

# CHRISTOPHER JOSEPH DECKER DOWD

<https://math.berkeley.edu/~cjdowd/>

+1 4159263387

2995 Lake St, San Francisco, CA 94121

## EDUCATION

---

**University of California, Berkeley** 2022-present

Mathematics PhD Student

Advisor: Sug Woo Shin

Research Interests: Number theory, arithmetic geometry, abelian varieties,  $p$ -divisible groups,  $p$ -adic Hodge theory

**University of Cambridge** 2021-2022

Part III of the Mathematical Tripos

Master of Advanced Studies in Mathematics

Graduated with Distinction

**Harvard University** 2017 - 2021

Bachelor of Arts

Overall GPA: 3.96

Concentration: Mathematics

Secondary: Music

Magna cum Laude with Highest Honors in Field

Thesis: *On parameterizations of cyclic  $N$ -isogenies and strict  $K$ -curves lying above points on  $Y_0(N)$*

Thesis advisor: Prof. Noam D. Elkies

**San Francisco University High School** 2013-2017

## AWARDS

---

NSF Research Training Group Grant in Number Theory and Arithmetic Geometry Spring 2023

Herchel Smith Fellowship 2021-2022

- Full scholarship for Cambridge Part III

Harvard College Research Program (HCRP) Wolansky Fund fellowship grant 2020

John Harvard Scholar 2020

NSF Research Experience for Undergraduates (REU) Scholarship 2019

## RESEARCH EXPERIENCE

---

*Some items have been intentionally omitted on the public version of this resume. These items will be included in any privately submitted versions.*

**University of Minnesota** Minneapolis, MN

Mathematics REU Participant Summer 2019

- *Arborescences of Covering Graphs*. Algebraic Combinatorics, Volume 5 (2022) no. 2, pp. 319-346. With Sunita Chepuri, Andy Hardt, Gregory Michel, Sylvester W. Zhang, and Valerie Zhang.
  - Poster presentation: University of Illinois Chicago Undergraduate Mathematics Symposium, November 2, 2019.
- *Virtual Resolutions of General Points in Smooth Fano Toric Varieties*. With Sean McNally.

## Harvard Department of Mathematics

Harvard College Research Program

*Summer 2020*

- Topics: Elliptic curves, modular forms, arithmetic statistics
- Research Advisor: Fabian Gundlach, Ph.D.

## TEACHING EXPERIENCE

---

### UC Berkeley Department of Mathematics

Graduate Student Instructor

*Fall 2022, Fall 2023*

- Multivariable Calculus
- Linear Algebra

Reader

*Spring 2024*

- Number Theory (Abelian Varieties with Complex Multiplication)
- Complex Manifolds

### Harvard Department of Mathematics

Course assistant

*2019-2021*

- Abstract algebra, commutative algebra, algebraic geometry, combinatorics, number theory
- Two-time recipient of a Certificate in Distinction in Teaching

## SERVICE

---

### UC Berkeley Department of Mathematics

Organizer: UC Berkeley Undergraduate Number Theory Symposium

*April 2023*

Mentor: UC Berkeley Directed Reading Program

*Spring, Fall 2023*

### Harvard Undergraduate Mathematics Association

*Summer 2020*

Volunteer Mentor: Math Online Reading Program for High Schoolers (MORPH)

- Student-run mentorship program targeted to advanced high schoolers interested in higher math
- Group mentor for number theory and ring theory

Harvard Visitas Program

*Spring 2020, 2021*

- Volunteer panelist for prospective freshmen

Organizer/Speaker: Harvard Undergraduate Mathematics Colloquium (Math Table)

*2018-2019*

## CONFERENCES ATTENDED

---

Arizona Winter School

*March 2023, March 2024*

ISM Discovery School: Langlands Correspondence for Spherical Varieties

*October 2023*

University of Illinois Chicago Undergraduate Mathematics Symposium

*November 2, 2019*

## OTHER LEADERSHIP AND ACTIVITIES

---

### Harvard Glee Club

*2017-2021*

Bass I, Financial Manager, Davison Fellow

### All-Saints Church, Ashmont

Dorchester, MA

Harvard Glee Club Davison Fellow

*2019-2020*

- Assistant and performer for the choir of men and boys

**Harvard New Music Initiative**

*2018-2019*

- Selected for competitive student choral composition program
- Debut of original work by the Radcliffe Choral Society, New Voices Rising Concert, April 4, 2019
- Francis Boott Prize for choral composition recipient

**SKILLS AND INTERESTS**

---

**Programming/computational languages:** Python, C, Java, Macaulay 2, Sage, Pari-GP, Mathematica

**Other interests:** Classical and choral music composition, choral singing, chess, épée fencing, running