Luke Kershaw

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SUMMARY

Current 2nd year PhD student in Mathematics at the University of Bristol. Researching homological algebra and representation theory of finite-dimensional algebras.

EDUCATION

Ongoing

Doctor of Philosophy, Mathematics 2019-2023 (Expected)

Focus: Representation Theory of Finite-Dimensional Algebras

University of Bristol, Bristol, UK Supervisor: Prof. Jeremy Rickard

Previous

Master of Mathematics, Mathematics October 2015 - July 2019

University of Warwick, Coventry, UK Final mark: 83% First Class

Blue Coat School, Liverpool

GCSEs: 8 A*s, 5 As, 1 B A Levels: 3A*s, 1 A

RESEARCH

Previous

EXPERIENCE

4th Year Project, Tropical Geometry Supervisor: Dr Diane Maclagan Warwick Mathematics Institute 2018-2019

An investigation into the properties of tropical geometry, with a focus on tropical orders of vanishing and comparison with their classical analogue.

2nd Year Essay, Tensors and Exterior Algebra

Warwick Mathematics Institute

2016-2017

An introduction to the ideas behind Exterior Algebras aimed at second year mathematics students. Used as an opportunity to learn independently about a topic that interested me.

TEACHING

Ongoing

EXPERIENCE

Teaching Support Assistant, Bristol School of Mathematics 2019-Present Support 1st year maths students with Linear Algebra content. Focused on helping students to be mathematically rigorous in their arguments.

Previous

Supervisor, Warwick Mathematics Institute

2018-19

Mentor and support two groups of five 1st year maths students with all core modules. Communicate new ideas to students and assist in their general mathematical development. Complete marking and provide feedback in an effective and organised manner.

Peer Tutor, Warwick Mathematics Institute

2016

Provided support for Teaching Assistant of 1st year analysis class. Focused on helping students to understand how to think and communicate ideas rigorously.

CONFERENCES Leicester (Online), UK ATTENDED

Categorifications in Representation Theory

2019-Present

September 2020

MISC. **EXPERIENCE** PGR Representative:

Member of the Student Staff Liason Committee.

Conference Co-organiser:

MINGLE 2020 (annual Bristol postgraduate conference).

Programming Languages: Python, Matlab, Java, C.

Software: Microsoft Office, TeXworks.

WORK

Data Engineer (prev. Data Science Intern) Jul-Aug 2018, Jul-Aug 2019 **EXPERIENCE** AIMES Ltd, Liverpool, England

- Developed an automatic system for data collection and processing to aid in NHS funding applications.
- Effectively organised work to complete the project within strict deadlines.

Accounts Assistant

Dec 2016, Mar-Apr 2017, Jul-Sep 2017

Velocity Composites Plc, Burnley, England

- Developed a demand analysis project to forecast changes in customer
- Communicated within the business to decide which information was relevant to calculations and decision making.

Accounts Assistant

Aug 2014

Ultrasis Plc, London, England

• Managed current and historical invoices, processed purchases and expenses.

EXTRA-CURRICULAR (Treasurer, 2018-19, ACTIVITIES

Executive Comittee, Warwick Canoe Polo Club

Secretary, 2017-18, Kit Secretary, 2016-17)

- Worked effectively as a team to host training sessions, tournaments and refereeing courses
- Organised and helped to direct a 24 hour Paddle-athon for a local mental health charity