

Baiqing Zhu

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Math Building 206
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Education

2020–25* **Ph.D.** in Mathematics, Columbia University
2016–20 **B.Sc.** in Mathematics, Fudan University

Research Interests

Number theory, automorphic forms, arithmetic geometry.

Publications / Preprints

1. The regularity of difference divisors. *Mathematische Annalen*. 2024. <https://doi.org/10.1007/s00208-024-02950-5>
2. Arithmetic Siegel–Weil formula on $\mathcal{X}_0(N)$. To appear in *Algebra & Number theory*. [arXiv:2304.10696](https://arxiv.org/abs/2304.10696).
3. Arithmetic Siegel–Weil formula on $\mathcal{X}_0(N)$: singular terms. submitted. [arXiv:2401.06368](https://arxiv.org/abs/2401.06368).
4. Intersections of Hecke correspondences on modular curves (joint work with Qiao He). submitted. [arXiv:2502.19600](https://arxiv.org/abs/2502.19600)
5. Weighted special cycles on Rapoport–Zink spaces with almost self-dual level (joint work with Qiao He and Zhiyu Zhang). submitted. [arXiv:2502.07768](https://arxiv.org/abs/2502.07768)

Selected Talks

- 2025 *Weighted special cycles on Rapoport–Zink spaces with almost self-dual level*, BICMR, Beijing.
- Intersections of Hecke correspondences on modular curves*, YMSC, Beijing.
- 2024 *Intersections of Hecke correspondences on modular curves*, The Mathematics Colloquium at Rutgers-Newark.
- The full arithmetic Siegel–Weil formula on $\mathcal{X}_0(N)$* , AIM workshop on Arithmetic intersection theory on Shimura varieties.
- 2023 *Arithmetic Siegel–Weil formula on $\mathcal{X}_0(N)$* , Number Theory seminar. University of Wisconsin – Madison, Madison.

*Expected.

Teaching

Instructor

2024 Summer	Instructor for Math S1101 Calculus I .
2024 Spring	Instructor for Math 1003 College algebra and analytic geometry .
2023 Summer	Instructor for Math S1202 Calculus IV .

Teaching Assistant

2023 Fall	Teaching assistant for Math 1103 Calculus III (two sections).
2023 Spring	Teaching assistant for Math 1102 Calculus II.
2022 Fall	Teaching assistant for Math 1102 Calculus II (two sections).
2022 Summer	Teaching assistant for Math S1102 Calculus II (two sections).
2022 Spring	Teaching assistant for Math 1102 Calculus II.
2021 Fall	Teaching assistant for Math 1001 Calculus I.

Languages

English	Fluent
Chinese	Mother tongue

Last updated: April 28, 2025