

Zeyu Wang

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🌐 <https://zeyuw42.github.io>

Mathematical Interests

I work in geometric representation theory and number theory, with a particular interest in the relative geometric Langlands program and its applications to number theory.

Education

- 2023–Present **Ph.D. in Mathematics**, *Massachusetts Institute of Technology*
Advisor: Zhiwei Yun
- 2019–2023 **B.S. in Mathematics**, *Peking University*
Thesis advisor: Liang Xiao

Awards

- 2023 Weiming Bachelor, Peking University
- 2022 Gold Medal in the Team Competition, 13th S.-T. Yau College Student Mathematics Contest
- 2022 Gold Medal in Algebra, Number Theory and Combinatorics, 13th S.-T. Yau College Student Mathematics Contest
- 2018 Gold Medal, 59th International Mathematical Olympiad

Publications and Preprints

- Preprint *Arithmetic Volume of Shtukas and Langlands Duality*, joint with Wenqing Wei. arXiv:2604.03763.
- Preprint *Special Cycles on Shtukas and Categorical Trace*. arXiv:2509.05526.
- Preprint *Higher Period Integrals and Derivatives of L-functions*, joint with Shurui Liu. arXiv:2504.00275.
- Appendix Appendix to Guodong Xi and Weixiao Lu, *On the Relative Langlands Duality for $Sp_{2n} \backslash GL_{2n+1}$* . arXiv:2504.18774.

Invited and Conference Talks

- Oct. 2026 **AMS Sectional Meeting**, *University of Washington*
- Aug. 2026 **The Gross–Zagier Formula, 40 Years Later**, *Massachusetts Institute of Technology*
- Jul. 2026 **8th Nisyros Conference on Automorphic Representations and Related Topics: Euler Systems**, *Nisyros Island, Greece*
- Mar. 2026 **AMS Sectional Meeting**, *Boston College*
- Mar. 2026 **Geometry, Symmetry, and Physics seminar**, *Yale University*

- Feb. 2026 **Around the Langlands Program**, *Centre International de Rencontres Mathématiques, Marseille, France*
- Jan. 2026 **Relative Langlands Program**, *National University of Singapore*
- Nov. 2025 **RTG Seminar in Arithmetic Geometry and Number Theory**, *University of California, Berkeley*
- Oct. 2025 **Lie Group Seminar**, *Massachusetts Institute of Technology*
- Sep. 2025 **Number Theory Seminar**, *Johns Hopkins University*
- Jul. 2025 **Beijing-Shanghai Summer School in Mathematics**, *Shanghai Institute for Mathematics and Interdisciplinary Sciences*
- Apr. 2025 **Representation Theory Seminar**, *University of Chicago*