

LUKE CONNERS

UNC Department of Mathematics \diamond Phillips Hall, CB 3250, UNC-CH \diamond Chapel Hill, NC, 27599

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RESEARCH INTERESTS

- Categorification, Representation Theory, Quantum Link Invariants

EDUCATION

University of North Carolina, Chapel Hill, NC

August 2019 - Present

Ph.D. in Pure Mathematics

Advisor: David E.V. Rose

Current Research Topic: Triply-Graded Link Homology

Expected Graduation Date: May 2024

Rice University, Houston, TX

August 2015 - May 2019

B.S. in Mathematics, B.A. in Physics *Cum Laude*

Overall GPA: 3.93/4.00

King's College London, London, UK

January 2018 - June 2018

Study Abroad Undergraduate Credit

ACADEMIC HONORS AND AWARDS

- **Rice University Trustee Distinguished Scholar**, the most prestigious merit-based scholarship offered by the university (2015-2019)
- **Rice University President's Honor Roll**, recognized 6 out of 7 semesters (2015-2019) (Spring 2018 spent abroad, as noted above)
- **United States Presidential Scholar**, awarded annually to one male and one female graduating senior from each U.S. state and territory (Kansas, 2015)
- **National Merit Scholar** (2015)
- **NCTE Achievement Award in Writing**, a national writing award presented annually to approximately 100 high school juniors; I was the only recipient from Kansas in my cohort (2014)

EMPLOYMENT HISTORY

University of North Carolina

August 2019 - Present

Teaching Assistant

Chapel Hill, NC

- MATH 551 (Euclidean and Non-Euclidean Geometry), Fall 2020
- MATH 233 (Calculus III; also led multiple recitation sections), Fall 2020
- MATH 533 (Elementary Number Theory), Summer 2020
- MATH 381 (Discrete Mathematics), Summer 2020
- MATH 233 (Calculus III; also led recitation), Summer 2020
- MATH 231 (Calculus I; also led recitation), Summer 2020
- MATH 578 (Algebraic Structures), Spring 2020
- MATH 577 (Linear Algebra), Spring 2020
- MATH 383 (Differential Equations; often guest-lectured), Fall 2019

Rice University*Grader*

August 2017 - May 2019

Houston, TX

- MATH 443 (General Topology), Spring 2019
- MATH 355 (Linear Algebra), Spring 2019
- MATH 355 (Linear Algebra), Fall 2018
- MATH 331 (Honors Real Analysis), Fall 2018
- PHYS 144 (Physics of Music and Sound), Fall 2018
- MATH 331 (Honors Real Analysis), Fall 2017

Math Monkey KC*Teaching Assistant*

May 2016 - August 2018

Overland Park, KS

- Taught mathematics to students ranging in age from elementary school to early college
- Worked both in one-on-one settings as a tutor and in classroom settings of 4-15 students as a teaching assistant
- Often worked with young students with learning-related disabilities such as Autism Spectrum Disorder and ADD/ADHD
- Ran one week instructional camps for elementary-aged children in game design (using Python), Lego robotics, and basic mathematical operations
- Often oversaw day-to-day front desk operations

PROFESSIONAL SERVICE

- Co-organizer of MathGems undergraduate seminar series, Fall 2020 - Present
- Co-organizer of Graduate Mathematics Association (GMA) seminar series geared towards younger graduate students, Summer 2020 - Present
- Member of Graduate Teaching Seminar reform working group, Summer 2020 - Present
- Graduate and Professional Student Federation (GPSF) senator from the Mathematics department, Spring 2020 - Present
- Editor at Catalyst (Rice University undergraduate science journal), Fall 2015

CONFERENCES AND SEMINARS ATTENDED

- Quantum Groups, Categorification, Knot Invariants, and Soergel Bimodules, University of Oregon, August 2020 (Held virtually due to COVID-19 pandemic)
- Minicourse on Hopfological Algebra and Categorification at a Root of Unity, University of Oregon, August 2020 (Held virtually due to COVID-19 pandemic)
- Geometric Representation Theory seminar series, UNC, August 2019 - Present

EXTRACURRICULAR ACTIVITIES

- Lead Trumpet Player, The Cavaliers Drum and Bugle Corps (Summer 2019; The Cavaliers are seven-time Drum Corps International World Champions)
- Semi-professional jazz musician (August 2015 - December 2017)
- Lead Trumpet Player, Colts Drum and Bugle Corps (Summer 2015)