# Claudius Heyer

Curriculum Vitae

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#### Education

Oct. 2019 – **Postdoc**, *Universität Münster*.

June 2024

Mar. 2015 – **PhD in Mathematics**, *Humboldt-Universität zu Berlin*, Title: *Applications* 

28.06.2019 of parabolic Hecke algebras: parabolic induction and Hecke polynomials.

Oct. 2012 – M. Sc. in Mathematics, Humboldt-Universität zu Berlin.

Jan. 2015

Oct. 2009 – B. Sc. in Mathematics, Humboldt-Universität zu Berlin.

Aug. 2012

# Positions, Fellowships

Oct. 2022 - Postdoc, Universität Münster, no teaching load.

June 2024

Oct. 2019 - Research Assistant, Universität Münster, with teaching load.

Sep. 2022

Feb. 2018 - **Berlin Mathematical School**, *Phase II (PhD student)*.

Sep. 2019

Apr. 2016 - Research Assistant, Humboldt-Universität zu Berlin, with teaching load.

Sep. 2019

## Papers, Preprints

- \*The Geometrical Lemma for Smooth Representations in Natural Characteristic, Preprint, submitted, arXiv:2303.14721.
- \*The Left Adjoint of Derived Parabolic Induction, Preprint, accepted for publication at Mathematische Zeitschrift, 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. Nombr. 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.

- \*Parabolic Induction via the Parabolic pro-p Iwahori–Hecke Algebra, Represent. Theory **25** (2021), 807–843, doi:10.1090/ert/585.
- 2019 Applications of parabolic Hecke algebras: parabolic induction and Hecke polynomials, Dissertation, Humboldt-Universität zu Berlin, Mathematisch-Naturwissenschaftliche Falkultät, 2019, doi:10.18452/20137.

#### Research Talks

- 06.06.2023 **The Geometrical Lemma in Natural Characteristic**, *Wuppertal*, Germany, Oberseminar.
- 25.05.2023 **The Geometrical Lemma in Natural Characteristic**, *Essen*, Germany, Oberseminar.
- 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 Géométrique.

  (Online via Zoom)
- 12.01.2021 **Derived Products and the Left Adjoint of Derived Parabolic Induction**, *Münster*, Germany, Mittagsseminar.
- 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, Mittagsseminar.

### Conferences, Summer Schools, Workshops

- Jul. 31 Aug. 4 **Summer School: The Automorphic Side of the** *p***-adic Langlands** 2023 **Program**, *University of Wuppertal*, Wuppertal, Germany.
  - Feb. 13–17 **Conference: Number Theory Meets** *p***-Adic Representations**, *Univer-* 2023 *sity 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 **Workshop: Higher Algebra**, *TU Darmstadt*, Darmstadt, Germany. 2022
  - Sep. 27 **Conference: Representation Theory's Hidden Motives**, *University of* Oct. 1 2021 *Münster*, Münster, Germany.
  - Apr. 26–30 Spring School towards a mod p Langlands correspondence, Essen, 2021 (Online via Zoom).

- Mar. 24–26 **Colloque Tournant 2021 du GDR Théorie de Lie Algébrique et** 2021 **Géométrique**, *University of Rennes 1*, (Online via Zoom).
- Aug. 26 **Conference: Buildings and Affine Grassmannians**, *CIRM*, *Marseille*, Sep. 6 2019 *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.

# Teaching experience

- SS 2023 **Lecturer**, *University of Münster*, Smooth Representations of *p*-Adic Groups.
- WS 2022/23 **Organizer**, *University of Münster*, Mittagsseminar.
  - 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.

# Languages

German native English fluent

French basic

Claudius Heyer Münster, September 25, 2023