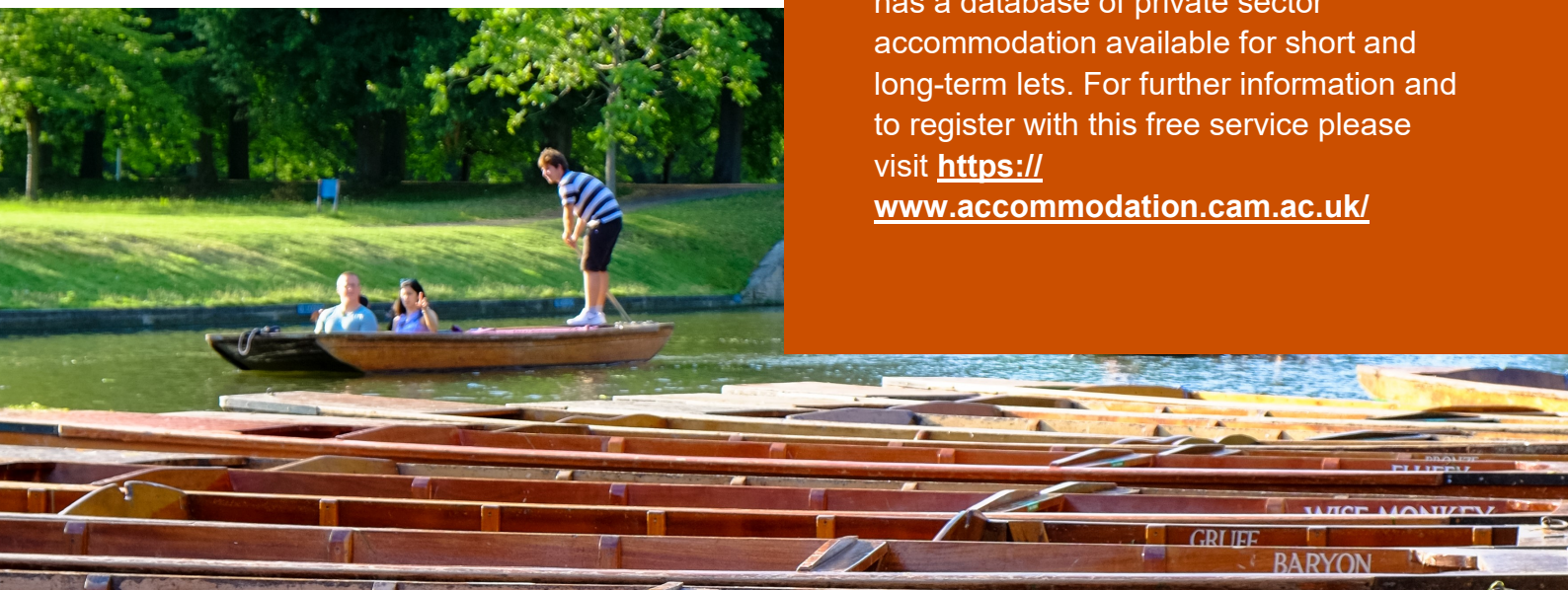
If you prefer the faster pace of life, London is a 45 minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races 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/>. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of staff with the costs of relocating to Cambridge.

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. Payroll giving is also a simple, tax-efficient way for employees to make monthly donations to charity.



CAMBens employee benefits

We offer a CAMBens scheme for University employees, providing access to online and in-store shopping discounts and cashback. With more than 2,000 participating retailers, employees can save money on a wide range of household expenses, from groceries and clothes, to holidays and insurance and much more. A range of local discounts are also available, helping employees to save money whilst also supporting local Cambridge businesses and a CAMBens Cycle to Work salary sacrifice scheme is also available, which enables employees to save money on transport costs. A 10% discount rate on the purchase of train season tickets, bulk buy tickets and an interest free travel to work loan are also available for staff of the University.



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 18 weeks full pay and emergency family care support via My Family Care.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high quality holiday Playscheme may be 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 is an organisation within the University run by volunteers whose aim is to help newly arrived wives, husbands, partners and families of Visiting Scholars and members of the University to settle in Cambridge and give them an opportunity to meet local people. The Office of Postdoctoral Affairs supports the postdoctoral community within Cambridge. Further details are available here: <https://www.opda.cam.ac.uk/>

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. There are many societies in Cambridge catering for almost every taste and interest. Whether you want to take part in a sport, participate in music or drama, pursue a hobby, or join a political group, you will almost certainly find that a society exists for this purpose. The University also hosts the [Cambridge Science Festival](#) and [Cambridge Festival of Ideas](#), as well as [Open Cambridge](#) weekend, which together attract over 50,000 visitors per year. The festivals are 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. The encouragement of career development for all staff is one of the University's values and we put this into practice through various services and initiatives. Our Personal and Professional Development Department provides development opportunities and courses for all University employees. These include face-to-face sessions, online learning modules and webinars. Employees may also apply for financial support to undertake training that will lead to a qualification. 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.



How to apply

Applications should be submitted online via the University of Cambridge jobs page 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.

The Department is committed to providing an inclusive working environment for all staff and students. In doing so, the Department recognises that career paths may follow different trajectories, shaped by personal commitments and non-research roles. We offer all candidates the opportunity to submit a contextual statement providing any information they wish to disclose about time spent outside the research environment since their PhD was awarded. This may include time away because of personal reasons (maternity, paternity, shared parental or adoptive leave or other caring responsibilities or ill-health) or time spent working in a non-research role such as in industry. If you wish to submit a contextual factors statement, please upload it as a separate document (max. 300 words) with your cover letter, CV, publications list and any other documentation requested.

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 two academic referees. Please note that (if you consent) your referees will be contacted once your application is complete and prior to shortlisting.

Informal enquiries are welcomed and should be directed to Professor Richard Nickl nickl@maths.cam.ac.uk

If you have any queries regarding the application process please contact us at LF43422@maths.cam.ac.uk

The closing date for applications is: 1 January 2025.

Interviews will take place in the first two weeks of January 2025.

The University of Cambridge is a signatory of the San Francisco Declaration on Research Assessment (DORA). DORA recognises the need to improve the ways in which the outputs of scholarly research are evaluated. The University expects candidates to apply the principles of DORA when preparing their applications. We do not use journal-level metrics when assessing the quality of research outputs. Applicants should not include journal-level metrics, such as the Journal Impact Factor, anywhere in their application materials. More information about DORA, its principles and aims can be found at: <https://sfdora.org/> and <https://www.research-strategy.admin.cam.ac.uk/research-policy/DORA>.