

PhD Your Way

Information Booklet
16th November 2022

About the Event

- PhD Your Way is an online information event, crafted to connect you with a wide range of maths PhD opportunities that exist throughout the universities within the UK.
 - The afternoon will combine an information session, with the opportunity to meet and talk with PhD students from a variety of different institutions.
 - This information pack collects together information from the institutions attending the event, so that you can have a better idea of who to talk to prior to the session.

Code of Conduct

- Our event is dedicated to providing a harassment-free experience for everyone, regardless of gender, gender identity and expression, sexual orientation, parental, pregnancy or relationship status, age, disability, physical or mental health, appearance, race, ethnicity or religion.
- We do not tolerate harassment of participants in any form
- Participants asked to stop any harassing behavior are expected to comply immediately.
- Participants violating these rules may, at the discretion of the organizers, be asked to leave the call.
- Be aware Harassment includes the following:
 - Offensive verbal or written comments related to gender, gender identity and expression, age, sexual orientation, disability, physical appearance, race, ethnicity or religion
 - Deliberate intimidation, stalking, harassing photography or recording, sustained disruption of talks or other events.
 - Inappropriate, persistent and unwelcome sexual attention.
 - Sharing or displaying inappropriate images, even in backgrounds of cameras.

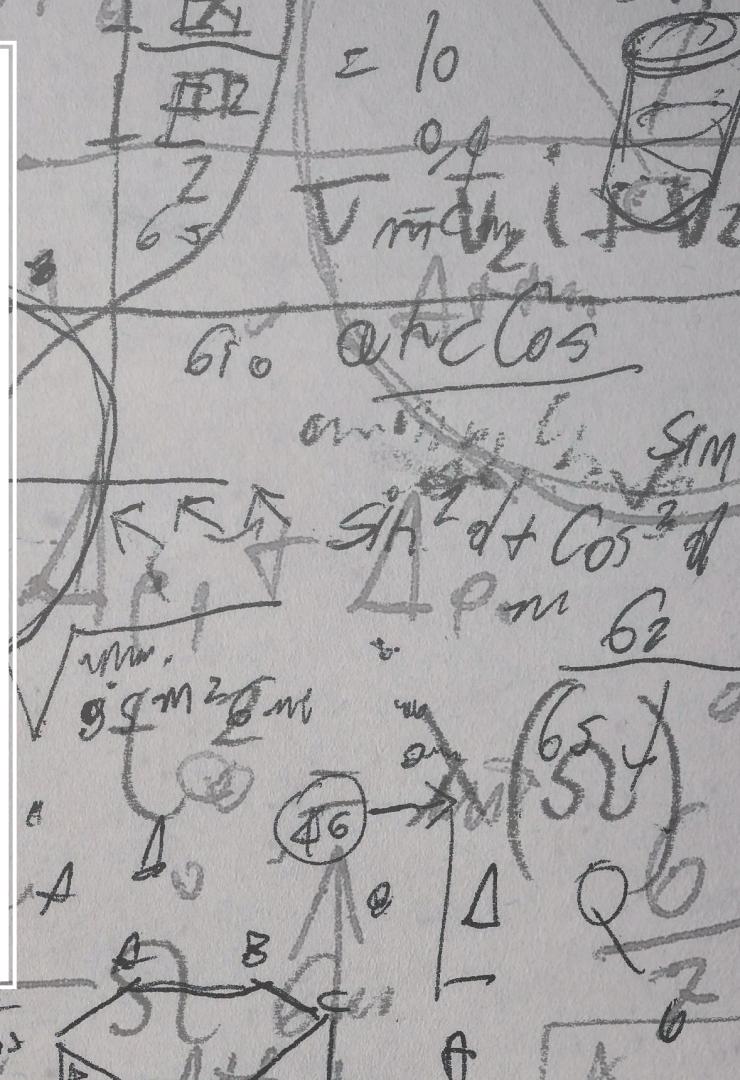


Table of Contents

- University of Bath: General Information, SAMBa CDT
- Durham University
- University of Edinburgh
- University of Glasgow
- Kings College London
- Loughborough University
- The Open University
- University of Oxford
- Queen Mary University of London
- The University of Southampton
- University College London
- Warwick University: Maths CDT, Maths Sys CDT
- University of York

