Xiyan Zhong

Max Planck Institute for Mathematics
Vivatsgasse 7
53111 Bonn, Germany

Webpage: https://xiyan-zhong.github.io/
Email: zhongx@mpim-bonn.mpg.de

Research Interests

Geometric group theory, mapping class groups, moduli space of curves.

Employment

Max Planck Institute for Mathematics — Bonn, Germany
Mentor: Ursula Hamenstädt — 08/2025-

Education

University of Notre Dame — South Bend, IN
Ph.D. in Mathematics — 08/2020-
Advisor: Andrew Putman — 05/2025

Peking University — Bejing, China
B.S. in Mathematics — 07/2020
Advisor: Yi Liu

Papers

5. *Rigidity of the period mapping up to finite regular covers.* Preprint. — arXiv: 2608.29351

4. *Abelianization of symmetric mapping class groups.* Preprint. — arXiv: 2607.24271

3. *Stable cohomology of universal character varieties.* Joint with Ishan Banerjee, Faye Jackson, Anne Larsen, and Sam Payne. Preprint. — arXiv: 2512.13879

2. *Linear representations of the mapping class group of dimension at most 3g-3.* Joint with Julian Kaufmann, Nick Salter, and Zhong Zhang. To appear in Algebraic Geometry and Topology. — arXiv: 2507.11365

1. *Prym representations and twisted cohomology of the mapping class group with level structures.* Geometry and Topology 30-1 (2026), 155–202. — source

Research Talks

TBA

Conference "Topology and Number Theory" at CIRM — 02/2027
HSM Special Topic School in Bonn — 03/2027
Conference "Mapping Class Groups: from Geometry to Algebra via Topology" at the Institut Henri Poincaré — 04/2027

Rigidity of the period mapping up to finite regular covers

No Boundaries seminar at the University of Chicago — 11/2026
NRW Topology Meeting in Münster — 06/2026
Topology Seminar at the University of Copenhagen — 05/2026
MPIM Oberseminar — 04/2026

Prym representations and twisted cohomology of the mapping class group with level structures

Geometric Group Theory Seminar at the University of Bonn — 01/2026
Conference on Discrete Groups in Topology and Algebraic Geometry at the University of Notre Dame — 06/2025

	Workshop on Mapping Class Groups in Tokyo	05/2025
	58th Spring Topology and Dynamics Conference	03/2025
	AMS Special Session on "Cohomology of Arithmetic Groups, Mapping Class Groups, and Moduli Spaces"	01/2025
	Geometry and Topology Research Seminar at Georgia Tech	11/2024
	Topology Students Workshop at Vanderbilt University	06/2024
	Notre Dame Graduate Student Seminar	02/2024
Expository Talks	*An introduction to mixed Hodge structures*	
	Reading Seminar at the University of Bonn	06/2026
	Introduction to arithmetic groups	
	Reading Seminar at the University of Bonn	11/2025
	The Teichmüller Space of a Surface	
	Notre Dame Graduate Student Seminar	03/2023
	Mini-course on *Homological Stability of Mapping Class Groups*	
	Notre Dame Graduate Student Topology Seminar	09/2022
	Applications of PL Morse theory on finiteness properties of groups	
	Notre Dame Graduate Student Topology Seminar	12/2021
	Correspondence between groups and actions on trees	
	Notre Dame Graduate Student Topology Seminar	11/2020
Organize	Notre Dame Graduate Student Topology Seminar	Fall 2022
Teaching Experience	Teaching Assistant, Linear Algebra and Differential Equations	Spring 2025
	Instructor, Calculus A	Fall 2023
	Teaching Assistant, Calculus III	Spring 2023
	Teaching Assistant, Calculus II	Fall 2022
	Teaching Assistant, Calculus III	Spring 2022
	Teaching Assistant, Calculus A	Fall 2021
	Teaching Assistant, Mathematical Analysis II (Peking University)	Spring 2020
	Teaching Assistant, Mathematical Analysis I (Peking University)	Fall 2019
Undergraduate Research	*The image of the Johnson homomorphism for all compact surfaces*	Summer 2019
	University of Oklahoma, advised by Justin Malestein	
Awards	The Richard Sady Dissertation Prize	2025
	Honorable Mention in Alibaba Global Mathematics Competition	2022
	Undergraduate Research Fellowship at Peking University	2020
	Academic Scholarship at Peking University	2016-2019