Rong Zhou

RESEARCH INTERESTS	Arithmetic Geometry and Number Theory.

EMPLOYMENT

- Associate Professor–University of Cambridge. September 2023-present.
- Assistant Professor (University Lecturer)–University of Cambridge. July 2020-2023.
- Resarch 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 – St John's College

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

G. Pappas, R. Zhou, *On the smooth locus of affine Schubert varieties*, preprint.

X. He, R. Zhou, Y. Zhu *Stabilizers of irreducible components of affine Deligne–Lusztig varieties*, **Journal of the European Mathematical Society,** to appear

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

GRANTS AND AWARDS		
2022	ERC Starting Grant 2023-2028 (€1,127,478). (Grant agreement preparation terminated due to the UK's non-association to Horizon Europe–will be funded by UKRI instead.)	
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

2023: Oberwolfach; Berkeley; MSRI; Conference on Global Langlands, Shimura varieties, and shtukas, Bonn; Rapoport's 75th Birthday conference,Münster.

2022: London.

2021: Warwick.

2020: Princeton; London; Cambridge; University of Chicago; Northwestern; Rice University.

2019: University of Maryland; AMS Special session; Yale ($\times 2$); Harvard; Columbia.

2018: Uiversity 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: Universty of Maryland.

STUDENT SUPERVISION

2021, 2022: Yan Yau Cheng, Gabriel Corrigan, Chester Smith (Summer Research for undergraduates)
2020-2023: Supervised 14 Part III Essays (Master's dissertation)

TEACHING

Lent	2022,23	IB Groups, Rings and Modules.
Mich.	2021	Supervisor for IB Linear Algebra.
Mich.	2020,21,22	Part III 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:
- JAMS, Inventiones, Asterisque, GAFA, Crelle, Algebra and Number Theory, Math. Ann, Advances in Math., Math. Z., Canadian Journal of Math.

Seminars organized:
- Princeton/IAS Number Theory Seminar: 2018-19.
- Cambridge Number Theory Seminar: 2020-present.
- Various study groups and learning seminars.

PERSONAL   Date of Birth: 01/18/1990