

Bryan W. Kettle

Curriculum Vitae

Department of Mathematical and Statistical Sciences

University of Alberta

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Edmonton, Alberta, Canada

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Education

University of Alberta

Edmonton, AB, Canada

PhD in Mathematics

Sep 2018 - Fall 2023 (Expected)

Advisor: Dr. Nicolas Guay

Dissertation: *Orthosymplectic, Periplectic, and Twisted Super Yangians*

University of Western Ontario

London, ON, Canada

Msc in Mathematics

Sep 2017 - Oct 2018

Advisor: Dr. Janusz Adamus

Memorial University of Newfoundland

St. John's, NL, Canada

Bsc (Honours, First Class) in Pure Mathematics

Sep 2012 - Jun 2017

Advisor: Dr. Yorck Sommerhäuser

Research Interests

The algebraic structure and representation theory of quantum groups, such as super Yangians and twisted super Yangians.

Teaching Experience

University of Alberta

Sep 2018 - Current

Graduate Teaching Assistant

As a Laboratory Instructor:

• Math 100 Calculus I Lab

Fall 2018, 2020, 2021

• Math 101 Calculus II Lab

Spring 2019

- Math 102 Applied Linear Algebra Lab Winter 2019, 2020, 2021, 2022
- Math 209 Calculus III Lab Fall 2019

As a Tutor:

- Decima Robinson Support Centre Fall 2018, 2019, 2021;
Winter 2019, 2020, 2021

As a Course Grader:

- Math 125 Linear Algebra I Spring 2019
- Math 260 Mathematical Reasoning for Teachers Spring 2021
- Math 322 Graph Theory Spring 2020, Fall 2022
- Math 324 Elementary Number Theory Fall 2020
- Math 325 Linear Algebra III Winter 2021, Winter 2023
- Math 326 Rings and Modules Winter 2019

University of Western Ontario

Sep 2017 - Apr 2018

Graduate Teaching Assistant

As a Tutor:

- Math Help Centre Fall 2017, Winter 2018

As a Course Grader:

- Calc 1000A Calculus I Fall 2017
- Math 1225B Methods of Calculus Winter 2018

Memorial University of Newfoundland

Sep 2016 - Apr 2017

Teaching Assistant

As a Course Grader:

- Math 1000 Calculus I Fall 2016
- Math 1051 Finite Mathematics II Fall 2016
- Math 1090 Algebra and Trigonometry Fall 2016, Winter 2017

Scholarships & Awards

- *Dr. Josephine M. Mitchell Research Scholarship* (Dec 2022). University of Alberta.
- *Graduate Student Teaching Award* (2022). University of Alberta.
- *Eoin L. Whitney Scholarship* (May 2020). University of Alberta.
- *University of Alberta Doctoral Recruitment Scholarship* (Sep 2018). University of Alberta.

Presentations

- *Super Yangians: Where We Are Today*. PIMS-USask Geometry, Algebra and Physics Seminar at the University of Saskatchewan, May 2022.
- *A Friendly Introduction to Representation Theory*. Mathematical and Statistical Sciences Graduate Colloquium at the University of Alberta, October 2021.
- *A Friendly Introduction to Representation Theory*. Mathematical and Statistical Sciences Graduate Colloquium at the University of Alberta (Virtual), February 2021.
- *Dualizing Algebras*. Graduate Algebra Seminar at the University of Alberta, January 2020.
- *Introduction to Hopf Algebras*. Graduate Class Seminar at the University of Western Ontario, December 2017.
- *Yetter-Drinfel'd Modules and the Radford Projection Theorem*. Bachelor Thesis Public Presentation at the Memorial University of Newfoundland, April 2017.
- *Olshansky's Modification of Golod's Example of Non-Nilpotent Finitely Generated Nil-Algebras*. Algebra Seminar at the Memorial University of Newfoundland, October 2016.

Conferences Attended

- *Workshop on Symmetric Spaces, Their Generalizations, and Special Functions*. University of Ottawa, August 2022.
- *Quantum Field Theories and Quantum Topology Beyond Semisimplicity*. Banff International Research Station, November 2021.
- *QRST: Quantum Groups, Representation Theory, Superalgebras, and Tensor Categories*. University of Ottawa (Virtual), August 2020.
- *Hopf Algebras, Algebraic Groups, and Related Structures*. Memorial University of Newfoundland, June 2016.
- *Algebraic Groups and Lie Algebras*. Bonne Bay Marine Station of Memorial University of Newfoundland, August 2015.

Volunteering

- Treasurer and Pure Math Representative of SIGMAS (Society in Graduate Mathematics and Statistics) at the University of Alberta (Sep 2019 - Aug 2022).
- Representative for the University of Alberta Graduate Program in Mathematics at the 2021 Canadian Undergraduate Mathematics Conference (Aug 2021).
- Proctor for the Blundon Seminar Camp at the Memorial University of Newfoundland (May 2016).