RUOXI LI

Department of Mathematics
University of California, Berkeley, California, United States
+1 6059403262 | email: ruoxi_li@berkeley.edu

EDUCATION

University of California, Berkeley — California, United States
Doctoral Program in Mathematics — AUG 2022 – present
Research Interests: Algebraic Geometry

Columbia University — New York, United States
BS in Applied Mathematics — August 2020 to May 2022

Augustana University — South Dakota, United States
BA in Mathematics — August 2017 to May 2020

PUBLICATIONS AND PREPRINTS

- *Symplectic Biextensions, Twisted Lagrangian Pairs, and Twisted Derived Torelli of Abelian Varieties*, in preparation;
- *Point Objects and Fourier-Mukai Partners of Projective Bundles over Abelian Varieties*, with F. Lin, in preparation;
- GI*T for Root Stacks and 3D Mirror Symmetry*, with S. Garg, Y. Okitani, preprint;
  - https://arxiv.org/abs/2608.30350
- *Minimal Trivializing Isogenies of Gm-Gerbes over Abelian Varieties and Period-Index Problem*, submitted;
  - https://arxiv.org/abs/2605.30530
- *Point Objects and Derived Equivalences of Twisted Derived Categories of Abelian Varieties*, submitted;
  - https://arxiv.org/abs/2511.19282
- *Weyl-invariant subspaces are not (usually) generic,* With R. Kurama, H. Talbott, R.Webb, submitted.
  - https://arxiv.org/abs/2510.03963

TALKS/PRESENTATIONS

- *Point Objects and Twisted Fourier-Mukai Partners of Abelian Varieties,* Algebra and Algebraic Geometry Seminar, University of Washington, 11/2026;
- *Point Objects and Twisted Fourier-Mukai Partners of Abelian Varieties,* Algebra Seminar, University of Oregon, 05/2026;
- *Ranks of Twisted Semi-homogeneous Vector Bundles and their Moduli Stacks*, Student Arithmetic Geometry Seminar, UC Berkeley, 03/2026;
- *Point Objects on Projective Bundles over Abelian Varieties*, Student Arithmetic Geometry Seminar, UC Berkeley, 11/2025;
- *Point Objects and Fourier-Mukai Partners of Twisted Derived Categories of Abelian Varieties*, University of Oregon, flash talk at WAGS 2025, 11/2025
- *Point Objects in the Twisted Derived Categories of Abelian Varieties*, Student Arithmetic Geometry Seminar, UC Berkeley, 04/2025;
- *Ample Vector Bundles on Tame Stacks*, Student Arithmetic Geometry Seminar, UC Berkeley, 10/2024;
- *The Fourier-Mukai Equivalences between a K3 Surface and its Moduli Space of Semistable Sheaves*, Student Arithmetic Geometry Seminar, UC Berkeley, 03/2024;
- *D^b(X) determines X when K_X is ample or anti-ample*, Student Arithmetic Geometry Seminar, UC Berkeley, 04/2023;
- Final Presentation on GIT project at Michigan Research Experience for Graduates Symposium in July 2022.
- Poster presentation on Thick Points in a Random Square Subdivision Model Generated by Bernoulli Trials at Columbia University's Undergraduate Research Symposium in October 2021;
- Seminar Presentation on Foundations of Probability Theory at Columbia Undergraduate Seminar in Applied Mathematics in October 2021;
- Final presentation on Thick Points in a Random Square Subdivision Model Generated by Bernoulli Trials at Columbia University in August 2021.

WORK EXPERIENCE

University of California, Berkeley — California, United States
Graduate Student Instructor — January 2023 to present

- Math 16A, Analytic Geometry and Calculus, Fall 2026;
- Math 51, Calculus I, Summer 2026;

- Math 55, Discrete Mathematics, Fall 2025;
- Math 33, Precalculus, Fall 2024;
- Math 53, Multivariable Calculus, Summer 2024;
- Math 1A (51), Calculus, Fall 2023;
- Math 16B, Analytic Geometry and Calculus, Spring 2023.

Columbia University New York, United States
Teaching Assistant January 2022 to May 2022

- Math GU4041, Introduction to Analysis, Spring 2022.

Augustana University South Dakota, United States
Tutoring August 2018 to May 2020