Daniel Bragg

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ACADEMIC EMPLOYMENT

2022 – now   Wylie Assistant Professor, University of Utah
2019 – 2022   NSF Postdoctoral Fellow, UC Berkeley (advisor: Martin Olsson)
2019   Postdoc, MSRI (Spring semester)
2018   RTG Postdoctoral Scholar, UC Berkeley (Fall semester)

EDUCATION

2013 – 2018   Ph.D. Mathematics,
University of Washington, Seattle (advisor: Max Lieblich)
2010 – 2013   B.A. Mathematics,
University of Colorado, Boulder, summa cum laude (advisor: Nat Thiem)

RESEARCH INTERESTS

Algebraic geometry and arithmetic geometry.

GRANTS AND AWARDS

2019 – 2022   NSF Postdoctoral Research Fellowship DMS-1902875

INVITED RESEARCH TALKS

2024   Algebraic geometry seminar, Texas A&M University
Joint Mathematics Meeting Special Session on Derived Categories, Arithmetic, and Geometry
Algebraic geometry seminar, UIUC
2023   NTAG seminar, Simon Fraser University
Algebraic geometry seminar, University of Virginia
Algebraic Geometry Seminar, University of Wisconsin
Algebraic geometry and cohomology in mixed characteristic, in celebration of Bhargav Bhatt's Nemmers Prize (May 2023 at Northwestern)
Algebraic Geometry Seminar, University of Washington
2022   Zoom Algebraic Geometry Seminar (ZAG) (virtual, worldwide)
MIT/Harvard: Algebraic Geometry Seminar

Banff International Research Station (BIRS): Workshop on Derived Categories, Arithmetic, and Reconstruction in Algebraic Geometry

Algebraic Geometry Seminar, University of Michigan

AMS Western Sectional Meeting (Fall 2022, University of Utah): Special Session on Recent Advances in Algebraic Geometry and Commutative Algebra in or Near Characteristic p

Algebraic Geometry Seminar, University of Utah

2021 JMM - AMS Special Session on Galois Cohomology in Arithmetic Geometry

MSU: Algebra Seminar

The Derived Seminar (virtual, worldwide)

2020 Berkeley Commutative Algebra and Algebraic Geometry Seminar

UCSB: Algebraic Geometry Seminar

Stacks Project Workshop

2019 University of California, Santa Cruz: Algebra and Number Theory Seminar

Stanford: Algebraic Geometry Seminar

MIT/Harvard: Algebraic Geometry Seminar

Fudan University, Shanghai: Workshop on Algebraic Geometry

Rice: Algebraic Geometry and Number Theory Seminar

WAGS (Western algebraic geometry symposium) University of Utah

Banff International Research Station (BIRS): Workshop on Brauer Groups

University of Washington: Algebraic Geometry Seminar

2018 Columbia: Algebraic Geometry Seminar

University of California, Berkeley: RTG Arithmetic Geometry Seminar

University of Illinois, Chicago: Algebraic K-theory Seminar

University of Illinois, Chicago: Algebraic Geometry Seminar

Southern California Algebraic Geometry Seminar

2017 University of California, Berkeley: Special Seminar in Arithmetic Geometry

University of Utah, Salt Lake City: Algebraic Geometry Seminar

University of Washington, Seattle: Algebraic Geometry Seminar

University of Michigan, Ann Arbor: Algebraic Geometry Seminar

University of Oregon: Algebra Seminar

Conference and Seminar Organization

2022 – 2024 Organizer, University of Utah Algebraic Geometry Preprint Seminar.

2018 – 2022 Organizer, Berkeley Arithmetic Geometry and Number Theory Seminar.

