## Job Description

<table>
<thead>
<tr>
<th><strong>Job title</strong></th>
<th>Postdoctoral Researcher and Tutor in Statistics or Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Division</strong></td>
<td>Mathematical, Physical and Life Sciences</td>
</tr>
<tr>
<td><strong>Department</strong></td>
<td>Statistics</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>24-29 St Giles', Oxford, OX1 3LB</td>
</tr>
<tr>
<td><strong>Grade and salary</strong></td>
<td>Grade 8: £40,792 - £48,677 per annum</td>
</tr>
<tr>
<td><strong>Hours</strong></td>
<td>Full time</td>
</tr>
<tr>
<td><strong>Contract type</strong></td>
<td>Fixed-term until 31 March 2021</td>
</tr>
<tr>
<td><strong>Reporting to</strong></td>
<td>Professor Charlotte Deane</td>
</tr>
<tr>
<td><strong>Vacancy reference</strong></td>
<td>137949</td>
</tr>
</tbody>
</table>

### Additional information

There are 2 positions available.

Whilst these roles are grade 8 positions, we would be willing to consider candidates with potential but less experience who are seeking a development opportunity, for which an initial appointment would be at grade 7, £32,236 - £39,609 with a discretionary range to £43,267 with the responsibilities adjusted accordingly. This would be discussed with applicants at interview/appointment where appropriate.

### The role

The Department of Statistics and Lady Margaret Hall are recruiting two postdoctoral researchers and tutors in Statistics and Probability with effect from January 2019 or as soon as possible thereafter. These are career development positions intended to carry at most half the teaching load of an ordinary Oxford lectureship with college tutorial fellowship.

The post holders will join the dynamic and collaborative Department of Statistics. The Department carries out world-leading research in applied statistics fields including statistical and population genetics and bioinformatics, as well as core theoretical statistics, computational statistics, machine learning and probability. This is an exciting time for the Department of Statistics, having recently moved to a prominent and extensively-renovated building in the centre of Oxford. This move has further enhanced our vibrant research environment, and provides state-of-the-art facilities for our teaching and research, including a well-appointed IT teaching suite and two lecture theatres.
The successful candidates will hold a doctorate in the field of Statistics, Mathematics or a related subject. They will be outstanding individuals who have the potential to become leaders in their field. The post holders will have the skills and enthusiasm to lecture at undergraduate and graduate level, within the Department of Statistics, and to supervise student projects. They will carry out and publish original research within their area of specialisation. We particularly encourage candidates working in areas that link with existing research groups in the department to apply.

Reporting to Professor Charlotte Deane, the post holders will be members of one of the research groupings within the department (https://www.stats.ox.ac.uk/research/research-groups/). The post holders will be responsible for their own research project within the wider research programme of one of the research groupings.

The post holders will be required to undertake an average of three ‘weighted’ hours of undergraduate tutorial teaching per week during full term for Lady Margaret Hall and will be expected to act as personal tutor to not more than 5 undergraduates. They will also act as a graduate advisor in the College. Each appointee is expected to participate in admissions interviewing and open days. He/she will be entitled to 3 lunches per week at the Common Table, and will have access to a teaching room in the College.

If you would like to discuss this post and find out more about joining the academic community in Oxford, please contact Professor Christina Goldschmidt at goldschm@stats.ox.ac.uk or Dr D. Harris, Senior Tutor, LMH at david.harris@bioch.ox.ac.uk. All enquiries will be treated in strict confidence and will not form part of the selection decision.

The Department of Statistics holds an Athena SWAN Bronze Award in recognition of its efforts to introduce organisational and cultural practices that promote gender equality in SET and create a better working environment for both men and women. Information about Athena Swan in MPLS can be found at http://www.mpls.ox.ac.uk/equality-and-diversity/athena-swan.

**Responsibilities**

- Develop research questions and conduct and manage their individual research within one of the research groupings of the Department of Statistics (https://www.stats.ox.ac.uk/research/research-groups/)
- Develop and implement new research methodologies and materials
- Regularly write research articles for peer-reviewed journals, book chapters, and reviews. Present papers at national and international conferences and give seminars to disseminate research findings
- Train other members of the group on specialist methodologies or procedures.
- Manage their own research project and if required raise research funds through grant applications
- Share responsibility for shaping the research grouping’s plans and the writing of group-funding applications for new research projects
- Represent the research grouping at external meetings/seminars, either with other members of the group or alone
• Carry out collaborative projects with colleagues in partner institutions, and research groups

