# Sachi Hashimoto

# **Employment**

Max Planck Institute for Mathematics in the Sciences, Postdoc . . . . . . June 2022 - June 2023

#### Education

Boston University	$May\ 2022$
PhD in Mathematics	
Advisor: Jennifer Balakrishnan	
University of Chicago	June 2014
BA in Mathematics with General and Departmental Honors	

# Preprints and publications

- 6. "Geometric quadratic Chabauty and p-adic heights", arXiv:2207.10389.
- 6. "Quadratic Chabauty and p-adic Gross-Zagier", arXiv:2206.08595.
- 5. "A geometric linear Chabauty comparison theorem" (with Pim Spelier), *Acta Arithmetica*, 202 (2022), no. 1, 67–88. 11G30 (11D45).
- 4. "A transcendental Brauer-Manin obstruction to weak approximation on a Calabi-Yau threefold" (with Katrina Honigs, Alicia Lamarche, Isabel Vogt, and an appendix by Nicolas Addington), Research in Number Theory 8 (2022), no. 1, Paper No. 12.
- 3. "38406501359372282063949 and All That: Monodromy of Fano Problems" (with Borys Kadets), *International Mathematics Research Notices IMRN 2022*, no. 5, 3349–3370.
- 2. "Chabauty-Coleman computations on rank 1 Picard curves" (with Travis Morrison), Arithmetic Geometry, Number Theory, and Computation, Simons Symposia, Springer, 2021, 485-506.
- 1. "Computing rational points on rank 0 genus 3 hyperelliptic curves" (with María de Frutos-Fernández), Arithmetic Geometry, Number Theory, and Computation, Simons Symposia, Springer, 2021, 449-460.

#### Academic honors

NSF Graduate Research Fellowship, 2018 - 2022.

Clare Boothe Luce Fellowship (Henry Luce Foundation), 2017 - 2019.

### Invited talks

April 2022: Combinatorics & Nonlinear Algebra Day, Brown.

February 2022: AGNT Seminar, Rice.

February 2022: Algebra seminar, Groningen.

April 2021: AMS Invited Talk, graduate student chapter, University of Connecticut, Storrs.

February 2021: Number theory seminar, University of Georgia.

February 2021: Algebra seminar, Brown.

November 2020: Algebraic geometry & number theory seminar, IST Austria.

September 2020: Algebra seminar, Virginia Tech.

September 2020: Monodromy and Galois groups in enumerative geometry and applications, ICERM.

August 2020: POINT, New Developments in Number Theory, online.

May 2020: Experimental Talks in Algebraic Geometry, online.

September 2019: Algebra/Number theory seminar, Wesleyan.

April 2019: AMS Graduate Student Conference in Algebraic Geometry and Number Theory, Brown.

February 2019: BU Data Science Day, poster and lightning talk, Boston University.

# Expository and outreach talks

April 2019: Women in Mathematics and Statistics Panelist, Harvard.

May 2019: PROMYS Math Circles Field Day, Boston University.

February 2018: PROMYS Math Circles Field Day, Boston University.

# Teaching and outreach

PROMYS Math Circles Field Day mentor February 2022, November 2019
BU Directed Reading Program, co-director
Directed Reading Program Seed Funding Grant, DRP Network
Graduate Women in Science and Engineering, mentor
Proof School Spring Math Festival, director
Proof School Love Math! A festival for girls, co-director
$Proof\ School\ {\bf Mathematics\ Teacher\ (secondary\ school)} \ \dots \ \dots \ 2015\ -\ 2017$
Canada/USA Mathcamp, instructorSummer 2015, 2016

#### Conference and seminar service

Summer 2022: ICM preparatory seminar, Co-organizer, Max Planck Institute for Mathematics in the Sciences.

Fall 2019: Boston University Number Theory Expository Seminar, Topic: Gross-Zagier, Organizer, Boston University.

June 2019: Mathematics Research Community: Explicit Methods in Arithmetic Geometry in Characteristic p, Assistant, Whispering Pines, Rhode Island.

May 2018: Connecticut Number Theory School, Graduate Assistant, University of Connecticut, Storrs.

February 2018: Graduate Workshop in Algebraic Geometry for Women and Mathematicians of Minority Genders, Teaching Assistant for the course on explicit Coleman integration, MIT.