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EMPLOYMENT	<b>The University of Chicago</b> , Assistant Professor	Fall 2017–present
	<b>The University of Chicago</b> , L. E. Dickson Instructor	Fall 2014–Spring 2017
	<b>The Pennsylvania State University</b> , NSF Postdoc, Course Instructor	Fall 2011–Spring 2014
	<b>Tufts University</b> , Graduate Teaching Assistant	Fall 2006–Spring 2011
EDUCATION	<b>Ph.D., Mathematics, Tufts University</b> ADVISOR: Boris Hasselblatt	May 2011
	<b>B.A., Oberlin College</b>	May 2004
PUBLICATIONS	<p><i>Zimmer's conjecture for actions of <math>SL(m, \mathbb{Z})</math></i>. Preprint, 2017. Joint with D. Fisher and S. Hurtado.</p> <p><i>Measure rigidity for random dynamics on surfaces and related skew products</i>. J. Amer. Math. Soc. <b>30</b> (2017), 1055–1132. Joint with F. Rodriguez Hertz.</p> <p><i>Global smooth and topological rigidity of hyperbolic lattice actions</i>. Ann. of Math. (2) <b>186</b> (2017), 913–972. Joint with F. Rodriguez Hertz and Z. Wang.</p> <p><i>Zimmer's conjecture: Subexponential growth, measure rigidity, and strong property (T)</i>. Preprint, 2016. Joint with D. Fisher and S. Hurtado.</p> <p><i>Invariant measures and measurable projective factors for actions of higher-rank lattices on manifolds</i>. Preprint, 2016. Joint with F. Rodriguez Hertz and Z. Wang.</p> <p><i>Smooth ergodic theory of <math>\mathbb{Z}^d</math>-actions part 1: Lyapunov exponents, dynamical charts, and coarse Lyapunov manifolds</i>. Preprint, 2016. Joint with F. Rodriguez Hertz.</p> <p><i>Smooth ergodic theory of <math>\mathbb{Z}^d</math>-actions part 2: Entropy formulas for rank-1 systems</i>. Preprint, 2016.</p> <p><i>Smooth ergodic theory of <math>\mathbb{Z}^d</math>-actions part 3: Product structure of entropy</i>. Preprint, 2016. Joint with F. Rodriguez Hertz and Z. Wang.</p> <p><i>Smoothness of stable holonomies inside center-stable manifolds</i>. Under review, 2016.</p> <p><i>Continuity of Lyapunov Exponents for Cocycles with Invariant Holonomies</i>. J. Mod. Dyn, to appear. Joint with L. Backes and C. Butler.</p> <p><i>Smooth stabilizers for measures on the torus</i>, Discrete Contin. Dyn. Syst. <b>35</b> (2015), 43–58.</p> <p><i>Measure rigidity for random dynamics on surfaces with positive entropy</i>. Permanent preprint, 2014. Joint with F. Rodriguez Hertz.</p> <p><i>Unstable periodic orbits in the Lorenz attractor</i>, Philosophical Transactions of the Royal Society A, <b>369</b> (2011), 2345–2353. Joint with Bruce M. Boghosian, Jonas Lätt, Hui Tang, Luis M. Fazendeiro, and Peter V. Coveney.</p> <p><i>Constraints on dynamics preserving certain hyperbolic sets</i>, Ergodic Theory and Dynamical Systems, <b>31</b> (2011), 719–739.</p> <p><i>Nonexpanding attractors: conjugacy to algebraic models and classification in 3-manifolds</i>, J. Mod. Dyn, <b>4</b> (2010), 517–548.</p>	

HONORS AND  
AWARDS

Bourbaki seminar, presented by Serge Cantat on my work with Fisher and Hurtado on Zimmer's conjecture, October 2017.

Neubauer Family Assistant Professorship, University of Chicago, 2017–present.

NSF Postdoctoral Research Fellowship, award #1104013.

INVITED TALKS  
AND  
MINI-COURSES

Mini-course. Borel Seminar 2018: *Topology and Dynamics in the Swiss Alps*, Les Diablerets, Switzerland, December 2018.

2 hour lecture. At *Current Developments in Mathematics*, Cambridge, MA, November 2018.

6 hour mini-course. Workshop on *Recent Breakthrough on Zimmer's Conjecture and Group Actions*, at Tsinghua Sanya International Mathematics Forum, Sanya China, March 2018.

Invited address. At AMS Spring Central Sectional Meeting, Ohio State University, Columbus, OH, March 2018.

Co-presenter for 6 hour mini-course. At *Global Dynamics Beyond Uniform Hyperbolicity* workshop, Provo, UT, June 2017.

5 hour mini-course. *Groups Acting on Manifolds* workshop, Teresópolis Brazil, June 2016.

TALKS AT  
CONFERENCES,  
SEMINARS, AND  
COLLOQUIA

Dynamics seminar, Tsinghua University, Beijing, China, March 2018.

Dynamics seminar, Peking University, Beijing, China, March 2018.

Conference on *New Methods for Zimmer's Conjecture*, Institute for Pure & Applied Mathematics, UCLA, January 2018.

