

MATHEMATICAL INSTITUTE
ANDREW WILES BUILDING

Job Description and Selection Criteria

Job title	Senior Research Fellow in Functional Analysis
Division	Mathematical, Physical and Life Sciences
Department	Mathematical Institute
Location	Andrew Wiles Building, Radcliffe Observatory Quarter, Woodstock Road, Oxford, OX2 6GG.
Grade and salary	Grade 9: £55,636 – £72,079 per annum (with potential for discretionary increment above this scale) An allowance of £3,155 per annum would be payable upon award of Full Professor title with eligibility for consideration in subsequent exercises for professorial merit pay. These awards do not result in any change to the duties of the post-holder.
Hours	Full time (37.5 hours per week)
Contract type	Permanent
Reporting to	Head of Department
Vacancy reference	176933
Additional information	<p>This is a permanent position comparable in status with an Associate professorship in US universities.</p> <p>This is full-time position that cannot be held concurrently with any other substantive post without the explicit permission of the Head of Department.</p> <p>This post is subject to a two-year probationary period.</p> <p>(PLEASE NOTE: Applicants are responsible for contacting their referees and making sure that their letters are received by the closing date)</p>

The role

The Mathematical Institute, University of Oxford, proposes to appoint a Senior Research Fellow in Functional Analysis, from 1st September 2025 or as soon as possible thereafter. This is a permanent position.



The successful candidate must have a doctorate in mathematics or a closely related subject and a record of outstanding research in Pure Mathematics with a focus on functional analysis. As a Senior Research Fellow, you will engage in advanced study and academic research in pure mathematics with a focus on functional analysis.

The successful candidate will play a key role in contributing to the teaching and administration of the Department and Functional Analysis Research Group. Details of all courses can be found at <https://courses.maths.ox.ac.uk/>. The postholder will also be expected to lead independent research projects and supervise MSc dissertations. The department is seeking to increase its student intake on the Oxford Master's in Mathematical Sciences (OMMS), and you will be expected to supervise OMMS dissertations and teach on this course in particular.

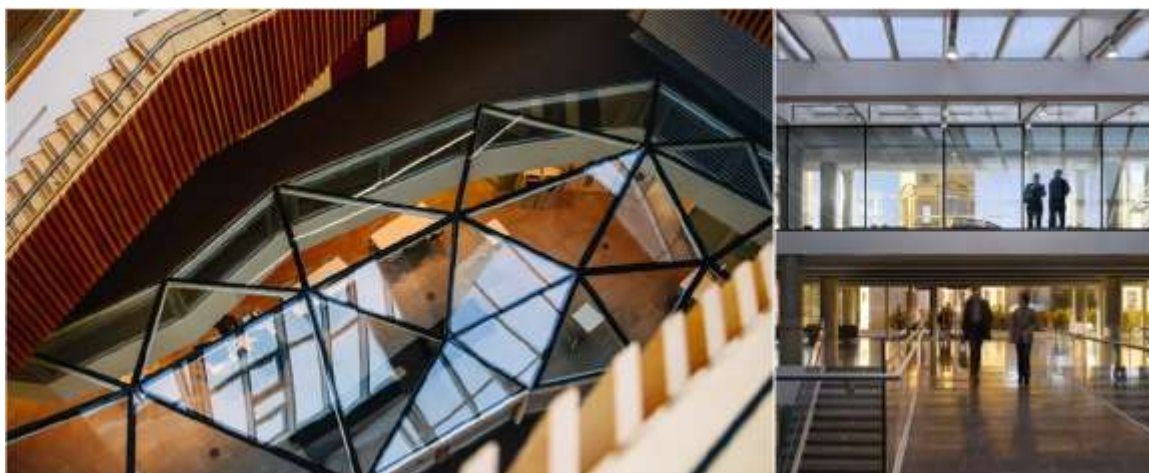
In addition, to assist the department in its strategic goal of improving the diversity of its undergraduate and postgraduate students and faculty, in particular the gender balance, the successful candidate is expected to engage with outreach and/or mentoring activities aimed at increasing diversity in mathematics. The department is proud to have held an Athena SWAN Silver Award since 2016, and the department's current activities in this regard may be discussed with Professor Ian Hewitt (Associate Head of Department (People)).

