Bradley Ryan

Postgraduate Mathematics Student

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2020-Present PhD in Pure Mathematics, University of Leeds

Thesis supervised by Dr Oleg Chalykh and Professor Karin Baur.

2016-2020 MMath, BSc Mathematics, University of Leeds

Achieved First Class Honours with a grade average of 86%.

A-Levels, Temple Moor High School 2014-2016

Achieved Mathematics (A*), Further Mathematics (A), Chemistry (A), History (A).

2012-2014 GCSEs, Temple Moor High School

Achieved six A* grades, four A grades and two Distinction grades.

Papers

In Preparation

Double Affine Hecke Algebras of Type $C^{\vee}C_n$ and Calogero-Moser Space, [with Oleg Chalykh], preprint to appear on the arXiv.

Talks

15/11/2023 Double Affine Hecke Algebras and Calogero-Moser Space

Junior London Algebra Colloquium, City, University of London.

24/10/2023 **Double Affine Hecke Algebras and Character Varieties**

Leeds Algebra Seminar, University of Leeds.

Character Varieties and Symmetric Polynomials 14/06/2023

School of Mathematics Postgraduate Research Conference, University of Leeds.

17/06/2022 A Deligne-Simpson Problem

School of Mathematics Postgraduate Research Conference, University of Leeds.

Representations of Quivers via Double Affine Hecke Algebras 18/11/2021

Pure Mathematics Postgraduate Research Seminar (online), University of Leeds.

06/05/2021 Knots and the Fundamental Group

Pure Mathematics Postgraduate Research Seminar (online), University of Leeds.

Teaching

2023-Present **Teaching Assistant**, *University of Leeds*

Responsible for tutorial classes and marking in the following modules:

- MATH1025 Number Systems, Tutor.
- MATH1026 Sets Sequences and Series, Tutor.
- MATH1225 Introduction to Geometry, Tutor and Exam Marker.
- O MATH2017 Real Analysis, Module Marker.
- MATH2022 Groups and Vector Spaces, Exam Marker.
- O MATH2027 Rings and Polynomials, Module Marker.

2022–2023 **Teaching Assistant**, *University of Leeds*

Responsible for tutorial classes and marking in the following modules:

- O MATH1060 Introductory Linear Algebra, Tutor.
- O MATH1225 Introduction to Geometry, Exam Marker.
- O MATH1331 Linear Algebra with Applications, Tutor.
- O MATH1400 Modelling with Differential Equations, Tutor.
- O MATH2027 Rings and Polynomials, Module Marker.
- O MATH3044 Number Theory, Module Marker and Exam Marker.
- O MATH3071 Groups and Symmetry, Exam Marker.
- MATH3143 Combinatorics. Exam Marker.

2021–2022 **Teaching Assistant**, *University of Leeds*

Responsible for tutorial classes and marking in the following modules:

- O MATH1005 Core Mathematics, Exam Marker.
- O MATH1025 Number Systems, Exam Marker.
- O MATH1026 Sets, Sequences and Series, Tutor.
- O MATH1331 Linear Algebra with Applications, Tutor.
- O MATH2230 Discrete Mathematics, Exam Marker.

2020–2021 **Teaching Assistant**, *University of Leeds*

Responsible for tutorial classes and marking in the following modules:

- O MATH1026 Sets, Sequences and Series, Exam Marker.
- MATH1060 Introductory Linear Algebra, Tutor and Exam Marker.
- O MATH1225 Introduction to Geometry, Exam Marker.

2015–2023 Mathematics Tutor, Personal

One-on-one tutoring with 24 students at GCSE, A-Level and undergraduate-level.

Achievements

- 2020–2024 Studentship from the EPSRC (EP/2434194).
 - 2019 Scholarship from the University of Leeds for being a top-ten-performing student.
 - 2018 Scholarship from the University of Leeds for being a top-ten-performing student.
 - 2016 Minerva Cup from Temple Moor High School for best KS5 academic performance.
 - 2015 Achieved a Distinction in ABRSM Grade Five Piano.
 - 2011 Minerva Cup from Temple Moor High School for best KS3 academic performance.

Skills

Documents Proficient in LATEX, Word, Excel and PowerPoint.

Coding Basic experience with html, Python 3 and R.

Driving Clean UK driver's licence.

Interests

I have played piano since a young age, thanks to the fact my grandmother owned one (that said, you wont see me on stage anytime soon!). You can also find me regularly going for runs, swimming at the nearby spa or visiting the cinema.