University of Bath

- Social events
 - Maths choir
 - Cake Wednesday
 - Friday morning coffee
 - Friday six-a-side football
 - Di45 (pronounced Diffs: Friday drinks)
 - Research interest groups
 - Algebra, Geometry & Number Theory (AGeNT)
 - Applied and Interdisciplinary Maths (AIMS) – including Math Bio
 - Analysis
 - Numerical Analysis and Data Science
 - Probability (Prob-L@B)
 - Statistics
 - How to apply
 - SAMBa (offers made on a rolling basis)
 - Findaphd.com
 - Pathway to Research
- The earlier you apply, the better!
- SAMBa offers made between October and February/March



**EPSRC Centre for
Doctoral Training in
Statistical Applied
Mathematics
(SAMBa)**



UNIVERSITY OF
BATH



Engineering and
Physical Sciences
Research Council

Fully-funded PhD studentships in broad areas of mathematical sciences and its applications

What we offer:

- Fusion of applied mathematics, numerical analysis, probability, and statistics
- Choose and shape your own research direction
- Applications across science, engineering and industry
- Integrative Think Tanks: weeklong industrial & interdisciplinary research events
- Support from a diverse cohort in an inclusive environment

What you'll need:

- Good degree with high mathematical content
- Some research or professional experience

SAMBa students:

- 98 enrolled since 2014
- 38 graduates: 42% working in industry, 58% in academia

Research themes include:

- Inverse problems, Numerical methods, Optimisation
- Deterministic and Stochastic differential equations
- Statistical methods and Spatio-temporal statistical modelling
- Markov processes, graphs and networks
- Mathematical physics
- Mathematical machine learning
- Stochastic modelling

Applications/industrial areas include:

- Healthcare, Epidemiology and Biology
- Environment and Natural Hazards
- Energy and Transportation
- Fluid mechanics and Materials
- Imaging and Spectroscopy



Scan for more
<https://samba.ac.uk/>



Mathematics research and PhD Programmes:

Our active research academics are involved in cutting edge research covering a range of topics including

- Applied Analysis
- Computational Mathematics
- Continuum Mechanics
- Mathematical Physics
- Financial Mathematics
- Operational Research
- Applied Statistics

The research profile of the mathematics department continues to improve with 20% of work classified as world-leading. Of the papers submitted by our researchers 88% were assessed as world leading or internationally excellent. (REF 2021)

The Centre for Mathematical and Statistical Modelling at Brunel hosts a weekly seminar series run by four research groups in the department of Mathematics, inviting world leading researchers to share their research and an opportunity for our researchers to interact.

Key Information:

- Brunel University of London offer two broad PhD programmes, Mathematical Sciences Integrated PhD and a Mathematics PhD.
- Doctoral Students get an office in Tower A.
- Applications are on a rolling process, with most start dates in September and January of each academic year.
- Funded PhD studentships available.
- Opportunities for 15 hours of weekly GTA work.



Potential research areas by topic:

Applied and Numerical Analysis:

Analysis of partial differential equations, including non-linear PDEs of fluid mechanics and mathematical biology

Analysis and numerical implementation of boundary-domain integral and Integro-differential equations .

Financial Mathematics and Operational research:

Financial modelling; in particular, forecasting of spreads in commodity futures prices using latent state based models/ MCMC filters

Applications of machine learning in financial models.

Mathematical Physics and Applied Mathematics:

Algebraic geometry, birational geometry.

Statistical mechanics of complex systems and tectonophysics.

Statistics and Data Science:

High-dimensional Bayesian Learning.

