

D. Lukas B. Brantner – Curriculum Vitae

ACADEMIC POSITIONS	Mathematical Institute, Oxford University , Oxford, United Kingdom	Oct 2021 –
	Royal Society University Research Fellow. On leave: Feb 2022 – Jan 2023	
	CNRS, Université Paris-Saclay , Orsay, France	Feb 2022 – Jan 2023
	Chargé de Recherche	En détachement: Feb 2023 –
	Merton College, Oxford University , Oxford, United Kingdom	
	Junior Research Fellow for Mathematics	Oct 2018 – Sep 2021
	and Julia de Lacy Mann Fellow	Nov 2021 – Feb 2022
EDUCATION	Mathematical Sciences Research Institute , Berkeley, United States of America	Jan 2019 – May 2019
	Stephen Della Pietra Fellow during special semester on Derived Algebraic Geometry	
	Max Planck Institute for Mathematics , Bonn, Germany	Sep 2017 – Sep 2018
	Researcher (Scientific Assistant)	
	Harvard University , Cambridge, United States of America	Sep 2012 – May 2017
	Doctor of Philosophy (Ph.D.) in Mathematics	
	Thesis: The Lubin-Tate Theory of Spectral Lie Algebras.	
	Advisor: Jacob Lurie	
	Minor Thesis: The p -adic Hodge Theory of Semistable Galois Representations (with Mark Kisin)	
	University of Cambridge , St. John's College, Cambridge, United Kingdom	Oct 2008 – Jun 2012
EXTENDED RESEARCH VISITS	Bachelor of Arts (hons), Master of Mathematics	
	First (highest class) in Part IA, Part IB, Part II, Distinction (highest class) in Part III.	
	Top of the tripos (out of $\simeq 250$) in 2009. 4 th Wrangler.	
	Essay: Abelian and Nonabelian Hodge Theory (with Ian Grojnowski)	
	Friedrich Gymnasium and Albert-Ludwigs Universität, Freiburg, Germany	
	First year of diploma course physics (grade average: 1.0).	Nov 2007 – Jul 2008
	Abitur (graduated early, grade average: 1.0).	– Aug 2007
	Attended astrophysics classes at university while in high school	
	▪ Mittag-Leffler Institute, Stockholm	Mar 2022, Apr 2022
	▪ University of California, Berkeley (Guest of Peter Teichner)	Mar 2018 – Apr 2018
PUBLICATIONS	▪ Stockholm University (Guest of Gregory Arone)	Apr 2016 Nov 2017
	▪ Hausdorff Center for Mathematics, Bonn	May 2015, Nov 2016
	▪ Undergraduate Research Fellow, California Institute of Technology	Jul 2010 – Sep 2010
	Project: Stable Commutator Length in Free Groups. Advisor: Danny Calegari	
	[8] Brantner, Lukas, Ricardo Campos, Joost Nuiten, “PD Operads and Explicit Partition Lie Algebras”. 105 pages. <i>Submitted</i> . <i>arXiv:2104.03870</i> .	
	[7] Brantner, Lukas, Joe Waldron, “Purely Inseparable Galois Theory I: The Fundamental Theorem”. 36 pages. <i>Submitted</i> . <i>arXiv:2010.15707</i> .	
	[6] Brantner, Lukas, Jeremy Hahn, Ben Knudsen, “The Lubin-Tate Theory of Configuration Spaces”. 61 pages. <i>Submitted</i> . <i>arxiv:1908.11321</i> .	
	[5] Brantner, Lukas, Akhil Mathew “Deformation Theory and Partition Lie Algebras”. 91 pages. <i>Submitted</i> . <i>arXiv:1904.07352</i> .	
	[4] Arone, Gregory, Lukas Brantner, “The Action of Young Subgroups on the Partition Complex”. 110 pages. <i>Published</i> . <i>Publications Mathématiques de l’IHÉS</i> , 113 (2021): 47–156.	
	[3] Brantner, Lukas, “The Lubin-Tate Theory of Spectral Lie Algebras”, 160 pages. Harvard Thesis. Available at https://people.maths.ox.ac.uk/brantner/brantnerthesis.pdf .	
SELECTED FORTHCOMING ARTICLES	[2] Brantner, Lukas, Gijsbert Heuts, “The v_n -periodic Goodwillie Tower on Wedges and Cofibres”. 18 pages. <i>Published</i> . <i>Homology, Homotopy and Applications</i> , 22.1 (2020): 167-184.	
	[1] Brantner, Lukas, (Appendix: F. Manners), “On the Complexity of Sails”. 30 pages. <i>Published</i> . <i>Pacific Journal of Mathematics</i> , 258.1 (2012): 1-30.	
	[11] Brantner, Lukas, Jeremy Hahn, Gijs Heuts, Allen Yuan, “On Φ -good Spaces”.	
	[10] Brantner, Lukas, Joost Nuiten, Kirill Magidson, “Deformations of Families and Partition Lie Algebroids”.	
	[9] Brantner, Lukas, Lenny Taelman, “Deformations and Lifts of Calabi–Yau Varieties in Characteristic p ”.	

