





MATHEMATICAL INSTITUTE ANDREW WILES BUILDING

Job Description and Selection Criteria

Job title	OMI-Hooke Research Fellows
Division	Mathematical, Physical and Life Sciences
Department	Mathematical Institute
College	Reuben College
Location	Andrew Wiles Building, Radcliffe Observatory Quarter, Woodstock Road, Oxford, OX2 6GG.
Grade and salary	Grade 7: £43,984 - £47,779 per annum
Hours	Full time
Contract type	Fixed-term (36 months/3 years)
Reporting to	Director of the Oxford-Man Institute (and for the associated Research Fellowship, the President and Fellows of Reuben College)
Vacancy reference	183650
Additional information	These are full-time positions at the Mathematical Institute, associated with Research Fellowships at Reuben College, that cannot be held concurrently with any other substantive post without the explicit permission of the Head of Department. Applications for job share or for part-time working to accommodate family circumstances will be considered. This position is subject to a 12-month probationary period. (PLEASE NOTE: Applicants are responsible for asking two referees to send their reference letters directly to references@maths.ox.ac.uk by the closing date)











The role

We invite applications from talented postdoctoral researchers for two OMI-Hooke Research Fellowships related to mathematics and quantitative finance. These are fixed-term positions for 36 months at the University of Oxford, associated with Research Fellowships at Reuben College, and are subject to specific conditions as detailed below. The positions are for researchers whose work relates to quantitative finance, and in particular to data science applied to quantitative finance. The successful candidates will be based at the Oxford-Man Institute (a leading research centre for quantitative finance), carry out teaching duties at the Mathematical Institute, and duties as outlined below for Reuben College.

Responsibilities

For the Institute:

The successful applicants will be talented researchers who have already produced excellent research during their PhD and in any postdoctoral positions. They will be free to conduct their own research programme. They will be expected to:

- undertake original research of the highest academic standard;
- disseminate their results via conference presentations and journal publications;
- to engage with the quantitative research teams at Man Group both to disseminate their research and identify suitable projects for academic study;
- manage their own academic and administrative activities;
- assist in the supervision of student projects and the development of student research skills;
- participate in and contribute to the life of the Oxford-Man Institute and the Mathematical Institute.

To aid the development of their academic profile and to support the department, the Fellows will be required to contribute up to thirty hours of teaching per academic year (or the equivalent, e.g., supervision of master thesis). The exact nature of this teaching will be in accordance with departmental need as determined by the Head of Department in consultation with the Director of the Oxford-Man Institute and the Mathematical & Computational Finance group.

The Fellows will be based at the Oxford-Man Institute and will be provided with a generous allowance for travel and other academic expenses.

For the College:

As early-career researchers, Research Fellows at Reuben College will already have substantive research duties within their respective Division of the University. Duties within the College are expected to be relatively "light touch", while emphasising the need for Fellows to be engaged with the life of Reuben College on a regular basis. Perhaps different to the standard model for equivalent posts elsewhere in the University (for example, "Junior Research Fellowships"), the emphasis for Reuben's Research Fellows is very definitely on bringing an enthusiastic, sustained, and meaningful contribution to College life.

Reuben College is committed to supporting of its Research Fellows through mentoring. An Official Fellow (in a relevant academic discipline) is therefore linked as a College Mentor to each Research Fellow, providing advice and support in career progression. This is intended to be complementary to any support provided in the Research Fellow's academic Department.

All Research Fellows, as duties of the post, are required to:

- Regularly attend and assist in hosting College events, such as the College's '<u>Dining with Dinosaurs</u>' seminars held weekly in termtime, and in the organization and hosting of other College theme or skills events as appropriate;
- At least termly produce a 'blog' on a Tuesday evening academic talk in the College's dining hall (for previous examples, see here); and to otherwise support in the production of College publications;
- Act as College Advisor to up to six graduate students each year, meeting with each once per term to offer support and guidance¹;
- Abide by all policies and guidance in force at the College at any time (such as outlined here) including any training requirements;
- Meet or otherwise communicate regularly with their College Mentor;
- Contribute more widely to the social and academic life of the College.

Selection criteria

If, for any reason, you have taken a career break, parental leave or have had an atypical career and wish to disclose this in your application, the selection committee will take this into account, recognising that the quantity of your experience may be reduced as a result.

Your application will be judged only against the criteria which are set out below. You should ensure that your application shows clearly how your skills and experience meet these criteria.

The College Adviser is not expected to perform the role of a Department or Faculty Supervisor(s) and is not responsible for directing a student's academic work or for giving detailed academic guidance. However, they may be able to offer advice on academic-related matters such as applications for research funding, conferences and seminar attendance, publication, and career plans.