Conference on *Dynamics in Number Theory and Geometry*, Queen's University, August 2017.

Dynamics seminar, Northwestern University, April 2017.

Group actions and dynamics seminar talk, Yale University, March 2017.

3 talks in RTG seminar, Geometry seminar, and Algebraic Topology seminar, University of Michigan, February 2017.

Department Colloquium, University of Maryland, January 2017.

Department Colloquium, University of California Berkeley, January 2017.

Department Colloquium, University of Toronto, January 2017.

Department Colloquium, University of California San Diego, January 2017.

Groups and Dynamics Seminar, University of Texas Austin, December 2016.

Department Colloquium, University of Wisconsin Madison, December 2016.

Max Dehn Seminar, University of Utah, December 2016.

Department Colloquium, Tufts University, December 2016.

Department Colloquium, University of Illinois at Chicago November 2016.

Fall Workshop in Dynamical Systems, Penn State University, October 2016.

At *Probabilistic Methods in Dynamical Systems and Applications* workshop, Centre de recherches mathématiques (CRM), Montréal, Canada, October 2016.

Geometry, Topology and Dynamics Seminar, University of Illinois at Chicago, September 2016.

*Ergodic Theory Workshop*, University of North Carolina at Chapel Hill, April 2016.

Spring 2016 *Geometry, Groups, and Dynamics* workshop, Indiana University–Purdue University Indianapolis, March 2016.

Special session *Smooth and Symbolic Dynamics*, 2015 Fall Eastern Sectional AMS Meeting, Rutgers University, November 2015.

*Rocky Mountain Dynamical Systems Conference*, Provo, UT, June 2015.

*Boundaries and Ergodic Geometry* conference, University of Notre Dame, June 2015.

Dynamics Seminar, University of Maryland, April 2015.

Ergodic Theory Seminar, Ohio State University, September 2015.

*Global Dynamics Beyond Uniform Hyperbolicity* workshop, Olmué Chile, September 2015.

Ergodic Theory Seminar, Instituto Nacional de Matemática Pura e Aplicada, Rio de Janeiro Brazil, March 2015.

Conference on *Recent Progress in Dynamical Systems and Related Topics*, Banff International Research Station for Mathematical Innovation and Discovery, August 2014.

Dynamics Seminar, University of Chicago, October 2013.

Geometry Seminar, Indiana University Bloomington, May 2013.

Special section *Dynamical systems: Thermodynamic formalism and connections with geometry*, AMS Western Sectional Meeting, Boulder CO, April 2013.

*Randomness and Dynamics Mini-conference*, Northeastern University, April 2011.

Special session *Statistical Properties of Dynamical Systems*, AMS Southeastern Sectional Meeting, Richmond, VA, November 2010.

Dynamical Systems Seminar, Boston University, November 2010.

Fall Workshop in Dynamical Systems, Penn State University, October 2010.

Dynamics Seminar, Northwestern University, September 2010.

Ergodic Theory Seminar, Northeastern University, April 2010.

SIAM Annual Meeting, Denver CO, July 2009.

SUPERVISING AND  
MENTORING

Ph.D. students: Jonathan DeWitt (University of Chicago, present, joint with A. Wilkinson)

Master students: Isabella Scott (University of Chicago, present)

TEACHING  
EXPERIENCE

At University of Chicago:

*Calculus 3*, Math 153, Fall 2014

*Introduction to Proof and Analysis*, Math 159, Fall 2016

*Honors Calculus*, Math 161–163, 2015–16

*Linear Algebra*, Math 202, Spring 2017

*Analysis in  $\mathbb{R}^n$* , Math 203–205, 2014–15, Fall 2017

*Point-set Topology*, Math 262, Winter 2016

At the Pennsylvania State University:

*Matrices*, Math 220, Fall 2013

*Real Analysis*, Math 403, Spring 2014

At Tufts University:

*Introduction to Calculus*, Math 05, 1 semester

*Calculus I*, Math 11, 2 semesters

*Multivariable calculus*, Math 13, 6 semesters

OUTREACH

Two-week course on surface topology for high-school students, University of Chicago Young Scholars Program, Summer 2017.

Mini-course (3 hours) on *Hyperbolic Dynamics*, at University of Chicago Mathematics REU, Summer 2017.

Mini-course (4.5 hours) on *Hyperbolic Dynamics*, at University of Chicago Mathematics REU, Summer 2016.

Mini-course (5 hours) on *Entropy and Rigidity of Group Actions*, at *Groups Acting on Manifolds* workshop for young mathematicians, Teresópolis Brazil, June 2016.

PROFESSIONAL  
SERVICE

Co-organizer for the University of Chicago Dynamics Seminar (2014–present).

Co-organizer for the Penn State Dynamics Seminar (2012–2014).

Co-organizer for conference on *New Methods for Zimmer’s Conjectures* at the Institute for Pure & Applied Mathematics, UCLA, January 2018.

Peer referee: *Discrete Contin. Dyn. Syst.*, *Adv. Math.*, *Israel J. Math.*, *Commun. Math. Phys.*, *Geom. Topol.*, and *Nonlinearity*.