

Daigo Ito

Curriculum Vitae

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Department of Mathematics, University of California, Berkeley
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<https://daigo.github.io/>

Research interests Derived categories of coherent sheaves in algebraic geometry, homological mirror symmetry, birational geometry

Education **University of California, Berkeley** Berkeley, CA
Ph.D. in Mathematics August 2021 – Present

Princeton University Princeton, NJ
A.B. in Mathematics September 2017 – May 2021
Thesis: *The Minimal Model Program and Resolution of cDV Singularity*
Advisor: János Kollár
Coadvisor: Joaquín Moraga

Honors and scholarships Summer Fellowship (Dept. of Mathematics, UC Berkeley) 2024
Phi Beta Kappa (Beta Chapter of New Jersey) 2021
Summer Project Fellowship (Dept. of Mathematics, Princeton Univ.) 2020
Summer Project Fellowship (Dept. of Mathematics, Princeton Univ.) 2019
Yanai Tadashi Foundation Scholarship 2017-2021

Publications **Gluing of Fourier-Mukai partners in a triangular spectrum and birational geometry**, preprint, [arXiv:2309.08147](https://arxiv.org/abs/2309.08147), 2023.
A new proof of the Bondal-Orlov reconstruction using Matsui spectra (j.w. Hiroki Matsui), preprint, [arXiv:2405.16776](https://arxiv.org/abs/2405.16776), 2024.

Teaching experience **Teaching assistant (University of California, Berkeley)**
Math 1B: Calculus Fall 2021
Math 54: Linear Algebra and Differential Equations Spring 2022
Math 1B: Calculus Fall 2022
Math 1B: Calculus Fall 2023
Math 1B: Calculus Spring 2024
Math 16A: Analytic Geometry and Calculus Fall 2024

Directed reading program (University of California, Berkeley)
Mentee: Vivasvat Vatatmaja Spring 2024
Topics: Derived category of coherent sheaves on an elliptic curve

Mentee: Vivasvat Vatatmaja

Spring 2023

Topics: Model categories, sheaves on sites, and \mathbb{A}^1 -homotopy theory

Talks

Tensor triangulated geometry without tensors

Lancaster University, UK

July 2024

Reinterpretation of reconstruction theorems using Matsui spectra

University of Tokyo & Nagoya University, Japan

June 2024

Birational Geometry in Matsui spectrum

Tokyo University of Agriculture and Technology, Japan

June 2024

Symmetries on derived categories and reconstruction of elliptic curves

University of California, Berkeley, USA

October 2023

Skills

Programming

\LaTeX , Java, Python, HTML, Mathematica.

Languages

English (fluent), Japanese (native), Chinese (conversational)