# Zhixiang Wu

# Curriculum Vitae

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#### Research Interests

Algebraic number theory, representation theory Automorphic forms and Galois representations p-adic Langlands program

## Positions

2022-now **Postdoc**, Mentor: Eugen Hellmann, Universität Münster, Münster.

## Education

- 2019–2022 **Phd in mathematics,** Thesis advisor: Benjamin Schraen, Université Paris-Saclay, Orsay.
- 2018–2019 Master(M2) in Arithmétique, Analyse, Géométrie, Université Paris-Sud, Orsay.
- 2014–2018 Bachelor of Science in Pure and Applied Mathematics, Tsinghua University, Beijing.

# Papers

- 1. A note on presentations of supersingular representations of  $GL_2(F)$ . manuscripta math. 165, 583-596 (2021).
- 2. Local models for the trianguline variety and partially classical families. Annales scientifiques de l'École normale supérieure, vol. 57-3 (2024), 615-711.
- 3. Companion points on the eigenvariety with non-regular weights. International Mathematics Research Notices, 2023(9):8008–8032, 2023.
- 4. Geometric translations of  $(\varphi, \Gamma)$ -modules for  $GL_2(\mathbb{Q}_p)$ . 2024.
- 5. Bernstein-Zelevinsky duality for locally analytic principal series representations (with Matthias Strauch). 2025.

#### Talks

- 20/09/2024 The Early Number Theory Researchers Workshop 2024, Essen
- 25/05/2024 p-adic day, Beijing
- 09/04/2024 Mittagsseminar zur Arithmetik, Münster
  - 08/2023 Mini-course on categorical p-adic Langlands program, Beijing
- 17/08/2023 Mini-conference on p-adic Langlands program, Beijing
- 31/01/2023 Mittagsseminar zur Arithmetik, Münster
- 15/02/2022 Algebra Number theory seminar at University of Arizona, online
- 14/12/2021 Journées Arithmétique du LAGA, Villetaneuse
- 01/06/2021 Séminaire Arithmétique et Géométrie Algébrique, Orsay
- 19/04/2021 UCLA Number Theory Seminar, online.

- 13/04/2021 University of Münster, online.
- 07/04/2021 POINTS Peking Online International Number Theory Seminar, online.
- 23/11/2020 Paris-London Number Theory Seminar, online.
- 30/11/2019 Séminaire MathJeunes, Jussieu, Paris.

# Teaching

- Aut. 2024 Exercise session of Algebraic Number Theory, Münster
- Spr. 2024 Exercise session of Algebraic Geometry II, Münster
- Aut. 2023 Exercise session of Algebraic Geometry I, Münster
- Spr. 2023 Exercise session of Smooth Representations of p-adic Groups, Münster
- Aut. 2021 TD of Math 1: Calculus, Université Paris-Saclay, Orsay

### Services

- Reviewer zbMATH, MathSciNet
  - Referee manuscripta mathematica, Peking Mathematical Journal, Indagationes Mathematicae, Astérisque, Journal of Number Theory
- Spr. 2024 Organizer of Mittagsseminar zur Arithmetik, Münster
- 2020-2022 Co-organizer of Mathjeunes seminar, Paris

# Experience

- 08/2023 Visiting researcher, Peking University, Beijing
- 05/2023 Trimester Program: The Arithmetic of the Langlands Program, Hausdorff Research Institute for Mathematics, Bonn
- Spr. 2018 Exchange program of Ecole Normale Superieure, Ecole Normale Superieure, Paris. Undergraduate thesis supervisor: Jean-François Dat
- 2018-2019 Master scholarship of The Mathematics Foundation Jacques Hadamard (FMJH)
  - 08/2017 S.T.Yau college student mathematics contests, Silver Prize in Algebra and Number Theory.
- 2015-2018 Tsinghua Xue Tang Ban Program in Mathematics.

## ■ Skills & Languages

- Skills C/C++, Matlab, Mathematica, SageMath, Macaulay2, LATEX
- Languages Chinese, English, French(basic)