Learning in the Absence of Training Data.

PhD in Mathematical Sciences at



Research groups:

- Applied & Computational Analysis
- Mathematical & Theoretical Particle Physics
- Pure Mathematics
- Statistics
- Probability

Funding:

- Durham Doctoral Scholarship (apply for it when submitting your application to the programme)
- Funding available for attending conferences, workshops and research visits



Other stuff:

- Office space provided to all PhDs
- Teaching Opportunities - Not mandatory but good opportunity + extra pay
- Durham University is one of the few collegiate universities in the UK, each student and staff member belongs to one of 17 colleges!
- Durham cathedral and Durham Castle were declared UNESCO World Heritage Site in 1986
- Durham is committed to EDI and strongly encourages diverse applicants, the departmental staff as well as student body very diverse
- Departmental Initiatives: Women's lunches, First generation scholar network, PhD student reps on the EDI committee, EDI math book club
- Different University wide societies (LGBTQ+ network, cultural societies (Latin American, Indian, Afro-Caribbean etc), postgrad student group)

Application:

- Open since Oct 2022, no formal deadline - but you are encouraged to apply by 18 Dec 2022
- Applications for the Physics and Probability groups are strongly encouraged to be submitted by 11 Dec 2022!
- <https://www.durham.ac.uk/departments/academic/mathematical-sciences/postgraduate-study/apply/>





THE UNIVERSITY of EDINBURGH

- Cutting-edge research and world-leading supervisors
- Interdisciplinary collaboration
- 150 PhD students: sociable, good support system
- **Maxwell Institute Graduate School:** Collaboration with Heriot Watt University
- **SMSTC:** First year PhD Maths courses are joint with all other Scottish universities
- **Bayes Centre:**
 - All first year PhD students are located in the same office
 - Same building as the Data Lab, Turing institute and the International Centre for Mathematical Sciences (ICMS)
- Lots of **funding**, including CDTs and DTPs:



**Open to
the world**

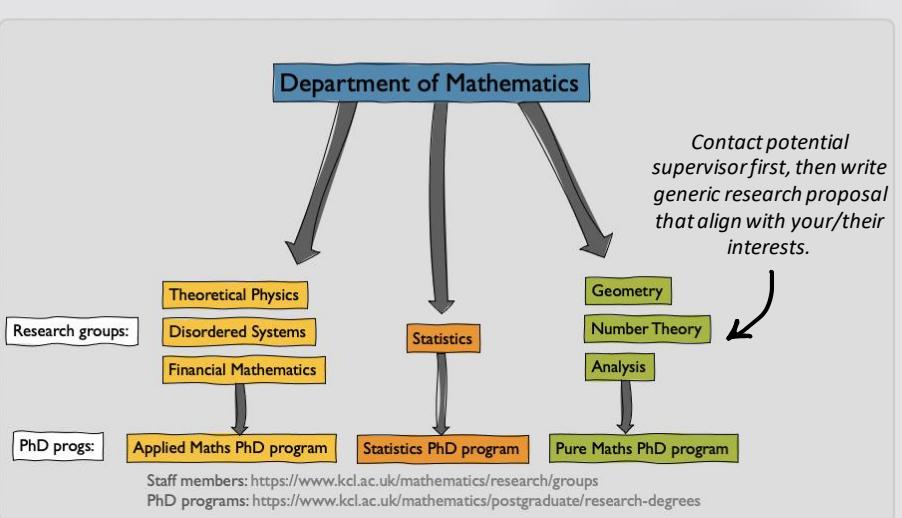
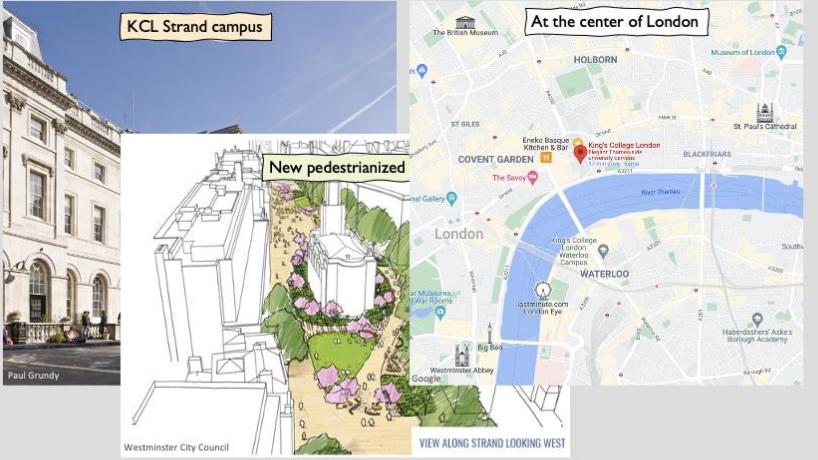
University of Glasgow, School of Mathematics and Statistics, Postgraduate Research Opportunities



