

Chris Lambie-Hanson

Department of Mathematics
Bar-Ilan University
Ramat Gan, 5290002, Israel

Phone: (317) 358-5627 (United States)
(052) 266-0564 (Israel)
Email: lambiec@macs.biu.ac.il
Homepage: <http://math.biu.ac.il/~lambiec/>

Experience

Coleman-Soref postdoctoral fellow - Department of Mathematics, Bar-Ilan University
September 2016 -

Lady Davis postdoctoral fellow - Einstein Institute of Mathematics, Hebrew University of Jerusalem
September 2014 - August 2016

Education

Ph.D. Mathematical Sciences, Carnegie Mellon University, May 2014

Advisor: James Cummings

M.S. Mathematical Sciences, Carnegie Mellon University, May 2012

B.A. Mathematics (Intensive), *cum laude*, Yale University, May 2009

Budapest Semesters in Mathematics, Spring 2008

Publications

Journal Articles

1. (with Philipp Lücke) Squares, ascent paths and chain conditions. Submitted.
2. (with Assaf Rinot) A forcing axiom deciding the generalized Souslin Hypothesis. To appear, *Canadian Journal of Mathematics*.
3. Pseudo-Prikry sequences. To appear, *Proceedings of the American Mathematical Society*.
4. (with Thilo Weinert) Partitioning subsets of generalised scattered orders. Submitted.
5. (with Assaf Rinot) Reflection on the coloring and chromatic numbers. To appear, *Combinatorica*.
6. (with Omer Ben-Neria and Spencer Unger) Diagonal supercompact Radin forcing. Submitted.
7. (with Yair Hayut) Simultaneous stationary reflection and square sequences. To appear, *Journal of Mathematical Logic*.
8. Robust reflection principles. Submitted.
9. Squares and narrow systems. *The Journal of Symbolic Logic*, 82(3):834-859, 2017.
10. Aronszajn trees, square principles, and stationary reflection. To appear, *Mathematical Logic Quarterly*.
11. Bounded stationary reflection II. *Annals of Pure and Applied Logic*, 168(1):50-71, 2017.

12. Covering properties and square principles. *Israel Journal of Mathematics*, 220(2):617-648, 2017.
13. (with Alexei Kolesnikov) The Hanf number for amalgamation of coloring classes. *The Journal of Symbolic Logic*, 81(2):570-583, 2016.
14. (with James Cummings) Bounded stationary reflection. *Proceedings of the American Mathematical Society*, 144(2):861-873, 2016.
15. Good and bad points in scales. *Archive for Mathematical Logic*, 53:749-777, 2014.
16. Squares and covering matrices. *Annals of Pure and Applied Logic*, 165(2):673-694, 2014.
17. (with Timothy Lambie-Hanson) Individual Choice in the Presence of Shared Risk. Submitted.
18. (V. Werner *et al*) Evidence for the microscopic formation of mixed-symmetry states from magnetic moment measurements. *Physical Review C* **78**, 031301(R), 2008.

Workshop Proceedings

(with Menachem Magidor) On the strengths and weaknesses of weak squares. *Appalachian Set Theory: 2006-2012*. Cambridge University Press, 2012.

Awards

Coleman-Soref Postdoctoral Fellowship at Bar-Ilan University, 2016-17

Golda Meir Postdoctoral Fellowship at Hebrew University of Jerusalem, 2015-16

Lady Davis Postdoctoral Fellowship at Hebrew University of Jerusalem, 2014-15

Travel grant from the Association for Symbolic Logic to attend the Sixth Young Set Theory Workshop, 2013.

Deforest Senior Mathematical Prize for proficiency in pure and applied mathematics, Yale University, 2009.

Anthony D. Stanley Memorial Prize for excellence in pure and applied mathematics, Yale University, 2008.

Conference Presentations

Squares, ascent paths, and chain conditions. **AMS-ASL Special Session on Set Theory, Logic and Ramsey Theory**. JMM, San Diego, January 2018.

Reflections on graph coloring. **MAMLS Logic Friday**. New York, October 2017.

Constructions from squares and diamonds. **6th European Set Theory Conference** (Contributed talk). Budapest, July 2017.

Pseudo-Prikry sequences. **Arctic Set Theory 3**. Kilpisjärvi, Finland, January 2017.

Squares, stationary reflection, and incompleteness. **Young researcher's Seminar week**. Centre de Recerca Matemàtica, Barcelona, November 2016.

