

# Jiantong Liu\*

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CONTACT INFORMATION	◊ Website: <a href="https://jiantongliu.github.io">jiantongliu.github.io</a> ◊ Email: <a href="mailto:jl106@illinois.edu">jl106@illinois.edu</a>	214 Harker Hall Department of Mathematics University of Illinois Urbana-Champaign Urbana, IL 61801
RESEARCH INTEREST	Algebraic K-theory and its applications in motivic homotopy theory.	
EDUCATION	<b>University of Illinois Urbana-Champaign (UIUC)</b> Ph.D., Mathematics	Aug 2023 - Present
	<b>University of California, Los Angeles (UCLA)</b> B.S., Mathematics, with Departmental Highest Honors B.S., Cognitive Science, with Specialization in Computing	Sept 2019 - Jun 2023
PUBLICATIONS	◊ <i>Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots.</i> (With Y. Bao, A. Benveniste, M. Campisi, N. Cazet, A. Goh, E. Sherman.) <i>J. Knot Theory Ramif.</i> (2023), Vol. 32, No. 14, 2350097.	
SELECTED TALKS	<b>External</b> ◊ <i>Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots.</i> AMS Special Session at Joint Mathematics Meeting, January 2023, Boston, MA.  <b>Internal</b> ◊ <i>Localisation Theorems for the Connective K-theory of Exact Categories.</i> UIUC Motivic Homotopy Theory Literature Seminar, December 2025. ◊ <i>Descent Properties in Algebraic K-Theory.</i> UIUC Graduate Student Homotopy Theory Seminar, April 2025. ◊ <i>Reinterpreting Universal Localizing Invariant.</i> UIUC Motivic Homotopy Theory Literature Seminar, April 2025. ◊ <i>Categorifying Spectra.</i> UIUC Motivic Homotopy Theory Literature Seminar, October 2024. ◊ <i>A Tropical Proof of the Brill-Noether Theorem.</i> UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2024. ◊ <i>Equivariant Cohomology.</i> UIUC Equivariant Homotopy Theory Learning Seminar, February 2024. ◊ <i>Triangulated Category's Christmas Wish List.</i> UIUC Graduate Algebraic Geometry and Commutative Algebra Seminar, September 2023. ◊ <i>Enriched Categories and Applications.</i> 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	<b>At UIUC</b> Teaching Assistant ◊ MATH 221, <i>Calculus I.</i> ◊ MATH 227, <i>Linear Algebra for Data Science.</i> ◊ MATH 257, <i>Linear Algebra with Computational Applications.</i> ( $\times 2$ )	Aug 2023 - Present

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\*Last updated February 2026.

- ◊ MATH 314, *Introduction to Higher Mathematics*.

Course Grader

- ◊ MATH 241, *Calculus III*.
- ◊ MATH 444, *Elementary Real Analysis*.

#### **At UCLA**

*Sept 2020 - Sept 2022*

Course Grader

- ◊ MATH 115AH, *Upper Division Linear Algebra (Honors)*. ( $\times 5$ )
- ◊ MATH 115A, *Upper Division Linear Algebra*. ( $\times 2$ )
- ◊ MATH 105, *Mathematics and Pedagogy for Teaching Secondary Mathematics*. ( $\times 3$ )

OUTREACH &  
SERVICE

#### **Illinois Mathematics Lab**

*Aug 2024 - Present*

Graduate Team Leader

- ◊ Geometry, Arithmetic, and Physics of the Wythoff Array. ( $\times 2$ )
- ◊ Stochastic Process and Differential Equation Models for Cross-Scale Evolutionary Dynamics. ( $\times 2$ )

#### **UIUC Directed Reading Program**

*Aug 2025 - Present*

Co-organizer

#### **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

RECENTLY-  
ATTENDED  
CONFERENCES &

FRG workshop on higher categories and geometry. Chicago, IL.

*Mar 2026*

WORKSHOPS

Midwest Topology Seminar. Cleveland, OH.

*Feb 2026*