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 minority ethnic candidates, who are under-represented in academic posts at Oxford. More information about our commitments to good practice and equality of opportunities is presented below in the section on the Mathematical Institute below.

There is considerable flexibility in the organisation of duties, with three 8-week undergraduate teaching terms and generous sabbatical leave to balance teaching and research (please see the Benefits, Terms and Conditions section for further details of sabbatical leave).

Senior Research Fellows are full members of University departments/faculties and play a role in the democratic governance of the University. You will join a lively, intellectually stimulating and multi-disciplinary community which performs to the highest international levels in research and teaching, with extraordinary levels of innovation, creativity and entrepreneurship.

Oxford offers many opportunities for professional development in research and teaching. Senior Research Fellows may apply for the title of full Professor in annual exercises. If the title is conferred, you will also have access to professorial merit pay opportunities. In exceptional cases, the title of full Professor may be awarded on appointment.



Duties of the Post

The post-holder will be expected:

Research

- To engage in original research in the field of Pure Mathematics with a focus on Functional Analysis.
- To secure research funding and engage in the management of research projects;
- To disseminate research through publication in scholarly journals, participation in international conferences and seminars, and through other media;
- To build collaborations across the global research community;
- To engage in knowledge transfer activities.

Teaching

- To carry out teaching at undergraduate and graduate level including lectures, classes, demonstrations and project and dissertation supervision under the direction of the Head of Department. The requirement will normally be:
 - To give not fewer than thirty-two lectures in each academic year;
 - To contribute not fewer than twelve sets of four classes (1.5 hours per class) per annum;
or to make an equivalent contribution (where lectures and classes may be substituted for project and dissertation supervision, consistent with current departmental policies)
 - To supervise postgraduate research and MSc students.

Examining

- To take part in University examining as and when requested to do so.

Administration

- To participate in admissions and other administrative duties for the MSc in Mathematical Sciences (OMMS)
- To engage with outreach activities to support the department in achieving its strategic aim to improve the diversity of its undergraduate and postgraduate student body;
- To participate in the administration of the department as and when requested by the Head of Department.

Selection criteria

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 University demonstrates its support for [DORA](#) (San Francisco Declaration on Research Assessment) to which the University became a signatory in 2018.

The Selection Committee for this process is expected to comprise;

- Professor Emmanuel Breuillard (Chair, Mathematical Institute)
- Professor Cornelia Drutu (Mathematical Institute)
- Professor Andre Henriques (Mathematical Institute)
- Professor David Kerr (University of Münster)
- Professor Stefaan Vaes (KU Leuven)
- Professor Stuart White (Mathematical Institute)

The University is committed to fairness, consistency and transparency in selection decisions. Members of the selection committee are aware of the principles of equality of opportunity, fair selection and the risks of bias.

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.

Essential Selection Criteria

The successful candidate will be expected to meet the following criteria:

- (a) Hold a doctorate in mathematics or closely related subject;
- (b) The proven ability and/or potential to carry out high quality independent research at an international level in Functional Analysis, as evidenced by, for example, leading publications and international research collaborations;
- (c) Ability to attract research funding, with evidence (commensurate with career stage) of an excellent track record in obtaining research grants;
- (d) The ability to communicate and disseminate research, as evidenced by, for example, invitation to and participation in conferences, seminars and research workshops;
- (e) A demonstrated ability to teach effectively, in particular:
 - in undergraduate and postgraduate lectures, not exclusively in the area of their research expertise;
 - in problem classes or small groups on a broad range of topics in the undergraduate mathematics syllabus;
- (f) Ability to supervise graduate students;
- (g) Excellent interpersonal skills necessary for undertaking small-group teaching and the supervision and pastoral care of students;
- (h) A commitment to improving diversity in mathematics;
- (i) Ability and willingness to undertake the full range of administrative duties within the department;

Desirable

- Experience of supporting the personal and/or career development of under-represented groups within mathematics (for example through outreach activity, mentoring or acting as a role model).

