

Joshua Wrigley

Curriculum Vitae

wrigley@irif.fr • jlwrigley.github.io • +44 7532 069 073

Building Sophie Germain, 8 place Aurélie Nemours, 75013 Paris

Appointments

- Jan.–Dec. 2025 **Université Paris Cité** – Paris, France
Postdoctoral Researcher (Chercheur du CNRS),
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
Dottorato di ricerca in informatica e matematica del calcolo (PhD),
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

- 2025 **On Topological Groupoids that Represent Theories**,
Accepted in *Zeitschrift für Mathematische Logik und Grundlagen der Mathematik* (preprint:
[arXiv:2306.16331](https://arxiv.org/abs/2306.16331), 46 pages).
- 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 **On the theories classified by an étendue**, [arXiv:2507.04526](#) (13 pages).
- 2025 **Ultracategories via Kan extensions of relative monads**, with Umberto Tarantino, [arXiv:2506.09788](#) (41 pages).
- 2025 **Day algebras**, with Edmund Robinson, [arXiv:2504.06200](#) (21 pages).
- 2024 **Topoi with enough points and topological groupoids**, [arXiv:2408.15848](#) (31 pages, under second review in *Journal of Pure and Applied Algebra*).
- 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** (Université Paris Cité)
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

- Dec. 18, 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 27, 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. 8-9, 2022 **Local Organiser**
[9th Symposium on Compositional Structures](#), Como, Italy.