

# Bryan W. Kettle

## Curriculum Vitae

Department of Mathematical and Statistical Sciences  
University of Alberta  
548 Central Academic Building  
Edmonton, Alberta T6G 2G1  
Canada

**email:** bkettle@ualberta.ca

**website:** www.bkettle.ca

## Education

**University of Alberta**

**Edmonton, AB, Canada**

PhD in Mathematics

Sep 2018 - Summer 2023 (Expected)

**Advisor:** Dr. Nicolas Guay

**Thesis:** *Orthosymplectic, Periplectic, and Twisted Super Yangians* (In Progress)

**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
- 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**

- *Eoin L Whitney Scholarship* (Sep 2020). University of Alberta.
- *University of Alberta Doctoral Recruitment Scholarship* (Sep 2018). University of Alberta.
- *Western Graduate Research Scholarship* (Sep 2017 - Aug 2018). University of Western Ontario.

## 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).