## Jiantong Liu\*

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Urbana, IL 61801

Research Algebraic Geometry, Algebraic K-theory, 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

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

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

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

- ⋄ A Tropical Proof of the Brill-Noether Non-existence Theorem. UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, October 2024.
- ♦ A Tropical Interpretation of the Brill-Noether Theorem. UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2024.
- ♦ Étale Cohomology. UIUC Étale Cohomology Learning Seminar, June 2024.
- ♦ Descent Theory. UIUC Étale Cohomology Learning Seminar, May 2024.
- ♦ Equivariant Cohomology. UIUC Equivariant Homotopy Theory Learning Seminar, Febru-
- ♦ 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

At UIUC Aug 2023 - Present Teaching

Teaching Assistant

- ♦ MATH 257, Linear Algebra with Computational Applications. (×2)
- ♦ MATH 444, Elementary Real Analysis.

Course Grader

♦ MATH 241, Calculus III.

At UCLA Sept 2020 - Sept 2022

<sup>\*</sup>Last updated August 2024.

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)

## At UCLA Olga Radko Endowed Math Circle

Sept 2021 - Jun 2023

Assistant Instructor for Intermediate Level

Outreach & Service

Illinois Mathematics Lab Graduate Student Mentor

Aug 2024 - Present

**UIUC Graduate Affairs Committee** 

Aug 2023 - Jun 2024

Graduate Student Member

Organization for Transformative Works (OTW)

Oct 2018 - Present

Volunteer, Staff

CONFERENCES WORKSHOPS ATTENDED

Conferences & Life after the Telescope Conjecture, Berkeley, CA.

Dec 2024

Motivic Homotopy, K-theory, and Modular Representations, Los Angeles, CA. Aug 2024 a celebration of the mathematics of Eric Friedlander on the occasion of his 80th birthday.

SLMath Summer School on Algebraic Curves, Berkeley, CA.

Jul 2024

Algebraic Geometry Northeastern Series, Boston, MA.

Western Algebraic Geometry Symposium, St. Louis, MO.

Mar 2024

Symmetric Tensor Categories and Representation Theory, Los Angeles, CA.

Jan 2024

Nov 2023

Joint Mathematics Meeting, Boston, MA.

Midwest Topology Seminar, Champaign, IL.

Jan 2023

HoTTEST Summer School, Virtual.

Jul 2022 - Aug 2022

Sept 2023 - Oct 2023

SKILLS

Programming Languages: R, Python, Java, C++

Other Mathematical Tools: MATLAB, Lean, Agda

General Tools: WordPress, LATEX

Language: Chinese (native), English (fluent)