Square sequences and simultaneous stationary reflection. **SETTOP 2016**. Fruška Gora, Serbia, June 2016.

Robust reflection principles. **ASL Winter Meeting** (Contributed talk). Seattle, January 2016.

Patterns of stationary reflection. **Winter School in Abstract Analysis** (Set Theory & Topology Section). Hejnice, Czech Republic, February 2015

Bounded stationary reflection. **Graduate Student Conference in Logic**. University of Wisconsin, Madison, April 2014

Intermediate square principles (discussion section). **Young Set Theory Workshop 2013**. Oropa, Italy, June 2013

Intermediate square principles. **New York Graduate Student Logic Conference 2013**. CUNY Graduate Center, April 2013

Seminar Presentations

A forcing axiom deciding the generalized Souslin Hypothesis. **Carnegie Mellon Mathematical Logic Seminar**. October 2017.

A forcing axiom deciding the generalized Souslin Hypothesis. **Miami University Set Theory Seminar**. September 2017.

Constructions from square and diamond, with an application to super-Souslin trees. **Oberseminar mathematische Logik, University of Bonn**. May 2017.

Reflections on the coloring and chromatic numbers. **University of Helsinki Logic Seminar**. April 2017.

Partition relations and generalized scattered orders. **Bar-Ilan University Set Theory Seminar**. March 2017.

Trees with ascent paths. **Hebrew University of Jerusalem Logic Seminar**. March 2017.

Reflections on the coloring and chromatic numbers. **Hebrew University of Jerusalem Logic Seminar**. January 2017.

Club-increasing sequences, Chang's conjecture, and pseudo-Prikry sequences. **Hebrew University of Jerusalem Logic Seminar**. June 2016.

Robust reflection principles. **Cornell University Logic Seminar**. September 2015.

Coloring classes and the Hanf number for amalgamation. **Ben Gurion University Logic, Set Theory, and Topology Seminar**. March 2015.

Coloring classes and amalgamation. **Ariel University Seminar on Algorithms, Combinatorics, Graph Theory and Algebra**. December 2014.

Bounded stationary reflection. **Hebrew University of Jerusalem Students' Set Theory Seminar**. December 2014.

Well-colorings and the Hanf number for amalgamation. **Bar-Ilan University Infinite Combinatorics Seminar**. November 2014.

Jonsson cardinals, partition relations, and stationary reflection. (3 parts) **CMU Mathematical Logic Seminar**. February-March 2014.

The transfinite subway and closure properties of uncountable cardinals. **CMU Mathematical Sciences Graduate Student Seminar.** January 2014.

The wonderful world of singular cardinals. **CMU Mathematical Sciences Graduate Student Seminar.** September 2013.

Covering matrices and squares. (2 parts) **CMU Mathematical Logic Seminar.** October 2012.

The chromatic number of the plane: an unfinished conversation in two acts. **CMU Mathematical Sciences Graduate Student Seminar.** August 2012.

The continuum hypothesis, the axiom of choice, and Lebesgue measurability. **CMU Mathematical Sciences Graduate Student Seminar.** October 2011.

A mathematical investigation of juggling. **CMU Mathematical Sciences Graduate Student Seminar.** November 2010.

Teaching Experience

Summer 2016: Instructor, Graduate Summer School in Set Theory, UC Irvine.

Summer 2014: Instructor, Calculus in Three Dimensions.

Summer 2013 and Summer 2012: Instructor, Differential and Integral Calculus.

Summer 2012: Leader of undergraduate spectral graph theory reading course.

Spring 2014: Teaching assistant, Concepts of Mathematics.

Fall 2013, Spring 2013, Fall 2011, Fall 2010, Fall 2009: Teaching assistant, Calculus in Three Dimensions.

Fall 2012: Teaching assistant, Integration, Differential Equations, and Approximation.

Spring 2012: Teaching assistant, Introduction to Ordinary Differential Equations.

Summer 2010: Teaching assistant, Concepts of Mathematics.

Spring 2010: Teaching assistant, Differential Equations.

Professional service

Referee for *The Journal of Symbolic Logic*, *Annals of Pure and Applied Logic*, *Mathematical Logic Quarterly*, *Archive for Mathematical Logic*, and *European Journal of Mathematics*.

Reviewer for *Mathematical Reviews*.

Other

Author of the *Point at Infinity* blog: pointatinfinitiblog.wordpress.com