# Jiantong Liu\*

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Urbana, IL 61801

Research Algebraic K-theory and its applications in motivic homotopy theory.

Interest University of Illinois Urbana-Champaign (UIUC) EDUCATION Aug 2023 - Present

Ph.D., Mathematics

Sept 2019 - Jun 2023 University of California, Los Angeles (UCLA)

B.S., Mathematics, with Departmental Highest Honors B.S., Cognitive Science, with Specialization in Computing

Publications ♦ Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots. (With Y. Bao, A. Benveniste, M. Campisi, N. Cazet, A. Goh, E. Sherman.) J. Knot Theory Ramif.

(2023), Vol. 32, No. 14, 2350097.

Selected Talks External

♦ Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots. AMS Special Session at Joint Mathematics Meeting, January 2023, Boston, MA.

#### Internal

- ♦ Categorifying Spectra. UIUC Motivic and K-theory Literature Seminar, October 2024.
- ♦ A Tropical Proof of the Brill-Noether Theorem. UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2024.
- ♦ How to Overcomplicate the Brill-Noether Theorem. UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2024.
- ♦ Equivariant Cohomology. UIUC Equivariant Homotopy Theory Learning Seminar, February 2024.
- ♦ Triangulated Category's Christmas Wish List. UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2023.
- ⋄ Enriched Categories and Applications. UCLA Directed Reading Program Colloquium, March 2022.

Awards UCLA Latin Honors, Magna cum laude Jun 2023

> UCLA Departmental Highest Honors in Mathematics Jun 2023

Teaching At UIUC Aug 2023 - Present

Teaching Assistant

- ♦ MATH 227, Linear Algebra for Data Science.
- $\diamond$  MATH 257, Linear Algebra with Computational Applications. ( $\times 2$ )
- ♦ MATH 444, Elementary Real Analysis.

Course Grader

♦ MATH 241, Calculus III.

At UCLA Sept 2020 - Sept 2022

<sup>\*</sup>Last updated January 2025.

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Course	Grader

- ♦ MATH 115AH, Upper Division Linear Algebra (Honors). (×5)
- ♦ MATH 115A, Upper Division Linear Algebra. (×2)
- ♦ MATH 105, Mathematics and Pedagogy for Teaching Secondary Mathematics. (×3)

## Outreach & Service

## Illinois Mathematics Lab

Aug 2024 - Present

Graduate Team Leader

#### **UIUC Math Circle**

Aug 2024 - Dec 2024

Instructor

#### **UIUC Graduate Affairs Committee**

Aug 2023 - May 2024

Graduate Student Member

# UCLA Olga Radko Endowed Math Circle

Sept 2021 - Jun 2023

Assistant Instructor for Intermediate-level Group

## Organization for Transformative Works (OTW)

Oct 2018 - Present

Volunteer and Staff

RECENTLYATTENDED
CONFERENCES &
WORKSHOPS

Interactions between  $C^*$ -algebraic KK-theory and Homotopy Theory, Remote. Jan 2025

Life after the Telescope Conjecture, Berkeley, CA.

Dec 2024

Midwest Topology Seminar, Chicago, IL.

Nov 2024

Workshop on Tevelev Degrees and Related Topics, Champaign, IL.

Oct 2024