

## 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. *Sponsored by Amsterdam Science Talent Scholarship.*

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

*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?](https://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](https://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](https://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](https://youtu.be/0rilw6ujWag).

**Projects and  
Work experience****University College London**

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

**Aboa Vetus 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.

**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](https://andinparticularexists.wordpress.com).

Supervisor: Chris Heunen.

Summer 2017.

**Tartu Observatory**

Erasmus+ traineeship.

Traineeship title: Development of Satellite Attitude Determination Software.

Summer 2016.

**Department of Physics, University of Jyväskylä**

Summer trainee, 2013.

**Extracurricular  
positions****The University of Edinburgh SocieTea**

Committee position, Publicity, 2017-18.

Committee position, President, 2016-17.

Other experience	<b>The University of Edinburgh Philosophy Society</b> Committee position, Ordinary member, 2015-16.
	<b>Fibred category theory and type theory reading group</b> Organizer, 2022-23.
	<b>Infinity category theory reading group</b> Organizer, 2019.
	<b>Reading project in point-free topology</b> Supervisor: Nick Bezhanishvili. 2019-2020.
	<b>Research project in categorical models for homotopy type theory</b> Supervisor: Benno van den Berg. 2019-2020.
	<b>Amsterdam Fringe Festival</b> Volunteer, September 2019. Volunteer, September 2018.
Languages	<b>Logic and Physics reading group</b> Organizer, 2018-2019.
	<b>Hidden Door Festival</b> Volunteer, May-June 2018.
	<b>Art-Master Theatre</b> Website translator, occasionally between 2013 and 2015.
	Finnish (native), Russian (native), English (fluent), French (DELF B2), Swedish (intermediate).