University
of Glasgow



- CDTs:
 - [Centres for Doctoral Training](#)
- Office space:
 - [Facilities](#)
- Teaching commitment:
 - Optional: tutoring, teaching
 - Hourly wage
 - GTA training
- How to apply, deadlines:
 - [Postgraduate research opportunities](#)
- Stipends, student funding opportunities:
 - [Scholarships](#)
- Research groups
 - Maths: [Mathematics](#)
 - Stats: [Statistics](#)
- Societies for maths PGRs:
 - [Find a Club or Society \(glasgowunisrc.org\)](#)



APPLICATION

- Supervisor relationship is **key**.
commuting.
 - Speak to people in the group.
the initial direction of
 - Come in with an open mind.
the project might
 - You are the project lead.
change.
 - Contact admissions of the research group before applying
(Applied/Statistics).

meet with them before committing.

*the initial direction of
the project might
change.*

WHY KING'S?

- Maths at KCL is very interdisciplinary:
 - many research groups & CDTs.
 - many experimentalists to collaborate with.
 - Helpful, nice and efficient department staff.
 - Central London location.

FUNDING SOURCES

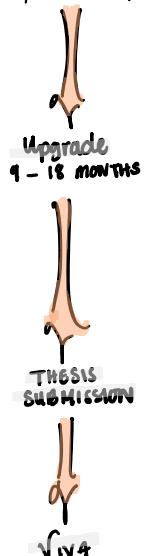
Traditional PhD: [Departmental funding](#) (tax-free stipend + travel grant for conferences/summer schools/relevant purchases); Martingale foundation <https://martingale.foundation>; or other external sources.

Centre for Doctoral Training: Funded PhD positions in the CDT in '[Digital Twins in Healthcare](#)': harness the power of mathematics to make a change in healthcare; Biological Physics Across Scales ([BiPAS](#)).

