

Daigo Ito

Curriculum Vitae

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<https://daigo.github.io/>

Research interests	Derived categories of coherent sheaves, birational geometry, tensor triangular geometry, homological mirror symmetry	
Education	University of California, Berkeley Ph.D. in Mathematics Advisor: David Nadler	Berkeley, CA August 2021 – Present
	Princeton University A.B. in Mathematics Advisor: János Kollár, Coadvisor: Joaquín Moraga	Princeton, NJ September 2017 – May 2021
Honor and fellowship	Simons Foundation Fellowship (Department of Mathematics, UC Berkeley) Summer Grant Award (Department of Mathematics, UC Berkeley) Phi Beta Kappa (Beta Chapter of New Jersey)	2025 2024 2021
Publication	1. A new proof of the Bondal-Orlov reconstruction using Matsui spectra (j.w. Hiroki Matsui), <i>Bull. Lond. Math. Soc.</i> : Volume 57, Issue 7 (2025), arXiv version .	
Preprint	1. A derived category analogue of the Nakai–Moishezon criterion (j.w. Noah Olander), <i>preprint</i> , arXiv:2507.17681 (2025). 2. Polarizations on a triangulated category , <i>preprint</i> , arXiv:2502.15621 (2025). 3. Gluing of Fourier-Mukai partners in a triangular spectrum and birational geometry , <i>submitted</i> , arXiv:2309.08147 (2023).	
Teaching	Graduate student instructor (University of California, Berkeley) Math 16A: Analytic Geometry and Calculus Math 1B: Calculus Math 1B: Calculus Math 1B: Calculus Math 54: Linear Algebra and Differential Equations Math 1B: Calculus	Fall 2024 Spring 2024 Fall 2023 Fall 2022 Spring 2022 Fall 2021
Mentoring	Directed reading program (University of California, Berkeley) Nathan Mann (topics: Introduction to algebraic geometry and 27 lines)	Spring 2025

Junchang Wang (topics: Riemann surfaces and scheme theory)	Fall 2024
Vivasvat Vatatmaja (topics: Derived category on an elliptic curve)	Spring 2024
Vivasvat Vatatmaja (topics: Model categories and \mathbb{A}^1 -homotopy theory)	Spring 2023

Research talks

- <i>Joint Mathematics Meetings (JMM), Special Session on Moduli of Surfaces</i> (upcoming)	
Washington, D.C., USA	January 2026
- <i>Derived Representation Theory and Triangulated Categories</i>	
Aristotle University of Thessaloniki, Greece	June 2025
- <i>Commutative Algebra and Algebraic Geometry Seminar</i>	
University of California, Berkeley, USA	October 2024
- <i>Triangulated Categories in Algebra and Geometry</i>	
Charles University and Czech Academy of Sciences, Czechia	September 2024
- <i>Simple-mindedness, Silting and Stability</i>	
Lancaster University, UK	July 2024
- <i>Tokyo-Nagoya Algebra Seminar</i>	
University of Tokyo & Nagoya University, Japan (online)	June 2024
- <i>Classifications of Subcategories of Abelian and Triangulated Categories</i>	
Tokyo University of Agriculture and Technology, Japan	June 2024

Poster presentations

- <i>Workshop on Derived Categories, Noncommutative Geometry and Deformation Theory</i>	
Hotel San Michele, Cetraro, Italy	July 2025
- <i>Western Algebraic Geometry Symposium</i>	
The University of Arizona, USA	November 2024
- <i>Western Algebraic Geometry Symposium</i>	
University of California, Davis, USA	April 2024
- <i>SLMath Workshops on Commutative Algebra and Noncommutative Algebraic Geometry</i>	
SLMath (formerly known as MSRI), USA	Spring 2024
- <i>Higher Dimensional Algebraic Geometry: James 60</i>	
University of California, San Diego, USA	January 2024

Organized seminars

<i>Reading group on K3 surfaces and derived categories</i>	Spring 2024
<i>Geometric Representation Theory Seminar</i> (with Ansuman Bardalai)	Spring 2024
<i>Geometric Representation Theory Seminar</i> (with Ansuman Bardalai)	Fall 2023
<i>Reading group on homological mirror symmetry for elliptic curves</i>	Spring 2023
<i>Reading group on Milnor's characteristic classes</i>	Summer 2022