Thomas Sachen July 25, 2024

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Education

Scuola	Normale	Superio	\r
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Pisa, Tuscany, IT 2024 - 2027

PhD in Logic & Philosophy of Mathematics

- HuME (The Human Mind and its Explanations) scholarship, joint with University of Milan and IUSS Pavia
- Advisors: Mario Piazza, Gabriele Pulcini

Princeton University

Princeton, NJ, USA

2018 - 2023

- A.B. in Mathematics
 - Thesis Title: p-adic Hodge Theory and derived-Hodge-to-de-Rham spectral sequences
 - Advisor: Bhargav Bhatt

Awards, Grants & Honors

HuME PhD scholarship, Scuola Normale Superiore
Sigma Xi Honors Society, Princeton University
Undergraduate research grant, Princeton University
NSF REU grant, Tufts University
NSF REU grant, Georgia Institute of Technology
NSF RTG grant, University of Notre Dame
Stone Edge Observatory grant, University of Chicago

Publications & Professional Activity

- Concordances of sums of alternating torus knots and their mirrors to L-space knots, Accepted, to appear in *Knot Theory and its Ramifications*, arXiv:2210.08055. and poster.
- Geometric Techniques in Topological Data Analysis: Toward Persistent Hodge Theory (slides). Arete, Northridge, CA, September 2023.
- p-adic Hodge Theory and derived-Hodge-to-de-Rham spectral sequences, Princeton Senior thesis, (link).
- Classifying Brieskorn Varieties and Brieskorn Manifolds, Princeton Junior thesis, (link).
- Concordances of linear combinations of Torus knots to L-space knots. (link), Joint Mathematics Meeting, AMS. April 2022
- Classifying Finitely Presented Infinite Groups. (link), Joint Mathematics Meeting, AMS. April 2022
- Geometric Aspects of Growth of Finitely Generated Groups (video). REU Vir(tu)al Conference 2021, University of Connecticut, August 2021.