¹ Each graduate student is assigned a College Adviser, who is to:

⁻ Provide pastoral support, for example on health, personal or coping issues, and direct students to appropriate persons for assistance

⁻ Monitor students' progress through discussion of their university supervision reports

⁻ Discuss any problems or difficulties students may be experiencing in their department or Faculty, and/or with their supervisor

Consult with college staff with any concerns about a student's academic progress

⁻ Offer guidance on sources of support available within the College and University

Essential Selection Criteria

Applicants will be expected to:

 Have a completed doctorate in mathematics or a related discipline by the start date of the position. (Candidates who have not yet been awarded their doctorate should provide the date they expect to submit their thesis in their supporting statement).

In addition, they will be expected to show evidence of:

- Independence and ability to undertake research of the highest academic standard;
- An outstanding record (for the stage of their career) of papers published in major international journals;
- A realisable research plan, relevant to data science applied to quantitative finance, that would enhance the Oxford-Man Institute's overall research profile;
- Participation in conferences, seminars, and research workshops;
- The ability to teach students in small groups;
- The ability to communicate effectively in English, both orally and in writing, including in the communication of mathematics;
- Experience of promoting collaborative research environments for people from different backgrounds;
- A commitment to demonstrating respect, courtesy and consideration within interactions with members of the University and College community;
- A commitment to the vision and approach of Reuben College, and of an enthusiasm for working with colleagues in the organization and delivery of interdisciplinary and other activities within the college;
- Their ability to act as the college adviser for six Reuben College graduate students.

Desirable criteria

- Postdoctoral experience;
- Experience of more than one academic institution;
- Experience of using data science in quantitative finance
- Expertise in Machine Learning

For enquiries contact Professor Álvaro Cartea, Director of the Oxford-Man Institute, alvaro.cartea@maths.ox.ac.uk

Pre-employment screening

Standard checks

If you are offered the post, the offer will be subject to standard pre-employment checks. You will be asked to provide: proof of your right-to-work in the UK; proof of your identity; and (if we haven't done so already) we will contact the referees you have nominated. You will also be asked to complete a health declaration so that you can tell us about any health conditions or disabilities for which you may need us to make appropriate adjustments.

Please read the candidate notes on the University's pre-employment screening procedures at: https://www.jobs.ox.ac.uk/pre-employment-checks

Proof of qualifications

This post specifies that a PhD qualification is essential. If you are offered the post, you should therefore be in a position to provide proof of this qualification, and will be asked to provide the original PhD certificate or transcript as part of the pre-employment checks. If you do not yet have either of these documents, you should provide an academic reference confirming your intended submission date. Failure to present either of these documents in a timely fashion could result in a delayed start. In particular, where there is a need to apply for a valid work visa ahead of the appointment, you will need to provide proof of submission at least three months in advance of your proposed start date.

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 work-place 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 cuttingedge. Oxford is one of Europe's most entrepreneurial universities and we rank first in the UK for university spin-outs, and in recent years we have spun out 15-20 new companies every year. 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.

About the Oxford-Man Institute of Quantitative Finance

The Oxford-Man Institute is hosted by the Department of Engineering Science, and it is underpinned by various departments of The Mathematical, Physical, and Life Sciences Division (Computer Science, Mathematical Institute, Statistics) and the Social Sciences Division (Economics and Saïd Business School). At the OMI we address fundamental problems in quantitative finance with a strong focus on data driven models. We achieve this by providing a forum for academics from various disciplines and industry participants to create and implement ideas. Our members and visitors employ tools from various sources such as machine learning, artificial intelligence, financial theory and practice, and mathematics.

Among our objectives are to provide new insights into how markets work, and to develop new tools for financial decision making. As a result, our research output and activities are relevant to all stakeholders in the economy, including industry participants, and financial regulators.

The OMI provides the freedom to do innovative work. One of our main strengths is to attract distinguished experts and young researchers to an environment that stimulates collaboration. We endeavour to facilitate research and increase the impact of the OMI's research output in a number of ways, including cross-collaboration, seminars, and providing data and physical space. The breadth of the University of Oxford affiliated departments speaks to our interdisciplinary approach to problem solving. Our seminars and conferences are pivotal in the life of the OMI and key to the dissemination of cutting-edge ideas. Finally, we provide working space at the OMI offices in a premium location of the university and in a vibrant neighbourhood of Oxford.

For more information please visit: www.oxford-man.ox.ac.uk.

