

WILL BONEY

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EMPLOYMENT **Benjamin Peirce Fellowship**, Harvard University
July 2014-Present (On leave 2014-2015)
NSF Mathematical Sciences Postdoctoral Research Fellowship
July 2014-Present
University of Illinois at Chicago, Mentor: John Baldwin (2014-2015)
Harvard University, Mentor: Hugh Woodin (2015-present)

EDUCATION **Carnegie Mellon University**, Pittsburgh, PA
Ph.D. in Mathematical Sciences, May 2014
Advances in Classifications Theory for Abstract Elementary Classes
Advisor: Rami Grossberg
Carnegie Mellon University, Pittsburgh, PA
M.Sc. in Mathematical Sciences, May 2010
Grinnell College, Grinnell, IA
B. A. in Mathematics, with honors, May 2008
Research Experience for Undergraduates, Texas A&M University, Summer 2007
Budapest Semesters in Mathematics, Budapest, Hungary, Fall 2006-Spring 2007

PAPERS AND PREPRINTS

1. Will Boney, *Tameness from large cardinal axioms*, The Journal of Symbolic Logic **79** (2014), no. 4, 1092-1119.
<http://arxiv.org/abs/1303.0550>
2. Will Boney and Rami Grossberg, *Forking in short and tame AECs*, Annals of Pure and Applied Logic **168** (2017), no. 8, 1517-1551.
<http://arxiv.org/abs/1306.6562>
3. Will Boney, *Tameness and extending frames*, Journal of Mathematical Logic **14** (2014), 27 pages.
<http://arxiv.org/abs/1308.6006>
4. Will Boney, *Computing the number of types of infinite length*, Notre Dame Journal of Formal Logic **58** (2017), 133-154.
<https://arxiv.org/abs/1309.4485>
5. Will Boney, Rami Grossberg, Alexei Kolesnikov, and Sebastien Vasey, *Canonical Forking in Abstract Elementary Classes*, Annals of Pure and Applied Logic **167** (2016), no. 7, 590-613.
<http://arxiv.org/abs/1404.1494>
6. Will Boney and Sebastien Vasey, *Tameness and frames revisited*, Journal of Symbolic Logic **82** (2017), no. 3, 995-1021.
<http://arxiv.org/abs/1406.5980>
7. Will Boney, *A presentation theorem for continuous logic and Metric Abstract Elementary Classes*, Accepted, Mathematical Logic Quarterly, 27 pages.
<http://arxiv.org/abs/1408.3624>
8. Will Boney and Sebastien Vasey, *Chains of Saturated Models in Abstract Elementary Classes*, Archive for Mathematical Logic **56** (2017), no. 3, 187-213.
<http://arxiv.org/abs/1503.08781>
9. Will Boney and Sebastien Vasey, *Categoricity and Infinitary Logics*, In Preparation, 9 pages.
<https://arxiv.org/abs/1508.03316>

