

Jiantong Liu*

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| CONTACT INFORMATION | <ul style="list-style-type: none">◇ Phone: (424)440-9698◇ Email: jl106@illinois.edu◇ Website: jiantongliu.github.io | Altgeld Hall Department of Mathematics University of Illinois Urbana-Champaign Urbana, IL 61801 |
| RESEARCH INTEREST | Algebraic Geometry, Algebraic Topology, Category Theory, Homotopy Theory. | |
| EDUCATION | University of Illinois Urbana-Champaign (UIUC) Ph.D., Mathematics | <i>Aug 2023 - present</i> |
| | University of California, Los Angeles (UCLA) B.S., Mathematics, Departmental Honors B.S., Cognitive Science, with Specialization in Computing | <i>Sept 2019 - Jun 2023</i> |
| PUBLICATION | Preprint <ul style="list-style-type: none">◇ Y. Bao, A. Benveniste, A. Goh, J. Liu[†], E. Sherman, M. Campisi, N. Cazet, “Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots”, November 2022. https://doi.org/10.48550/arXiv.2211.00687. Submitted. | |
| TALK | ◇ <i>Bounds in Simple Hexagonal Lattice and Classification of 11-stick Knots</i> . AMS Special Session at Joint Mathematics Meeting, Jan 2023, Boston, Massachusetts. [Abstract] | |
| RESEARCH | Undergraduate Researcher at Polymath Jr Topic: On combinatorial knot theory, in particular on stick knots. Supervisors: Professor Marion Campisi, Nicholas Cazet | <i>Jun 2022 - Jan 2023</i> |
| | Undergraduate Researcher at UCLA CAM REU Topic: On compartmental modeling, in particular on SEIR models. Supervisors: Professor Andrea Bertozzi, Professor Paul Brantingham, Professor David Hyde, Professor Chuntian Wang, Yotam Yaniv | <i>Summer 2021</i> |
| | Lab Research Assistant at UCLA Psychology Department Topic: On object recognition and motion perception. Supervisors: Professor Zili Liu, Mac Xing | <i>Mar 2022 - Jun 2023</i> |
| TEACHING | At UCLA <ul style="list-style-type: none">◇ Course Grader<ul style="list-style-type: none">115AH Honors Linear Algebra <i>Fall 2020 - Winter 2022</i>115A Linear Algebra <i>Summer 2021, 2022</i>105ABC Mathematics for Teaching <i>Fall 2021 - Spring 2022</i>◇ Assistant Instructor at UCLA Math Circle <i>Sept 2021 - Jun 2023</i> | |

*Last updated May 12, 2023.

[†]Corresponding Author

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| READING & SEMINAR | At UCLA | |
| | Algebra Seminar | |
| | ◇ Quiver | Spring 2023 |
| | Faculty: Professor Raphaël Rouquier | |
| | Text: Kirillov, <i>Quiver Representations and Quiver Varieties</i> | |
| | ◇ ∞ -Category Theory | Spring 2023 |
| | Faculty: Professor Paul Balmer | |
| | Text: Riehl & Verity, <i>Elements of ∞-Category Theory</i> | |
| | ◇ Reductive Algebraic Groups | Winter 2023 |
| | Faculty: Professor Alexander Merkurjev | |
| Text: Knus et al., <i>The Book of Involutions</i> | | |
| | Directed Reading Program with Ben Spitz | |
| | ◇ Algebraic Topology | Fall 2022 |
| | ◇ Algebraic Number Theory | Spring 2022 |
| | ◇ Enriched Category Theory | Winter 2022 |
| | Research Seminar on Category Theory | Spring 2021 |
| | The HOTTest Summer School | Summer 2022 |
| GRADUATE-LEVEL COURSEWORK | At UCLA | |
| | 205A Algebraic Number Theory | |
| | 210ABC Algebra | |
| | 212A Homological Algebra | |
| | 212B Tensor Triangulated Geometry | |
| | 214AB Algebraic Geometry | |
| | 215A Commutative Algebra | |
| | 225A Differential Topology | |
| | 225C Algebraic Topology | |
| 229A Lie Groups and Lie Algebra | | |
| VOLUNTEERING | Organization for Transformative Works (OTW) | Oct 2018 - present |
| SKILL | | |
| | Programming Languages | R, Python, Java, C++. |
| | Other Mathematical Tools | MATLAB, Lean, Agda. |
| | General Tools | WordPress, L ^A T _E X. |
| | Language | Chinese (native), English (fluent) |