

Curriculum Vitae

General

Last name Wang
First name Paul
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Education and Positions

2025-Present Postdoctoral researcher at LIP6, Sorbonne University, in the Multi-Agent Systems team, on the theory of the evaluation of AI systems
2022-2025 PhD in fundamental mathematics, on variations on the group configuration, under the supervision of Silvain Rideau-Kikuchi, at the ENS-PSL
2018-2022 Studies at the Department of Mathematics and Applications of the École Normale Supérieure
2016-2018 CPGE (MPSI-MPX) at Louis-Le-Grand

Degrees and Distinctions

2025 Doctorate in mathematics, École Normale Supérieure - PSL
2022 Diploma of the École Normale Supérieure - PSL, in mathematics
2021 Master's degree in mathematics, Sorbonne University
2019 Bachelor's degree in mathematics, Université Paris-Dauphine
2016 Distinction at the Concours Général in mathematics
2015 First prize at the mathematics olympiad of the Créteil education authority

Talks

May 2026 Talk at the "Systèmes Multi-Agents" team seminar, Sorbonne Université, on distance-dependent jailbreak refusal training
April 2026 Talk at the "Systèmes Multi-Agents" team seminar, Sorbonne Université, on gluing of explanations
April 2026 Talk at the Coalgebraic Methods in Computer Science workshop, Turin, on separation and gluing of explanations
October 2025 Talk at the online conference "Category Theory Octoberfest", on nondeterministic behaviours in categorical systems theory
September 2025 Talk at the general logic seminar, Université Paris-Cité, on synthetic probability theory
April 2025 Talk at the "Raconte-moi" seminar of the algebra and geometry team of the ENS, on the Zilber trichotomy for o-minimal structures
September 2024 Talk at the start-of-year seminar of the algebra and geometry team of the ENS, on definable groups and fields in model theory
January 2024 Talk at the ENS doctoral colloquium, *Categorical systems theory*
November 2023 Talk at the ENS doctoral colloquium, *How to measure the complexity of a structure?*
November 2023 Talk at the Geomod final conference in Freiburg,

- June 2023 on groups and fields interpretable in NTP_2 fields
 Online talk at the logic seminar of the Hebrew University of Jerusalem,
 on groups and fields interpretable in NTP_2 fields
- November 2022 Talk at the Model Theory and Groups seminar, Université Paris-Cité,
 on the group configuration theorem for generically stable types

Publications and preprints

- 2026 Preprint: *Zero knowledge verification for frontier AI training is possible*,
 with Peigné and Nguyen,
 arXiv : 2606.05433
- 2026 Preprint: *The Evaluation Game: Beyond Static LLM Benchmarking*,
 with Garcia-Bourrée, Kermarrec and Corruble,
 arXiv : 2605.19377
- 2026 Preprint: *Separation and Gluing of Explanations on Sites of Dynamical Systems*,
 arXiv : 2603.17141
- 2025 Preprint: *Nondeterministic Behaviours in Double Categorical Systems Theory*,
 arXiv : 2502.02517
- 2025 Preprint: *Residually Dominated Groups in Henselian Valued Fields of Equicharacteristic Zero*,
 with Dicle Mutlu, arXiv : 2502.08530
- 2024 Corrigendum to the article *Valued fields, metastable groups*, *Selecta Mathematica*
 New Series 25, 47 (2019), with Ehud Hrushovski and Silvain Rideau-Kikuchi,
 Hal: hal-04601852
- 2024 Preprint: *On groups and fields interpretable in NTP_2 fields*,
 accepted at *Transactions of the American Mathematical Society* in 2026,
 arXiv : 2402.09143
- 2025 Publication: *The group configuration theorem for generically stable types*,
Journal of Symbolic Logic, Volume 90, Issue 2
- 2021 Publication: *Extending Hrushovski's groupoid-cover correspondence using simplicial groupoids*,
Annals of Pure and Applied Logic, Volume 172, Issue 7

Co-organisation of working groups

- 2023-2024 Doctoral working group in model theory, on Keisler measures,
 at the ENS-PSL and Université Paris-Cité
- 2025 Doctoral working group, on infinity-categories, at the ENS-PSL
- 2025-Present Mathematics-computer science working group, on the evaluation of AI systems, at Sorbonne University

Teaching

- 2018-2020 Organisation of oral mathematics examinations ("colles")
 in preparatory classes, at the Louis-Le-Grand high school
- 2022-2025 Tutorials, for the mathematical logic course (M1 level)
 of the Department of Mathematics and Applications of the ENS-PSL
- 2023 supervision of a Bachelor's dissertation, on the Zilber trichotomy
 for o-minimal structures, by Alexander Molyakov and Anna Savelyeva
- 2024 co-supervision of a Bachelor's dissertation, on the convergence of homogeneous neural networks
 and o-minimality, by Aziz Ben Nejma and Achille de Ridder, with Arthur Stephanovitch
- 2025 supervision of a Bachelor's dissertation, on synthetic probability theory,
 by Luca Brugnerotto and Janosch Laubé-Rainer
- 2025-2026 co-supervision of an internship, on mathematical statistics and the evaluation
 of Artificial Intelligence systems, by Michel Brun, with Vincent Corruble

Outreach and science communication activities

December 2024	Workshop for middle-school students, at the ENS-PSL, on the Floyd-Warshall algorithm
April 2024	Talk: Introduction to category theory, at the Informal Maths-Computer Science Seminar, at the ENS-PSL
June 2023	Talk: Introduction to category theory, at the Vendred'IA seminar of Effisciences, at the ENS-PSL
2022, 2023 and 2024	Co-organisation of workshops for the Fête de la Science, at the ENS-PSL, on the stable marriage problem and aperiodic tilings
March 2023	Session of the advanced group of Parimaths (mathematics club for high-school students), on straightedge-and-compass constructions