2022 Organizer, Berkeley RTG Conference in Number Theory.

2020 Organizer, Berkeley Undergraduate Number Theory Conference.

2019 Organizer, Western Algebraic Geometry Symposium (WAGS) (Spring 2019 at UC Berkeley).

Outreach

2020 – 2021   Organizer, Undergraduate Brown Bag Lunches Series (with MUSA)
2016 – 2017   Washington Experimental Mathematics Lab (WXML) mentor

Teaching

Instructor, University of Utah

Spring	2025	Math 1090: Business Algebra
Fall	2024	Math 2200: Discrete Mathematics
Spring	2024	Math 1090: Business Algebra
Fall	2023	Math 3210: Foundations of Analysis I
Spring	2023	Math 2200: Discrete Mathematics
Fall	2022	Math 2210: Calculus III

Instructor, UC Berkeley

Spring	2022	Math 143: Introduction to Algebraic Geometry
Spring	2022	Math 199: Independent study. Algebraic topology.
Fall	2021	Math 113: Introduction to Abstract Algebra
Spring	2021	Math 143: Introduction to Algebraic Geometry
Fall	2020	Math 113: Introduction to Abstract Algebra
Fall	2018	Math 116: Cryptography

Instructor, University of Washington

	2017	Math 126: Calculus with Analytic Geometry III
	2016	Math 324: Advanced Multivariable Calculus I
	2015	Math 124: Calculus with Analytic Geometry I
	2015	Math 308: Matrix Algebra with Applications

Teaching Assistant, University of Washington

2013 – 2017		Math 124, 125, 126

Publications and preprints

All publications and preprints are available on the arXiv. Links can be found on my professional website: `https://www.math.utah.edu/~bragg/`

Publications

[1] Daniel Bragg. Fourier-Mukai transforms commuting with Frobenius. *Bulletin of the London Mathematical Society*, `doi.org/10.1112/blms.13145.`, (2024).

[2] Daniel Bragg and Jack Hall and Siddharth Mathur. Unipotent morphisms. To appear in *Geometry & Topology*

[3] Nicolas Addington and Daniel Bragg. Hodge numbers are not derived invariants in positive characteristic. *Math. Ann.*, Vol. 387 (2023): pgs 847–878.

[4] Daniel Bragg and Ziquan Yang. Twisted derived equivalences and isogenies between K3 surfaces in positive characteristic. *Algebra & Number Theory*, Vol. 17, no. 5 (2023): pgs 1069–1126.

[5] Daniel Bragg. Lifts of twisted K3 surfaces to characteristic 0. *Int. Math. Res. Not. (IMRN)*, Vol. 5 (2023): pgs 4337–4407.

[6] Jarod Alper, Pieter Belmans, Daniel Bragg, Jason Liang, and Tuomas Tajakka. Projectivity of the moduli space of vector bundles on a curve *London Mathematical Society Lecture Note Series. Cambridge University Press.* (2022): pgs 90–125.

[7] Benjamin Antieau and Daniel Bragg. Derived invariants from topological Hochschild homology. *Algebraic Geometry*, Vol. 9, no. 3 (2022): pgs 364–399.

[8] Daniel Bragg and Max Lieblich. Perfect points on genus one curves and consequences for supersingular K3 surfaces. *Compositio Mathematica*, Vol. 158, no. 5 (2022): pgs 1052 - 1083.

[9] Daniel Bragg. Derived equivalences of twisted supersingular K3 surfaces. *Advances in Mathematics*, Vol. 378 (2021): 107498.

[10] Daniel Bragg and Nathaniel Thiem. Restrictions of rainbow supercharacters. *Journal of Algebra*, Vol. 451 (2016): pgs 357–400.

Preprints (submitted for publication)

[11] Daniel Bragg and Martin Olsson and Rachel Webb. Ample vector bundles and moduli of tame stacks. Preprint available at *arXiv e-prints*, arXiv:2407.01743. (2024) *Submitted.*

[12] Daniel Bragg and Max Lieblich. Murphy's Law for Algebraic Stacks. Preprint available at *arXiv e-prints*, arXiv:2402.00862. (2024) *Submitted.*

[13] Daniel Bragg. Automorphism groups of curves over arbitrary fields. Preprint available at *arXiv e-prints*, arXiv:2304.02778. (2023) *Submitted.*

[14] Daniel Bragg and Martin Olsson. Representability of cohomology of finite flat abelian group schemes. Preprint available at *arXiv e-prints*, arXiv:2107.11492. (2021) *Submitted.*

[15] Daniel Bragg and Max Lieblich. Twistor spaces for supersingular K3 surfaces. Preprint available at *arXiv e-prints*, arXiv:1804.07282. (2019) *Submitted.*