Luke Kershaw

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SUMMARY

Current 2$^{\text{nd}}$ 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
First Class   *Final mark:* 83%

Blue Coat School, Liverpool
A Levels: 3A*s, 1 A   *GCSEs:* 8 A*s, 5 As, 1 B

RESEARCH EXPERIENCE

Previous

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 EXPERIENCE

Ongoing

Teaching Support Assistant, Bristol School of Mathematics   2019-Present
Fortnightly tutorials and homework grading. Focused on helping students to be mathematically rigorous in their arguments.
Courses: Linear Algebra, Introduction to Proof

Previous

Supervisor, Warwick Mathematics Institute   2018-19
Mentor and support two groups of five 1$^{\text{st}}$ 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 1$^{\text{st}}$ year analysis class. Focused on helping students to understand how to think and communicate ideas rigorously.

CONFERENCES ATTENDED	*Hausdorff Center for Mathematics (Online), Germany*	October 2020
	Winter School - "Connections between representation theory and geometry"	
	London Mathematical Society (Online), UK	September 2020
	Autumn Algebra School	
	Leicester (Online), UK	September 2020
	Categorifications in Representation Theory	

MISC. EXPERIENCE	*PGR Representative:*	2019-Present
	Member of the Student Staff Liason Commitee.	
	Conference Co-organiser:	
	MINGLE 2020 (annual Bristol postgraduate conference).	
	Programming Languages: Python, Matlab, Java, C.	
	Software: Microsoft Office, TeXworks.	

WORK EXPERIENCE	*Data Engineer (prev. Data Science Intern)*	Jul-Aug 2018, Jul-Aug 2019
	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 needs.
- 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 ACTIVITIES	*Executive Comittee, Warwick Canoe Polo Club*
	(*Treasurer*, 2018-19, *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