

Education

University College London

PhD Candidate, September 2021 - Present.

Research group: Programming Principles, Logic and Verification.

Supervisor: Fabio Zanasi.

University of Amsterdam

MSc Logic (cum laude), 2020.

MSc Thesis: Quantum quirks, classical contexts: Towards a Bohrification of effect algebras.

Supervisors: Chris Heunen (University of Edinburgh), Nick Bezhanishvili.

University of Edinburgh

BSc Mathematics (First class honours), 2018.

BSc Project: Sheaves on Topological Spaces and their Logic.

Supervisor: Tom Leinster.

Jyväskylän Normaalikoulu (Finland)

Ylioppilastutkinto (High school matriculation examination), 2014.

Mathematics, Physics, Chemistry, Finnish, Russian, English, French.

Publications

A categorical model for organic chemistry

with Ella Gale, Fabio Zanasi.

Theoretical Computer Science 1032 (2025).

doi: 10.1016/j.tcs.2025.115084.

Learning closed signal flow graphs

with Ekaterina Piotrovskaya, Fabio Zanasi.

Theoretical Aspects of Computing – ICTAC (2024).

doi: 10.1007/978-3-031-77019-7_5.

Disconnection rules are complete for chemical reactions

with Ella Gale, Fabio Zanasi.

Theoretical Aspects of Computing – ICTAC (2024).

doi: 10.1007/978-3-031-77019-7_13.

A categorical approach to synthetic chemistry

with Ella Gale, Fabio Zanasi.

Theoretical Aspects of Computing – ICTAC (2023).

doi: 10.1007/978-3-031-47963-2_17.

String diagrams for layered explanations

with Fabio Zanasi.

Electronic Proceedings in Theoretical Computer Science, 380 (2023).

doi: 10.4204/EPTCS.380.21.

There and back again: A circuit extraction tale

with Miriam Backens, Hector Miller-Bakewell, Giovanni de Felice, John van de Wetering.

Quantum 5, 421 (2021). doi: 10.22331/q-2021-03-25-421.

Statistical Hypothesis Testing in the Context of Hume's Critique of Induction

University of Edinburgh Philosophy Society Journal, Issue 2: 2017-18.

Conference talks

International Colloquium on Theoretical Aspects of Computing 2024

Disconnection rules are complete for chemical reactions.

Applied Category Theory 2024

Disconnection rules are complete for chemical reactions.

Talk recording: youtu.be/JdeDkUE92Uo?.

International Colloquium on Theoretical Aspects of Computing 2023

A categorical approach to synthetic chemistry.

Tenth Symposium on Compositional Structures 2022

Quantum quirks, classical contexts: Towards a Bohrification of effect algebras.

Slides: cl.cam.ac.uk/events/syco/10/slides/lobski.pdf.

Applied Category Theory 2022

String diagrams for layered explanations.

Talk recording: youtu.be/iNdH_U-C1Nc?t=22803.

Quantum Physics and Logic 2020

There and back again: A circuit extraction tale.

Talk recording: youtu.be/0rilw6ujWag.

Refereeing

Journal referee

- Compositionality. compositionality.episciences.org.
- Quantum. quantum-journal.org.

Conference referee (external)

- Theory of Quantum Computation, Communication and Cryptography (TQC). 2023.
- International Colloquium on Automata, Languages, and Programming (ICALP). 2023.
- Applied Category Theory (ACT). 2022.
- Quantum Physics and Logic (QPL). 2021.

Projects and Work experience

University College London

Various teaching assistant roles in mathematics and theoretical computer science.
January 2022 - Present.

Aboa Vetust Ars Nova museum

Civilian service year.
October 2020 - September 2021.

University of Amsterdam

Teaching assistant for MSc Mathematics course “Category Theory and Topos Theory”.
Autumn 2019.

Tartu Observatory

Development of Satellite Attitude Determination Software.
Summer 2018.

	<p>London Mathematical Society Undergraduate Research Bursary Project title: Quantum Logic and Set Theory. Report title: The Category of Hilbert Spaces as an Orthogonal Category. Project blog: andinparticularexists.wordpress.com. Supervisor: Chris Heunen. Summer 2017.</p>
	<p>Tartu Observatory Erasmus+ traineeship. Traineeship title: Development of Satellite Attitude Determination Software. Summer 2016.</p>
	<p>Department of Physics, University of Jyväskylä Summer trainee, 2013.</p>
Extracurricular positions	<p>The University of Edinburgh SocieTea Committee position, Publicity, 2017-18. Committee position, President, 2016-17.</p> <p>The University of Edinburgh Philosophy Society Committee position, Ordinary member, 2015-16.</p>
Other experience	<p>Fibred category theory and type theory reading group Organizer, 2022-23.</p> <p>Infinity category theory reading group Organizer, 2019.</p> <p>Reading project in point-free topology Supervisor: Nick Bezhanishvili. 2019-2020.</p> <p>Research project in categorical models for homotopy type theory Supervisor: Benno van den Berg. 2019-2020.</p> <p>Amsterdam Fringe Festival Volunteer, September 2019. Volunteer, September 2018.</p> <p>Logic and Physics reading group Organizer, 2018-2019.</p> <p>Hidden Door Festival Volunteer, May-June 2018.</p> <p>Art-Master Theatre Website translator, occasionally between 2013 and 2015.</p>
Languages	<p>Finnish (native), Russian (native), English (fluent), French (DELFI B2), Swedish (intermediate).</p>