CV

Personal information

Name / Surname	**Thomas Wasserman**
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Interests

Interests	Topological Quantum Field Theories, Geometric Group Theory, Conformal Field Theory, Higher Categories, Duality Groups, Simplicial Sheaves, Condensed Mathematics.

Employment

2022 - present	Postdoc, Department of Mathematics, **University of Oxford**
2021 - 2023	Stipendiary Lecturer, Lincoln College, **University of Oxford**
2020 - 2021	Career gap as a consequence of the pandemic.
2018 - 2020	Postdoc, Mathematical Institute **University of Copenhagen**

Education

Period	2012 -2018[1]
Degree	DPhil. Mathematics, **University of Oxford**
Thesis Title	"*Reduced Tensor Product of Braided Fusion Categories over a Symmetric Fusion Category*"
Advisor	Christopher Douglas
Period	2008 - 2012
Degree	Master Mathematical Sciences and Master Theoretical Physics, **Utrecht University**
Thesis	"*Orbifold Conformal Field Theory and One-Loop Self-Energy in the $S_N \mathbb{R}^D$ Sigma Model*"
Advisors	André Henriques and Gleb Arutyunov
Period	2005 - 2009
Programs	Bachelor Mathematics and Bachelor Physics and Astronomy, **Utrecht University**

Publications

Title	Duality for Cohen–Macaulay Complexes through Combinatorial Sheaves
Co-Author	Richard D. Wade
Status	Preprint: *ArXiV:2405.05881*. In review: *Journal of Topology*.
Title	Cohen–Macaulay Complexes, Duality Groups and the dualizing module of $\mathrm{Out}(F_N)$
Co-Author	Richard D. Wade
Status	Preprint: *ArXiv:2405.05873*. In review: *IMRN*.
Title	Landau-Ginzburg–Conformal Field Theory correspondence for x^d and Module Tensor Categories
Co-Author	Ana Ros Camacho
Status	Preprint: *arXiv:2206.01045*. In review: *Journal of Mathematical Physics*.
Title	Reduced Tensor Product of Braided Tensor Categories over Symmetric Fusion Categories
Status	In review: *Higher Structures*. Preprint arXiv:1910.13562
Title	Drinfeld centre-crossed braided tensor categories
Journal/Year	*Higher Structures 5(1):203-243*, 2021
Title	The Drinfeld centre of a symmetric fusion category is 2-fold monoidal
Journal/Year	*Advances in Mathematics 366:107090*, 2020
Title	The symmetric tensor product on the Drinfeld centre of a symmetric fusion category

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[1]My PhD took longer due to my father's sudden passing in December 2013.

Journal/Year	*Journal of Pure and Applied Algebra 224(8):106348*, 2020

Upcoming Articles

Title	A three-functor formalism for commutative Von Neumann algebras
Co-Author	André G. Henriques
Status	Expected October 2024
Title	Duality for profinite groups through condensed mathematics
Co-Authors	Max Gheorghiu and Sofía Marlasca Aparicio
Status	Expected Autumn 2024
Title	A module category approach to $c = 1$ Conformal Field Theories
Co-Author	Adrià Marin Salvador
Status	Expected December 2024