• Carry out teaching at undergraduate and graduate level including lectures, classes, demonstrations, marking of exam papers and project supervision, under the direction of the Head of Department

• Deliver three weighted hours of undergraduate tutorial teaching per week at Lady Margaret Hall during term

• Act as personal tutor to up to 5 undergraduate students at Lady Margaret Hall, act as a graduate advisor, and participate in admissions interviewing and open days

Selection criteria

Essential

• Hold a relevant PhD/DPhil with post-qualification research experience

• Strong publication record appropriate to their career stage and familiarity with the existing literature and research in the field

• Possess sufficient specialist knowledge in their discipline to develop research projects and methodologies

• Ability to independently plan and manage a research project, including if required a research budget

• Ability to raise research funds through making grant applications

• Ability to teach effectively, both at undergraduate and graduate level, a range of topics within the field of Statistics and Mathematics

• Ability to supervise graduate students

• Excellent interpersonal skills necessary for undertaking teaching and the pastoral care of students

• A strong record of communicating results effectively, both in person and on paper

Desirable

• Experience of teaching, at both the undergraduate and graduate level, a range of topics within the field of Statistics and Mathematics

• Experience of supervising students

• Experience of making grant applications

• Experience of research collaborations at national and international level

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford’s researchers engage with academic,
commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual’s unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe’s most entrepreneurial universities. Income from external research contracts in 2016/17 exceeded £564m and we rank first in the UK for university spin-outs, with more than 130 companies created to date. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information please visit www.ox.ac.uk/about/organisation

The Department of Statistics

The Department of Statistics at Oxford carries out world-leading research in computational statistics, machine learning, statistical and population genetics, bioinformatics, core theoretical statistics, and probability. As part of the Oxford Mathematical Sciences submission, the Department was ranked first in the UK in the 2014 REF exercise; this included having the highest proportion and highest volume of research judged to be world-leading or internationally excellent.

This is an exciting time for the Department, which relocated to new premises on St Giles’ in the heart of the University of Oxford in 2015. Our newly-renovated building provides state-of-the-art teaching facilities and modern space to facilitate collaboration and integration, creating a highly visible centre for Statistics in Oxford.

The Department’s research grant portfolio is currently over £8.3m. Industrial partners from Pharma, Finance and the Information sector all also support research in the Department.

The Department’s research excellence has been recognised both collectively through success in REF 2014 and individually. Awards include Fellowships of the Royal Society to Professors Peter Donnelly and Alison Etheridge, FMedSci to Professor Donnelly, the Weldon Memorial Prize to Professors Donnelly and Gilean McVean, the Guy Medal in Bronze to Professor Chris Holmes, the Francis Crick Prize Lecture, and the Genetics Society Balfour Prize to Professor Simon Myers. Professor Gesine Reinert has been elected an Institute of Mathematical Statistics Fellow, and Professor Etheridge was awarded an OBE in the 2017 birthday honours for services to science, in addition to being President of the Institute of Mathematical Statistics 2017–2018.

The Department recently launched Oxford University Statistical Consulting, which provides comprehensive statistical consultancy services to both internal departments and external businesses. It operates across a wide range of sectors and offers experience in all aspects of data-based research, allowing businesses and academics to access our world-leading statistical research in computational statistics, statistical methodology, applied probability, bioinformatics and mathematical genetics.
The Department of Statistics offers an undergraduate degree (BA or MMath) in Mathematics and Statistics and an MSc in Mathematical Science (OMMS), both joint with the Mathematical Institute, and an MSc in Statistical Science, as well as a lively and stimulating environment for postgraduate researchers (DPhil or MSc by Research). The Department leads two Centres for Doctoral Training (CDTs): the EPSRC/MRC CDT in Systems Approaches to Biomedical Science and the EPSRC/MRC CDT in Next Generation Statistical Science, a joint programme in Statistics with the University of Warwick. The Department is also part of the National Academy for PhD Training in Statistics, which provides graduate training in fundamental areas of Statistics and Applied Probability. Our students go on to work in a wide range of occupational sectors throughout the world, including higher education.

The Department leads and participates in many interdisciplinary research centres, including the Big Data Institute, part of the Li Ka Shing Centre for Health Information and Discovery, where Professor McVean is Director, and the Wellcome Trust Centre for Human Genetics, where Professor Myers is a Researcher. We are a founding partner in the Alan Turing Institute (ATI), the UK’s national data science centre, which brings together world-leading expertise in the emerging field of data science. Professor Holmes has recently been appointed the Health Lead at the ATI and six other members of the Department currently hold Turing Fellowships.

