Personal details

Personal details

First / given name	Philipp
Second given name	
Third given name	
Surname/family name	Wiedemann
Date of birth	18 August 2002
Preferred first/given name	Philipp
Previous surname	
Country of birth	Germany
Legal nationality	British National
Dual nationality	German
Country of residence	United Kingdom
Have you previously studied with us at the University of Bristol?	No

Contact details

Home address

Please provide your permanent residential address. If you have another address and would prefer for us to contact you at that address instead you have the opportunity to add a correspondence address in the next section.

Country	United Kingdom
Postcode	N10 2LU
Address Line 1	Flat 4, Brian Court
Address Line 2	Wetherill Road
City	London
County	
Telephone	

If you would like us to send any postal correspondence to an address which is not your home address please enter an alternative address here. If you want us to send correspondence to your home address then please select No.

Do you want to add a correspondence address?	Yes
Country	United Kingdom
Postcode	OX1 1DW
Address Line 1	St. Aldates
Address Line 2	
City	Oxford
County	
Telephone	

Agent

Agent details

Agency Name	
Email address	

Other information

Additional Documents

Please upload required documents as outlined in your admissions statement

Mode of study

How would like to study this programme?	Full Time

Qualifications

Qualifications

Institution	Qualification	Type	Subject	Actual/predicted	Grade	Start date	End date
University of Oxford	Master's Degree (PG)	Academic Qualification	Mathematics	Predicted	Distinction	01/Oct/2021	30/Jun/2025

If these qualifications have altered since your last application please note the changes in the free text box here.

English Language

Is English your first language? Yes
What is your first language?
Did you study at school/university where you were taught in English?
For how many years?
Have you sat a relevant English language test?

TOEFL (internet-based)

Registration number
Date of TOEFL test
TOEFL reading score
TOEFL listening score
TOEFL speaking score
TOEFL writing score
TOEFL total score

IELTS (International English Language Testing System)

Test report form (TRF) number
UKVI number (if applicable)
Date of IELTS test
IELTS listening score
IELTS reading score
IELTS writing score
IELTS speaking score
IELTS total score

Pearson Test of English

Score report code
Date of Pearson test
Pearson listening score
Pearson reading score
Pearson speaking score
Pearson writing score
Pearson overall score

Other English Language test

Name of course

Registration number

Date of test
Listening score
Writing score
Reading score
Total score

Experience

Current Employer

Employer name and address
Job title and main duties
Full time/Part time
Date of Appointment
End date (if applicable)

Previous employment 1

Employer name and address
Job title and main duties
Full time/Part time
Date of Appointment
End date (if applicable)

Previous employment 2

Employer name and address
Job title and main duties
Full time/Part time
Date of Appointment
End date (if applicable)

Previous employment 3

Employer name and address
Job title and main duties
Full time/Part time
Date of Appointment
End date (if applicable)

Other Experience

Do you have any other relevant work experience to support your application?
Please provide details

Personal statement

Personal details

Do you have a personal statement to upload?	Yes
Please type your personal statement in the box	

Research proposal

Research proposal

Proposed supervisor 1	
Proposed supervisor 1	
Proposed project title (max 150 chars)	

Passport and visa

Visa required

Do you require a visa to study in the UK?	No

Please fill out your passport details below. If you are unable to provide these at the current time you will have another opportunity to upload your passport after you submit the form. If you do not provide us with this information we will be unable to issue you with your confirmation of acceptance number and you will be unable to obtain a visa.

Passport details

Passport number	

Further details

Have you previously studied in the UK?	
What was the highest level of study in the UK?	
Please confirm the total length of your UK study in years	

Referees

Referee 1

Do you have a reference to upload?	No
Type of reference	Academic
Referee title	Professor
Forename	Damian
Surname	Rössler
Position	Professor of Pure Mathematics and Tutorial Fellow
Institution/Company	Mathematical Institute, University of Oxford
Email address	damian.rossler@maths.ox.ac.uk
Country	United Kingdom

Referee 2

Do you have a second reference to upload?	No
Type of reference	Academic
Referee title	Professor
Forename	Arieh
Surname	Iserles
Position	Emeritus Professor in Numerical Analysis of Differ
Institution/Company	DAMTP, University of Cambridge
Email address	ai10@cam.ac.uk
Country	United Kingdom

Funding

Funding 1

What is your likely source of funding?	Scholarship
Please give the name of your scholarship or Studentship	Martingale Scholarship
Please specify	
Percentage from this source	100
Is this funding already secured?	No

Funding 2

What is your likely source of funding?	
Please give the name of your scholarship or Studentship	
Please specify	
Percentage from this source	
Is this funding already secured?	