10. Will Boney and Monica VanDieren, *Limit models in strictly stable Abstract Elementary Classes*, Submitted, 18 pages.
<http://arxiv.org/abs/1508.04717>
11. Will Boney and Pedro Zambrano, *Around the set-theoretical consistency of d -tameness of Metric Abstract Elementary Classes*, In Preparation, 9 pages.
<http://arxiv.org/abs/1508.05529>
12. Will Boney and Spencer Unger, *Large Cardinal Axioms from Tameness in AECs*, Proceedings of the American Mathematical Society **145** (2017), no. 10, 4517–4532.
<http://arxiv.org/abs/1509.01191>
13. Will Boney, Rami Grossberg, Michael Lieberman, Jiri Rosicky, and Sebastien Vasey, *μ -Abstract Elementary Classes and other generalizations*, Journal of Pure and Applied Algebra **220** (2016), no. 9, 3048-3066.
<http://arxiv.org/abs/1509.07377>
14. John Baldwin and Will Boney, *Hanf numbers and presentation theorems in AECs*, **Beyond First Order Model Theory Volume** (Iovino ed.), Monographs and Research Notes in Mathematics, CRC Press, 2017, p. 327–352.
<http://arxiv.org/abs/1511.02935>
15. Will Boney, *The Γ -ultraproduct and averageable classes*, Submitted, 23 pages.
<http://arxiv.org/abs/1511.00982>
16. Will Boney, *No maximal models from looking down*, Preprint, 7 pages.
<http://arxiv.org/abs/1511.01054>
17. Will Boney and Sebastien Vasey, *A Survey on Tame Abstract Elementary Classes*, To Appear in **Beyond First Order Model Theory Volume** (Iovino ed.), Monographs and Research Notes in Mathematics, CRC Press, 2017, p. 352–437.
<http://arxiv.org/abs/1512.00060>
18. Will Boney and Sebastien Vasey, *Good Frames in the Hart-Shelah Example*, Submitted, 31 pages.
<http://arxiv.org/abs/1607.03885>
19. Will Boney, *Definable Coherent Ultrapowers and Elementary Extensions*, Submitted, 14 pages.
<https://arxiv.org/abs/1609.02970>
20. Will Boney, Rami Grossberg, Monica VanDieren, and Sebastien Vasey, *Superstability from Categoricity in Abstract Elementary Classes*, Annals of Pure and Applied Logic **168** (2017), no. 7, 1383–1395.
<https://arxiv.org/abs/1609.07101>
21. Will Boney, *Model-Theoretic Characterizations of Large Cardinals*, Submitted, 25 pages.
<https://arxiv.org/abs/1708.07561>

NOTES

1. *Coheir in Averageable Classes*,
<http://www.math.harvard.edu/~wboney/notes/BoneyAVCoheir.pdf>
2. *Shelah's Omitting Types Theorem*,
<http://www.math.harvard.edu/~wboney/notes/SOTTNotes.pdf>
3. *Feferman-Vaught Theorem*,
<http://www.math.harvard.edu/~wboney/notes/FefermanVaughtNotes.pdf>
4. *Zilber's Pseudoexponentiation*,
<http://www.math.harvard.edu/~wboney/notes/ZPEFNotes.pdf>

HONORS AND AWARDS	Postdoctoral Fellowship , National Science Foundation (\$150,000)	Spring 2014	
	Future Faculty Program , Eberly Center for Teaching Excellence	Fall 2013	
	Math Department Nominee , Guy C. Berry Graduate Research Award, Mellon College of Science	Spring 2013	
	Various Student Travel Awards , Association for Symbolic Logic (8 grants totalling \$8,933)	Summer 2010-Spring 2014	
	Linn Smith Prize for Excellence in Mathematics , Grinnell College	Spring 2008	
RESEARCH VISITS	Rutgers University	October 2017	
	Rutgers University	October 2016	
	Centre de Recerca Matemàtica	September 2016	
	Masaryk University	May 2015	
	Rutgers University	October 2014	
	Carnegie Mellon University	October 2014	
	Hebrew University of Jerusalem	November 2013	
Universit of Illinois at Chicago	October 2013		
TEACHING EXPERIENCE	<ul style="list-style-type: none"> • Instructor: <ul style="list-style-type: none"> Harvard: Multivariable Calculus; Linear Algebra and Differential Equations; Introductory Real Analysis (Spring 2018); Analysis I: Complex Function Theory (Spring 2018); Model Theory; Set Theory; Classification Theory for Tame Abstract Elementary Classes; Topics in Model Theory CMU: Problem Solving in Recreational Mathematics; Differential Equations; Integration, Differential Equations, and Approximation • Teaching Assistant: <ul style="list-style-type: none"> CMU: Differential and Integral Calculus; Differential Equations; Multivariate Approximation and Analysis; Calculus in Three Dimensions; Concepts of Mathematics; Set Theory • Grader: <ul style="list-style-type: none"> CMU: Measure and Integration (graduate); General Topology (graduate); Algebra I; Concepts of Mathematics; Integration, Differential Equations and Approximation 		
	SERVICE	<ul style="list-style-type: none"> Organizer, Logic Seminar, Harvard 2017-present Undergraduate Intensive Advising, Harvard 2017-present Job Search Seminar, Harvard 2016-present Conversation on the Liberal Arts, Harvard 2016 Graduate Admissions Committee, Harvard 2015-2017 Math Department Diversity Reading Group, Harvard 2015-present Math Advising Dinners, Harvard 2015-present Navigating Graduate School: year 1 to n (moderator), UIC 2014 Math GRE Review, CMU 2013 Graduate Teaching Fellow, Eberly Center for Teaching Excellence, CMU 2011-2014 Vice President of Finance, CMU Graduate Student Assembly 2010-2011 Department Representative, CMU Graduate Student Assembly 2009 	
		Referee: Annals of Pure and Applied Logic, Boletín de Matemáticas, Journal of Mathematical Logic, Journal of Symbolic Logic, Mathematical Logic Quarterly, Math-Reviews	