The Department continues to grow and is now flourishing in its new home under the leadership of Professor Charlotte Deane, whose own research in structural bioinformatics links the Department to many pharmaceutical and other biotech partners.

For more information please visit: [www.stats.ox.ac.uk](http://www.stats.ox.ac.uk).

The Department of Statistics holds a bronze Athena Swan award to recognise advancement of gender equality: representation, progression and success for all.

**The Mathematical, Physical, and Life Sciences Division**

The Mathematical, Physical, and Life Sciences (MPLS) Division is one of the four academic divisions of the University. Oxford is widely recognised as one of the world's leading science universities. The disciplines within the MPLS Division regularly appear at the highest levels in world rankings and have been evaluated as conducting world-leading and internationally excellent research in UK research assessments, and Mathematical, physical and life sciences research at Oxford is the best in the country according to the 2014 Research Excellence Framework (REF) assessment exercise carried out by HEFCE.

The MPLS Division is home to the non-medical sciences at Oxford and its 10 academic departments span the full spectrum of the mathematical, computational, physical, engineering and life sciences, and undertake both fundamental research and cutting-edge applied work. Our research tackles major societal and technological challenges — whether developing new energy solutions or improved cancer treatments, understanding climate change processes, or helping to preserve biodiversity, and is increasingly focused on key interdisciplinary issues. We collaborate closely with colleagues in Oxford across the medical sciences, social sciences and humanities, and with other universities, research organisations and industrial partners across the globe in pursuit of innovative research geared to address critical and fundamental scientific questions.

MPLS is proud to be the home of some of the most creative and innovative scientific thinkers and leaders working in academe. Our senior researchers have been awarded some of the most significant scientific honours (including Nobel prizes and prestigious titles such as FRS
and FREng) and we have a strong tradition of attracting and nurturing the very best early career researchers who regularly secure prestigious fellowships. The Division is also the proud holder of ten Athena Swan Awards (3 Silver and 7 Bronze) illustrating our commitment to ensure good practice and to encourage women in science at all levels in the division.

We have around 6,000 full and part-time students (including approximately 2000 graduate students) and play a major role in training the next generation of leading scientists. Oxford's international reputation for excellence in teaching is reflected in its position at the top of the major league tables and subject assessments. MPLS academics educate students of high academic merit and potential from all over the world. Through a mixture of lectures, practical work and the distinctive college tutorial system, students develop their ability to solve major mathematical, scientific and engineering problems.

MPLS is dedicated to bringing the wonder and potential of science to the attention of audiences far beyond the world of academia. We have a strong commitment to supporting public engagement in science through initiatives including the Oxford Sparks portal (www.oxfordsparks.net) and a large variety of outreach activities; these are crucial activities given so many societal and technological issues demand an understanding of the science that underpins them. We also endeavour to bring the potential of our scientific efforts forward for practical and beneficial application to the real world and our desire is to link our best scientific minds with industry and public policy makers.

For more information about the MPLS division, please visit: www.mpls.ox.ac.uk

Lady Margaret Hall

Lady Margaret Hall was founded in 1878 as the first women’s college in Oxford and became co-educational one hundred years later. It is a self-governing educational charity with its own statutes. Its Governing Body consists of the Principal and Fellows of the College; currently there are 48 fellows, of whom five are Professorial Fellows, and five are supernumerary (non-tutorial) fellows.

The college occupies a large riverside site adjacent to the University Parks with beautiful gardens. Most undergraduate students are resident in the college, with some graduate students resident in adjacent college houses. During 2016/17 the college had about 400 undergraduates and around 180 graduate students. We also admit 25 visiting students taking a year abroad from their home institutions. LMH has recently pioneered a foundation year for students from disadvantaged backgrounds with a second cohort of 11 students in residence.

The college has currently 48 undergraduate students studying for the MMath in Mathematics and joint schools (i.e. Mathematics, Mathematics and Statistics, Mathematics and Computer Science and Mathematics and Philosophy) and seven graduate students in the mathematical sciences, including two studying for the MSc in Statistical Science.

The successful applicants will work closely with Lady Margaret Hall’s Fellows in Mathematics (Prof. Jochen Koenigsmann, Prof. Michael Monoyios) and other lecturers in the school.

