Victoria Gitman CUNY Graduate Center, 365 5th Avenue, New York, NY, 10016. Email: vgitman@nylogic.org Website/blog: http://boolesrings.org/victoriagitman

Research Interests

Mathematical Logic

- □ Set theory forcing, large cardinals, and their interactions
- □ Models of Peano Arithmetic properties of uncountable models

Appointments

(Some course materials available at: http://boolesrings.org/victoriagitman/teaching)

- Adjunct Lecturer, CUNY Brooklyn College, 2003-2006.
 Undergraduate courses: *Precalculus, Calculus I, Calculus II.*
- □ Assistant Professor in Mathematics, CUNY New York City College of Technology, 2007-2013.
 - □ Undergraduate courses: College Algebra, Statistics and Probability, Calculus I, Calculus II, Differential Equations, Linear Algebra.
 - Graduate courses: *Logic* (CUNY Graduate Center).
 - Undergraduate research projects in *theoretical computer science*, *chaos theory*.
- □ Visiting Scholar, CUNY Graduate Center, 2014-present.

Professional Development

- **Ph.D. in Mathematics** (supervisor: Joel David Hamkins), CUNY Graduate Center, 2007.
- **B.S. in Mathematics** (summa cum laude), CUNY Brooklyn College, 2001.

Publications

(PDF available at: http://boolesrings.org/victoriagitman/research)

- 1. E. Carmody, V. Gitman, and M. Habič, *Mitchell order for Ramsey and Ramsey-like cardinals*, submitted.
- 2. J. Bagaria, V. Gitman, and R. Schindler, *Generic Vopěnka's principle, remarkable cardinals, and a weak Proper Forcing Axiom*, to appear in Archive for Mathematical Logic.
- V. Gitman and J. D. Hamkins, *Open determinacy for class games*, Foundations of Mathematics, Logic at Harvard, Essays in Honor of Hugh Woodin's 60th Birthday, Series: Contemporary Mathematics, American Mathematical Society, 2016 (expected).
- 4. G. Fuchs, V. Gitman, and J. D. Hamkins, *Incomparable* ω_1 *-like models of set theory*, to appear in **Mathematical Logic Quarterly**.
- 5. G. Fuchs, V. Gitman, and J. D. Hamkins, *Ehrenfeucht's Lemma in set theory*, to appear in **Notre Dame Journal of Formal Logic**.

- 6. Y. Cheng and V. Gitman, *Indestructibility for remarkable cardinals*, Archive for Mathematical Logic, vol. 54, no. 7, pp. 961-984, 2015.
- 7. V. Gitman, T. Johnstone, and J. D. Hamkins, *What is the theory ZFC without power set*, **Mathematical Logic Quarterly**, vol. 62, no. 4-5, pp. 391-406, 2016.
- 8. B. Cody and V. Gitman, *Easton's theorem for Ramsey and strongly Ramsey cardinals*, **Annals of Pure and Applied Logic**, vol. 166, no. 9, pp. 934-952, 2015.
- 9. V. Gitman and T. Johnstone, *On ground model definability*, **Infinity, Computability**, **and Metamathematics: Festschrift in honour of the 60th birthdays of Peter Koepke and Philip Welch**, Series: Tributes, College publications, London, GB, 2014.
- A. Apter, V. Gitman, and J. D. Hamkins, *Inner models with large cardinal features usually obtained by forcing*, Archive for Mathematical Logic, vol. 51, no. 3, pp. 257-283, 2012.
- 11. V. Gitman and J. D. Hamkins, *A natural model of the multiverse*, Notre Dame Journal of Formal Logic, vol.51, no. 4, pp. 475-484, 2010.
- 12. V. Gitman and P. D. Welch, *Ramsey like cardinals II*. Journal of Symbolic Logic, vol. 76, no. 2, pp. 541-560, 2011.
- 13. V. Gitman, *Ramsey-like cardinals*. Journal of Symbolic Logic, vol. 76, no. 2, pp. 519-540, 2011.
- 14. V. Gitman, *Proper and piecewise proper families of reals*. Mathematical Logic Quarterly vol 55, no. 5, pp.542-550, 2009.
- 15. V. Gitman, *Scott's Problem for proper Scott sets*. Journal of Symbolic Logic, vol. 73, no. 3, pp.845–860, 2008.