Funding 3

What is your likely source of funding?	
Please give the name of your scholarship or Studentship	
Please specify	
Percentage from this source	
Is this funding already secured?	

Other funding

I would like to be considered for other funding opportunities	Yes

Submission

Documents

Document type	File name
Personal statement	PersonalStatementBristol.pdf
Curriculum vitae	CVWithoutName.pdf
Transcript	PhilippWiedemannTranscript2324.pdf
Research proposal	ResearchStatementBristol.pdf
References	Weidemann.pdf

By ticking the checkbox below and submitting your completed online application form, you acknowledge the University of Bristol will use the information provided from time to time, along with any further information about you the University may hold, for the purposes set out in the University's full Data Protection Statement. Applicants applying to the collaborative programmes of doctoral training should also read the Data Protection Statement for collaborative programmes of doctoral training.

The information that you provided on your application form will be used for the following purposes:

- To enable your application for entry to be considered and allow our Admissions Advisors, where applicable, to assist you through the application process;
- To enable the University to compile statistics, or to assist other organisations to do so. No statistical information will be published that would identify you personally;
- To enable the University to initiate your student record should you be offered a place at the University.

All applicants should note that the University reserves the right to make without notice changes in regulations, courses, fees etc at any time before or after a candidate's admission. Admission to the University is subject to the requirement that the candidate will comply with the University's registration procedure and will duly observe the Charter, Statutes, Ordinances and Regulations from time to time in force.

By ticking the checkbox below and submitting your completed online application form, you are confirming that the information given in this form is true, complete and accurate and that no information requested or other material information has been omitted. You are also confirming that you have read the Data Protection Statement and you confirm the statement below.

I can confirm that the information I have provided is true, complete and accurate. I accept that the information given in my application will be stored and processed by the University of Bristol, in accordance with the *UK General Data Protection Regulation and Data Protection Act 2018*, in order to:

- Consider my application and operate an effective and impartial admissions process;
- Monitor the University’s applicant and student profile;
- Comply with all laws and regulations;
- Ensure the wellbeing and security of all students and staff;
- If my application is successful to form the basis of the statement made within my application.

If the University of Bristol discovers that I have made a false statement or omitted signification information from my application, for example examination results, I understand that it may have to withdraw or amend its offer or terminate my registration, according to circumstances.

Curriculum Vitae

Fourth year undergraduate reading for MMath Mathematics at the University of Oxford graduating in 2025

Education

Exhibition Scholarship in third year ranking 50 of 142 with 2:1; Part B (highest in classification)
Exhibition Scholarship in second year ranking 48 of 142; Part A
Exhibition Scholarship in first year ranking 67 of 171; Prelims

Graduated from Alexandra Park School in 2020 with
A-levels: A*A*AA in mathematics, further mathematics, chemistry, and physics A-level
GCSEs: 6 in English language, 6 in English literature, 9 in mathematics, and a 7 or above in eight other subjects

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Research Experiences

Summer Research in Mathematics (DAMTP Cambridge Uni.), Researcher — July 2023 – August "

- Conducted undergraduate research using MATLAB and gave a presentation on the convergence of orthogonal series under the supervision of Arieh Iserles

2022 Xena Project UG Workshop (Imperial College London), Attendee — September 2022

- Attended a week of conferences organised by Kevin Buzzard on theorem proving using computer software Lean
- Worked with supervisor on implementing theorems from Probability theory into mathlib in Lean (the weak law of large numbers, and the second Borel-Cantelli lemma)