The Mathematical and Computational Finance group

The Oxford <u>Mathematical and Computational Finance Group</u> is one of the world's leading research groups in the area of mathematical modelling in finance and offers a thriving research environment, with experts covering multiple areas of quantitative finance. The group maintains close links with the <u>Data Science</u>, <u>Stochastic Analysis</u> and <u>Numerical Analysis</u> groups as well as the <u>Institute for New Economic Thinking</u> (INET), the <u>Oxford-Man Institute of Quantitative Finance</u> and the <u>Oxford Probability Group</u>, enabling cross-fertilisation of ideas and techniques.

The group runs the MSc in Mathematical and Computational Finance.

Further details can be found at: https://www.maths.ox.ac.uk/groups/mathematical-finance/

The Mathematical Institute

The Mathematical Institute, as Oxford's Department of Mathematics is known, is one of the leading mathematics departments in the world. Our mathematical research, impact and environment have twice been ranked first in the UK, in the 2021 and 2014 Research Excellence Framework exercises, a government review of research in all UK universities. The Mathematical Institute is the focus of research into both fundamental mathematics and its applications, and our inclusive nature and overall size are key factors in the provision of an outstanding research environment for our members. The large number of faculty, postdocs and students in the Mathematical Institute, all supported by excellent facilities, allows us to maintain a critical mass

in research groups encompassing a wide spectrum of mathematics, while our integrated nature fosters collaboration between fields. We also host a large number of academic visitors. Our web pages (www.maths.ox.ac.uk) provide comprehensive information about all of our activities.

The research activities of the Institute as a whole can be gauged from the web pages of the research groups and centres within the Institute (www.maths.ox.ac.uk/research). The range of our research interests is well reflected by the profile of our faculty as listed at www.maths.ox.ac.uk/people. Many members of the Institute have received prestigious prizes and other special recognition for their work; some recent examples can be found at www.maths.ox.ac.uk/news.

The Mathematical Institute moved into the purpose-built Andrew Wiles Building in the University's Radcliffe Observatory Quarter in September 2013. As well as providing offices for all staff and graduate students, it houses a range of other facilities available to members of the department, including the Whitehead Library, a large range of meeting rooms, teaching spaces, lecture rooms, and social spaces, and a small laboratory for carrying out table-top experiments. For more information, see www.maths.ox.ac.uk/about-us.

Teaching is central to the life of the Mathematical Institute and we have around 900 undergraduates on course, some on joint courses with other departments. We teach around 250 students each year across five taught master's degree courses, and have over 250 doctoral students in residence at any one time. Our doctoral programme always attracts the best research students from across the world, and we have a broad mentoring and training programme.

The Mathematical Institute strives to ensure that all staff and students are given the opportunities and support they need to achieve their potential. We are committed to equality of opportunities and to advancing women's careers. We support staff returning from long-term absence with teaching relief, offer flexible working arrangements, and the department sponsors University nursery places to support the priority allocation of childcare to our staff. Further information about family support can be found below under University Benefits, Terms and Conditions. Our Equality, Diversity & Inclusion Committee² contributes to many aspects of our work.

As part of the department's commitment to openness, inclusivity and transparency, we strongly encourage applications from all who consider they meet the requirements of the post, and particularly from women and ethnic minorities.

We have a number of family-friendly policies, such as the right to apply for flexible working, hybrid working, and support for staff returning from periods of extended absence. We are committed to ensuring an inclusive interview process and will reimburse up to £250 towards any additional care costs (for a dependent child or adult) incurred as a result of attending an interview for this position, which may not be applicable if the interviews are held remotely.

For more information on the Mathematical Institute, please visit: www.maths.ox.ac.uk

Good Practice Scheme (www.lms.ac.uk/women/good-practice-scheme). We have held an Athena SWAN Silver Award since 2016.

The Mathematical Institute was a founding supporter of the London Mathematical Society's

We proudly hold a departmental Athena SWAN Silver Award and an institutional Race Equality Charter Bronze Award.

Reuben College

There are 39 self-governing and independent colleges at Oxford, giving both academic staff and students the benefits of belonging to a small, interdisciplinary community as well as to a large, internationally-renowned institution. The collegiate system fosters a strong sense of community, bringing together leading academics and students across subjects, and from different cultures and countries.

The founding of Oxford's newest postgraduate college, supported by a generous benefaction from the Reuben Foundation of £71 million, has offered an exciting opportunity to bring together academic researchers focused on exploring some of the most important questions of the 21st century. Reuben College provides an environment that stimulates and facilitates interdisciplinary research, while emphasising the qualities of innovation, leadership and entrepreneurship. It supports a community of scholars who embrace opportunities to interact with researchers beyond the boundaries of their own disciplines and to engage with colleagues beyond the realm of academia.

