Pengcheng Zhang

Email: pzhang@mpim-bonn.mpg.de
Address: Max Planck Institute for Mathematics
Vivatsgasse 7
53111 Bonn
Germany

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

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.* to appear in Integers.

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

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

Talks in research seminars/conferences

- *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   23 May, 2024
- *A converse theorem for Hilbert modular forms* in Oberseminar Anlytic 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

- **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)