Work in Progress

(Some summaries available at: http://boolesrings.org/victoriagitman/research)

- 1. V. Gitman and R. Schindler, Virtual large cardinals, in preparation.
- 2. V. Gitman, T. Johnstone, and J. D. Hamkins, *Kelley-Morse set theory and choice principles for classes*, in preparation.
- 3. V. Gitman and T. Johnstone, *Indestructibility for Ramsey and Ramsey-like cardinals*, in preparation.
- 4. V. Gitman and J. D. Hamkins, *A model of Generic Vopěnka's Principle with no remarkable cardinals*, in preparation.

Invited Research Positions

- □ Visiting researcher, National University of Singapore, Singapore, Fall 2016.
- Participant, Workshop on High and Low Forcing, American Institute of Mathematics, San Jose, US, Winter 2016.
- □ Visiting Fellow, Mathematical, Foundational and Computational Aspects of the Higher Infinite (HIF) program, Isaac Newton Institute, Cambridge, UK, Fall 2015.
- □ Visiting researcher, Bristol University, Bristol, UK, Summer 2008.

Invited (non-CUNY) Talks

(Some slides/lecture notes available at: <u>http://boolesrings.org/victoriagitman/talks</u>)

- □ A set-theoretic approach to Scott's Problem, NSU Logic Seminar, National University of Singapore, Singapore, 2016.
- Generic Vopěnka's Principle, Rutgers Logic Seminar, Rutgers University, New Brunswick, 2016.
- Generic Vopěnka's Principle, Young Set Theory Conference, University of Copenhagen, Copenhagen, Denmark, 2016.
- □ *Ehrenfeucht principles in set theory*, **British Logic Colloquium**, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, 2015.
- □ *Indestructible remarkable* cardinals, **5th European Set Theory Conference**, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, 2015.
- □ Introduction to nonstandard models of arithmetic, VCU Analysis, Logic, and Physics Seminar, Virginia Commonwealth University, Richmond, 2015.
- □ *Nonstandard models of arithmetic,* Blackboard Day 10, Columbia University, New York, 2015.
- □ *Kelley-Morse set theory and choice principles for classes*, **Symposia on the Foundations of Mathematics II**, University of London, London, UK, 2015.
- □ *Choice schemes for Kelley-Morse set theory*, **Colloquium Logicum**, Universität der Bundeswehr München, Neubiberg, Germany, 2014.
- □ Incomparable ω_1 -like models of set theory, Connecticut Logic Seminar, University of Connecticut, Storrs, 2014.
- □ Indestructibility for Ramsey cardinals, Rutgers Logic Seminar, Rutgers University, New Brunswick, 2012.
- □ *A natural model of the multiverse axioms*, **MIT Logic Seminar**, Massachusetts Institute of Technology, Boston, 2010.
- Gödel's Proof, Mathematics Research Seminar, US Military Academy, West Point, 2010.
- □ *Ramsey-like cardinals*, **ESI workshop on large cardinals and descriptive set theory**, Vienna, Austria, 2009.
- □ *Ramsey-like cardinals,* Bristol Logic Seminar, Bristol University, Bristol, UK, 2008.
- □ Scott's problem for proper Scott sets, Rutgers Logic Seminar, Rutgers University, New Brunswick, 2007.
- □ Scott's problem for proper Scott sets, Association for Symbolic Logic (ASL) Logic Colloquium, Wroclaw, Poland, 2007.
- □ *Scott's Problem for proper Scott sets,* **Notre Dame Logic Seminar**, Notre Dame University, Notre Dame, 2007.

