

Education

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| 2024-X | Ph.D. studies, University of Oxford and Max Planck Institute for Mathematics in the Sciences, supervised by Cornelia Druţu and Anna Wienhard. |
| 2023/24 | Master of Science in Mathematical & Theoretical Physics, with distinction, University of Oxford. |
| 2022/23 | Bachelor of Science in Mathematics, Heidelberg University. |
| 2019-23 | Bachelor of Science in Physics, Heidelberg University. |

Research

- [HMM26] Paula Heim, Joseph MacManus und Lawk Mineh. “Realising all countable groups as quasi-isometry groups”. In: *arXiv preprint arXiv:2601.06261* (2026).
- [DHT25] Jacek Dobrzyniecki, Paula Heim und Michał Tomza. “Tunable two-species spin models with Rydberg atoms in circular and elliptical states”. In: *Physical Review Research* 7 (2025), S. 013321.

Invited Talks

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| 11/2025 | <i>QI groups and QI rigidity</i> DAGGER Seminar, University of Warwick |
| 11/2025 | <i>QI groups and QI rigidity</i> Junior Topology and Group Theory Seminar, University of Oxford |
| 08/2025 | <i>Classical complex analytic theory of universal Teichmüller space</i> Workshop on Universal Teichmüller Theory in Aussois |
| 04/2025 | <i>Rigidity of self-maps of rank-one symmetric spaces</i> Seminar Groups and Actions, Paris-Saclay |
| 02/2025 | <i>Rigidity of quasiisometries in rank-one symmetric spaces</i> , Bristol Junior Geometry Seminar, University of Bristol |
| 02/2025 | <i>Rigidity of quasiisometries in rank-one symmetric spaces</i> , Junior Topology and Group Theory Seminar, University of Oxford |
| 12/2024 | <i>Beyond Euclidean Geometry - SubRiemannian Manifolds and their distance functions</i> , Graduate Talks, Merton College, University of Oxford |

Pre-Ph.D. Research Experience

- 10/23-11/24** Extension of my summer project on quantum simulation with ultracold Rydberg atoms with Jacek Dobrzyniecki and Michał Tomza[DHT25], available [here](#).
- 05/2024** Dissertation on “*Quasiisometric Rigidity in Rank-One Symmetric Spaces à la Pansu*”, supervised by Cornelia Druțu, available [here](#).
- 07-09/2023** Research Internship on “*Quantum Simulator with Circular Rydberg Atoms*” at the University of Warsaw under the supervision of Michał Tomza, report available [here](#).
- 09/2023** Bachelor’s Thesis in Mathematics on “*The Visual Boundaries of Hyperbolic Spaces*”, supervised by Beatrice Pozzetti and Max Riestenberg, available [here](#).
- 07/2023** Bachelor’s Thesis in Physics on “*Lee-Yang Theorem à la Lieb-Sokal*”, supervised by Manfred Salmhofer, available [here](#).

Teaching Experience

- HT 2025** Tutor for Part A Topology (St. Edmund Hall, University of Oxford)
- MT 2024** Teaching Assistant for Topology and Groups (University of Oxford)
- Summer 2023** Tutor for Differential Geometry (Heidelberg University)
- Summer 2022** Tutor for Theoretical Physics (Heidelberg University)
- Winter 2020/22** Tutor for Linear Algebra I (Heidelberg University)
- Summer 2021** Tutor for Linear Algebra II (Heidelberg University)
- Winter 2020/21** Tutor for Linear Algebra I (Heidelberg University)