For more information about the College, please visit www.lmh.ox.ac.uk

How to apply

Before submitting an application, you may find it helpful to read the 'Tips on applying for a job at the University of Oxford' document, at www.ox.ac.uk/about/jobs/supportandtechnical/.
If you would like to apply, click on the Apply Now button on the ‘Job Details’ page and follow the on-screen instructions to register as a new user or log-in if you have applied previously.

Please provide details of at least two referees. Applicants should ask their referees to send their letters of reference directly to the Personnel Administrator by email to jobs@stats.ox.ac.uk by the closing date quoting the vacancy reference 137949. Referees should preferably not be from the same institution, and one should normally be the applicant’s current, or most recent, supervisor.

You will also be asked to upload a CV and a supporting statement. The supporting statement must explain how you meet the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependants).

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

Please upload all documents as PDF files with your name and the document type in the filename.

All applications must be received by midday on the 11 January 2019. Interviews will be held on 25 January 2019.
Information for priority candidates

A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing departments.

If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments).

Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. Further help and support is available from www.ox.ac.uk/about_the_university/jobs/support/. To return to the online application at any stage, please go to: www.recruit.ox.ac.uk.

Please note that you will be notified of the progress of your application by automatic emails from our e-recruitment system. Please check your spam/junk mail regularly to ensure that you receive all emails.

Important information for candidates

Pre-employment screening

Please note that the appointment of the successful candidate will be subject to standard pre-employment screening, as applicable to the post. This will include right-to-work, proof of identity and references. We advise all applicants to read the candidate notes on the University's pre-employment screening procedures, found at: www.ox.ac.uk/about/jobs/preemploymentscreening/.

Data Privacy

Please note that any personal data submitted to the University as part of the job application process will be processed in accordance with the GDPR and related UK data protection legislation. For further information, please see the University’s Privacy Notice for Job Applicants at: www.admin.ox.ac.uk/councilsec/compliance/gdpr/privacynotices/job/. The University’s Policy on Data Protection is available at: www.admin.ox.ac.uk/councilsec/compliance/gdpr/universitypolicyondataprotection/.

The University’s policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for all academic posts and some academic-related posts. From 1 October 2017, the University has adopted an EJRA of 30 September before the 69th birthday for all academic and academic-related staff in posts at grade 8 and above. The justification for this is explained at: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/

For existing employees, any employment beyond the retirement age is subject to approval through the procedures: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/

There is no normal or fixed age at which staff in posts at grades 1–7 have to retire. Staff at these grades may elect to retire in accordance with the rules of the applicable pension scheme, as may be amended from time to time.
Equality of Opportunity

Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.
Benefits of working at the University

University Club and sports facilities

Membership of the University Club is free for all University staff. The University Club provides social, sporting and hospitality facilities. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See www.club.ox.ac.uk and www.sport.ox.ac.uk/oxford-university-sports-facilities.

Information for international staff

The University offers support and advice to international staff, including a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See www.admin.ox.ac.uk/personnel/permits/reimburse&loanscheme/.

Information for staff new to Oxford

If you are relocating to Oxfordshire from overseas or elsewhere in the UK, the University's Welcome Service website includes practical information about settling in the area, including advice on relocation, accommodation and local schools. See www.welcome.ox.ac.uk.

The University of Oxford Newcomers' Club

The University of Oxford Newcomers' Club is an organisation run by volunteers that aims to assist the partners of new staff to settle into Oxford and to provide them with an opportunity to meet people in the area. See www.newcomers.ox.ac.uk.

Childcare

The University has excellent childcare services with five University nurseries, as well as University-supported places at many other private nurseries. For full details including how to apply and the costs, see www.admin.ox.ac.uk/childcare.

Family-friendly benefits

The University subscribes to My Family Care service through which staff are eligible to register for emergency back-up childcare and adultcare services, a 'speak to an expert' advice service and a wide range of guides and webinars through a website called the Work+Family space. See: www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/.

Disabled staff

We are committed to supporting members of staff with disabilities or long-term health conditions. For further details, including information about how to make contact, in confidence, with the University's Staff Disability Advisor, see www.admin.ox.ac.uk/eop/disab/staff.

Staff networks

The University has a number of staff networks including the Oxford Research Staff Society, BME staff network, LGBT+ staff network and a disabled staff network. You can find more information at www.admin.ox.ac.uk/eop/inpractice/networks/.

Additional benefits

Staff can enjoy a range of other benefits and discounts, including free entry to the Botanic Gardens and University colleges, and discounts at University museums. See www.admin.ox.ac.uk/personnel/staffinfo/benefits.