

Rong Zhou

RESEARCH INTERESTS

Arithmetic Geometry and Number Theory.

EMPLOYMENT

- Assistant Professor (University Lecturer)–University of Cambridge. July 2020–present.
- Research Associate–Imperial College London. January 2020–June 2020.
- Gibbs Assistant Professor–Yale University. Fall 2019.
- Member–Institute for Advanced Study. 2017–2019.

EDUCATION

Harvard University

Ph.D. in Mathematics 2012– 2017

- Dissertation Topic: Mod p isogeny classes on Shimura varieties with parahoric level structure
- Advisor: Mark Kisin

University of Cambridge

B.A. in Mathematics, 2008– 2011

- First class all three years. Final mark: 100/100 (Second Wrangler)
- M.Math in Mathematics (Part III), 2011– 2012
- Graduated with Distinction

PAPERS/PUBLICATIONS

X. He, R. Zhou, Y. Zhu *Stabilizers of irreducible components of affine Deligne–Lusztig varieties*, submitted

R. Zhou. and M. Kisin, *Independence of ℓ for Frobenius conjugacy classes attached to abelian varieties*, submitted

R. Zhou *Isogeny classes in Shimura varieties with absolutely special level structure*, Appendix to *Mod p points on Shimura varieties of parahoric level* by P. Van Hoften.

R. Zhou, *Motivic cohomology of quaternionic Shimura varieties and level raising*, **Ann. Sci. École Norm. Sup.**, to appear.

R. Zhou and Y. Zhu, *Twisted orbital integrals and irreducible components of affine Deligne Lusztig varieties*. **Cambridge Journal of Math.** 8 (2020), no. 1, pp. 149–241

R. Zhou *Mod p isogeny classes on Shimura varieties with parahoric level structure* **Duke Math. J.** 169 (15), 2937–3031

X. He and R. Zhou, *On the connected components of affine Deligne–Lusztig varieties* *Duke Math. J.* 169 (14), 2697–2765 A. Shankar and R. Zhou, *Serre–Tate theory for Hodge-type Shimura varieties*. **Math. Z.** 297,1249–1271 (2021)

K. Ascher, K. Dasaratha, A. Perry, R. Zhou *Derived equivalences and rational points on K3 surfaces* Proceedings of the AIM workshop: Brauer groups and obstruction problems: moduli spaces and arithmetic

| | | |
|---------------------|---|---|
| AWARDS | 2020 | ICCM Best Paper Award–Gold Medal. |
| | 2019 | New World Mathematics Prize–Gold Award. |
| | 2016-2017 | Merit Research Fellowship (Graduate School of Arts and Sciences, Harvard University) |
| INVITED TALKS | 2020: Princeton, London, Cambridge, University of Chicago, Northwestern, Rice University | |
| | 2019: University of Maryland, AMS Special session, Yale ($\times 2$), Harvard, Columbia, | |
| | 2018: University of Minnesota, Princeton ($\times 2$), | |
| | 2017: University of Maryland, Johns Hopkins, Brown, Columbia, Yale, University of Chicago, Northwestern, | |
| | 2016: Caltech, Harvard, NCTS conference on Shimura varieties, | |
| | 2015: University of Maryland, | |
| TEACHING EXPERIENCE | Michaelmas | 2020 Part III course on Local Fields. |
| | Fall | 2019 Math112, Calculus of functions in one variable. |
| | Spring | 2016 Teaching Fellow, Math21b, Linear Algebra. |
| | Fall | 2014 Teaching Fellow, Math99x, Tutorial: Complex multiplication of Elliptic curves (with Yihang Zhu). |
| | Fall | 2014 Course Assistant, Math233a, Theory of Schemes. |
| | Fall | 2013 Teaching Fellow, Math1a, Introduction to calculus. |
| SERVICE | Referee for the following journals: | |
| | <ul style="list-style-type: none"> • JAMS, Inventiones, Algebra and Number Theory, Asterisque, Forum of Math. Sigma, Math. Ann, Advances in Math., Math. Z., Canadian Journal of Math. | |
| PERSONAL | Date of Birth: 01/18/1990 | |
| | Nationality: United Kingdom | |