CONFERENCE TALKS	▪ British Topology Meeting, Aberdeen	Aug 2024
	▪ Homotopy theory workshop, Stockholm	Jun 2024
	▪ “Homotopy Theory in Trondheim”, Trondheim	Jun 2023
	▪ “A Panorama of Homotopy Theory — A Conference in Honour of Mike Hopkins”, Oxford	Jun 2023
	▪ “Barcelona Conference on Higher Structures”, Barcelona	Jun 2022
	▪ “Nankai Symposium on Mathematical Dialogues”, Nankai	Aug 2021
	▪ Oberwolfach Arbeitsgemeinschaft “Derived Galois Deformation Rings and Cohomology of Arithmetic Groups”. Report: publications.mfo.de/handle/mfo/3907 .	Apr 2021
	▪ “Derived Geometry, Symplectic Geometry, and Representation Theory”, Montpellier	Dec 2019
	▪ Oberwolfach Workshop “Homotopy Theory”. Report: publications.mfo.de/handle/mfo/3784	Aug 2019
	▪ Oberwolfach Arbeitsgemeinschaft “Elliptic Cohomology according to Lurie”. Report: publications.mfo.de/handle/mfo/3748 .	Mar 2019
	▪ Transpennine Topology Triangle, Sheffield	Oct 2018
	▪ Oberwolfach Workshop “Topologie”. Report: publications.mfo.de/handle/mfo/3653 .	Jul 2018
	▪ Workshop on ∞ -Operads, Utrecht	Jun 2018
	▪ Banff Workshop on Operations in Highly Structured Homology Theories, Recording of talk: https://open.library.ubc.ca/cIRcle/collections/birs/items/1.0339952 .	May 2016
SEMINAR TALKS	▪ Rome “Tor Vergata” Geometry Seminar	Apr 2024
	▪ Sheffield Topology Seminar	Dec 2023
	▪ MIT Topology Seminar	Nov 2022
	▪ Utrecht University and Radboud University Nijmegen Topology Seminar	Nov 2022
	▪ University of Toulouse Homotopy and Algebraic Geometry Seminar	Oct 2022
	▪ Strasbourg University Algebraic Topology Seminar	Jul 2022
	▪ University of Copenhagen Algebraic Topology Seminar	Jun 2022
	▪ Mittag Leffler Institute Higher Algebraic Structures Seminar	Mar 2022
	▪ Strasbourg University Algebraic Geometry Seminar	Mar 2022
	▪ Orsay Algebraic and Arithmetic Geometry Seminar	Feb 2022
	▪ Oxford University Topology Seminar	Jan 2022
	▪ Oxford University Algebraic Geometry Seminar	Nov 2021
	▪ Southampton Pure Mathematics Colloquium	Oct 2021
	▪ Essen RTG Seminar	May 2021
	▪ Harvard–MIT Algebraic Geometry Seminar	Mar 2021
	▪ University of Maryland Algebra-Number Theory Seminar	Jan 2021
	▪ Universität Hamburg Topologieseminar	Jan 2021
	▪ Norwegian Homotopy Seminar	May 2020
	▪ University of Copenhagen Algebraic Topology Seminar	Dec 2019
	▪ University of Aberdeen Topology Seminar	Nov 2019
	▪ University of Warwick Algebraic Topology Seminar	Oct 2019
	▪ Princeton University Algebraic Geometry Seminar	Sep 2019
	▪ Oxford University Algebraic Geometry Seminar	Jun 2019
	▪ Paris 13 Séminaire de Topologie Algébrique	May 2019
	▪ MIT Topology Seminar	Apr 2019
	▪ MSRI Derived Algebraic Geometry Seminar	Mar 2019
	▪ Electronic Computational Homotopy Theory Seminar	Jan 2019
	▪ Oxford University Topology Seminar	Oct 2018
	▪ University of Chicago Topology Seminar	Apr 2018
	▪ Universität Bonn Topologieseminar	Jan 2018
	▪ KTH / Stockholm Topology Seminar	Nov 2017
	▪ Johns Hopkins University Topology Seminar	Feb 2017
	▪ University of Chicago Topology Seminar	Jan 2017
	▪ University of Copenhagen Topology Seminar	Jan 2017
	▪ Hausdorff Institute Bonn, Trimester Program	Nov 2016
	▪ Oxford University Topology Seminar	Sep 2016
	▪ KTH / Stockholm University Algebra and Geometry Seminar	Apr 2016
MINICOURSE	▪ Max Planck Institute for Mathematics, Bonn. “The Partition Complex”.	Jan 2018