Teaching

Period	2021-2023
Institution	Lincoln College, University of Oxford
Title	Stipendiary Lecturer in Pure Mathematics
Tasks	Tutor for first and second year algebra modules, Admissions Tutor.
Period	2022-2023
Institution	Mathematical Institute, University of Oxford
Tasks	Supervisor for Part B Extended Essay, Assessor for Preliminary Examinations.
Qualification	2019, Introduction to University Pedagogy
Institution	University of Copenhagen
Description	Week long intensive introduction to university pedagogy.
Period	2019 - 2020
Institution	University of Copenhagen
Tasks	Lecturer: Graduate Courses, Supervisor: Bachelor Thesis, Reading Courses.
Period	2018
Institution	St. Peter's College, University of Oxford
Title	Non-Stipendiary Lecturer in Pure Mathematics
Description	Tutor for prelims tutorials for groups and group actions.
Period	2015 - 2017
Institution	University College, University of Oxford
Title	Junior Lecturer in Pure Mathematics
Description	Tutor for prelims tutorials for linear algebra and groups.
Period	2015
Institution	Exeter College, University of Oxford
Title	Tutor for the Williams-Exeter Programme
Description	One-on-one tutorials with an exchange student on geometry of surfaces.
Period	2012 - 2016
Institution	Mathematical Institute, University of Oxford
Title	Teaching Assistant, Class tutor
Description	Class tutor for Part C courses on homological algebra, algebraic topology, computational algebraic topology, and Lie groups.
Period	2008 - 2012
Institution	Universiteit Utrecht
Title	Student assistant
Description	Teaching assistant for the second year courses on analysis and multidimensional real analysis, third year courses on functional analysis and smooth manifolds, and for the master course on Riemann surfaces.

Organising

2024	Organised the Oxford Topology Advanced Class on Factorisation Algebras.
2023	Organised the Oxford Topology Advanced Class on Six-Functor Formalisms.
2022	Organised the Oxford Topology Advanced Class on the Fuchs-Runkel-Schweigert Formalism for Conformal Field Theory.
2019-2020	Organised the Topology Seminar at the University of Copenhagen.
2006-2011	Member of various co-determination councils at Utrecht University.

Awards and Scholarships

2022	Named researcher on a **Research Extension Grant** to Richard Wade's *University Research Fellowship* from the *Royal Society* to fund my appointment as Postdoctoral Research Assistant (£160,000). Co-wrote the project.
2016	**Departmental Teaching Award** from the Mathematical Institute, University of Oxford
2013	Scholarship from Prins Bernhard Cultuurfonds for DPhil. Mathematics at University of Oxford (€12,000)
2012	Scholarship from the Engineering and Physical Sciences Research Council for DPhil. Mathematics at University of Oxford
2012	Scholarship from Dr. Hendrik Muller Vaderlandsch Fonds for DPhil. Mathematics at University of Oxford (€5,000)
2012	Funding from Stichting Vreedfonds for DPhil. Mathematics at University of Oxford (€6,000)
2012	Funding from Fundatie Vrijvrouwe van Renswoude for DPhil. Mathematics at University of Oxford(€6,000)
2010	Second place in the NNV's Bachelor Thesis contest at FYSICA 2010
2009	Scholarship from the Swiss government for study at the ETH Zürich for 5 months

Conferences, Talks, Visitorships

2024	*"Dubrovnik X: Topology & Dynamical Systems"*, Dubrovnik.
2024	*"INI program Topology, representation theory and higher structures, International Conference"*, Isle of Skye, **Invited Speaker**.
2024	*"Topological Quantum Field Theory Seminar"*, Técnico Lisboa, **Invited Speaker**.
2024	*"Seminar on Mathematical Physics"*, Aalto University, **Invited Speaker**.
2024	*"Workshop on New Directions in Conformal Field Theory"*, University of Hamburg, **Contributed talk**.
2023	*"Seminar on Mathematical Physics"*, Aalto University, **Invited Speaker**.
2024	*"UBC Topology Seminar"*, University of British Columbia, **Invited Speaker**.
2023	*"CMI Conference and Workshop on Symplectic Geometry and Low Dimensional Topology"*, University of Oxford.
2023	*"Functor Categories for Groups"*, London.
2023	*"Categorical Symmetries in Quantum Field Theory"*, Les Diablerets.
2023	*"Early Career Symposium for Topology, Actions, and Symmetry"*, University of Southampton, **Contributed talk**.
2023	*"A Panorama on Homotopy Theory"*, University of Oxford.
2022	*"Geometry, Algebra, Physics and Topology Seminar"*, Cardiff University, **Invited speaker**.
2022	*"Topology Seminar"*, University of Oxford, **Invited speaker**.
2022	*"Geometric Group Theory in the South-East"*, University College London.
2022	*"Clay Mathematics Workshop and Conference"*, University of Oxford.
2021	*"Non-Commutative Geometry Seminar"*, Leiden University, **Invited speaker**.
2020	*"Geometry and Topology Seminar"*, University of Aberdeen, **Invited speaker**.
2019	*"SYM 10 Years Old"*, University of Copenhagen.
2019	*"Loops in Leeds"*, University of Leeds, **Contributed a talk**.
2019	*"Research Seminar Algebra & Mathematical Physics"*, University of Hamburg, **Invited speaker**.
2019	*"Junior Topology and Geometry Seminar*, University of Oxford, **Contributed a talk**.
2018	*"Topology Seminar"*, Autonomous University of Barcelona, **Invited speaker**.

