Joshua Wrigley

Curriculum Vitae

josh.l.wrigley@gmail.com · jlwrigley.github.io

Building Sophie Germain, 8 place Aurélie Nemours, 75013 Paris

Appointments

Jan.–Dec. 2025	**Université Paris Cité** – Paris, France Postdoctoral Researcher, Employed on the project: *Topology for Types and Terms*. Principal investigator: Prof. Sam van Gool.
Apr.–Dec. 2024	**Queen Mary University of London** – London, UK Postdoctoral Researcher, Principal investigator: Ivan Tomašić.

Grants

2024 – 2025	**Research Co-Lead:** *Toward a Cohomology of Theories*, EPSRC Mathematical sciences small grant (£80,860), Principal investigator: Ivan Tomašić. Authored the vision and approach sections of the successful submission.

Education

2020 – 2024	**Università degli Studi dell'Insubria** – Como, Italy PhD in Mathematics and Computer Science, Thesis: *Doctrinal and Groupoidal Representations of Classifying Topoi*, Awarded *cum laude*, Supervisor: Prof. Olivia Caramello.
2019 – 2020	**Lincoln College, University of Oxford** – Oxford, UK Masters in Mathematics (MMath), Classification: First class, Dissertation: *Aspects of Stone Duality for Boolean Algebras*, Supervisor: Prof. Hilary Priestley.
2016 – 2019	**Lincoln College, University of Oxford** – Oxford, UK Bachelor of Mathematics (BA), Classification: First class.

Publications

2026	**On Topological Groupoids that Represent Theories,** *Zeitschrift für Mathematische Logik und Grundlagen der Mathematik*, to appear (2026) (link).
2025	**Day algebras**, with Edmund Robinson, Accepted in *Mathematical Structures in Computer Science* (preprint: arXiv:2504.06200)
2025	**Topoi with enough points and topological groupoids,** Accepted in *Journal of Pure and Applied Algebra* (preprint: arXiv:2408.15848).
2024	**Some Properties of Internal Locale Morphisms Externalised,** *Theory and Applications of Categories*, Vol. 41, 2024, No. 35, pp 1160-1202 (link).
2024	**The Representing Localic Groupoid for a Geometric Theory**, with Graham Manuell, *Expositions in Theory and Applications of Categories*, 2024, No. 2, pp 1-41 (link).

Preprints

2025   **Existential completions and Herbrand's theorem**, arXiv:2508.15518 (27 pages).

2025   **On the theories classified by an étendue**, arXiv:2507.04526 (17 pages).

2025   **Ultracategories via Kan extensions of relative monads**, with Umberto Tarantino, arXiv:2506.09788 (41 pages).

2024   **Existentially closed models and locally zero-dimensional toposes,** with Mark Kamsma, arXiv:2406.02788 (30 pages).

2023   **The Geometric Completion of a Doctrine,** arXiv:2304.07539 (63 pages, under second review in *Annals of Pure and Applied Logic*).

Teaching experience

2025   **Graduate teaching** (Universitè Paris Citè)
Duality and categorical logic – 12hrs (course lecturer: Sam van Gool).
Lectured exercise classes, including assisting with course design and preparing problem sheets.

2022 – 2024   **Graduate teaching** (Università degli Studi dell'Insubria)
- *Topics in category theory* – 36 hrs (course lecturer: Prof. Olivia Caramello),
- *Topos theory* – 36 hrs (course lecturer: Prof. Olivia Caramello).
Lectured exercise classes and prepared corresponding lecture notes and problem sheets.

2021 – 2022   **Undergraduate teaching** (Università degli Studi dell'Insubria)
- *Algebra 1* – 12 hrs (course lecturer: Prof. Valerio Monti),
- *Algebra 2* – 12 hrs (course lecturer: Prof. Valerio Monti),
- *Geometria 1* – 12 hrs (course lecturer: Prof. Olivia Caramello).
Prepared and taught exam revision lessons, including preparation of problem sheets. Taught in Italian.

Invited talks

April 2026   **TBA.** 7th Workshop on Formal Topology, Venice Italy.

Dec. 2024   **Theories, topological groupoids and topoi.**
Categorical Logic and Higher Categories, University of Manchester, UK.

Professional activities

Dec. 2025   **Scientific committee**
6th ItaCa Workshop, Milan, Italy.

June 2025   **PhD examiner**
Kristóf Kanalas (Masaryk University, Czechia).

  Journal referee
Theory and Applications of Categories; *Applied Categorical Structures*.

2024   **Undergraduate admissions interviewer**
Natural sciences, St Edmund's college, Cambridge.

Sept. 2022   **Local Organiser**
9th Symposium on Compositional Structures, Como, Italy.