

CURRICULUM VITAE

NATASHA DOBRINEN

University of Denver
Department of Mathematics
2280 S. Vine St.
Denver, CO 80208, USA

Math Office: 303-871-2911
Fax: 303-871-3173
Email: natasha.dobrinen@du.edu
<http://web.cs.du.edu/~ndobrine/>

RESEARCH INTERESTS

Set Theory, Ramsey Theory, Set-theoretic and General Topology, Discrete Mathematics,
Boolean Algebras, Analysis, Logic and Computability Theory

EDUCATION

- Ph.D. in Mathematics, University of Minnesota July 2001
Thesis adviser: Professor Karel Prikrý
Thesis title: “Generalized weak distributive laws in Boolean algebras and issues related to a problem of von Neumann regarding measurable algebras.”
- B.A. in Mathematics, High Honors, University of California - Berkeley May 1996
Honor’s Thesis adviser: Professor Richard E. Borcherds
Honor’s Thesis title: “The prime number theorem.”

EMPLOYMENT

- University of Denver, Department of Mathematics
Full Professor September 2016 - present
Associate Professor September 2011 - August 2016
Assistant Professor September 2007 - August 2011
- FWF Postdoctoral Fellowship October 2004 - August 2007
Kurt Gödel Research Center for Mathematical Logic
University of Vienna, Austria
- NSF VIGRE Chowla Research Assistant Professor August 2001 - May 2004
The Pennsylvania State University
- Teaching Assistant September 1996 - May 2001
University of Minnesota

ADVISING/MENTORING

- PhD Advisor for Timothy Trujillo PhD obtained June 2014
- Postdoctoral Mentor for Daniel Hathaway September 2015 - present
postdoctoral researcher, University of Denver
- Masters Thesis Co-advisor for Sonia Navarro Flores May 2015 - December 2015
masters student, UNAM Morelia, Mexico
- Postdoctoral Mentor for José Mijares 2013 - 2015
postdoctoral researcher, University of Denver
- Mentor for Junior Faculty Jennifer Brown 2013 - 2015
California State University - Channel Islands

GRANTS / FELLOWSHIPS/ AWARDS

RESEARCH GRANTS

- National Science Foundation Grant, September 2013 - August 2016 \$129,995
Ramsey Theory, Set Theory and Tukey Order
- National Science Foundation Grant, September 2013 - August 2016 \$114,368
Ramsey Theory, Set Theory and Tukey Order
- Simons Foundation Collaboration Grant, September 2012 - August 2017 \$35,000
Classification of Tukey types of ultrafilters
(Terminated September 1, 2013 due to NSF grant)
- Fields Institute Thematic Program in Forcing and Its Applications, \$5,000
July 2012 - December 2012
(NSF funding for travel and living expenses)
- Association for Women in Mathematics/National Science Foundation Mentoring Grant, 2010 \$2,800
- University of Denver Faculty Research Fund Grant, 2009 \$3,000
- Marsico Medium-Term Visiting Scholar Grant, 2009 \$3,000
*Supported Dr. Katherine Thompson of the University of Vienna:
3 lectures and 2 lunches for undergraduates*

CONFERENCE GRANTS

- National Science Foundation Grant \$10,200
for the Ramsey Theory Conference at the University of Denver, 2014
- University of Denver Sesquicentennial Provost Fund Grant \$3,000
for the Ramsey Theory Conference at the University of Denver, 2014
- National Science Foundation Grant \$27,000
for the first BLAST Conference at the University of Denver, 2008

TRAVEL GRANTS AND AWARDS

- Travel and lodging grants to attend conferences and workshops, give lectures, and work on research:

2016 SEALS, Florida; BEST, San Diego; CMO/BIRS, Oaxaca, Mexico.

2015 Research with Vera Fischer, Technische Universität, Vienna; Spring Topology and Dynamics Conference, Bowling Green State University, Ohio; Summer Topology Conference, Galway, Ireland; 5th European Set Theory Meeting, Isaac Newton Institute, Cambridge, UK; Mathematical, Foundational and Computational Aspects of the Higher Infinite, Isaac Newton Institute, UK; 1st Pan-Pacific International Conference on Topology and Applications, Min Nan Normal University, China.