Established in 2019, Reuben College admitted its first graduate students October 2021. Currently supporting 540+ students, over the coming years the College will grow to support a graduate student body of 650+, with concomitant growth of Fellowship and staff. As a new college, we are building a community of people and practice that recognises the importance of equality and diversity in our community and in our intellectual endeavours. All Fellows are expected to subscribe proactively to the college ethos and to commit to developing both its intellectual and outreach activities.

Research Fellows are non-stipendiary, but receive the following benefits:

- A research allowance of up to £2,000 p.a. This research allowance is for supporting research costs, such as the purchase of books and equipment, conference fees, academic travel, etc., and would be claimed via presenting corresponding receipts or other proofof-costs to College.
- Full dining rights, equivalent to that of Governing Body Fellows, intended to allow the Research Fellow frequently to attend lunches and dinners in College.
- The right to bring guests to College meals, subject to capacity, and at their own costs.
- Membership of the Reuben Common Room, which is the single body representing the social and academic needs of all members of College.

For more information, please see: www.reuben.ox.ac.uk

The Mathematical, Physical and Life Sciences Division

Oxford is widely regarded as one of the world's leading science universities, and the University's Mathematical, Physical and Life Sciences (MPLS) Division sits at the heart of this reputation. It offers an outstanding environment for research, teaching, and innovation across the mathematical, computational, physical, engineering, and life sciences. As one of the four academic divisions of the University of Oxford, encompassing nine academic departments, a Doctoral Training Centre and Begbroke Science Park, it provides a collaborative, interdisciplinary community with a vibrant network of leading researchers and educators.

The division's research outputs, environment, and impact are consistently recognised at the highest levels, both nationally and internationally. MPLS departments regularly appear at the top of global league tables, including the Times Higher Education and QS World Rankings. Our strong performances in the UK Research Excellence Framework in both 2014 and 2021 also highlight the quality and impact of our work. These achievements reflect not only our academic excellence but also the strong networks we foster—with industrial partners, policymakers, and global research institutions.

Our vibrant research environment continues to evolve with major new investments in infrastructure. The Life and Mind Building, the University's largest-ever building project, is now close to completion/opened in 2025. It provides purpose-built facilities for the Departments of Experimental Psychology and Biology in inspiring spaces designed to foster collaboration and brings together researchers working on some of the most pressing questions in life sciences and human behaviour. The striking new Andrew Wiles Building houses our Mathematical Institute next to the Schwarzman Humanities Building, and the Beecroft on the edge of University Parks has provided a transformative home for our physicists. Current plans include significant investment to expand our interdisciplinary research and innovation support facilities at Begbroke Science Park and to transform Osney Mead, to the west of the city centre, into a dynamic innovation district, further strengthening Oxford's position as a world leader in science, technology, and enterprise.

MPLS provides a supportive and inclusive environment for academics at every career stage, from all over the world. The Division has a strong tradition of securing prestigious fellowships and supporting researchers as they progress to leadership roles. We are proud of our diverse community and every department holds an Athena Swan Award.

For educators, Oxford's tutorial system offers an unparalleled opportunity to engage with talented students and contribute to one of the world's most respected teaching systems. The division plays a central role in shaping the future of science through its graduate programmes, with over 3,500 postgraduate students receiving rigorous training and mentorship across MPLS departments.

For more information about the MPLS Division and the dedicated professional support it provides to academics across the sciences, please visit: http://www.mpls.ox.ac.uk.

How to Apply

Applications are made through our online recruitment portal. Information about how to apply is available on our Jobs website https://www.jobs.ox.ac.uk/how-to-apply.

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

Applicants are responsible for asking two of their referees to send their reference letters DIRECTLY to the Recruitment Coordinator email: references@maths.ox.ac.uk by the advertised closing date. Referees are asked to clearly state the applicant name and vacancy ID: 183650 in the subject line of the email. Please note that only two references will be considered. Referees should preferably not all be from the same institution. Whenever possible one referee should be the applicant's current, or most recent, supervisor.

You will also be required to upload the following via our e-recruitment system:

- A supporting letter of no more than 2 pages describing how you meet the selection criteria;
- A curriculum vitae of **no more than two pages**;
- A full list of publications with your top 3 papers starred;
- A statement of research interests including a plan for research to be undertaken during the Fellowship of **no more than 3 pages.**

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, quoting vacancy reference **183650**.

All applications must be received by 12.00 noon on the advertised closing date.