SELECTED AWARDS / MERIT SCHOLARSHIPS	▪ Successful application to Royal Society Enhanced Research Expenses scheme (£ 400.000)	2023
	▪ Laureate of CNRS Chargé de Recherche competition	2021
	▪ Award of Royal Society University Research Fellowship	2021
	▪ ERP Scholar, German Academic Scholarship Foundation, (research stipend, \$ 91.400)	2013-2015
	▪ Bayliss Scholarship, Wright Prize, St. John's College (for students with best exams)	2009-2012
	▪ Study Abroad Scholarship, German Academic Scholarship Foundation	2011
	▪ Master's Prize, St. John's College, Cambridge, for my Paper 'On the Complexity of Sails'	2011
	▪ Ian Hall Year Prize, Adams Prize, St. John's College, for "the top-performing mathematicians of the mathematical tripos".	2011
	▪ German Academic Exchange Service (DAAD) Scholarship	2010
	▪ Lapwood-Towle Prize, St. John's College, Cambridge	2010
	▪ Johnston Year Prize, Leathem Prize for being the top scoring mathematician in the university (out of $\simeq 250$)	2009
	▪ Study Abroad Scholarship, German Academic Scholarship Foundation	2008
	▪ Member of German Academic Scholarship Foundation (Studienstiftung des Deutschen Volkes)	2008–
	▪ TCC course at Oxford on " ∞ -Categories and deformation theory"	2024
	▪ Designed/lectured graduate classes on " ∞ -Categories in Algebraic Geometry" at Orsay	2022
TEACHING EXPERIENCE	▪ Designed and led Oxford advanced classes on the following topics: Prismatic Cohomology (Fall 2021), Condensed Mathematics (Spring 2021), Configuration spaces and manifold calculus (Fall 2020), Rational homotopy theory of automorphisms of manifolds (Spring 2020), Chromatic Homotopy Theory (Fall 2018).	
	▪ Director of Studies for Merton's Part C students.	2020/2021
	▪ College Advisor for several Master/DPhil students at Merton.	2020/2021
	▪ Supervised Part B extended essays and Part C dissertations at Oxford	2020–
	▪ Designed/lectured graduate classes on "Topics in Koszul Duality" at Oxford	2019
	▪ Delivered tutorials for the following courses at Oxford: "Geometry", "Groups and Group Actions", "Linear Algebra" (Year 1 and 2), "Topology", "Analytic Topology", "Rings and Modules", and "Number Theory".	
	▪ Lectured Vector Calculus (Math 21a) at Harvard	2015, 2017
	▪ Teaching apprenticeship with Janet Chen (included video coaching of calculus teaching)	2015
	▪ Completed calculus teaching class (Math 300) at Harvard (included video coaching)	2012
SERVICE	▪ Referee for EPSRC and various international journals, including Algebraic & Geometric Topology, Bulletin of the London Mathematical Society, Forum of Mathematics, Sigma, Forum of Mathematics, Pi, Geometry & Topology, Journal für die reine und angewandte Mathematik (Crelle), Journal of the London Mathematical Society, Journal of Topology, Publications mathématiques de l'IHÉS, Memoirs of the AMS, Selecta Mathematica, Transactions of the American Mathematical Society, Quarterly Journal of Mathematics.	
	▪ Member of selection panel for German Academic Scholarship Foundation.	
	▪ Examiner for exams and Master/DPhil theses at Oxford	
	▪ Organiser of Oxford topology seminar	Oct 2023–
	▪ Organised conference "Generalised Lie algebras in Derived Geometry", Utrecht University	May 2023
	▪ Organised mini-conference "Homotopical methods in algebraic geometry", IHP, Paris	Mar 2023
	▪ Organised twin conference "Homotopy Theory with Applications to Arithmetic & Geometry", Jun 2022 Max Planck Institute for Mathematics (Bonn) and Fields Institute (Toronto)	
	▪ Member of selection panel for German Academic Scholarship Foundation.	2021
	▪ Member of Governing Body and trustee of Merton College (as JRF), serving on various committees and as Health & Safety Representative for Academic Staff during the pandemic	2018-2021
	▪ Carried out yearly undergraduate admission interviews for Merton College	2018-2021
	▪ Organised twin conference "Higher Algebra and Mathematical Physics" Max Planck Institute for Mathematics (Bonn) and Perimeter Institute (Waterloo)	Aug 2018
	▪ Organised block seminar "Elliptic Cohomology" at Berkeley	2018
	▪ Organised "Juvitop seminar" (Harvard-MIT Graduate Topology Seminar)	2014/2015
	▪ Organised "Trivial Notions seminar" (Harvard graduate student seminar)	2013/2014
	▪ President of the Adams' Society (Mathematical society of St. John's College)	2010/2011
LANGUAGES	▪ German: Native. English: Fluent (IELTS). French: Fluent (DALF C1). Spanish: Beginner.	

REFERENCES

Jacob A. Lurie. Professor of Mathematics, Institute of Advanced Studies.

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Janet Chen (Teaching reference). Senior Preceptor, Harvard University.

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