

Adam Onus

PHD STUDENT · MATHEMATICS

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Education

Queen Mary University of London (QMUL)

PHD MATHEMATICS

Sep 2021 - present

- Advisor: Dr. Primož Skraba
- Expected completion date: Sep 2025

Australian National University (ANU)

BACHELOR OF PHILOSOPHY (HONOURS) – SCIENCE

Feb 2017 - Nov 2020

- Honours thesis: “The Homology of Periodic Simplicial Complexes and their Quotient Spaces”
- Honours thesis advisors: Dr. Vanessa Robins and Dr. Martin Helmer

Professional Experience

2022-
present

Teaching Assistant, Queen Mary University of London, School of Mathematical Sciences

2020-2021

Teaching Assistant, Australian National University, Mathematical Sciences Institute

Publications

PUBLISHED

Onus, A., Krumholz, MR., Federrath, C. 2018. Numerical calibration of the HCN–star formation correlation. *Monthly Notices of the Royal Astronomical Society*, Volume 479, Issue 2, September 2018, Pages 1702–1710.

PREPRINTS

Onus, A., Robins, V. 2022. Quantifying the homology of periodic cell complexes. arXiv preprint arXiv:2208.09223.

Awards, Fellowships, & Grants

AWARDS

2023

QMUL Postgraduate Research Day: Prize for Best Poster, “The Homology of Periodic Spaces”

QMUL

STUDENTSHIPS

2021-2025

Heilbronn Institute for Mathematical Research Funded Studentship, PhD Scholarship

QMUL

2017-2020

National University Scholarship, Undergraduate Scholarship

ANU

Presentations

INVITED TALKS

December 2022. *Quantifying the homology of periodic cell complexes*. EPFL Applied Topology Seminar, École Polytechnique Fédérale de Lausanne.

August 2022. *Quantifying the homology of periodic cell complexes*. London TDA Seminar, Queen Mary University of London.

CONTRIBUTED TALKS

June 2022. *Quantifying the homology of periodic cell complexes*. ATMCS10, Oxford University.

January 2022. *The Wonderful and Diverse World of Applied Topology*. Queen Mary Internal Postgraduate Seminar (QuIPS).

Teaching

QUALIFICATIONS

May 2023 **HEA Associate Fellowship,**

Advance HE

EXPERIENCE

Spring '23	MTH4116 – Probability and Statistics I , IT Lab Demonstrator	<i>QMUL</i>
	MTH5001 - Introduction to Computer Programming , IT Lab Demonstrator	
	MTH5103 - Complex Variables , Coursework Marker	
Fall '22	MTH4107 – Introduction to Probability , Teaching Assistant	
	MTH4114 – Computing and Data Analysis with Excel , IT Lab Demonstrator	
Spring '22	MTH4115 – Vectors and Matrices , Teaching Assistant	
	MTH4116 – Probability and Statistics I , IT Lab Demonstrator	
Semester 1 '21	Math2320 – Advanced Analysis 1: Metric Spaces and Applications , Teaching Assistant	<i>ANU</i>
Summer '20	Math1014 – Mathematics and Applications 2 , Teaching Assistant	
Semester 2 '20	Math1014 – Mathematics and Applications 2 , Teaching Assistant	
Semester 1 '20	Math1013 – Mathematics and Applications 1 , Teaching Assistant	

Outreach & Professional Development

OUTREACH

2022-	School of Mathematical Sciences , Curriculum Ambassador	<i>QMUL</i>
2018-2020	Robogals Canberra , Lead Volunteer	<i>ANU</i>

ORGANISING

2022/23	Queen Mary Internal Postgraduate Seminar (QuIPS) , Co-organiser of weekly seminars	<i>QMUL</i>
July 2023	Non-binary mathematics seminar , One day event to celebrate non-binary mathematicians	<i>QMUL</i>

PROGRAMMING LANGUAGES

- Python
- Macaulay2
- Mathematica
- R
- Sage

LANGUAGES

- English (native)
- German (A2)