CHRISTOPHER K. CHUNG

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RESEARCH INTERESTS

Representation theory; quantum groups, Soergel bimodules, and categorification

EDUCATION

Doctor of Philosophy, Mathematics University of Virginia, Charlottesville, Virginia
Advisor: Weiqiang Wang *(Expected) May 2020*

Master of Mathematical Sciences Australian National University, Canberra, ACT
Supervisor: Anthony Licata *December 2014*
Master's thesis title: A spanning tree model for Khovanov homology

Bachelor of Science with distinction University of Michigan, Ann Arbor, Michigan
Concentrations: Mathematics, Economics *April 2012*

PUBLICATIONS

Quantum Supergroups VI: Roots of 1 arxiv:1812.05771
Joint with Weiqiang Wang and Thomas Sale

· Letters in Mathematical Physics (to appear)

Serre presentation and $\imath$canonical basis for $\imath$quantum covering groups

· *In preparation*

'p-canonical basis', book chapter In publication
Joint with Gordon C. Brown and Christopher Leonard

· *Chapter on Williamson's p-canonical basis of 'Introduction to Soergel Bimodules', a book jointly written and edited by organizers Ben Elias and Geordie Williamson and all participants of the 2017 MSRI Summer School on Soergel bimodules and categorical representation theory.*

TEACHING EXPERIENCE

Instructor of Record University of Virginia

· MATH 1320: Calculus II *(Scheduled for) Spring 2020 2017*
· MATH 1310: Calculus I *Fall 2019*
· MATH 1210: Survey of Calculus I *Fall 2016, Spring 2017, Fall 2017*

Graduate Teaching Assistant University of Virginia

· MATH 3000: Transition to Higher Mathematics *Spring 2016*
· MATH 2310: Multivariable Calculus *Fall 2015*

Course Tutor (Teaching Assistant) and Grader Australian National University

· MATH 2305: Differential Equations and Applications *Session 2, 2014*
· MATH 1013 – 1014: Calculus and Linear Algebra I & II *Semester 2, 2013 and Semester 1, 2014*

TALKS PRESENTED AND SCHEDULED

AMS Southeastern Sectional Meeting at Charlottesville, VA *(Scheduled for)* March 13-15, 2020
Special Session on Categorical Representation Theory and Beyond

· Title: TBA

University of Georgia Algebra Seminar *(Scheduled for)* November 18, 2019

· Title: *Serre presentation and ıcanonical basis for ıquantum covering groups.*

University of Virginia Algebra Seminar November 1, 2019

· Title: *Serre presentation and ıcanonical basis for ıquantum covering groups.*

AMS Fall Central Sectional Meeting at Madison, WI September 14-15, 2019
Special Session on Hall Algebras, Cluster Algebras and Representation Theory

· Title: *Serre presentation for ıquantum covering groups*

Representation Theory Reading Seminar 2016 – 2019
Seminar talks on various topics; selected titles listed

· "Twisted Yangians: Center, coideal property, and alternate presentation" Fall 2019
· "Schur-Sergeev duality between $\mathfrak{q}(n)$ and the Hecke-Clifford algebra $\mathcal{H}_d$" Fall 2018
· "Springer fibers and geometry" Fall 2017
· "Classfication of Nilpotent Orbits" Fall 2016
· "Introduction to Soergel Bimodules" Spring 2016

SERVICE AND OUTREACH

· **Co-Mentor, Summer 2019 REU at University of Virginia** Summer, 2019
With fellow graduate student Andrew Kobin, guided our mentees Spencer Martin and Will Donahoe through understanding the dimension formulas for spaces of modular forms, two presentations, and a poster presentation at the 2019 SUMS conference at JMU.
· **Mentor, Directed Reading Program at University of Virginia** Spring, 2019
Guided my DRP mentee Joseph Snitzer through a selection of category theory texts and online material to understand the Yoneda Embedding, and prepare for a presentation during UVa's Math Club
· **Association for Women in Mathematics Sonia Day in Topology** March 2, 2019
Facilitated and helped plan for a single day program sponsored by the UVa's AWM chapter with fun activities aimed at engaging middle and high school girls with concepts in topology
· **UVa Math Ambassador** 2017-18
UVa's Mathematics outreach program to Albemarle County and Charlottesville city schools.
· **Mentorship Co-chair, Association for Women in Mathematics** 2017-18
· **Member, Graduate School of Arts and Sciences Research Grant Review Committee** 2017-18

TECHNICAL STRENGTHS

Computer Languages	Proficiency with: MATLAB, Mathematica. Experience with: Maple, Python, R and Stata.
Languages	Proficient: English, Mandarin Chinese, and Malay. Learning: French.