How to apply

Applications are made through our e-recruitment system and you will find all the information you need about how to apply 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.

You will be required to upload

- a full curriculum vitae
- list of publications
- details of your teaching experience
- a statement of your research interests,
- a supporting statement.

The supporting statement must explicitly explain how you meet each of 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).

Please upload all documents **as PDF files** with your name and the document type in the filename, quoting vacancy reference **176933**.

As part of your application you will be asked to provide details of three referees and indicate whether we can contact them now. Referees should preferably not, all be from the same institution and whenever possible one should be the applicant's current, or most recent, supervisor.

Reference letters form an important part of your application and it is your responsibility to ask all three of your referees to send their reference to references@maths.ox.ac.uk by the closing date quoting vacancy reference 176933. **The University will also assume that it is free to approach your referees at any stage unless your application specifies otherwise, but the onus is on you to have the letters sent.**

Exceptionally, if you would prefer a referee or referees to be approached only with your specific permission or if you would prefer them to be approached only if you are being called for interview on the final short list, then you must state this in your application, alongside the details of the relevant referee(s). You must provide the names and full contact details of three referees even if you do not wish them to be contacted yet.

NOTE: reference letters must be received from your referees by the closing date for your application to be complete.

Only applications received before **12.00 noon UK time on Friday 17 January 2025** can be considered.

Shortlisted candidates will be invited to Oxford for interviews around mid-February 2025.

The University and colleges welcome applications from candidates who have a disability or long-term health condition and is committed to providing long term support. The University's disability advisor can provide support to applicants with a disability, please see <https://edu.admin.ox.ac.uk/disability-support> for details. Please let us know if you need any adjustments to the recruitment process, including the provision of these documents in large print, audio or other formats. If we invite you for interviews, we will ask whether you require

any particular arrangements at the interview. The University Access Guide gives details of physical access to University buildings <https://www.accessguide.ox.ac.uk/>.

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 <https://hrsystems.admin.ox.ac.uk/recruitment-support>. To return to the online application at any stage, please log back in and click the “My applications” button on the left-hand side of the page.

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.

Queries about the post should be addressed to the Recruitment Administrator at recruitment@maths.ox.ac.uk or telephone: +44 (0) 1865 273518.

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 at least three months in advance of your proposed start date, 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 submission of the thesis or that the qualification has been awarded. Failure to present either of these documents in a timely fashion could result in a delayed start, particularly where there is a need to apply for a valid work visa ahead of the appointment.

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>.

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.

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 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.

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 Committee](#)¹ 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.

¹ The Mathematical Institute was a founding supporter of the London Mathematical Society's Good Practice Scheme (www.lms.ac.uk/women/good-practice-scheme). We have held an Athena SWAN Silver Award since 2016.

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

The Mathematical Institute holds a silver Athena Swan award to recognise advancement of gender equality: representation, progression and success for all.

Pure Mathematics and Functional Analysis in Oxford

The Mathematical Institute has a distinguished history of world-leading research in Pure Mathematics, and it has enjoyed a particularly exciting period of growth and success over the past decade. The research activities of the Institute are organised within a framework of interlinked and overlapping research groups which are described at <http://www.maths.ox.ac.uk/research>. The fact that these research groups have indistinct boundaries and substantial intersections reflects a widespread recognition within the department of the unity of mathematics and the importance of cross-fertilisation between fields. The research group of primary relevance to the current post is Functional Analysis.

Oxford has a long history of research across a wide range of topics in functional analysis and related areas including Choquet theory, spectral theory, operator theory and particularly operator semigroups, Banach spaces and most recently operator algebras.

At present the primary members of the group are Prof Andre Henriques and Prof Stuart White together with 3 postdoctoral research associates, and 5 DPhil students. There are active connections to faculty working in geometric group theory, stochastic analysis and non-commutative L^p spaces, mathematical physics, and logic. The group organises a weekly external seminar, and an internal reading group, and has a large international collaborative network.