INVITED TALKS	Logic Seminar , Rutgers University	April 2017
	Northeast Regional Model Theory Day , City University of New York	March 2017
	Logic Seminar , City University of New York	March 2017
	Colloquium , George Washington University	February 2017
	Logic Seminar , UIC	October 2016
	Set-theoretical Aspects of the Model Theory of Strong Logics , CRM	September 2016
	2016 Annual North American Meeting , ASL	May 2016
	Neostability Theory , BIRS	July 2015
	ECI Joint Meeting , Masaryk University	May 2015
	Seminar Z Algebrý , Masaryk University	May 2015
	Department Colloquium , Miami University	April 2015
	Model Theory Seminar , CMU	March 2015
	Logic Colloquium , Harvard	February 2015
	Southern Wisconsin Logic Colloquium , University of Wisconsin-Madison	February 2015
	AMS-ASL Special Session on Beyond First Order Model Theory , San Antonio, TX	January 2015
	Beyond First Order Model Theory Mini-conference , University of Texas-San Antonio	January 2015
	Model Theory Seminar , City University of New York	December 2014
	Logic Seminar , CMU	October 2014
	Model Theory Seminar , Carnegie Mellon University	October 2014
	Logic Seminar , University of Illinois	September 2014
	Classification Theory Workshop , Daejeon, South Korea	August 2014
	Model Theory Seminar , University of Maryland	February 2014
	Model Theory Seminar , University of California-Berkeley	November 2013
	Logic Seminar , Notre Dame	November 2013
	Logic Seminar , McMaster	November 2013
	Louise Hay Logic Seminar , UIC	October 2013

CONTRIBUTED TALKS 2014: **Logic Colloquium 2014**, ASL; **2014 Joint Mathematics Meeting**, Baltimore, MD

2013: **Mostowski100** (poster), Warsaw, Poland; **Logic Colloquium 2013**, ASL; **4th European Set Theory Conference**, Mon St Benet, Spain; **Model Theory 2013** (poster), Ravello, Italy; **2013 Annual North American Meeting**, ASL; **New York Graduate Student Logic Conference**, City University of New York

2007: **Mathfest 2007**, San Diego, CA

Frequent local contributor to: Harvard Logic Seminar, UIC Logic Seminar, CMU Model Theory Seminar, CMU Mathematical Logic Seminar, CMU Graduate Student Seminar, and Grinnell College Mathematics and Statistics Seminar

MEMBERSHIPS Association for Symbolic Logic; American Mathematical Society; Association for Women in Mathematics

REFERENCES	Rami Grossberg , Carnegie Mellon University	rami@cmu.edu
	John Baldwin , University of Illinois-Chicago	jbaldwin@uic.edu
	Jiří Rosický , Masaryk University	rosicky@math.muni.cz
	Jameel Al-Aidroos (teaching), Harvard University	jameel@math.harvard.edu