

CONTACT INFORMATION	Department of Mathematics Brown University 151 Thayer Street Providence, RI, USA	Email: zhining_wei@brown.edu weizhining.863@gmail.com Webpage: https://weizhining.github.io/ Office: Kassar House 014
EMPLOYMENT	Brown University , Providence, RI, USA Tamarkin Assistant Professor	Jul 2023 - present
EDUCATION	The Ohio State University , Columbus, OH, USA Ph.D., Mathematics. Advisor: Wenzhi Luo.	Aug 2017 - May 2023
	Nankai University , Tianjin, China B.S., Mathematics.	Sept 2013 - Jun 2017
RESEARCH INTERESTS	Number Theory and Representation Theory. In particular, I am interested in the analytic theory of automorphic forms and representations.	
PUBLICATIONS & PREPRINTS	<ol style="list-style-type: none"> 1. <i>Second moment of central values of half-integral weight modular forms and subconvexity</i> (with Steven Creech, Henry Twiss and Peter Zenz). 2025. 2. <i>Low-lying zeros of Hilbert modular L-functions weighted by powers of central L-values</i> (with Liyang Yang and Shifan Zhao). Submitted, 2025. 3. <i>Effective open image theorem and a Linnik type problem for elliptic curves.</i> (with Tian Wang). Submitted, 2025. 4. <i>Relative Trace Formula and Uniform Non-vanishing of Central L-values of Hilbert Modular Forms.</i> (with Liyang Yang and Shifan Zhao). Submitted, 2024. 5. <i>Some remarks on strong multiplicity one for paramodular forms.</i> (with Xiyuan Wang, Pan Yan and Shaoyun Yi). Submitted, 2023. 6. <i>On Möbius functions from automorphic forms and a generalized Sarnak's conjecture</i> (with Shifan Zhao). Q. J. Math, 2024. 7. <i>On distinguishing Siegel cusp forms of degree two</i> (with Shaoyun Yi). Submitted, 2022 8. <i>Generalizations of the Erdős-Kac Theorem and the Prime Number Theorem</i> (with Biao Wang, Pan Yan and Shaoyun Yi). Communications in Mathematics and Statistics, 2025 9. <i>Linear Relations of Siegel Poincaré Series and Non-vanishing of the Central Value of Spinor L-functions.</i> Journal de Théorie des Nombres de Bordeaux, 2022. 10. <i>Thesis: Sums of k-th Powers and Fourier Coefficients of Cusp forms.</i> Ramanujan Journal, 2023. 	

TALKS

1. *Low-lying Zeros of Hilbert Modular L-functions Weighted by Powers of Central L-values* Oct 5, 2025
Maine-Québec Number Theory Conference 2025
2. *Effective open image theorem and a Linnik type problem for elliptic curves* July 4, 2025
ShanghaiTech University
3. *The random matrix theory, the weighted moments and applications* Jun 15, 2025
Zhejiang University
4. *The random matrix theory, the weighted moments and applications* Jun 6, 2025
Shandong University
5. *On the Nonvanishinig of Central Values* Oct 24, 2024
9th Qilu Youth Forum at Shandong University (online)
6. *Effective open image theorem for pairs of elliptic curves* May 23, 2024
36th Automorphic Forms Workshop at Oklahoma State University
7. *Lecture on an Introduction to Siegel Modular Forms* May 20, 2024
36th Automorphic Forms Workshop at Oklahoma State University (expository lecture)
8. *Möbius disjointness for automorphic L-functions* May 15, 2024
International conference on L-functions and automorphic forms at Vanderbilt University (lightning talk)
9. *The refined strong multiplicity one for paramodular groups.* Apr 13, 2024
TORA XIII, (speed talk)
10. *Effective Open Image Theorem for pairs of elliptic curves.* Apr 9, 2024
Number Theory Seminar at Texas A&M University
11. *On Möbius functions from automorphic forms and a generalized Sarnak's conjecture.* Oct 2, 2023
Seminar in Theory and Applications of Discrete Math, Linear Algebra and Number Theory, Washington State University (online)
12. *On Möbius functions from automorphic forms and a generalized Sarnak's conjecture.* Oct 2, 2023
Algebra Seminar at Brown University
13. *The Refined Strong Multiplicity One and its Applications.* Jun 20, 2023
Chinese Academy of Sciences
14. *The Refined Strong Multiplicity One and its Applications.* Jun 16, 2023
Shandong University
15. *The Refined Strong Multiplicity One and its Applications.* Jun 9, 2023
Xiamen University
16. *The Zero Density Theorem for Rankin-Selberg L-functions and its applications.* Jan 6, 2023
Joint Mathematics Meetings, Special Session on Analytic Number Theory
17. *Linear Relations of Siegel Poincaré Series and Non-vanishing of the Central Value of Spinor L-functions.* Dec 19, 2022
Copenhagen Number Theory Seminar (online)

18. *On distinguishing Siegel cusp forms of degree two* Sep 24, 2022
 Palmetto Number Theory Series 34

19. *Linear Relations of Siegel Poincaré Series and Non-vanishing of the Central Values of Spinor L-functions* Mar 17, 2022
 34th Automorphic Forms Workshop at BYU (online)

20. *Linear Relations of Siegel Poincaré Series and Non-vanishing of the Central Values of Spinor L-functions* Nov 23, 2021
 Morningside Seminar on Number Theory at Morningside Center of Mathematics (online)

21. *Böcherer's conjecture and the Non-vanishing of Central Values* Nov 22, 2021
 HAAR (Harmonic Analysis and Automorphic Representations) Zoominar (online)

22. *Linear Relations of Siegel Poincaré Series and Non-vanishing of the Central Values of Spinor L-functions* Oct 3, 2021
 Maine-Québec Number Theory Conference (online)

23. *Linear Relations of Siegel Poincaré Series and Non-vanishing of the Central Values of Spinor L-functions* Sept 26, 2021
 PALmetto Joint Arithmetic, Modularity, and Analysis Series III (online)

TEACHING EXPERIENCE	<u>Lecturer, Department of Mathematics, Brown University</u>	
	Math 180 Multivariable Calculus	Fall 2025
	Math 1560 Number Theory [Course Webpage]	Spring 2025
	Math 420 Introduction to Number Theory [Course Webpage]	Fall 2024
	Math 520 Linear Algebra	Fall 2024
	Math 90 Single Variable Calculus, Part I	Spring 2024
	Math 100 Single Variable Calculus, Part II	Spring 2024
	Math 200 Multivariable Calculus (Physics/Engineering)	Fall 2023
<u>Recitation Instructor, Department of Mathematics, The Ohio State University University</u>		
	Math 2153 Calculus III	Fall 2021
	Math 1172 Engineering Mathematics A (online)	Spring 2021
	Math 1151 Calculus I (online)	Fall 2020
	Math 2153 Calculus III	Fall 2019
	Math 1172 Engineering Mathematics A	Spring 2019
	Math 1151 Calculus I	Fall 2018