

**DIMA SINAPOVA**  
**CV**

Department of Mathematics, Statistics, and Computer Science  
University of Illinois at Chicago  
E-mail: sinapova@math.uic.edu

**Education:**

- 2008 Ph.D. in Mathematics: University of California Los Angeles, Advisor: Itay Neeman
- 2004 M.A. in Mathematics, University of California Los Angeles
- 2003 B.A. in Mathematics and Philosophy (Summa Cum Laude in Mathematics), University of Colorado at Boulder, Boulder, CO

**Primary Research Interests:**

Set Theory and Mathematical Logic.

**Employment:**

- 2016 -:Associate Professor, University of Illinois at Chicago.
- 2012 -2016: Assistant Professor, University of Illinois at Chicago.
- 2008- 2012: Visiting Assistant Professor/Postdoctoral Scholar, University of California Irvine.
- 2003-2008: Research Assistant / Teaching Assistant, UCLA.

**Grants and Awards:**

NSF CAREER Grant, Id: 1454945, 2015-2020  
NSF Research Grant, PI on DMS - 1362485, 2014-2017  
AWM Travel Grant, 2011  
NSF-VIGRE Fellowship, UCLA, 2006-2007  
NSF-VIGRE Fellowship, UCLA, 2003-2004

**Publications:**

1. *The tree property at  $\aleph_{\omega^2+1}$  and  $\aleph_{\omega^2+2}$* , Dima Sinapova and Spencer Unger, accepted in Journal of Symbolic Logic.
2. *The eightfold way*, James Cummings, Sy Friedman, Menachem Magidor, Assaf Rinot, Dima Sinapova, accepted in Journal of Symbolic Logic.
3. *Ordinal definable subsets of singular cardinals*, James Cummings, Sy Friedman, Menachem Magidor, Assaf Rinot, Dima Sinapova, accepted in Israel Journal of Mathematics.
4. *Singular cardinals and square properties*, Menachem Magidor and Dima Sinapova, Proc. Amer. Math. Soc. 145 (2017), 4971-4980.
5. *The tree property at the first and double successors of a singular*, Dima Sinapova, Israel J. Math. 216 (2): 799-810, 2016.

6. *Modified extender based forcing*, Dima Sinapova and Spencer Unger, Journal of Symbolic Logic 2016; 81(04):1432-1443.
7. *Hybrid Prikry forcing*, Dima Sinapova, Fundamenta Mathematicae, 228:139-152, 2015.
8. *Scales at  $\aleph_\omega$* , Dima Sinapova and Spencer Unger, Israel Journal of Mathematics, 209:463-486, 2015.
9. *Combinatorics at  $\aleph_\omega$* , Dima Sinapova and Spencer Unger, Annals of Pure and Applied Logic 165: 996-1007, 2014.
10. *The Tree property and the failure of the Singular Cardinal Hypothesis at  $\aleph_{\omega^2}$* , Dima Sinapova, Journal of Symbolic Logic, 77(3): 934-946, 2012.
11. *The Tree property at  $\aleph_{\omega+1}$* , Dima Sinapova, Journal of Symbolic Logic, 77(1):279-290, 2012.
12. *The Tree property and the failure of SCH at uncountable cofinality*, Dima Sinapova, Archive for Mathematical Logic, 51(5-6):553-562, 2012.
13. *A model for a very good scale and a bad scale*, Dima Sinapova, Journal of Symbolic Logic, 73(4):1361-1372, 2008.
14. *A cardinal preserving extension making the set of points of countable  $V$  cofinality nonstationary*, Moti Gitik, Itay Neeman, and Dima Sinapova, Archive for Mathematical Logic, 46(5-6):451-456, 2007.

**Submitted papers:**

1. *The super tree property at the successor of a singular*, Sherwood Hachtman and Dima Sinapova.
2. *ITP, ISP and SCH*, Sherwood Hachtman and Dima Sinapova.
3. *Kurepa trees and spectra of  $\mathcal{L}_{\omega_1, \omega}$ -sentences*, Dima Sinapova and Ioannis Souklatos.