2014 Research with Vera Fischer, Technische Universität, Vienna; Freiburg Set Theory Workshop; AIM Workshop on Inner Models and Descriptive Set Theory, Palo Alto, CA.

2013 Fourth European Set Theory Meeting, Barcelona; BLAST 2013, Orange,

CA; University of Wisconsin Logic Seminar, Madison.

2012 University of Michigan, Ann Arbor; 15th Latin American Symposium for Mathematical Logic, Bogota; CUNY Logic Seminar, New York.

2011 3rd European Set Theory Conference, Edinburgh; BLAST 2011, University of Kansas, Lawrence.

2010: BEST, Boise; ISLA 2010, Hyderabad, India; CalTech, Pasadena, CA.

2009: 2nd European Set Theory Meeting, Bedlewo, Poland; Set Theory Meeting, Vienna; Kunen Fest, University of Wisconsin; UCLA VIG Meeting

2008: NYWIMC, New York; BEST, Idaho State University; University of Toronto; Appalachian Set Theory Workshop, Pittsburgh

2007: First European Set Theory Meeting, Bedlewo, Poland; ASL Annual Meeting, University of Florida

FELLOWSHIPS / AWARDS

- Excellence in Research Award 2016
DU Division of Natural Sciences and Mathematics
- Visiting Fellow August, and November - December 2015
Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
Program in Mathematical, Foundational and Computational aspects of the Higher Infinite (HIF)
- Research Excellence Award, Department of Mathematics Nominee 2013
DU Division of Natural Sciences and Mathematics
- FWF Postdoctoral Fellowship October 2004 - August 2007
- NSF VIGRE Postdoctoral Fellowship August 2001 - May 2004
- University of Minnesota Summer Research Fellowships 1997 - 2001
- Φ BK UC Berkeley 1996

CONFERENCE ORGANIZING

- Program Committee Member
SLALM (Latin American Symposium on Mathematical Logic) 2016 - present
- Organizer of AMS Western Sectional Special Session
in Set Theory of the Reals, University of Denver October 2016
- Organizer (with José Mijares)
Ramsey Theory Conference, University of Denver, Colorado May 2014
- Member of the Organizing Committee for BLAST
Chapman University, Orange, California August 2013
- Organizer of AMS Western Sectional Special Session
in Set Theory and Boolean Algebras, University of Colorado - Boulder April 2013
- Member of the Organizing Committee
for the Association for Symbolic Logic Winter Meeting January 2012
- Member of the Organizing Committee for BLAST
University of Kansas June 2011
- Co-Organiser of the Maximally Informal Gathering (MIG) 2009 - 2016
*a Logic Seminar joint with Colorado State University, CU Boulder,
and the University of Denver*
- Co-Founder and Board Member of the BLAST conference series 2007 - present
- Co-Chair, Co-Organiser, and Co-PI for an NSF grant for BLAST 08
A new international conference focusing on Boolean algebras, Logic, Lattices,
Algebraic Logic, Universal Algebra, Set Theory, Set-theoretic Topology, and
General and Point-free Topology

PUBLICATIONS

SUBMITTED RESEARCH ARTICLES

- [27] Natasha Dobrinen. Topological Ramsey spaces dense in forcings. 32 pp. arXiv:1702:02668
- [26] Natasha Dobrinen and Daniel Hathaway. The Halpern-Läuchli Theorem at a measurable cardinal. 15 pp. arXiv:1608.00592
- [25] Natasha Dobrinen. Continuous and other finitely generated canonical cofinal maps on ultrafilters. 38 pp. arXiv:1505.00368