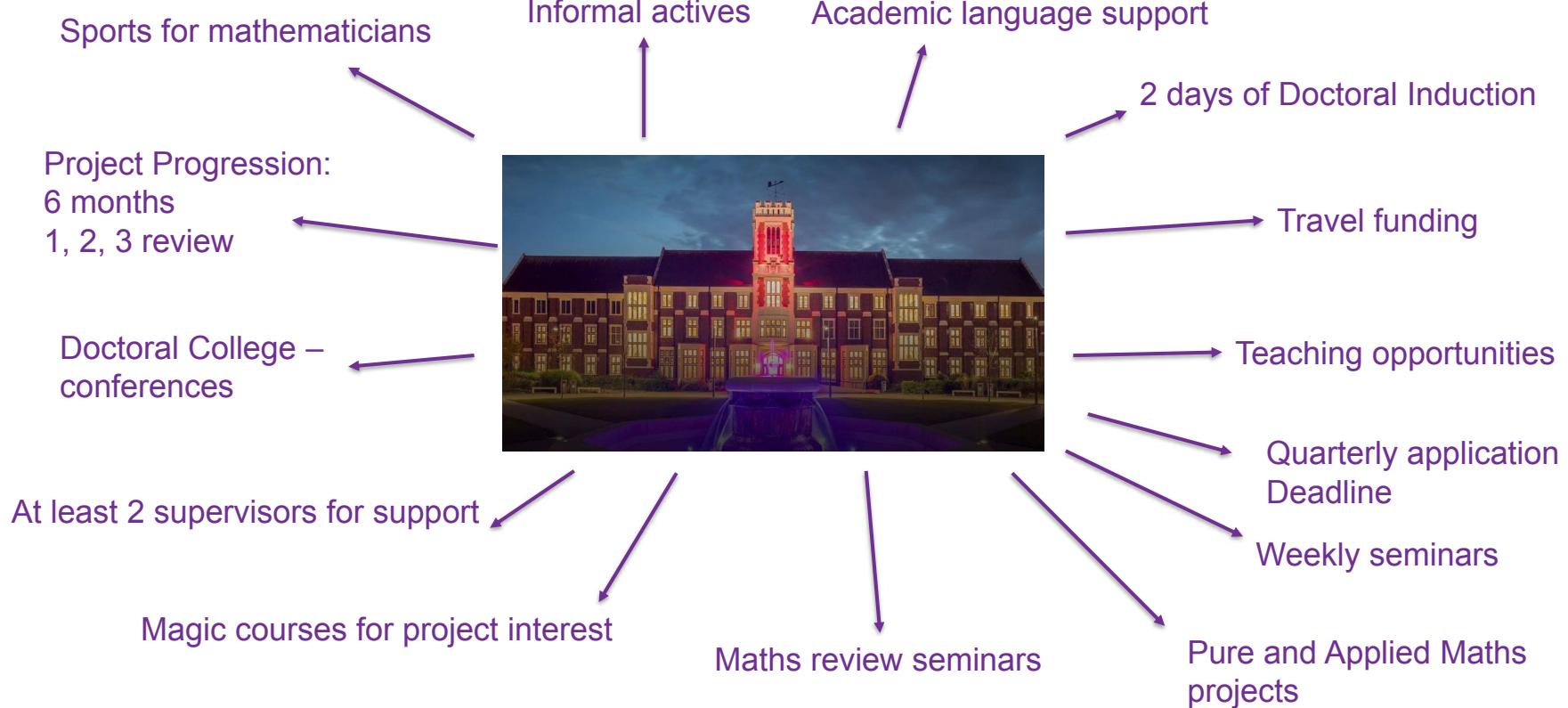
 TIPS!

- Manage your expectations: you will be doing more than research throughout – admin, teaching, attending conferences (transferable skills).
 - Wide range of career prospects - *what industry does not want a mathematician?*
 - Find out how you learn and what works for you
 - Continually learning

LTCC COURSES for additional support



Phd Your Way



PhDs at The Open University - School of Maths and Stats

A diverse and inclusive department with Athena Swan Silver Award.

Research interests:

Applied Maths and Theoretical Physics
Combinatorics and Algebra
Statistics and Mathematical Biology

Dynamical Systems
History of Maths
Maths Education



Study full-time with an EPSRC funded studentship to enjoy:

- Desk space and a computer on campus in Milton Keynes, UK
- Courses at the London Taught Course Centre and the Academy for PhD Training in Statistics
- Annual research travel allowance of £1,250 (pro-rated for part time funded students)
- Note: International students welcome

If you are a UK student you may study part-time which gives you:

- Flexibility to fit your study around other commitments (for up to 8 years!)
- Online library resources (the same as for full time students) - and you can also visit the library on campus
- Remote access to the weekly seminar series

When and how to apply:

- PhD projects are advertised from January each year
- Deadlines for applications are in February if applying for a funded studentship (or March if self-funding) for study commencing in October

Come and talk to us in the breakout room - all are welcome!