**Reviews:**

1. *Itay Neeman: Forcing with sequences of models with two types*, Bulletin of Symbolic Logic, volume 21 (2015), issue 03, pp. 339-341.

**Invited Talks at Meetings:**

1. (Upcoming:) Young Set Theory workshop, Lausanne, Switzerland, June 2018, tutorial.
2. ASL North American Annual Meeting, Macomb, IL, May 2018, plenary talk.
3. 14th International Workshop in Set Theory, CIRM, Luminy, Marseille, France, October 2017.
4. BLAST meeting, tutorial, Nashville, TN, August 2017.
5. MAMLS Conference, Virginia Commonwealth University, VA, April 2017.
6. Set Theory Workshop, Oberwolfach, Germany, February 2017
7. Very Informal Gathering of Logicians (VIG), UCLA, Los Angeles, February 2017.
8. Arctic Set Theory workshop 3, Kilpisjärvi, Finland, January 2017.
9. Applications of strong logics in other areas of mathematics, Barcelona, November 2016

10. ASL European Summer Meeting (Logic Colloquium '16), plenary talk, Leeds, England, August 2016.
11. ASL North American Annual Meeting, Set theory special session, Storrs, CT, May 2016.
12. 4-th Midwest Women in Mathematics Symposium (WIMS), UIUC, Urbana, IL, April, 2016
13. Conference for Menachem Magidor's 70th birthday, Jerusalem, Israel, February 2016.
14. 5th European Set Theory Conference, Isaac Newton Institute, Cambridge, England, August 2015, tutorial.
15. MAMLS meeting, Carnegie Mellon University, Pittsburgh, PA, May 2015.
16. AMS Spring Sectional Meeting, Special Session on Set Theory, Las Vegas, NV, April 2015.
17. "Sets and computations" meeting, NUS, Singapore, April 2015.
18. Retrospective workshop on forcing and its applications, Fields Institute, Toronto, Canada, March 2015.
19. Arctic Set Theory workshop 2, Kilpisjärvi, Finland, February 2015.
20. Rutgers Logic Conference, New Brunswick, NJ, October 2014.
21. 13th International Workshop in Set Theory, CIRM, Luminy, Marseille, France, September 2014.
22. Boise Extravaganza in Set Theory (BEST), UC Riverside, June 2014.
23. Conference for Bill Mitchell's 70th birthday, Berkeley, June 2014.
24. ASL North American Annual Meeting, Set theory special session, Boulder, CO, May 2014.
25. 2nd Annual Midwest Women in Mathematics Symposium, Notre Dame, April, 2014.
26. Set Theory Workshop, Oberwolfach, Germany, January 2014.
27. AMS sectional meeting, special session, Louisville, KY, September 2013.
28. Workshop on Large Cardinals and Forcing, ESI, Vienna, September 2013.
29. BLAST Meeting, Orange County, CA, August 2013, plenary talk.
30. ASL North American Annual Meeting, Waterloo, Canada, May 2013, plenary talk.
31. Workshop on Iterated Forcing and Large Cardinals, Fields Institute, Toronto, Canada, November 2012.
32. MAMLS Conference, Rutgers University, NJ, October 2012.
33. 12th International Workshop in Set Theory, CIRM, Luminy, Marseille, France, September 2012.
34. ASL Winter Meeting (with Joint Mathematics Meeting), Boston, MA, January 2012, plenary talk.
35. Logic in Southern California, UC Irvine, December, 2011.
36. Canadian Mathematical Society Meeting, Toronto, Canada, December, 2011: Set Theory Mini-course on "Large cardinals and Prikry type forcing"
37. Special Session in Set Theory, Canadian Mathematical Society Meeting, Toronto, Canada, December, 2011:
38. Third European Set Theory Conference, Edinburgh, Scotland, July 2011.

