

Zachary Gardner

zachary.gardner@bc.edu

(214) 493-7284

U.S. Citizen

Education

Boston College	2020–
Ph.D. in Mathematics	
<i>Advised by Keerthi Madapusi</i>	
University of Texas at Austin	2016–2020
B.S. in Mathematics with Departmental Honors	
<i>Advised by Sam Raskin</i>	

Preprints

An algebraicity conjecture of Drinfeld and the moduli of p -divisible groups, joint with M. Madapusi and A. Mathew. 2024. (available on my website)

Prismatic Rapoport-Zink spaces and integral local Shimura varieties. (forthcoming)

Moduli of L -typical prismatic (G, μ) -apertures and applications. (forthcoming)

Research Talks

Prismatic (G, μ) -apertures and 1-bounded derived stacks, Universität Münster, August 14, 2024

Moduli of prismatic (G, μ) -apertures, Young Topologists Meeting 2024, August 7, 2024

Service

Seminars & Conferences Organized

Derived Arithmetic Intersection Theory (DAIT) Learning Group	Spring-Summer 2022
K-Theory and Differential Cohomology Learning Group	Spring 2022
Derived Algebraic Geometry (DAG) Learning Group	Fall 2021
Galois Representations Reading Group	Summer 2021
UT Summer Minicourses	Summer 2020

Other Service

Treasurer: Math Graduate Student Association	Fall 2022–
<i>Managed finances, secured funding for events and standard activities</i>	
Secretary: Math Graduate Student Association	Fall 2021–Spring 2022
<i>Co-organized GIST, helped with prospective student logistics, and managed internal communications</i>	
Developing Exemplary Mathematics Teacher Leaders for High-Need Schools	Fall 2021–Spring 2022
<i>Served as Graduate Student Representative for Content initiative</i>	
Counselor: Ross Mathematics Program	Summer 2017 & 2019
<i>Mentored students, trained other counselors, taught courses, and helped with administration</i>	

Teaching Experience

Boston College

Teaching fellow for Math 1100 Calculus I	Spring 2024
Teaching fellow for Math 1004 Finite Probability and Applications	Fall 2023
Teaching fellow for Math 1100 Calculus I	Fall 2022
Teaching assistant for Math 1101 Calculus II	Spring 2022
Teaching assistant for Math 2202 Multivariable Calculus	Fall 2021
Grader for Math 3312 Algebra II	Spring 2021
Teaching assistant for Math 1102 Calculus I (Math/Sci)	Fall 2020

University of Texas at Austin

UT Summer Minicourses	
<i>Taught course titled “Abelian Varieties and the Mordell-Weil Theorem”</i>	Summer 2020
<i>Taught course titled “Class Field Theory”</i>	Summer 2019

Scholarships, Honors, & Awards

Boston College

Donald J. White Teaching Excellence Award	Spring 2022
---	-------------

University of Texas at Austin

CNS Dean’s Honored Graduate	Spring 2020
CNS Service & Leadership Distinction	Spring 2020
Barrett Fellowship	Fall 2019
Carmelina Cutro Albino Memorial Endowed Presidential Scholarship	Spring 2018
Highest Ranking High School Graduate Tuition Exemption	Fall 2016-Spring 2017

Conferences & Programs Attended

<i>p</i> -adic cohomology and arithmetic geometry (<i>in honor of Nobuo Tsuzuki</i>)	October 21-25, 2024
Young Topologists Meeting	August 5-9, 2024
Algebraic geometry and cohomology in mixed characteristic	May 15-19, 2023
Homotopy Theory with Applications to Arithmetic and Geometry	June 27-30, 2022
SUBgroups	Fall 2020
Boston Remote Seminar on Perfectoid Spaces	Summer 2020
Arizona Winter School on Topology and Arithmetic	March 2-6, 2019

Languages

English	Native
Hindi	Intermediate
French	Beginner