Apply by 6th January
2023 for funded
places



Oxford

- Small, cyclable city with lots going on!
- 1 hour by train to London
- Many pubs, museums, parks and colleges to explore
- Close to the Cotswolds and Chilterns

- Doctoral students get an office in the Andrew Wiles building
- Over **200** academic staff
- **£2000** Travel Grant
- Over 30 regular seminars
- Work with world-leading experts

- Option to take graduate level courses through the **TCC network** with Bristol, Bath, etc.
- (Paid) teaching requirement to TA 5 courses over the degree



UNIVERSITY OF
OXFORD



CDTs:

- Mathematics of Random Systems
- Statistical machine learning
- Cyber security

Research areas:

Just about everything including:

- Industrial mathematics
- Stochastic analysis
- Number theory and algebra
- Geometry and topology

Research Areas

- **Algebra and Number Theory**
- **Combinatorics**
- **Complex Systems and Networks**
- **Dynamical Systems and Statistical Physics**
- **Mathematical Foundations of AI**
- **Geometry, Analysis and Gravitation**
- **Probability and Applications**
- **Statistics and Data Science**

Additional Funding

- Additional research group and QM PGR Funds available for research travel
- Opportunities to teach up to 10 hours a week during semesters



Deadline for QMUL Funded PhDs : 31 Jan 2023

<https://www.qmul.ac.uk/mathematics/postgraduate/postgraduate-research/>

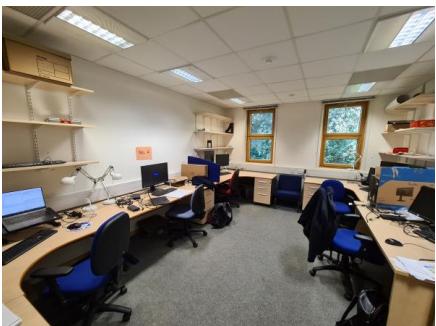
Routes:

- PhD (Standard 3 years)
- Integrated PhD (PhD + taught 1st year)

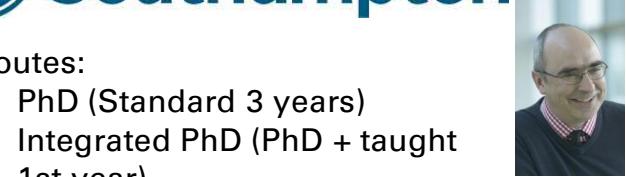
Main Research Groups:

- Applied mathematics and theoretical physics
- Operational research
- Pure mathematics
- Statistics

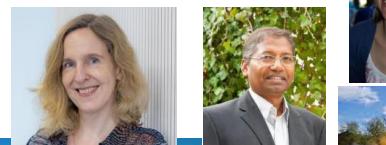
Shared office spaces for students



PC + monitor
+ other equipment included



Dozens of potential supervisors



- Applications for funding should be submitted before **15th February**
- Applications for PhD accepted year-round

Southampton University Maths Society (SUMS)



Events ranging from pub crawls to career/networking events



- 250+ societies, ranging from Astronomy to Zumba
- 100+ sports clubs



Opportunities for teaching and other extra work



Beautiful campus



- General information: <https://www.ucl.ac.uk/mathematics/study/mphilphd-mathematics>
- Funding sources/programmes (TA scholarships, EPSRC, etc.): <https://www.ucl.ac.uk/scholarships>, <https://www.ucl.ac.uk/mathematics/study/mphilphd-mathematics/available-funding> (this is usually sorted by UCL themselves however depending on who you work with)
- UCL researchers (potentially supervisors): <https://www.ucl.ac.uk/mathematics/people/research-associates-and-fellows>, <https://www.ucl.ac.uk/mathematics/people/academic-and-lecturing-staff>
- Various research groups + seminars: <https://www.ucl.ac.uk/mathematics/research>
- Research networks/Societies: <https://www.grad.ucl.ac.uk/societies/>
- LTCC courses (required to do 4 courses in first year): <http://www.ltcc.ac.uk/>
- Rough PhD timeline at UCL: <https://www.ucl.ac.uk/mathematics/study/mphilphd-mathematics/phd-timeline>
- LSGNT: <https://www.lsgnt-cdt.ac.uk/> (31.12.22 deadline)
- Larger stipend for living in London
- Central London location ----->



