

Louis Jaburi

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Preprints

- 2023 Hjelle, E. O., **Jaburi, L.**, Knak, R., Lee, H., & Wang, S. (2023). *Functions on Irreducible Components of the Emerton-Gee Stack*. arXiv preprint [arXiv:2306.00141](https://arxiv.org/abs/2306.00141).
*All authors contributed equally

Education

- 2020-2023 **PhD in Pure Mathematics**, Imperial College, London, (Expected 02/2024)
Supervisor: Ana Caraiani, Title: *The p -adic geometry of the μ -ordinary locus; Functions on the Emerton-Gee stack*
- 2017-2019 **M.Sc. in Mathematics**, University of Bonn
Supervisor: Peter Scholze, Title: *Shimura data in terms of $B(G, \mathbb{R})$*
- 2017-2019 **B.Sc. in Mathematics**, University of Freiburg

Research Experience

- 04-06/2023 AI safety camp project "AI in the sciences"; I did a literature review for SOTA models for automated proving in the formal proof system Lean and in natural language
- 2020-2023 Worked on two projects in the Langlands program, an overarching framework conjecturing deep connections between a wide variety of different mathematical fields, under supervision of Ana Caraiani; discovered novel results both independently and in collaboration
- 2018-2019 Wrote Master thesis under supervision of Fields Medal winner Peter Scholze

Honors and Awards

- 2020-2023 Selected PhD candidate for Royal Society scholarship
- 2014-2019 National scholarship and extracurricular (honors) program at the *Stiftung der Deutschen Wirtschaft*

Work Experience

- 2023 Journalist for Imperial College magazine Felix; reviewed theater plays
- 2017 Gave tutorial for the grad course *Algebraische Topologie*, University of Freiburg
- 2016-2017 Gave tutorial for the undergrad course *Algebra und Zahlentheorie*, University of Freiburg

Events (selection)

- 11/2023 Oxford conference: Developmental Interpretability
- 09/2023 Amsterdam retreat: Machine Learning, Singularity Theory and Phase Transitions
- 03/2023 Organized an arithmetic algebraic geometry **mini-conference** for ~ 40 master and PhD students

Languages

German (native), Neo-Assyrian Aramaic (native), English (fluent), Arabic (intermediate), Dutch (intermediate)

Technical skills

Python, PyTorch, \LaTeX , Git