

# Zhixiang Wu

## Curriculum Vitae

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📄 [wzxmath.github.io](https://wzxmath.github.io)

### 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

16/05/2025 Workshop on Frontiers in Number Theory, Tianyuan Center for International Exchange in Mathematics, Kunming  
06/05/2025 Seminar Darstellungstheorie, Wuppertal  
25/04/2025 Seminar on Arithmetic Geometry, TU Darmstadt  
01/04/2025 ANR COLOSS conference "Arithmetic and geometry of locally symmetric spaces", Lyon  
25/03/2025 2025 Lyon-Tokyo conference Number Theory and Arithmetic Geometry, Lyon  
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 Mittagseminar 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

Spr. 2024 Exercise session of Linear Algebraic Groups, Münster  
 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 Mittagseminar 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 Supérieure, Ecole Normale Supérieure, 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,  $\text{\LaTeX}$   
 Languages Chinese, English, French(basic)