Miscellaneous Experiences

Mathematics Subject Dinner (Pembroke College Oxford), Principal Organiser — February 2023

- Organised and marketed maths dinner at an Oxford college for alumni and students
- Organised and invited two different speakers to give academic presentations

Junior Common Room (Pembroke College Oxford), Merch. Officer (Stash Rep.) — October 2022 – July 2023

- Designed (using Adobe Photoshop) and marketed college apparel (stash)
- Worked with several outside retailers/distributors to produce college apparel
- Managed distribution and payment for college apparel to 300+ clients

Oxford Hack 2022, Attendee — February 2022

- Managed a team project of four people to implement neural networks using TensorFlow to generate compilable code in LaTeX

Mathematics Undergraduate Rep. Committee (Oxford Uni.), President/Secretary — November 2021 – November 2023

- Organised and wrote minutes as secretary elect for 21-22 academic year
- Chaired MURC committee meetings; attended departmental meetings to comment on student representation as president elect for 22-23 academic year

Mathematics Tutor — August 2020 – Present

- Tutored children aged 14-17 A-level and GCSE maths, including further maths; set and marked problem sheets

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Additional Skills & Interests

Foreign Languages: A* in Mandarin GCSE, A in Russian GCSE and A in Japanese GCSE.
Code skills: Experienced in Python (incl. numpy, scipy, sympy). Competent in Mathematica, MATLAB, HTML/CSS and LaTeX. Novel in C/C++, JavaScript/TypeScript and Lean.
Choir: Tenor voice for Pembroke College Oxford choir since October 2021, attending choir practice twice a week during university term time.

References are available upon request

Personal Statement

Motivation I want to become a research mathematician; I want to train to read and write papers on mathematics; I want to meet mathematicians and collaborate on mathematics. I decided that I wanted to become a research mathematician in pure mathematics after having read G. H. Hardy's *A Mathematician's Apology*, where amongst other things. I resonated with how the allure of academic competitiveness and the aesthetic allured him to the subject, which still drives me to this day.

Engaging with the community I have made the most of extra curricular mathematical opportunities which come with being admitted to the MMath at Oxford. This has been officially acknowledged by my appointment by the student body as president of the mathematical undergraduate representative committee at Oxford for 22-23, and by my lead tutor selecting me as mathematics representative for my college in 2022. In these positions, I organised mathematics subject events, such as a dinner featuring guest speakers. I hope to continue my enthusiastic engagement with the Bristol's mathematical community.

Research Statement

Research Direction I want to continue engaging with topics in number theory. I am particularly interested in further studying the exchange between algebraic geometry and number theory in, say, the study of elliptic curves, although I would be open to broader topics.

Why Bristol? I believe the PhD programme at Bristol would be well suited for me because I want to engage with more advanced topics in number theory by means of diving head first into modern mathematics by attending seminars, meanwhile supplementing my mathematical knowledge tangentially with graduate courses and independent study. By the end of the PhD programme I aim to have several publications under my belt in addition to my thesis, and to have built a robust network of mathematicians from Bristol, and more globally.

Independent Research Experience In 2023, I undertook an undergraduate research project in numerical analysis at DAMTP, University of Cambridge under the supervision of Arieh Iserles. This experience broadened my skill set beyond my mathematics undergraduate study, such as consulting modern reference and presenting my research to an audience in writing and in a live seminar setting. Currently, in my final year I am writing a master's dissertation on the use of deformation rings of Galois representations in proving various lifting theorems under the supervision of James Newton. My master's dissertation has already broadened my understanding of modern number theory to the level that I can usually understand at least one abstract for each list of daily submissions on arXiv number theory.

Martingale PhD Navigator I have conditional funding from the Martingale foundation to fully fund my PhD.

