Arshay Sheth

Education

2021–2025 University of Warwick,

PhD in Mathematics.

Supervisor: Prof. David Loeffler.

2019–2021 Leiden University & University of Regensburg,

M.Sc. in Mathematics, Summa Cum Laude .

Algebra, Geometry and Number Theory (ALGANT) program

Master's thesis advisor: Prof. Johannes Sprang.

2015–2019 National University of Singapore,

B.Sc.(Hons) in Mathematics. Honours with Highest Distinction

Undergraduate thesis advisor: Prof. Wee Teck Gan .

Research visits

May 2024 Université Sorbonne Paris Nord, Host: Dr. Matteo Tamiozzo

Papers and preprints

- 2024 Euler Products at the Centre and Applications to Chebyshev's Bias, preprint, arXiv:2405.01512
- 2024 Control Theorems for Hilbert Modular Varieties, preprint, arXiv:2403.04738
- 2023 Euler Product Asymptotics for L-functions of Elliptic Curves, preprint, arXiv:2312.05236

Awards & Scholarships

- March 2024 Nominated for the 2024 Warwick Awards for Teaching Excellence.
 - Feb. 2023 Nominated for the 2023 Warwick Awards for Teaching Excellence.
 - 2021-2025 **European Research Council (ERC) Scholarship**, (part of Prof. David Loeffler's ERC grant 'Shimura Varieties and the Birch–Swinnerton-Dyer Conjecture').
 - 2020-2021 **ALGANT Scholarship**, awarded by the ALGANT consortium for master's studies in the ALGANT program.
 - 2015 Innovation in Science Pursuit for Inspired Research (INSPIRE) Scholarship, awarded by the Ministry of Science & Technology, Government of India (not availed).

Talks at research seminars and conferences

- August 2022 *p*-adic variation of the Asai–Flach Euler system, Number Theory seminar, Indian Institute of Science, Bengaluru, India.
 - June 2022 *p*-adic variation of the Asai–Flach Euler system, Summer School on Motives and Arithmetic Groups, Strasbourg, France.
- March 2022 *p*-adic variation of Euler systems, London Junior Number Theory seminar, Kings College London, London, UK.

Teaching

- Jan-March Teaching Assistant for the courses MA3E1 *Groups and Representations* and MA426 *Elliptic Curves* 2024 at the University of Warwick.
- Oct-Dec 2023 Teaching Assistant for the courses MA3D5 *Galois Theory* and MA4L6 *Analytic Number Theory* at the University of Warwick.
 - Jan-March Teaching Assistant for the courses MA3D5 *Galois Theory* and MA426 *Elliptic Curves* at the 2023 University of Warwick.
- Oct-Dec 2022 Teaching Assistant for the courses MA3A6 *Algebraic Number Theory* and MA4L6 *Analytic Number Theory* at the University of Warwick.
 - Jan-March Teaching Assistant for the course MA257 *Introduction to Number Theory* at the University of 2022 Warwick.
- Oct-Dec 2021 Teaching Assistant for the course MA3A6 Algebraic Number Theory at the University of Warwick.

Conferences attended

- March 2023 **Spring School on Non-Archimedean Geometry & Eigenvarieties**, *Universität Heidelberg*, Heidelberg, Germany.
 - Sep 2022 **Elliptic curves and modular forms in arithmetic geometry**, *Università degli Studi di Milano*, Milan, Italy.
 - Sep 2022 **School on Arithmetic Geometry**, *Universität Duisburg-Essen*, Essen, Germany.
 - Aug 2022 **Elliptic curves and the special values of** *L***-functions**, *International Centre for Theoretical Sciences (ICTS)*, Bengaluru, India.
 - July 2022 ICM Sectional Workshop on Number Theory and Algebraic Geometry, ETH Zürich, Zürich, Switzerland.
 - June 2022 **Galois Representations, Automorphic Forms and L-Functions**, *Centre International de Rencontres Mathématiques*, Marseille, France.
 - June 2022 **Summer School on Motives and Arithmetic Groups**, *Institut de recherche mathématique avancée*, Strasbourg, France.
 - Aug 2021 **Elliptic curves and the special values of** *L***-functions**, *International Centre for Theoretical Sciences (online)*.
 - Sep 2020 Virtual Heidelberg Laureate Forum, Traversing Separation.
 - July 2019 **HKU International Conference of Undergraduate Research in Science**, *University of Hong-Kong*, Hong-Kong.

Languages

Gujarati (mother tongue), English (fluent), Hindi (fluent), Sanskrit (basic).

Hobbies

Tennis, Indian classical music (harmonium and tabla), reading.