Online interviews are anticipated to take place in February 2026.

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 department(s).

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).

DATA PROTECTION:

All data supplied by applicants will be used only for the purposes of determining their suitability for the post, and will be held in accordance with the principles of the Data Protection Act 1998 and the department's data protection policy.

https://www.maths.ox.ac.uk/members/policies/data-protection/statement

Due to the large volume of recruitment that the department administers we are unable to provide feedback to non-shortlisted applicants.

If you need help

Application FAQs, including technical troubleshooting advice is available at: https://staff.web.ox.ac.uk/recruitment-support-faqs

Non-technical questions about this job should be addressed to the recruiting department directly at recruitment@maths.ox.ac.uk.

To return to the online application at any stage, please go to: www.recruit.ox.ac.uk.

Please note that you will receive an automated email from our online recruitment portal to confirm receipt of your application. **Please check your spam/junk mail** if you do not receive this email.

Important information for candidates

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: https://compliance.admin.ox.ac.uk/job-applicant-privacy-policy. The University's Policy on Data Protection is available at: https://compliance.admin.ox.ac.uk/data-protection-policy.

The University's policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for very senior research posts at **grade RSIV/D35 and clinical equivalents E62 and E82** of 30 September before the 70th birthday. The justification for this is explained at: https://hr.admin.ox.ac.uk/the-ejra.

For existing employees on these grades, any employment beyond the retirement age is subject to approval through the procedures: https://hr.admin.ox.ac.uk/the-ejra.

There is no normal or fixed age at which staff in posts at other grades 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

The University of Oxford and Reuben College are committed to equal opportunity, and to being a place where everyone belongs and is supported to succeed. We recognise how the diversity of our community enriches our ability to deliver on our academic mission.

We welcome applications from individuals from all backgrounds, including those under-represented within higher education. No applicant or members of staff shall be unlawfully discriminated against on the basis of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.

Employment with the University and progression within employment will be determined according to personal merit and the application of criteria related to the duties and conditions of the post. In all cases, the primary consideration will be the ability to perform the job.

As stated in the University's Equality Policy and Equality, Diversity and Inclusion Strategic Plan, our commitment to equality and diversity goes hand in hand with our commitment to academic freedom and free speech

Benefits of working at the University

Employee benefits

University employees enjoy 38 days' paid holiday, generous pension schemes, travel discounts, and a variety of professional development opportunities. Our range of other employee benefits and discounts also includes free entry to the Botanic Gardens and University colleges, and discounts at University museums. See https://hr.admin.ox.ac.uk/staff-benefits

Employee Assistance Programme

As part of our wellbeing offering staff get free access to Spectrum.Life, a confidential employee assistance programme, available 24/7 for 365 days a year. Find out more https://staff.admin.ox.ac.uk/spectrum.life.

University Club and sports facilities

Membership of the University Club is free for all University staff. The University Club offers 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 https://www.sport.ox.ac.uk/.

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 https://welcome.ox.ac.uk/
There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See https://staffimmigration.admin.ox.ac.uk/visa-loan-scheme.

Family-friendly benefits

We are a family-friendly employer with one of the most generous family leave schemes in the Higher Education sector (see https://hr.web.ox.ac.uk/family-leave). Our Childcare Services team provides guidance and support on childcare provision, and offers a range of high-quality childcare options at affordable prices for staff. In addition to 5 University nurseries, we partner with a number of local providers to offer in excess of 450 full time nursery places to our staff. Eligible parents are able to pay for childcare through salary sacrifice, further reducing costs. See https://childcare.admin.ox.ac.uk/.

Supporting disability and health-related issues (inc menopause)

We are committed to supporting members of staff with disabilities or long-term health conditions, including those experiencing negative effects of menopause. Information about the University's Staff Disability Advisor, is at https://edu.admin.ox.ac.uk/disability-support. For information about how we support those going through menopause see https://hr.admin.ox.ac.uk/menopause-guidance.

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 https://edu.admin.ox.ac.uk/networks

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 settle into Oxford, and provides them with an opportunity to meet people and make connections in the local area. See www.newcomers.ox.ac.uk.

Research Staff

The Researcher Hub supports all researchers on fixed-term contracts. They aim to help you settle in comfortably, make connections, grow as a person, extend your research expertise and approach your next career step with confidence. Find out more https://www.ox.ac.uk/research/support-researchers/researcher-hub

Oxford's Research Staff Society is a collective voice for our researchers. They also organise social and professional networking activities for researchers. Find out more https://www.ox.ac.uk/research/support-researchers/connecting-other-researchers/conference-research-staff-society