39. AMS Spring Western Sectional Meeting, Special Session on Set Theory, Las Vegas, NV, May 2011.
40. ASL North American Annual Meeting, Set theory special session, Berkeley, CA, March 2011.
41. Set Theory Workshop, Oberwolfach, Germany, January 2011.
42. AMS Sectional Meeting, Special Session on Large Cardinals and the Continuum, Los Angeles, CA, October 2010.
43. Logic Colloquium 2009, Sofia, Bulgaria, August 2009.
44. ESI Workshop on large cardinals and descriptive set theory, Vienna, Austria, June 2009.
45. ASL North American Annual Meeting, Set theory special session, Notre Dame, IN, May 2009.
46. Young Set Theory Workshop, Bellaterra, Spain, April 2009.

**Invited Talks at Seminars/Colloquia:**

1. Rutgers Logic Seminar, New Brunswick, NJ, April, 2018.
2. Harvard Logic Colloquium, Harvard, Cambridge, MA, March, 2018.
3. University of Torino Logic Seminar, Turin, Italy, June 2017.
4. Rutgers Logic Seminar, New Brunswick, NJ, April, 2017.
5. UIUC Logic seminar, Urbana-Champaign, IL, March 2017.
6. UC Irvine Logic Seminar, Irvine, CA, May 2016.
7. Virginia Commonwealth University Logic seminar, Richmond, VA, April 2016.
8. UCLA Logic seminar, Los Angeles, CA, January 2016.
9. UCLA Logic Colloquium, January 2014.
10. Hebrew University Set theory seminar, Jerusalem, Israel, November, 2013.
11. Rutgers Logic Seminar, New Brunswick, NJ, October, 2013.
12. University of Notre Dame, Logic seminar, Notre Dame, IN, September 2013.
13. University of Madison Wisconsin, Logic seminar, Madison, WI, April 2013.
14. University of Waterloo, Pure Math Colloquium, Waterloo, Canada, November 2012.
15. Ohio State University, Logic seminar, Columbus, OH, November 2012.
16. UIUC Logic seminar, Urbana-Champaign, IL, October 2012.
17. Fields Institute Set theory seminar, Toronto, CA, August 2012.
18. UIC Math Department Colloquium, January 2012.
19. UCLA Logic seminar, Los Angeles, CA, April 2011.
20. UC Irvine Logic Seminar, Irvine, CA, November 2007
21. UCLA Logic Seminar, January 2007.

22. Carnegie Mellon University, Logic seminar, November 2006;

### **Research Programs at Mathematics Institutes:**

- The tree property, SQuaREs Program, American Institute of Mathematics (with J. Cummings, M. Foreman, M. Magidor, I. Neeman, S. Unger), San Jose, CA, May 2018.
- Research in pairs (RiP) with Spencer Unger, Oberwolfach, Germany, July 2016.
- Singular Cardinals Combinatorics, SQuaREs Program, American Institute of Mathematics (with J. Cummings, S. Friedman, M. Magidor, A. Rinot), Palo Alto, CA, May 2013, October 2014, and January 2016.
- Thematic Program on Forcing and its Applications, Fields Institute, Toronto, Canada, August 2012.

### **PhD students:**

- Maxwell Levine, Ph.D. 2017, Postdoc at Kurt Gödel Research Center, Vienna, Austria.
- Jin Du, Ph.D. 2018.
- Noah Schoem, Carl Dean 2017-.

### **Undergraduate students mentoring:**

- Alberto Takase, Northwestern Summer Research Opportunity Program (SROP) at Northwestern University, Summer 2015, Summer 2014.
- Santiago Guisasola, Student Undergraduate Research Fellowship Program at UC Irvine (SURF), Summer 2011.