ACADEMIC TRANSCRIPT

UNIVERSITY OF OXFORD

Personal Information

Student:	Philipp Wiedemann
University Reference:	1448356
Qualification Sought:	Master of Mathematics
Start Date:	10 October 2021
HESA Reference:	2111565022036
FHEQ Level:	Masters
Expected end date:	30 June 2025

Programme Information

Teaching institution:	University of Oxford	Awarding Institution:	University of Oxford
College:	Pembroke College	Mode of Attendance:	Full-time
Programme of Study:	Master of Mathematics in Mathematics	Language of Instruction:	English

Award Information

The student has yet to complete the programme of study shown above

Assessment Information (Academic Year, Assessment Name, Result Mark/Grade)

Qualifying examinations		
2021/22	Computational Mathematics Practical Work	90
2021/22	Mathematics I	71
2021/22	Mathematics II	70
2021/22	Mathematics III	67
2021/22	Mathematics IV	65
2021/22	Mathematics V	69
Final Degree examinations		
2022/23	A0 Linear Algebra	70
2022/23	A1 Differential Equations 1	65
2022/23	A11 Quantum Theory	66
2022/23	A2 Metric Spaces and Complex Analysis	83
2022/23	A3 Rings and Modules	63
2022/23	A4 Integration	69
2022/23	A5 Topology	66
2022/23	A8 Probability	63
2022/23	ASO Short Options	60
2023/24	Algebraic Curves	70
2023/24	Algebraic Number Theory	80
2023/24	Commutative Algebra	60
2023/24	Galois Theory	71
2023/24	Geometry of Surfaces	68
2023/24	Introduction to Representation Theory	70
2023/24	Lie Algebras	62
2023/24	Topology and Groups	75

End of Transcript

Registrar

Transcript issued on 29 September 2024

UNIVERSITY OF OXFORD

About the University of Oxford
The University of Oxford is an independent self-governing university. It is the oldest university in the English-speaking world and has been in continuous existence for some nine centuries. It is an international leader in learning, teaching and research. As a collegiate institution, it comprises the central university and 39 colleges and 6 permanent private halls

University of Oxford Transcripts
The transcript should not be released to another person, organisation or institution except to officials internal to your own organisation or institution who have a reasonable business use for the information. Release to other parties requires the written consent of the student. The following information is provided to aid in the evaluation of this student's academic record. Further explanation or detailed information can be obtained by contacting Degree Conferrals via the email address edocuments.support@admin.ox.ac.uk.
Under University regulations, Boards of Examiners may, where appropriate, take account of information additional to the profile of marks listed overleaf in deciding the final degree classification awarded to any student.
The explanatory text on the transcript is subject to change until such time that the programme of study is completed.

Academic Credit
The University does not routinely apply credit weightings to its programmes and its courses are not generally taught on a modular basis. We take each year of full-time undergraduate study to equal 120 UK credits and 180 UK credits for Masters-level postgraduate study according to the Higher Education Credit Framework for England. In relation to the European Credit Transfer Scheme (ECTS), this is equivalent to 60 credits for undergraduate study and 90 credits for Masters-level postgraduate study.

Framework for Higher Education Qualifications (FHEQ levels)

8 (Doctoral)	Doctoral Degrees (e.g. DPhil, DClinPsych)
7 (Masters)	Master's Degrees (including Integrated Master's Degrees)
	Postgraduate Diplomas & Certificates
6 (Honours)	Bachelor's Degrees with Honours
	Bachelor's Degrees
	Professional Graduate Certificate in Education
5 (Intermediate)	Undergraduate Diplomas
4 (Cert)	Undergraduate Certificates
	Certificate of Higher Education

Mark Scales
All marks included on a final academic transcript have been ratified by the Registrar. Examiners are required to express final agreed marks on all formally assessed work according to the following marking scales:

Foundation Year Programmes (Cert HE)

70-100	Distinction
60-69	Merit
40-59	Pass
0-39	Fail

Undergraduate Programmes

	Model 1	**Model 2**
70-100	First Class	Distinction
60-69	Upper Second Class	Pass
50-59	Lower Second Class	Pass
40-49	Third Class	Pass
30-39	Pass	Fail
0-29	Fail	Fail

Model 1 will be used for all final assessments. Model 2 will be used for all qualifying assessments unless the explanatory text overleaf states otherwise.

Postgraduate Taught Programmes
For students who started their courses **before** October 2018.