2018	Visitor at the University of Oxford, from March until August.
2017	"*Topology Seminar*", Copenhagen University, **Invited speaker**.
2017	"*Geometry Seminar*", Plymouth University, **Invited speaker**.
2017	"*Topology Seminar*", University of Oxford, **Invited speaker**.
2017	"*LMS-CMI Research School: Algebraic Topology of Manifolds*", Oxford
2017	"*Young Topologists Meeting*", Stockholm, **Contributed a talk**.
2017	"*Geometry and Quantum Theory Colloquium*", Den Dolder (Joint seminar for Dutch universities), **Invited speaker**.
2017	"*Groups, Manifolds and K-Theory*", Münster.
2016	"*Clay Mathematics Workshops and Conferences*", Oxford.
2016	"*Jóvenes Investigadores X*", Complutense University Madrid. **Invited speaker**.
2016	"*Young Topologists Meeting*", Copenhagen. **Contributed a talk**.
2016	"*Michael Weiss' Birthday Conference*", Lisbon.
2016	"*European Talbot*", Winterberg. Topic: Topological Quantum Field Theories. Mentors: Chris Schommer-Pries and Peter Teichner. **Contributed a talk.**
2016	Visited Stanford University. Hosts: Ralph Cohen and Søren Galatius. **Contributed a talk in the Topology Progress Seminar**.
2016	"*OAC Manifolds Conference*", Oxford.
2015	"*Higher Structures in Geometry and Physics*" workshop, MPIM, Bonn.
2015	"*Clay Mathematics Workshop on Algebraic Topology*", Oxford.
2015	"*Clay Mathematics Conference*", Oxford.
2015	"*Graduate Workshop on Topological Quantum Field Theory*", Simons Centre, Stony Brook, NY.
2015	"*Conference on Topology and Geometry*", HIM, Bonn.
2015	"*Young Topologists Meeting*", Lausanne. **Contributed a talk**.
2015	"*Homotopy Theory, Manifolds, and Field Theories*", Bonn.
2014	"*Topological quantum field theories, quantum groups and 3-manifold invariants Masterclass*", Copenhagen.
2014	"*Young Topologists Meeting*", Copenhagen. **Contributed a talk**.
2014	"*Algebraic Topology*" program, MSRI, Berkeley.
2014	"*Reimagining the foundations of algebraic topology*" workshop MSRI Berkeley.
2013	"*Clay Mathematics Institute conference and workshops*", Oxford.
2013	"*Young Researchers in Mathematics*", Edinburgh.
2013	"*Categorification and Link Homology* short course and workshop, Louvain-La-Neuve.
2013	"*Young Topology Meeting*", Imperial College, London.
2013	"*Higher Structure 2013*" workshop, Cambridge.
2012	"*Aspects of Topology*", Oxford.
2012	"*Quantum Gravity in Paris*", Paris.
2012	"*Higher Geometric Structures along the Lower Rhine*", Bonn.
2011	"*Higher Structures in Topology and Geometry IV*", Göttingen.
2010	"*Geometry of gauge theories and the geometric quantization Masterclass*" at the University of Amsterdam.