Curriculum Vitae

Zeyu Wang

Mathematical Interests

I am interested in geometric representation theory, number theory, and algebraic geometry. Currently, I am working towards understanding intersection number of special cycles on the moduli of shtukas via (relative) geometric Langlands.

Advisor

Zhiwei Yun

Education

2019-2023, B.S. in Mathematics, Peking University.
2023-current, Ph.D. in Mathematics, Massachusetts Institute of Technology.

Awards

2018, **Gold Medal**, 59th International Mathematical Olympiad.
2022, **Gold Medal**, *Algebra, Number Theory and Combinatorics*, 13th S.-T.Yau college students mathematics contest.
2022, **Gold Medal**, *Team Medals*, 13th S.-T.Yau college students mathematics contest.

Prepublications

(with Shurui Liu) Higher Period Integrals and Derivatives of L-functions, in preparation.

Research Talks

May 2025, *Higher Derivatives of L-functions via Rankin-Selberg convolution*, at UChicago Representation Theory Seminar.
July 2025, *Higher Derivatives of L-functions via Rankin-Selberg convolution*, at Shanghai Institute for Mathematics and Interdisciplinary Sciences.

Conferences

2021, *Summer School on Theta Correspondence*, Suzhou University.
2021, *Summer School on Algebraic Geometry*, Fudan University.
2022, *Arizona Winter School: Automorphic Forms Beyond GL(2)*, Virtual Participant.
2022, *IHES Summer School on the Langlands Program*, Virtual Participant.
2023, *Summer School on Geometric Representation Theory and Applications*, Tsinghua University.

2023, *Workshop on Geometric Representation Theory and Moduli Spaces*, University of North Carolina at Chapel Hill.

2023, *Monodromy and Applications*, Princeton University.

2024, *Relative Langlands Duality*, University of Minnesota Twin Cities.

2024, *The Los Angeles Workshop on Representations and Geometry*, University of South California.

2024, *Clay Mathematics Institute Workshop, New Advances in the Langlands Program: Geometry and Arithmetic*, University of Oxford.

2024, *Representation Theory Days*, MIT.

2025, *Arizona Winter School: p-adic Groups*, University of Arizona.

2025, *Beijing-Shanghai Summer School in Mathematics*, Shanghai Institute for Mathematics and Interdisciplinary Sciences.

Seminar Talks

2022, *Vector Bundles on the Fargues-Fontaine Curve*, Peking University.

2022, *Intersection Theory*, seminar talk, Peking University.

2022, *Intersection Numbers on Deligne-Lusztig Varieties*, Peking University.

2022, *Locally Analytic Representations*, Peking University.

2022, *Non-abelian Hodge via Moduli Spaces*, Peking University.

2022, *Positive Characteristic Approach to the P=W Conjecture*, Peking University.

2023, *Excursion Operators*, Peking University.

2023, *Fargues' Conjecture*, Peking University.

2023, *Integral Hecke Operators*, Peking University.

2023, *Dual Group of Spherical Varieties*, Harvard University.

2023, *Smooth representations of $GL_n(\mathbb{Q}_p)$*, MIT.

2024, *Wakimoto modules*, MIT.

2024, *Irreducible Components of Affine Deligne-Lusztig Varieties*, MIT.

2024, *Proof of the Arithmetic Inner Product Formula*, MIT.

2025, *Coherent Springer Theory*, MIT.