

Xander Povey
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EDUCATION

PhD *Low-Dimensional Topology (ongoing)* 2024-2028
Imperial College London
Supervisor: Steven Sivek

MSc *Pure Mathematics* 2023-2024
Imperial College London
Thesis supervisor: Simon Donaldson

BA, MA *Mathematics* 2020-2023
Trinity College, University of Cambridge

PROJECTS

Serre spectral sequences and homotopy theory 2025
Supervisor: Steven Sivek

Family Seiberg-Witten equations 2025
Supervisor: Aleksander Doan

The Seiberg-Witten equations and four-manifolds 2024
Supervisor: Simon Donaldson

Cameras on trains 2024
Solve for X, Martingale Foundation

Curvature estimates and Bernsein's problem 2023
Supervisor: Neshan Wickramasekera

WORK EXPERIENCE

Senior Graduate Teaching Assistant 2025—
Imperial College London
Groups and Rings Term 1 2025

STEP Exam Specialist 2025
Cambridge University Press and Assessment, OCR

Supervisor 2024—
Trinity College, Cambridge
Revision Easter 2025, Part II Differential Geometry Lent 2025, Part II Algebraic Topology Michaelmas 2024.

Graduate Teaching Assistant 2023—
Imperial College London

Analysis II Term 2 2025, Linear Algebra and Numerical Analysis Term 1 2024, Linear Algebra and Numerical Analysis Term 2 2024, Analysis II Term 1 2023.

Research Intern

DPMMS, University of Cambridge

2023

Faculty Ambassador

Faculty of Mathematics, University of Cambridge

2020-2023

FUNDING AND AWARDS

- Best MSc Pure Mathematics student in cohort award 2024.
- Best MSc Pure Mathematics poster presentation award 2024.
- Winner of “Solve for X 2024”. Awarded for best presentation of research to a panel of judges from both industry and academia.
- Martingale Scholarship (2023-2028) for postgraduate study in mathematics.
- Keasbey Bursary (2022) for assistance in achieving my academic goals by recommendation of my tutor.
- Trinity College exam prize (2021) for exceptional performance in exams.
- Trinity College Junior Scholarship (2021-2022) for exceptional performance in exams.
- Cambridge Bursary (2020-2022) and Trinity College Maintenance Grant (2022-2023).

TALKS AND PRESENTATIONS

- Two talks at Aleksander Doan’s geometry reading seminar on the Seiberg-Witten family equations
- Keynote speaker at Imperial MSc poster presentation 2025
- London low-dimensional topology seminar Autumn 2024: “Introduction to Seiberg-Witten Theory”