## Jiantong Liu\*

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Information  $\diamond$  Email: jl106@illinois.edu Department of Mathematics

♦ Website: jiantongliu.github.io University of Illinois Urbana-Champaign

Urbana, IL 61801

RESEARCH Algebraic Geometry, Algebraic K-theory, Homotopy Theory. Interest

Education University of Illinois Urbana-Champaign (UIUC)

Aug 2023 - Present

Ph.D., Mathematics

University of California, Los Angeles (UCLA)

Sept 2019 - Jun 2023

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

Publications  $\diamond$  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.

Talks External

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

## Internal

- ♦ Étale Cohomology. UIUC Étale Cohomology Reading Seminar, June 2024.
- ♦ Descent Theory. UIUC Étale Cohomology Reading Seminar, May 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

- ♦ MATH 257, Linear Algebra with Computational Applications, Teaching Assistant.
- ♦ MATH 444, Elementary Real Analysis, Course Grader.
- ♦ MATH 241, Calculus III, Course Grader.

At UCLA Sept 2020 - Sept 2022

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

## At UCLA Olga Radko Endowed Math Circle

Sept 2021 - Jun 2023

♦ Intermediate Level, Assistant Instructor.

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

SERVICES	UIUC Graduate Affairs Committee	Aug 2023 - May 2024
	Organization for Transformative Works (OTW)	Oct 2018 - Present
Research Experience	Undergraduate Researcher at Polymath Jr Topic: On combinatorial knot theory, in particular on stick knots.	Jun 2022 - Jan 2023
	Supervisors: Professor Marion Campisi, Nicholas Cazet	
	Undergraduate Researcher at UCLA CAM REU  Topic: On compartmental modeling, in particular on SEIR models	Jun 2021 - Aug 2021
	Supervisors: Professor Andrea Bertozzi, Professor Paul Branting Hyde, Professor Chuntian Wang, Yotam Yaniv	gham, Professor David
	Lab Research Assistant at UCLA Psychology Department Topic: On object recognition and motion perception.	Mar 2022 - Mar 2023
	Supervisors: Professor Zili Liu, Yang Xing, Maggie Yeh	
Conferences & Workshops	SLMath Summer School on Algebraic Curves, Berkeley, CA.	Jul 2024
	Algebraic Geometry Northeastern Series, Boston, MA.	Mar 2024
	Symmetric Tensor Categories and Representation Theory, Los Angel	es, CA. Jan 2024
	Western Algebraic Geometry Symposium, St. Louis, MO.	Nov 2023
	Midwest Topology Seminar, Champaign, IL.	Sept 2023
	Joint Mathematics Meeting, Boston, MA.	Jan 2023
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Skills Programming Languages: R, Python, Java, C++

Other Mathematical Tools: MATLAB, Lean, Agda

Language: Chinese (native), English (fluent)