

Niklas Arppe

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Research interests

Geometric and categorical aspects of the local Langlands program, moduli spaces of shtukas, Shimura varieties, (integral) p -adic Hodge theory, motivic homotopy theory, algebraic K -theory

Education

2025–2027 **MSc Mathematics**, *University of Bonn*

Grade: 1.1 (Best possible grade: 1.0)

2023–2025 **BSc Mathematics**, *University of Helsinki*

Grade: 5.0 (Best possible grade: 5.0)

Selected talks

07/2026 **Simplicial homotopy theory seminar**, *University of Bonn*

Title: The Dold-Kan correspondence

07/2026 **Algebraic K -theory seminar**, *University of Bonn*

Title: The $+=S$ theorem and dévissage arguments

06/2026 **Prismatic F -gauges seminar**, *University of Bonn*

Title: Filtered pramatization and gauges

02/2026 **Higher category theory seminar**, *University of Bonn*

Title: Spectra and stable ∞ -categories

01/2026 **Absolute prismatic cohomology seminar**, *University of Bonn*

Title: Relative prismatic cohomology

10/2025 **Absolute prismatic cohomology seminar**, *University of Bonn*

Title: Recollections on classical prismatic cohomology

07/2025 **Derived algebraic geometry seminar**, *Aalto University*

Title: Basics on non-derived stacks

Selected awards

06/2022 **Technology Industries of Finland Centennial Foundation's stipend**

06/2022 **The Håkan Simberg Foundation's stipend**

Conference and workshop attendance

09/2026 **School on Exponential Motives**, *University of Duisburg–Essen*

06/2026 **37th NRW Topology Meeting**, *University of Münster*

04/2026 **Kleine AG: Rapoport–Zink spaces and p -adic uniformization**, *University of Münster*

04/2026 **Kleine AT: Topological cyclic homology**, *University of Wuppertal*

- 03/2026 **Recent Advances in Motivic Cohomology**, *University of Osnabrück*
10/2025 **Kleine AT: Evenness via Spectral Sequences**, *Max Planck Institute for Mathematics*

Teaching

Courses

- 2026–2027 **University of Bonn**, *Bonn*
Teaching assistant for *Algebraic Geometry I*
- 2025 **University of Helsinki**, *Helsinki*
Teaching assistant for *Topology IB*
- 2025 **University of Helsinki**, *Helsinki*
Teaching assistant for *Topology IA*
- 2025 **University of Helsinki**, *Helsinki*
Teaching assistant for *Linear algebra II*
- 2024 **University of Helsinki**, *Helsinki*
Teaching assistant for *Limits*

Other

- 2023–2025 **Uplus yksityisopetus**, *Helsinki*
Private mathematics teacher

Organizing

Seminars

- 2026 **University of Bonn**, *Bonn*
Learning seminar on algebraic K-theory of small stable ∞ -categories

Service

- 2023 **Integralsdagarna**, *Helsinki*
Workshop on developing the high school mathematics curriculum in Finland