Model 1	**Model 2**	
70-100	70-100	Distinction
50-69	60-69	Pass
0-49	0-59	Fail

For students who started their courses **from** October 2018.

Model 1	**Model 2**	
70-100	70-100	Distinction
N/A	65-69	Merit
50-69	50-64	Pass
0-49	0-49	Fail

Model 2 will be used for all Award Programmes unless the explanatory text overleaf states otherwise.

Transcript Terminology
Results Not Moderated (On-Course Transcripts Only): Indicates a mark that may be subject to moderation in the process of concluding the final outcome of an examination comprising more than one part and taken over more than one year.
Declared to have deserved: the exam board considered the candidate was absent from part of the examination for good cause and declared them to deserve the Award.

Programme Information
The relevant *Examination Regulations* for the programme are available at: https://examregs.admin.ox.ac.uk/

Authentication
This academic transcript can be authenticated by scanning the QR code which is visible in the main section of the document. Further information on authentication may be obtained by contacting Degree Conferrals on the email address edocuments.support@admin.ox.ac.uk

Damian Rössler
Professor of Pure Mathematics
Tutorial Fellow of Pembroke College
Mathematical Institute
University of Oxford
Andrew Wiles Building
Radcliffe Observatory Quarter
Woodstock Road
Oxford OX2 6GG

24 November 2024

E-mail: damian.rossler@maths.ox.ac.uk
Phone: 01865 273540

Dear Sir or Madam,

Philipp Wiedemann is applying to a MA or PhD programme in your institution and he asked me to write a letter of support for him.

I have known Philipp for a little over three years now. I tutored him at Pembroke College when he took the standard Oxford course Metric Spaces and Complex Analysis in his second year. Philipp did very well in this course and got 83% in the final exam, which was the best result of his cohort at Pembroke. He is now also attending my graduate course on algebraic geometry, but I cannot report on his performance in this course, because he hasn't sat the corresponding exams yet.

From the beginning, Philipp approached his studies in a very academic way. He always insisted on understanding the conceptual and historical context of the results presented in the courses. When faced with a problem in an exercise sheet, he would not only try to solve it, but he would insist on finding the most natural and most generally applicable solution. I have not encountered many students with this mindset during my time in Oxford. I am convinced that he would do very well in any graduate programme.

I strongly recommend him to you.

Sincerely,

Damian Rössler

UNIVERSITY OF CAMBRIDGE

Department of Applied Mathematics and Theoretical Physics
Centre for Mathematical Sciences, Wilberforce Road
Cambridge CB3 0WA, England

Telephone: +44(0)1223 337891, Fax: +44(0)1223 765900 Email: ai@maths.cam.ac.uk

Professor A. Iserles
Applied and Computational Analysis

14 December 2024

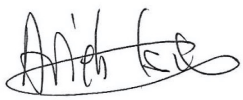
Dear Colleagues,

Mr Philipp Weidemann from University of Oxford has applied for a doctoral programme at your university and asked for my recommendation.

As a matter of background, each summer the Faculty of Mathematics at University of Cambridge runs a "Summer Research in Mathematics" (SRiM) programme. Advanced undergraduate students, both from Cambridge and other universities (mostly, but not exclusively, from United Kingdom) apply to spend two months in Cambridge and work with a senior academic on a research project. In Summer 2023 I have proposed a research subject and have had well in excess of twenty applicants. They have been all interviewed and Philipp has been chosen. He spent two months in Cambridge during the Long Vacation, working on a project representing a blend of computational mathematics, approximation theory and harmonic analysis. The core of the project consisted of understanding substantive body of research, based on recent research publications, weaving it into a coherent whole and exploring its different aspects. The project concluded with a presentation to all students and academics involved with the SRiM programme.

Philipp was absolutely first class and impressed me immensely with his ability to comprehend advanced mathematics well outside his comfort zone and his ability to think like a research mathematician. While, for obvious reasons, I can say little about his performance in Oxford, my impression was definitely of a student whose mathematical skills, maturity and quickness of mind are of a standard expected of research students at a top mathematics department.

With best regards



A. Iserles

Emeritus Professor in Numerical
Analysis of Differential Equations