Invited CUNY Talks

(Some slides/lecture notes available at: <u>http://boolesrings.org/victoriagitman/talks</u>)

- □ *Computable processes can produce arbitrary outputs in nonstandard models*, **MOPA Seminar**, CUNY Graduate Center, New York, 2016.
- □ Virtual large cardinals, Set Theory Day (celebrating Joel Hamkins' 50th birthday), CUNY Graduate Center, New York, 2016.

- □ *Ehrenfeucht principles in set theory*, **CUNY Logic Workshop**, CUNY Graduate Center, New York, 2015.
- □ *Remarkable Laver functions*, **CUNY Set Theory Seminar**, CUNY Graduate Center, New York, 2014.
- □ *Choice schemes for Kelley-Morse set theory*, **CUNY Logic Workshop**, CUNY Graduate Center, New York, 2014.
- □ *Introduction to remarkable cardinals*, CUNY Set Theory Seminar, CUNY Graduate Center, New York, 2014.
- □ *Ramsey cardinals and the continuum funciton*, **CUNY Logic Workshop**, CUNY Graduate Center, New York, 2014.
- □ *A Jónsson* ω_1 *-like model of set theory*, **CUNY Set Theory Seminar**, CUNY Graduate Center, New York, 2013.
- □ *Embeddings between* ω_1 *-like models of set theory*, **CUNY Set Theory Seminar**, CUNY Graduate Center, New York, 2013.
- □ Indestructibility for Ramsey Cardinals, CUNY Set Theory Seminar, CUNY Graduate Center, New York, 2013.
- □ Models of ZFC- that are not definable in their set forcing extensions, CUNY Set Theory Seminar, CUNY Graduate Center, New York, 2012.
- □ *Forcing and gaps in 2[∞]*, **CUNY Set Theory Seminar**, CUNY Graduate Center, New York, 2011.
- □ *A natural model of the multiverse axioms,* CUNY Logic Workshop, CUNY Graduate Center, New York, 2010.
- Alpha-iterable cardinals, CUNY Logic Workshop, CUNY Graduate Center, New York, 2009.
- □ On the Gitik-Shelah indestructibility for strong cardinals, CUNY Set Theory Seminar, CUNY Graduate Center, New York, 2009.
- □ Standard systems of nonstandard models of Peano Arithmetic, Bronx Community College Mathematics Seminar, CUNY Bronx Community College, 2008.
- □ *Ramsey and virtually Ramsey cardinals*, **CUNY Set Theory Seminar**, CUNY Graduate Center, New York, 2008.
- □ Weakly compact cardinals are not downward absolute to L, CUNY Set Theory Seminar, CUNY Graduate Center, New York, 2008.
- Ramsey-like embeddings, CUNY Logic Workshop, CUNY Graduate Center, New York, 2007.

Conferences and Seminars organized

- Co-organizer of Set Theory Day (<u>http://nylogic.org/set-theory-day</u>) (with Miha Habič and Roman Kossak), 2016.
- □ Co-organizer of the CUNY Set Theory Seminar (with Thomas Johnstone), 2014-15.
- □ Co-organizer of the CUNY Set Theory Seminar (with Miha Habič) 2015-present.

Additional professional activities

Co-founder (with Joel David Hamkins) of *Cantor's Attic*, a Wikipedia-style database of current knowledge in large cardinal theory (<u>http://cantorsattic.info</u>).

- Co-founder (with Roman Kossak) of *Peano's Parlour*, a Wikipedia-style database of current knowledge in models of Peano Arithmetic and related fields (<u>http://modelsofpa.info</u>).
- □ Blogger (<u>http://boolesrings.org/victoriagitman</u>).
- Referee for journals including American Mathematical Monthly, Topology and its Applications, Annals of Pure and Applied Logic, Archive for Mathematical Logic, Journal of Symbolic Logic, Fundamenta Mathematicae.
- □ Member of oral exam committees at the CUNY Graduate Center:
 - **Brent** Cody (2009)
 - Erin Carmody (2012)
 - □ Kameryn Williams (2014)