Mathematics at Warwick

- Warwick Mathematics and Statistics is **nationally ranked #3** for research power, over **90 research staff** and **100 PhD students**.
- Our Mathematics CDT is for **pure and applied** maths, studentships are funded for **four years**.
- Expecting **15+** studentships for 2023/24, including a **£2000 travel grant**, £2000 for a secondment in year 3, and a **laptop** provided by the university.
- **40+** modules available (+ TCC courses)
First year consists of 4 graded modules and a first year project (which can be reused in your PhD thesis).
- **30** research seminars + **postgraduate seminar**
- Certificate in **transferable skills** (e.g. Computational Techniques).



MATHEMATICS OF REAL WORLD SYSTEMS

UKRI CENTRE FOR DOCTORAL TRAINING

CUTTING-EDGE RESEARCH IN THE
MODELLING AND APPLICATION OF
MATHEMATICS TO REAL WORLD CHALLENGES
CHALLENGES IN HEALTH, INDUSTRY, AND
SOCIETY.

FULLY FUNDED STUDENTSHIPS AVAILABLE FOR 2023
ENTRY

FUNDING AVAILABLE FOR UK AND INTERNATIONAL
APPLICANTS

RECRUITING NOW FOR OUR FINAL INTAKE

SEE WARWICK.AC.UK/FAC/SCI/MATHSYS FOR MORE
INFORMATION



Engineering and
Physical Sciences
Research Council



PROGRAMME BENEFITS

- Fully funded 4-year studentship to undertake our 1+3 'MSc leading to PhD' programme, with travel allowance
- Extensive choice of research topics across a broad range of disciplines and fields, working with world-leading experts on 'real-world' challenges
- Immersion in a closely-knit collaborative cohort with strong community bonds and an excellent support structure
- Collaborations with project partners, and financial support for partner visits
- A range of academic and social events throughout the year, including a residential retreat
- Dedicated facilities set within one of the UK's academic powerhouses

OUR PARTNERS

AstraZeneca, BT, General Electric, NHS, Oxford English Dictionary, Wellcome Trust, Office for National Statistics, National Grid, Pirbright Institute, UK Health Security Agency and many more



COMPLEXITY@WARWICK.AC.UK



@WARWICKCOMPLEX



Regularly voted one of the best places to live in the UK!

York!

Our research groups are broad and close knit with regular visitors, seminars, workshops, conferences and more!

York is a small but lively city with lots of sights including the Minster and several leading museums. It's easily walkable and there's always a pub around the corner!

York is also a big transport hub, with direct lines to London, Manchester and Edinburgh. It's also a good base to explore Yorkshire including Leeds, Scarborough and TWO national parks!



Everyone has a desk within the department. The PhD Office space has nice views across the campus lake!

A lively PhD community who run regular activities such as weekly research seminar, board game nights, quizzes.



Option to take online PhD level [MAGIC courses](#) in a range of subjects led by experts across the country.



**Funding deadline:
27 January 2023**
Departmental and EPSRC funding available.

Apply through the [University of York website](#)

with your:

- Academic transcript
- CV
- Language certificate (if needed)
- Personal statement
- Evidence of financial support (if applicable)
- Outline of academic interests ([Speak to an academic!](#))

Teaching opportunities for all PhDs.
Students with departmental funding will be required to do up to 3 hours per week (with associated marking and prep) but everyone is encouraged to apply to lead seminars.