

# Daigo Ito

*Curriculum Vitae*

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

Vivasvat Vatatmaja (topics: Model categories and  $\mathbb{A}^1$ -homotopy theory) Spring 2023

### Invited talks

- *Joint Mathematics Meetings (JMM), Special Session on “Moduli of Surfaces”*  
Washington, D.C., USA January 2026
- *Tokyo-Nagoya Algebra Seminar*  
University of Tokyo & Nagoya University (online), Japan June 2024
- *Classifications of Subcategories of Abelian and Triangulated Categories*  
Tokyo University of Agriculture and Technology, Japan June 2024

### Contributed talks

- *Derived Representation Theory and Triangulated Categories*  
Aristotle University of Thessaloniki, Greece June 2025
- *Commutative Algebra and Algebraic Geometry Seminar*  
University of California, Berkeley, USA October 2024
- *Triangulated Categories in Algebra and Geometry*  
Charles University and Czech Academy of Sciences, Czechia September 2024
- *Simple-mindedness, Silting and Stability*  
Lancaster University, UK July 2024

### Poster presentations

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

### Organized seminars

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