CURRICULUM VITAE
FERDINAND WAGNER

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I'll start as a postdoc at the University of Münster in the arithmetic and homotopy theory working group led by Christopher Deninger and Thomas Nikolaus. I'm interested in arithmetic geometry and homotopy theory, especially in cohomology theories for arithmetic schemes and their construction via localising invariants.

Employment

2026 – 2029 (expected)	*Postdoctoral researcher* at the University of Münster
2022 – 2025	*Ph.D. student* at the University of Bonn

Education

2022 – 2026	*Doctoral studies* (*Mathematics*) at the MPIM/University of Bonn Ph.D. thesis: *q-Hodge filtrations, Habiro cohomology, and* ku. Grade: *Summa cum laude.* Advisor: Professor Dr. Peter Scholze
2019 – 2022	*Master's degree* (*Mathematics*) at the University of Bonn Master's thesis: *On q-de Rham Cohomology.* Grade: 1.0
2016 – 2019	*Bachelor's degree* (*Mathematics*) at the University of Bonn Bachelor's thesis: *Serre Duality for Open Varieties.* Grade: 1.0

Publications

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Preprints

October 2025	*q-de Rham Cohomology and Topological Hochschild Homology over* ku, arXiv: `2510.06057` [`math.AT`]
October 2025	*q-Hodge Complexes over the Habiro Ring*, arXiv: `2510.04782` [`math.AG`]
October 2024	*Derived q-Hodge Complexes and refined* TC^-, joint work with Samuel Meyer, arXiv: `2410.23115` [`math.AT`]
July 2024	*q-Witt vectors and q-Hodge complexes*, arXiv: `2410.23078` [`math.NT`]
August 2017	*Totally Odd Depth-Graded Multiple Zeta Values and Period Polynomials*, joint work with Charlotte Dietze, Chokri Manai, and Christian Nöbel, arXiv: `1708.07210` [`math.NT`]

Conference Talks

November 2025	*Algebraic Habiro Cohomology*, Arithmetic Geometry in Shenzhen II, SUSTech Shenzhen
August 2025	*Habiro Cohomology and* $\mathrm{THH}(-/\mathrm{ku})$, Workshop 2533 on Algebraic K-Theory, MFO Oberwolfach
June 2025	*q-Hodge Filtrations and Habiro Cohomology*, Workshop 2526 on Non-Archimedean Geometry and Applications, MFO Oberwolfach

May 2025	*Examples of Analytic Stacks: Schemes, Complex and p-adic Analytic Spaces* and *The Gaseous Base Stack*, Workshop on Arakelov Geometry and Condensed Mathematics, IRMA Strasbourg
September 2024	*Refined* TC^- *over* ku *and Derived q-Hodge Complexes*, Workshop on Dualisable Categories & Continuous K-Theory, MPIM Bonn

Seminar Talks

November 2025	*Cohomology theories from refined* THH, Paris-London Number Theory Seminar, Orsay Mathematics Institute
November 2025	*Refined* THH *over* ku *and Habiro cohomology*, joint PU/IAS Arithmetic Geometry Seminar, IAS Princeton
May 2025	*q-Hodge filtrations, Habiro cohomology, and* THH *over* ku, Arithmetic Geometry Seminar, TU Darmstadt
January 2025	*Elliptic Genera*, IMPRS seminar on Modular Forms, MPIM Bonn
December 2024	*Refined* TC^- *over* ku, Algebra and Topology Seminar, University of Copenhagen
December 2024	*Towards a Habiro-valued Cohomology Theory*, Oberseminar Arithmetische Geometrie und Darstellungstheorie, MPIM Bonn
November 2024	*Higher Weight Motivic Cohomology, Algebraic K-theory*, ARGOS seminar on Motivic Geometrization of Local Langlands, University of Bonn
November 2024	*Habiro Rings in Arithmetic Geometry*, Algebra and Number Theory Seminar, UC Dublin
June 2024	*q-Hodge Cohomology and Refined* TC^-, Séminaire Arithmétique et Géométrie Algébrique, IRMA Strasbourg
June 2024	*q-Hodge Cohomology and Refined* TC^-, thesis talk in the IMPRS seminar, MPIM Bonn
December 2022	*The Moduli Stack of Formal Groups*, IMPRS seminar on Formal Groups and Chromatic Homotopy Theory, MPIM Bonn
May 2022	*Sato–Tate Distributions for Elliptic Curves*, IMPRS seminar on the Sato–Tate conjecture, MPIM Bonn

Teaching Experience

September 2023	*Lecturer* for a week-long course on ∞-*Categories in Topology*, QED Academy Sonthofen Scope: ≈ 39 hours of lectures, from the definition of a quasi-category to the construction of the Adams spectral sequence.
2018 – 2022	*Tutor* for various lecture courses, University of Bonn Tasks: Conducting weekly exercise sessions, grading students' weekly submissions and the final exam

Expository writings

2023 – 2025	∞-*Categories in Topology*, lecture notes on a QED Academy course. Available at `florianadler.github.io/inftyCats/inftyCats.pdf` ($\approx 70\%$ finished).

2020 – 2021	*Algebraic & Hermitian K-Theory*, lecture notes on Fabian Hebestreit's lecture course at the University of Bonn.
	Available at `florianadler.github.io/AlgebraBonn/KTheory.pdf`.

Volunteer work

since 2017	*Coach* for German students at mathematics competitions, including the German IMO team
	Tasks: Conducting training seminars, preparing ≈ 200 pages of training material and exercise problems, correcting students' submissions for exercise problems
since 2017	*Grader* at German mathematics competitions, including the German National Mathematics Olympiad and the German IMO selection
	Tasks: Grading students' solutions, preparing exam problems
June 2019	*Youth leader* at the LSGM maths summer camp
	Tasks: Supervision, lessons for students of grades 07–12

Honours and Awards

January 2020	*Bachelor's thesis prize* of the Bonn Mathematical Society
2017 – 2019	*International Mathematics Competition for University Students*, three first prizes, overall 6th place in 2019
2016 – 2021	*Scholarship*, Studienstiftung des Deutschen Volkes
2014 – 2016	*International Mathematics Olympiad*, two silver medals and one bronze medal

Updated January 14, 2026