

EDUCATION

Max Planck Institute for Mathematics

Doctoral student, supervised by Don Zagier

Bonn, Germany

Jan 2022–present

St John's College, University of Oxford

Master of Mathematics in Mathematics

Oxford, UK

Oct 2017–Jun 2021

RESEARCH VISIT

Lousiana State University

Hosted by Ling Long

Baton Rouge, US

29 Mar – 4 Apr, 2025

The Abdus Salam International Centre for Theoretical Physics

Hosted by Vasily Golyshev and Don Zagier

Trieste, Italy

30 Jun–8 Jul, 2024

The University of Hong Kong

Hosted by Ben Kane

Hong Kong, China

19–23 Feb, 2024

SUSTech International Center for Mathematics

Hosted by Don Zagier

Shenzhen, China

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 in 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 Analytic 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 23 May, 2024
- *A converse theorem for Hilbert modular forms* in Oberseminar Analytic Number Theory and Automorphic Forms at University of Bonn 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) 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 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 24 Oct, 2024
- Several talks in Exponential Sum Learning Seminar at Max Planck Institute for Mathematics 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 24 Jan, 2023

CONFERENCES, WORKSHOPS, RESEARCH SCHOOLS ATTENDED

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