## Jiantong Liu\*

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Information ♦ Email: jl106@illinois.edu Department of Mathematics

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Urbana, IL 61801

Algebraic Geometry, Algebraic Topology, Category Theory, Homotopy Theory. Research Interest

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

Ph.D., Mathematics

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

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

Preprint<sup>†</sup> Publication ♦ Y. Bao, A. Benveniste, M. Campisi, N. Cazet, A. Goh, J. Liu, E. Sherman, "Bounds

> in Simple Hexagonal Lattice and Classification of 11-stick Knots", November 2022. https://doi.org/10.48550/arXiv.2211.00687. Submitted.

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

Undergraduate Researcher at Polymath Jr Research Jun 2022 - Jan 2023 **Topic:** On combintorial knot theory, in particular on stick knots.

Supervisors: Professor Marion Campisi, Nicholas Cazet

Undergraduate Researcher at UCLA CAM REU Jun 2021 - Aug 2021

**Topic:** On compartmental modeling, in particular on SEIR models.

Supervisors: Professor Andrea Bertozzi, Professor Paul Brantingham, Professor David Hyde, Professor Chuntian Wang, Yotam Yaniv

Lab Research Assistant at UCLA Psychology Department Mar 2022 - Jun 2023 **Topic:** On object recognition and motion perception.

Supervisors: Professor Zili Liu, Mac Xing

Teaching At UIUC

> ⋄ Course Grader Aug 2023 - Present

241 Calculus III

At UCLA

♦ Course Grader Sep 2020 - Sep 2022

115AH Honors Linear Algebra

115A Linear Algebra

105ABC Mathematics for Teaching

♦ Assistant Instructor at UCLA Math Circle Sep 2021 - Jun 2023

<sup>\*</sup>Last updated August 19, 2023.

<sup>&</sup>lt;sup>†</sup>Authors are listed in alphabetical order. The corresponding authors' names are in bold.

Latin Honors, Magna cum laude Highest Departmental Honors in Mathematics Jun 2023 Seminars UCLA Algebra Seminar Mar 2023 - Jun 2023  $\diamond \infty$ -Category Theory Faculty: Professor Paul Balmer **Text:** Riehl & Verity, Elements of  $\infty$ -Category Theory ♦ Reductive Algebraic Groups Jan 2023 - Mar 2023 Faculty: Professor Alexander Merkurjev Text: Knus et al., The Book of Involutions The HOTTest Summer School Jul 2022 - Aug 2022 UIUC Graduate Affairs Committee Aug 2023 - May 2024 Service Organization for Transformative Works (OTW) Oct 2018 - Present Programming Languages: R, Python, Java, C++ Skill Other Mathematical Tools: MATLAB, Lean, Agda General Tools: WordPress, LATEX

Language: Chinese (native), English (fluent)

Awards

Jun 2023