Joshua Wrigley

Curriculum Vitae

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Building Sophie Germain, 8 place Aurélie Nemours, 75013 Paris

Appointments

Jan.–Dec. 2025   **Université Paris Cité** – Paris, France
Postdoctoral Research Assistant (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 Research Assistant,
Research Co-Lead on EPSRC short project *Toward a Cohomology of Theories*.
Principal investigator: Prof. Ivan Tomašić.

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

2024   **On Topological Groupoids that Represent Theories,**
Accepted in *Mathematical Logic Quarterly* (preprint: arXiv:2306.16331).

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

2024   **Topoi with enough points and topological groupoids,** arXiv:2408.15848.

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

2023   **The Geometric Completion of a Doctrine,** arXiv:2304.07539.

Teaching experience

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

Journal referee
Theory and Applications of Categories.

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

Sept. 8-9, 2022   **Local Organiser**
9th Symposium on Compositional Structures, Como, Italy.

Languages

English (fluent), Italian (advanced, B2/C1).