Department classes and the Oxford Masters in Mathematical Sciences

Together with our partner departments and faculties, the Mathematical Institute provides 4 undergraduate integrated masters programmes: Mathematics, Mathematics and Computer Science, Mathematics and Philosophy and Mathematics and Statistics. Courses in the final two years of the programme (known as Part B and Part C) are supported by sets of classes consisting of four 90 minute classes of around 6-12 students led by a class tutor working in conjunction with a TA or DPhil marker. These classes review the problem sets for the courses and provide opportunities for students to ask individual questions as well as provide a forum for discussing extensional material. A full listing and course materials for the Institutes' Part B and Part C courses can be found [here](#).

The Oxford Masters in Mathematical Sciences (OMMS) is one of the Institutes 5 taught MSc programmes. Jointly run with the Department of Statistics it offers a broad range of courses from across the Mathematical Sciences which are shared with our Part C programme. Currently around 80 students a year from all around the world join us for OMMS.

Both Part C and OMMS students write a dissertation in the first two terms of the course under the guidance of a dissertation supervisor. Dissertations are organised in groups of 1-4 students writing individual dissertations around a common topic proposed by faculty supervisors. The purpose of the dissertation is to develop independent study, research and mathematical writing skills. Students meet their supervisor for around 6 hour long group meetings across the two terms, and give a presentation on their dissertation to their supervisor.

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 and the MPLS Division is home to our non-medical sciences, with 10 academic departments that 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.

The disciplines within the MPLS Division regularly appear at the highest levels in rankings, including the Times Higher Education and QS world rankings. Nationally, the quality of the Division's research outputs and environment, and the resulting impact, was recognised through strong performances in the UK Research Excellence Framework in both 2014 and 2021.

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 and we have a strong tradition of attracting and nurturing the very best early career researchers who regularly secure prestigious fellowships and faculty positions. MPLS continues in its work to support diversity in its staffing, seeing that it will bring benefits to all, and we are pleased to note that all academic departments in the Division hold Athena Swan Awards.

We have around 7,300 full and part-time students (including approximately 3,400 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 diverse 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.ox.ac.uk) 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 bring the potential of our scientific efforts forward for practical and beneficial application to the real world and our desire, aided by the work of Oxford University Innovation and Oxford Sciences Innovation, 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

University Benefits, Terms and Conditions

Details of University policy in the following areas can be found at the links provided.

Salary

[Academic staff pay | HR Support \(ox.ac.uk\)](#)

Pension

<https://finance.web.ox.ac.uk/uss>

Sabbatical leave

[Council Regulations 4 of 2004 | Governance and Planning \(ox.ac.uk\)](#)

Outside commitments

<https://hr.admin.ox.ac.uk/holding-outside-appointments>.

Intellectual Property

<https://governance.admin.ox.ac.uk/legislation/council-regulations-7-of-2002>

Managing conflicts of interest

<https://researchsupport.admin.ox.ac.uk/governance/integrity>

Membership of Congregation

<https://www.ox.ac.uk/about/organisation/governance>

<https://governance.admin.ox.ac.uk/legislation/statute-iv-congregation> for further details.

Family support

<https://hr.admin.ox.ac.uk/family-leave-for-academic-staff>.

<https://childcare.admin.ox.ac.uk/home>.

<https://www.newcomers.ox.ac.uk/>.

Welcome for International Staff

welcome.ox.ac.uk.

[Home | Staff Immigration \(ox.ac.uk\)](#)

Relocation

<https://finance.admin.ox.ac.uk/relocation-scheme-arrangements#collapse1094916>

Promoting diversity

<https://edu.admin.ox.ac.uk/home>

Other benefits and discounts for University employees

<https://hr.admin.ox.ac.uk/discounts>

Pre-employment screening

<https://jobs.ox.ac.uk/pre-employment-checks>.

Length of appointment

[Academic posts at Oxford | HR Support](#)

Retirement

<https://hr.admin.ox.ac.uk/the-ejra>

Data Privacy

<https://compliance.admin.ox.ac.uk/job-applicant-privacy-policy>.

<https://compliance.admin.ox.ac.uk/data-protection-policy>.

Benefits of working at the University

[Employee benefits | HR Support \(ox.ac.uk\)](#)

[Staff benefits | HR Support \(ox.ac.uk\)](#)