

# Zicheng QIAN

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## Education and Employment

- Postdoctoral Fellow, Mathematics, University of Toronto, Canada, September 2019–present.
  - Mentor: Florian Herzig.
- Ph.D. Mathematics, Université Paris Saclay (Orsay), France, September 2016–June 2019.
  - Advisor: Christophe Breuil.
  - Thesis:  $p$ -adic and mod  $p$  local-global compatibility for  $\mathrm{GL}_n(\mathbf{Q}_p)$ .
- Diplôme de l'ENS, Mathematics, Ecole Normale Supérieure de Paris (Rue d'Ulm), Sélection Internationale, France, September 2013–June 2016.
- Master 2, Mathematics, Sorbonne Université (Jussieu), France, September 2014–June 2015.
- Master 1, Mathematics, Sorbonne Université (Jussieu), France, September 2013–June 2014.
- Bachelor of Mathematics, School of the Gifted Young, University of Science and Technology of China, China, September 2010–June 2014.

## Personal

- Chinese citizen, born 23 March 1996.

## Research Interests

- Moduli of local Galois representations and  $p$ -adic Hodge theory.
- Mod  $p$  and  $p$ -adic local Langlands program.
- Modular representations of finite and  $p$ -adic reductive groups.
- Locally analytic representations of  $p$ -adic reductive groups.

## Publications and preprints

- *Moduli of Fontaine–Laffaille modules and a mod  $p$  local-global compatibility result*, (with Daniel Le, Bao Viet Le Hung, Stefano Morra and Chol Park), 169 pages.
- *Dilogarithm and Higher  $\mathcal{L}$ -invariants for  $\mathrm{GL}_3(\mathbf{Q}_p)$* , Represent. Theory 25 (2021), 344-411.
- *On mod  $p$  local-global compatibility for  $\mathrm{GL}_n(\mathbf{Q}_p)$  in the ordinary case* (with Chol Park), 111 pages, accepted by Mémoires de la S.M.F.

## Invited Talks

- Mini course on the moduli of Fontaine–Laffaille modules, Université Sorbonne Paris Nord, January, 2021.
- Mini course on the theory of smooth representations for  $p$ -adic reductive groups, Ulsan National Institute of Science and Technology, June 22<sup>nd</sup> – July 2<sup>nd</sup>, 2020.
- International Congress of Chinese Mathematicians, Beijing, June 9<sup>th</sup> – 14<sup>th</sup>, 2019.
- $p$ -adic Langlands correspondence and Iwasawa theory, Université de Lille, April 24<sup>th</sup> – 26<sup>th</sup>, 2019.
- Summer School on Number Theory, Beijing international center for Mathematical research, August 13<sup>th</sup> and 15<sup>th</sup>, 2018, *mod  $p$  local-global compatibility for  $\mathrm{GL}_n(\mathbf{Q}_p)$  in the Fontaine-Laffaille case*.