

JOSEPH P MACMANUS

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EDUCATION

- Exp. 2025 Balliol College, University of Oxford
DPhil in Mathematics
Supervisor: Prof Panagiotis Papazoglou.
- 2021 Balliol College, University of Oxford
MSc in Mathematics and Foundations of Computer Science, with Distinction
Diss.: *Splitting Theory of Groups*, with Prof Panagiotis Papazoglou.
- 2020 University of Bristol
BSc in Mathematics and Computer Science, with First Class Honours
Thesis: *Decision Problems within Combinatorial Group Theory*, with Dr Philipp Schlicht.
- 2017 Ysgol Aberconwy Sixth Form

TEACHING EXPERIENCE

- 2022 Class Tutor, University of Oxford
Intercollegiate:
- C2.4 Infinite Groups;
Merton College:
- ASO Group Theory.
- 2021 – 2023 Teaching Assistant, University of Oxford
Intercollegiate:
- B3.5 Topology & Groups,
- C3.2 Geometric Group Theory,
- B1.2 Set Theory;
The Queen's College
- M4 Geometry,
- A3 Rings and Modules,
- A5 Topology.
- 2019 – 2020 Teaching Assistant, University of Bristol
- Algorithms,
- Data Structures & Algorithms,
- Combinatorics.
- 2018 – 2022 Private Mathematics Tutor
Metatutor; Tutorful; Blue Education

OTHER ACTIVITIES

- 2022 – 2023 Organiser of the Junior Topology and Group Theory Seminar
Mathematical Institute, University of Oxford
- 2021 Outreach Tutorial Teaching - UNIQ Summer School
Mathematical Institute, University of Oxford
- 2019 Quantum Information Research Internship
School of Mathematics, University of Bristol
Supervised by Dr Ashley Montanaro and Prof Noah Linden.

PUBLICATIONS AND PREPRINTS

- [1] MacManus, J. P. (2022). Detecting quasiconvex splittings in hyperbolic groups. *arXiv preprint arXiv:2210.09973*.
- [2] Alexandru, C. -M., Bridgett-Tomkinson, E., Linden, N., MacManus, J. P., Montanaro, A., & Morris, H. (2020). Quantum speedups of some general-purpose numerical optimisation algorithms. *Quantum Science and Technology*, 5(4), 045014.

SCHOLARSHIPS, GRANTS, AND PRIZES

- 2021 – 2025 Heilbronn Doctoral Partnership Scholarship
Heilbronn Institute for Mathematical Research
- 2020 Postgraduate Grant
The James Pantyfedwen Foundation
- 2020 Graphcore Prize for Best Computer Science Student on a 3-Year Programme
Department of Computer Science, University of Bristol
- 2019 Top Student in 2nd Year Maths and Computer Science
Department of Computer Science, University of Bristol
- 2019 Undergraduate Summer Research Bursary
School of Mathematics, University of Bristol

MISCELLANEOUS

- 2020 – Present Associate Membership
London Mathematical Society
- 2019 – Present Technical Blog
<https://jpmacmanus.me/>
- 2019 Bristol PLUS Award
Careers Service, University of Bristol