

# Claudius Heyer

## Curriculum Vitae

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### Education

- Oct. 2019 – June 2024 **Postdoc**, *Westfälische Wilhelms-Universität Münster*.
- Mar. 2015 – 28.06.2019 **PhD in Mathematics**, *Humboldt-Universität zu Berlin*, Title: *Applications of parabolic Hecke algebras: parabolic induction and Hecke polynomials*.
- Oct. 2012 – Jan. 2015 **M. Sc. in Mathematics**, *Humboldt-Universität zu Berlin*.
- Oct. 2009 – Aug. 2012 **B. Sc. in Mathematics**, *Humboldt-Universität zu Berlin*.

### Positions, Fellowships

- Oct. 2022 – June 2024 **Post-doc**, *University of Münster*.
- Oct. 2019 – Sep. 2022 **Research Assistant**, *University of Münster*, with teaching load.
- Feb. 2018 – Sep. 2019 **Berlin Mathematical School**, *Phase II (PhD student)*.
- Apr. 2016 – Sep. 2019 **Research Assistant**, *Humboldt-Universität*, with teaching load.

### Papers, Preprints

- 2023 ***The Geometrical Lemma for Smooth Representations in Natural Characteristic***, *Preprint*, arXiv:2303.14721.
- 2022 ***The Left Adjoint of Derived Parabolic Induction***, *Preprint*, submitted, arXiv:2204.11581.
- 2021 ***On the Smooth Part Functor***, *Preprint*, arXiv:2108.05262.
- 2021 ***On the Decomposition of Hecke Polynomials over Parabolic Hecke Algebras***, *J. Theor. Nomb. Bordx.* **34** (2022) no. 3, 941–997, DOI:10.5802/jtnb.1235.
- 2021 ***Localization of the Parabolic Hecke Algebra at a Strictly Positive Element***, *Preprint*, arXiv:2103.16949.

- 2021 **Parabolic Induction via the Parabolic pro- $p$  Iwahori–Hecke Algebra**, *Represent. Theory* **25** (2021), 807–843, DOI:10.1090/ert/585.

## Research Talks

- 20.01.2022 **The Left Adjoint of Derived Parabolic Induction**, *San Diego, California, USA*, UCSD Number Theory Seminar.  
(Online via Zoom)
- 24.03.2021 **Derived Products and the Left Adjoint of Derived Parabolic Induction**, *Rennes, France*, Colloque Tournant 2021 du GDR Théorie de Lie Algébrique et Géométrie.  
(Online via Zoom)
- 12.01.2021 **Derived Products and the Left Adjoint of Derived Parabolic Induction**, *Münster, Germany*, Mittagseminar.
- 26.08.2019 **Parabolic Induction for pro- $p$  Iwahori–Hecke Modules**, *Marseille, France*, Conference: Buildings and Affine Grassmannians.
- 28.05.2019 **Decomposition of Hecke Polynomials**, *Münster, Germany*, Mittagseminar.

## Conferences, Summer Schools, Workshops

- Feb. 13–17 2023 **Number Theory Meets  $p$ -Adic Representations**, *University of Münster, Münster, Germany*.
- July 18–22 2022 **Focused Research Event: Smooth representations of  $GL(n, \mathbb{Q}_p)$  in natural characteristic**, *University of Oxford, Oxford, United Kingdom*.
- Mar. 16–18 2022 **Workshop: Higher Algebra**, *TU Darmstadt, Darmstadt, Germany*.
- Sep. 27 – Oct. 1 2021 **Conference: Representation Theory's Hidden Motives**, *University of Münster, Münster, Germany*.
- Apr. 26–30 2021 **Spring School towards a mod  $p$  Langlands correspondence**, *Essen*,  
(Online via Zoom).
- Mar. 24–26 2021 **Colloque Tournant 2021 du GDR Théorie de Lie Algébrique et Géométrie**, *University of Rennes 1*, (Online via Zoom).
- Aug. 26 – Sep. 6 2019 **Conference: Buildings and Affine Grassmannians**, *CIRM, Marseille, France*.
- June 3–7 2019 **Conference: Representation Theory and D-Modules**, *University of Rennes 1, Rennes, France*.
- Oct. 8–11 2018 **CENTRAL Workshop: Automorphic Techniques in Arithmetic Geometry**, *Humboldt-Universität zu Berlin, Berlin, Germany*.
- Sep. 2–8 2018 **Autumn School: Arithmetic of Differential Equations**, *Łukęcin, Poland*.

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## Teaching experience

- SS 2023 **Lecturer**, *University of Münster*, Smooth Representations of  $p$ -Adic Groups.
- SS 2022 **Teaching Assistant**, *University of Münster*, Introduction to Algebra, Lecturer: Prof. Dr. Eva Viehmann.
- WS 2021/22 **Teaching Assistant**, *University of Münster*, Reflection Groups and Platonic Solids, Lecturer: apl. Prof. Dr. Lutz Hille.
- SS 2021 **Organizer**, *University of Münster*, Oberseminar: Classification of Smooth mod  $p$  Representations.
- SS 2021 **Teaching Assistant**, *University of Münster*, Galois Representations and  $(\varphi, \Gamma)$ -Modules, Lecturer: Prof. Dr. Peter Schneider.
- WS 2020/21 **Teaching Assistant**, *University of Münster*, Local Galois Representations, Lecturer: Prof. Dr. Peter Schneider.
- SS 2020 **Organizer**, *University of Münster*, Seminar: Finite Hecke Algebras, Co-Organizer: Prof. Dr. Peter Schneider.
- SS 2020 **Organizer**, *University of Münster*, Oberseminar: Towards Eigenvarieties.
- WS 2019/20 **Assistant**, *University of Münster*, Seminar: Mathematical Learning and Reflection, Main Instructor: PD Dr. Christian Serpé.
- SS 2019 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Algebra/Number Theory and its Didactics, Lecturer: Prof. Dr. Elmar Große-Klönne.
- WS 2018/19 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Algebra and Complex Analysis, Lecturer: Prof. Dr. Elmar Große-Klönne.
- SS 2018 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Linear Algebra and Analytic Geometry II\*, Lecturer: Prof. Dr. Elmar Große-Klönne.
- WS 2017/18 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Linear Algebra and Analytic Geometry I\*, Lecturer: Prof. Dr. Elmar Große-Klönne.
- SS 2017 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Algebra and Number Theory, Lecturer: Dr. Daniel Skodlerack.
- WS 2016/17 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Linear Algebra and Analytic Geometry I, Lecturer: Dr. Claudia Schillings.
- SS 2016 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Algebra and Number Theory, Lecturers: Dr. Werner Kleinert and Dr. Frank Gounelas.
- WS 2015/16 **Teaching Assistant**, *Humboldt-Universität zu Berlin*, Linear Algebra I (for Computer Scientists), Lecturer: Dr. Bernhard Gerlach.

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## Languages

- German native
- English fluent
- French basic

Claudius Heyer  
Münster, April 17, 2023