

Curriculum Vitae

Zhenghui Li

PERSONAL INFORMATION

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POSITION

09/2026-07/2027 **Postdoctoral fellow:** Institute for Advanced Study.
Supervisor: Prof. Bhargav Bhatt.

EDUCATION

10/2022-06/2026 **Ph.D in Mathematics**
Sorbonne Université
Thesis: Syntomic cohomology and arithmetic applications
Thesis director: Prof. Wiesława Nizioł.

10/2020-06/2022 **Master in Mathematics** ALGANT Master Program
Université de Bordeaux, France (2021-2022)
Universität Regensburg, Germany (2020- 2021)
Thesis: The Fargues-Fontaine Curve.
Thesis directors: Prof. Denis Benois & Prof. Wiesława Nizioł

09/2016-06/2020 **Bachelor in Science**
Nanjing University, China
Thesis: On Taniyama-Shimura Conjecture.
Thesis director: Prof. Chuangxun Cheng

ARTICLES

- 1 On p -torsions of geometric Brauer groups (with Yanshuai Qin), preprint arxiv 2406.19518.
- 2 Duality for arithmetic p -adic pro-étale cohomology of analytic spaces, preprint arxiv 2412.11786.
- 3 F -isocrystals of higher direct images of p -divisible groups (with Yanshuai Qin), preprint arxiv 2506.11736.
- 4 Locally analytic vectors in the completed cohomology of quaternionic Shimura curves (with Benchao Su, Zhixiang Wu), preprint arxiv 2601.13625.

INVITED TALKS

- 2024 Séminar Mathjuene: Poincaré duality for p -adic étale cohomology of rigid analytic varieties.
Nanjing University: Poincaré duality for p -adic étale cohomology of Stein spaces and p -adic Langlands program.
- 2025 IMJ-PRG number theory seminar: Arithmetic duality of p -adic pro-étale cohomology of analytic spaces.
Workshop on arithmetic $K3$ surfaces (Lausanne): Boundedness of the p -primary torsion of geometric Brauer groups.
Bucharest Number Theory days: Duality for arithmetic p -adic pro-étale cohomology of analytic spaces.
Arithmetic and Algebraic Geometry Week (Iasi): On p -torsions of geometric Brauer groups.
Séminaire Variétés Rationnelles (Jussieu): On p -torsions of geometric Brauer groups.
Morningside center of mathematics: Duality for arithmetic p -adic pro-étale cohomology of analytic spaces.
- 2026 Copenhagen number theory seminar: On p -torsions of geometric Brauer groups.
Caen University number theory seminar: On p -torsions of geometric Brauer groups.
Beijing University: Bernstein–Zelevinsky duality for equivariant vector bundles on Drinfeld spaces.

SEMINAR REPORTS

- 2023 IMJ-PRG preprint seminar: $\mathbb{Z}_p$ -lattices in semistable Galois representations. (après Zijian Yao)
- 2024 Séminaire d'étude de la thèse d'Arnaud: The cuspidal case.
- 2025 IMJ-PRG preprint seminar: Berthelot's conjecture via homotopy theory. (après Veronika Ertl and Alberto Vezzani)

TEACHING

- 2026 Beijing number theory summer school: Reading course on $\langle p$ -adic Hodge theory for rigid analytic varieties $\rangle$.

GRANTS

- 10/2023-09/2025 'MathInParis': Marie Skłodowska-Curie cofunding.
- 01/2024-06/2026 'Group schemes, root systems, and related representations': NextGenerationEU and Romania's National Recovery and Resilience Plan.
- 09/2026-07/2027 Simons Foundation.

ATTENDED CONFERENCES

07/2026	A p -adic gather. (Beijing)
07/2026	Workshop on p -adic modular forms and the Fontaine–Mazur conjecture. (Hefei)
01-02/2026	Thematic month on Langlands program. (Marseille)
11/2025	Arithmetic Geometry in Shenzhen II. (Shenzhen)
10/2025	Workshop on Non-archimedean geometry. (Lille)
09/2025	Motives, L-values and Eisenstein series. (Regensburg)
09/2025	Arithmetic and Algebraic Geometry Week. (Iasi)
05/2025	Workshop on condensed maths and Arakelov geometry. (Strasbourg)
05/2025	Workshop on arithmetic $K3$ surfaces. (Lausanne)
03/2025	Annual Meeting: Simons Collaboration on Perfection in Algebra, Geometry and Topology. (NewYork)
12/2024	Workshop on analytic de Rham stacks. (Warsaw)
11/2024	Workshop on p -adic geometry. (Singapoo)
09/2024	Summer school on Shimura variety and Hodge theory. (Essen)
07/2024	Conference on K-theory and arithmetic. (Bedlewo)
06/2024	Workshop on p -adic Riemann-Hilbert correspondence. (Padova)
01/2024	Conference on p -adic Geometry. (Shenzhen)
10/2023	Conference for Rapaport’s birthday. (Munster)
08/2023	Workshop on THH and prismatic cohomology. (Shenzhen)
08/2023	Conference on algebraic and arithmetic geometry. (Nanjing)
07/2023	Workshop on Vanishing of étale cohomology of Shimura varieties. (Bonn)
05/2023	Summer school on arithmetic Langlands and p -adic geometry. (Bonn)
03/2023	Workshop on condensed maths. (Marseille)