Pengcheng Zhang

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EDUCATION

Max Planck Institute for Mathematics   Bonn, Germany
Doctoral student, supervised by Don Zagier   Jan 2022–present

St John's College, University of Oxford   Oxford, UK
Master of Mathematics in Mathematics   Oct 2017–Jun 2021

RESEARCH VISIT

Lousiana State University   Baton Rouge, US
Hosted by Ling Long   29 Mar – 4 Apr, 2025

The Abdus Salam International Centre for Theoretical Physics   Trieste, Italy
Hosted by Vasily Golyshev and Don Zagier   30 Jun–8 Jul, 2024

The University of Hong Kong   Hong Kong, China
Hosted by Ben Kane   19–23 Feb, 2024

SUSTech International Center for Mathematics   Shenzhen, China
Hosted by Don Zagier   22 Nov–17 Dec, 2021

PUBLICATIONS AND PREPRINTS

[1] Pengcheng Zhang. *The 2-complexity of even positive integers.* Integers, 24:Paper No. A109, 11, 2024.

[2] Benjamin Bedert, George Cooper, Thomas Oliver, and Pengcheng Zhang. *Twisting moduli for* GL(2). J. Number Theory, 217:142–162, 2020.

[3] Pengcheng Zhang. *On converse theorems for Hilbert modular forms assuming unramified twists.* preprint.

[4] Tian Wang and Pengcheng Zhang. *Ordinary primes for* GL_2-*type abelian varieties and weight* 2 *modular forms.* preprint.

TALKS IN RESEARCH SEMINARS/CONFERENCES

- *Coefficients of modular forms modulo (powers of) primes* in Participative Learning Seminar on Any Number Theory (PLeaSANT) at Max Planck Institute for Mathematics   26 May, 2025
- *Elliptic curves and coefficients of meromorphic modular forms* in Oberseminar Zahlentheorie at University of Cologne   14 Apr, 2025
- *Ordinary primes of weight* 2 *modular forms* in the South Regional Number Theory Conference 2025 at Louisiana State University   29 Mar, 2025
- *Elliptic curves and coefficients of meromorphic modular forms* in Oberseminar Anlytic Number Theory and Automorphic Forms at University of Bonn   21 Nov, 2024

- *Converse theorems for Hilbert modular forms* in the 36th Automorphic Forms Workshop at Oklahoma State University $\hfill$ 23 May, 2024
- *A converse theorem for Hilbert modular forms* in Oberseminar Anlytic Number Theory and Automorphic Forms at University of Bonn $\hfill$ 9 Nov, 2023
- *Converse theorems for automorphic forms* in St John's College Mathematics Seminar at St John's College, University of Oxford (with Benjamin Bedert) $\hfill$ 5 Mar, 2020

Talks in learning seminars/study groups

- *Hecke operators on p-adic modular forms* in the IMPRS Seminar on modular forms at Max Planck Institute for Mathematics $\hfill$ 19 Nov, 2024
- *Orthogonal groups and their symmetric spaces* in the Study Group on Rigid Meromorphic Cocycles for Orthogonal Groups at Max Planck Institute for Mathematics $\hfill$ 24 Oct, 2024
- Several talks in Exponential Sum Learning Seminar at Max Planck Institute for Mathematics $\hfill$ 17 Nov, 15 Dec, 2023, and 12 Jan, 2024
- *L-functions and/in Selberg Class* in the IMPRS Seminar on L-functions at Max Planck Institute for Mathematics $\hfill$ 24 Jan, 2023

Conferences, Workshops, Research Schools Attended

- **Southern Regional Number Theory Conference 2025** at Louisiana State University $\hfill$ 29–30 Mar, 2025
- **The Legacy of John Tate, and Beyond** at Harvard University $\hfill$ 17–21 Mar, 2025
- **Arithmetic Geometry in Shenzhen** at Southern University of Science and Technology $\hfill$ 16–20 Dec, 2024
- **New Advances in the Langlands Program: Geometry and Arithmetic** at University of Oxford $\hfill$ 30 Sep–4 Oct, 2024
- **School on Hodge Theory and Shimura Varieties** at University of Duisburg-Essen $\hfill$ 23–27 Sep, 2024
- **Conference on Arithmetic Geometry** at Max Planck Institute for Mathematics $\hfill$ 22–26 Jul, 2024
- **Modular Forms, L-functions, and Eigenvarieties** at École Normale Supérieure $\hfill$ 18–21 Jun, 2024
- **The 36th Automorphic Forms Workshop** at Oklahoma State University $\hfill$ 20–24 May, 2024
- **Shanks Conferences on L-functions and Automorphic Forms** at Vanderbilt University $\hfill$ 13–16 May, 2024
- **Periods in Physics, Number Theory and Algebraic Geometry** at Hausdorff Research Institute for Mathematics $\hfill$ 22–26 Apr, 2024
- **International Conference on Modular Forms and q-Series** at University of Cologne $\hfill$ 11–15 Mar, 2024
- **Modular Curves and their Arithmetic** at University of Warwick $\hfill$ 6–8 Dec, 2023
- **MM(P): Mahler Measures of Polynomials** at Radboud University Nijmegen $\hfill$ 24–27 Oct, 2023
- **Modular Forms and Arithmetic Geometry** at TU Darmstadt $\hfill$ 18–22 Sep, 2023
- **Young Number Theorists in Bonn** at at Max Planck Institute for Mathematics $\hfill$ 11–15 Sep, 2023
- **Arithmetic of automorphic forms** at Laboratoire de Mathématiques d'Orsay $\hfill$ 4–8 Sep, 2023
- **Early Number Theory Researchers Workshop 2023** at University of Bielefeld $\hfill$ 23–25 Aug, 2023
- **Summer School on the Arithmetic of the Langlands Program** at University of Bonn $\hfill$ 8–12 May, 2023
- **Arithmetic Statistics, Automorphic Forms, and Ergodic Methods** at Max Planck Institute for Mathematics $\hfill$ 24–28 Apr, 2023
- **Special values of L-functions** at Paderborn University $\hfill$ 13–17 Mar, 2023
- **Conference on Motives and Automorphic Forms** at Max Planck Institute for Mathematics $\hfill$ 6–10 Mar, 2023
- **Number theory meets p-adic representations** at University of Münster $\hfill$ 13–17 Feb, 2023
- **Luxembourg Number Theory Day 2022** at University of Luxembourg $\hfill$ 16 Dec, 2022
- **Early Number Theory Researchers Workshop 2022** at TU Darmstadt $\hfill$ 26–28 Oct, 2022

Other Experiences

- Senior Counselor at Ross Mathematics Program (Ross/Asia) in Huangshan, China   9 Jul–10 Aug, 2018
- Junior Counselor at Ross Mathematics Program (Ross/Asia) in Huangshan, China   10 Jul–11 Aug, 2017

Languages

Chinese (native), English (fluent)