

Daigo Ito

Curriculum Vitae

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Research interests	Derived categories of coherent sheaves in algebraic geometry, homological mirror symmetry, birational geometry	
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	
Honors and fellowships	Simons Foundation Fellowship (Dept. of Mathematics, UC Berkeley) Phi Beta Kappa (Beta Chapter of New Jersey)	2025 2021
Publications	4. A derived category analogue of the Nakai–Moishezon criterion (j.w. Noah Olander), <i>preprint</i> , arXiv:2507.17681 (2025). 3. Polarizations on a triangulated category , <i>preprint</i> , arXiv:2502.15621 (2025). 2. 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 . 1. Gluing of Fourier–Mukai partners in a triangular spectrum and birational geometry , <i>under review</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) Junchang Wang (topics: Riemann surfaces and scheme theory) Vivasvat Vatatmaja (topics: Derived category on an elliptic curve) Vivasvat Vatatmaja (topics: Model categories and \mathbb{A}^1 -homotopy theory)	Spring 2025 Fall 2024 Spring 2024 Spring 2023

Research talks	<i>Derived Representation Theory and Triangulated Categories</i>	June 2025
	Aristotle University of Thessaloniki, Greece	
	<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>	
Poster presentations	University of Tokyo & Nagoya University (online), Japan	June 2024
	<i>Classifications of Subcategories of Abelian and Triangulated Categories</i>	
	Tokyo University of Agriculture and Technology, Japan	June 2024
	<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
Organized seminars	<i>SLMath Workshops on Commutative Algebra and Noncommutative Algebraic Geometry</i>	
	SLMath (formerly, MSRI), USA	Spring 2024
	<i>Higher Dimensional Algebraic Geometry: James 60</i>	
	University of California, San Diego, USA	January 2024
	<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