### **Organization:**

- Program committee member, ASL European Summer Meeting (Logic Colloquium), Udine, Italy, July 2018.
- Special Session organizer, ASL North American Annual Meeting 2018, Macomb, IL.
- Co-organizer, The First Mexico-USA Logic Fest, Mexico City, Mexico January 2018.
- Organizer, Set theory workshop, UIC, Chicago, IL, October, 2016.
- Co-organizer with Itay Neeman: “High and low forcing” workshop at the American Institute of Mathematics (AIM), San Jose, CA, January 2016.
- Program committee member, ASL North American Annual Meeting 2015, UIUC, IL.
- Local organizer: Appalachian Set theory workshop, UIC, November 2014.

### **Professional Service at UIC:**

- UIC Senate, 2016-2019.
- Tenure-track search committee, UIC Mathematics Department, 2016-2017, 2017-2018.
- Visitors committee, UIC Mathematics Department, 2015-2016.
- Graduate Admissions and Fellowships Committee, UIC Mathematics Department, 2013, 2014, 2015, 2016, 2017, 2018.

- RAP (postdoc) search committee, UIC Mathematics Department, 2013-2014, 2014-2015.
- Organizer of the UIC Logic Seminar, Spring 2014, Fall 2015.

**Other Professional Service:**

- Served on NSF Panels, 2015, 2017
- External reviewer, Ph.D. thesis of Yair Hayut, Hebrew University, Jerusalem, Israel, August 2017.
- External Examiner, Ph.D. thesis of Chris Lambie-Hanson, Carnegie Mellon University, April 2014.
- Referee service for journals including *Journal of Mathematical Logic*, *Israel Journal of Mathematics*, *Annals of Pure and Applied Logic*, *Journal of Symbolic Logic*, *Fundamenta Mathematicae*, *Notre Dame Journal of Formal Logic*, *Archive for Mathematical Logic*.

**Teaching Experience:**

- At the University of Illinois at Chicago
  - Math 512 Advanced Topics in Logic: Descriptive Set Theory, Spring 2018
  - Math 502: Mathematical Logic, Fall 2017
  - Math 512 Advanced Topics in Logic: Forcing and large cardinals, Spring 2017
  - Math 210 Calculus III, Fall 2016, Fall 2017
  - Math 215: Intro to Abstract Math, Spring 2016
  - Math 180: Calculus I, Fall 2015
  - Math 320: Linear Algebra, Spring 2015, Fall 2016
  - Math 512 Advanced Topics in Logic: Combinatorial Set Theory, Fall 2014
  - Math 430: Formal Logic I, Spring 2014, Spring 2015
  - Math 512: Advanced Topics in Logic: Set theory, Spring 2013
  - Math 504: Set Theory I, Fall 2012, Spring 2016
- As a Visiting Assistant Professor at University of California Irvine:
  - Math 2A: Calculus, Spring 2009, Spring 2012
  - Math 2B: Calculus, Fall 2011, Winter 2012
  - Math 3A, 6G: Linear Algebra, Winter 2009, Fall 2009, Winter 2011
  - Math 121A: Linear Algebra I (upper division), Winter 2011
  - Math 121B: Linear Algebra II (upper division), Spring 2011
  - Math 150: Mathematical Logic, Fall 2008, Fall 2009
  - Math 120A: Group Theory, Winter 2010
  - Math 120B: Rings and Fields, Winter 2009, Winter 2010, Spring 2010, Spring 2011
  - Math 141: Intro to Topology, Spring 2009
- As a teaching assistant at UCLA:
  - Math 31A: Differential Calculus, Fall 2004
  - Math 31B: Integration and Infinite Series, Winter 2005
  - Math 61: Discrete Structures, Spring 2006
  - Math 115A: Linear Algebra, Fall 2004, Winter 2005, Spring 2005, Fall 2005
  - Math 131B: Analysis, Spring 2006
  - Math 170B: Probability Theory, Spring 2005