Yidi Wang

Contact Information	Department of Mathematics David Rittenhouse Lab 3N4A University of Pennsylvania 209 South 33rd Street Philadelphia, PA, 19104, U.S.A.

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Research Interests

Algebra, Algebraic Geometry, Arithmetic Geometry, Algebraic Number Theory, Differential Galois Theory, Invariant Theory, Representation Theory of Algebraic Groups.

Education

University of Pennsylvania, Philadelphia, Pennsylvania, U.S.A.

Ph.D. Candidate in Mathematics, Graduate School of Art and Science, 2023.

- Advisor: Julia Hartmann
- Thesis: The local aspects and the local-global principles of algebraic objects
- Benjamin Franklin Fellowship
- Passed Ph.D. Qualifying Examination on May 7th, 2020.

University of California, Berkeley, Berkeley, California, U.S.A.

B.A. in Mathematics, May 2018

- Honors in Mathematics

Research projects

3. A local-global prinicple for differential torsors.
2. Generalized period-index problem over hensel semi-global fields. Preprint in preparation: 21 pages
1. Arithmetic invariant theory of reductive groups. 17 pages. Preprint available at arXiv:2212.12863

Research talks

Nov 2022	Local-global principles over hensel semi-global fields and their applications to the generalized period-index problem, Algebra seminar, Florida State University
Feb 2022	Linearly reductive group schemes over rings, Algebra seminar, University of Pennsylvania

Teaching Experience

Spring	2022	Mentor, Direct reading program, University of Pennsylvania
Spring	2020	Teaching Assistant, Math 312, Linear Algebra University of Pennsylvania
Fall	2020	Teaching Assistant, Math 104, Calculus II University of Pennsylvania
Spring	2020	Teaching Assistant, Math 313, Advanced Linear Algebra University of Pennsylvania
Fall	2019	Teaching Assistant, Math 240, Calculus III: Linear Algebra and Differential Equations University of Pennsylvania
Spring	2017	Adjunct Instructor, Math 16B, Calculus II for Social Science and Environmental Science Student Learning Center, University of California, Berkeley

HONORS AND AWARDS	2018		Benjamin Franklin Fellowship
			Graduate School of Arts and Science, University of Pennsylvania.
	2018		Honors in Mathematics
			University of California, Berkeley
CONFERENCE AND WORKSHOP	Mar	2023	Arizona Winter School: Unlikely Intersections
	Jan	2023	Joint Mathematics Meeting
	May	2022	GTA Philadelphia 2022: Graduate student conference at Temple University in algebra, geometry and topology
	Jul	2020	ALGAR 2020: valuations,quadratic forms and definability, University of Antwerp, online
	Jun	2020	Chicago Number Theory Day, online
RELEVANT SKILLS	Languages:		English, Mandarin Chinese, Japanese
	Skills:		Latex, Mathematica, MatLab, Python, Java