PUBLISHED / ACCEPTED RESEARCH ARTICLES

- [24] Natasha Dobrinen, Jose Mijares, and Timothy Trujillo. Topological Ramsey spaces from Fraïssé classes, Ramsey-classification theorems, and initial structures in the Tukey types of p-points. *Archive for Mathematical Logic*, special issue in honor of James Baumgartner. 34 pp. Invited submission. (To appear)
- [23] Natasha Dobrinen. Creature forcing and topological Ramsey spaces. *Topology and Its Applications*, special issue in honor of Alan Dow. 213 (2016) 110–126. Invited submission.
- [22] Jennifer Brown and Natasha Dobrinen. Spectra of Tukey types of ultrafilters on Boolean algebras. *Algebra Universalis*. 75 (2016), no. 2, 419–438.
- [21] Natasha Dobrinen. Infinite dimensional Ellentuck spaces and Ramsey-classification theorems. *Journal of Mathematical Logic*. 16 (2016), no. 1, 1650003. 37 pp.
- [20] Natasha Dobrinen, Claude Laflamme, and Norbert Sauer. Rainbow Ramsey simple structures. *Discrete Mathematics*. 339 (2016), no. 11, 2848–2855.
- [19] Natasha Dobrinen. High dimensional Ellentuck spaces and initial chains in the Tukey structure of non-p-points. *Journal of Symbolic Logic*. 81 (2016), no. 1, 237–263.
- [18] Andreas Blass, Natasha Dobrinen, and Dilip Raghavan. The next best thing to a P-point. *Journal of Symbolic Logic*. 80 (2015), no. 3, 866–900.
- [17] Natasha Dobrinen. Survey on the Tukey theory of ultrafilters. *Zbornik Radova*, Mathematical Institute of the Serbian Academy of Sciences, Special issue on *Selected Topics in Combinatorial Analysis*. 17 (2015), no. 25, 53–80. (Invited submission.)
- [16] Natasha Dobrinen and Jose Mijares. Topological Ramsey spaces and metrically Baire sets. *Journal of Combinatorial Theory, Series A*. 135 (2015) 161–180.

- [15] Natasha Dobrinen and Stevo Todorcevic. A new class of Ramsey-classification Theorems and their applications in the Tukey theory of ultrafilters, Part 2. *Transactions of the American Mathematical Society*. 367 (2015), no. 7, 4627–4659.
- [14] Natasha Dobrinen and Stevo Todorcevic. A new class of Ramsey-classification Theorems and their applications in the Tukey theory of ultrafilters, Part 1. *Transactions of the American Mathematical Society*. 366 (2014), no. 3, 1659–1684.
- [13] Natasha Dobrinen and Stevo Todorcevic. A new class of Ramsey-classification Theorems and their applications in the Tukey theory of ultrafilters, Parts 1 and 2. *Electronic Notes in Discrete Mathematics*. 43 (2013) 107–112.
- [12] Natasha Dobrinen and Stevo Todorcevic. Tukey types of ultrafilters. *Illinois Journal of Mathematics*. 55 (2011), no. 3, 907–951.
- [11] Natasha Dobrinen and Sy-David Friedman. The consistency strength of the tree property at the double successor of a measurable cardinal. *Fundamenta Mathematicae*. 208 (2010), no. 2, 123–153.
- [10] Natasha Dobrinen and Sy-David Friedman. Homogeneous iteration and measure one covering relative to HOD. *Archive for Mathematical Logic*. 47 (2008), no. 7-8, 711–718.
- [9] Natasha Dobrinen. Global co-stationarity of the ground model from a new countable length sequence. *Proceedings of the American Mathematical Society*. 136 (2008), no. 5, 1815–1821.
- [8] Natasha Dobrinen and Sy-David Friedman. Internal consistency and global co-stationarity of the ground model. *Journal of Symbolic Logic*. 73 (2008), no. 2, 512–521.
- [7] Natasha Dobrinen. κ -stationary subsets of $\mathcal{P}_\kappa\lambda$, infinitary games and distributive laws in Boolean algebras. *Journal of Symbolic Logic*. 73 (2008), no. 1, 238–260.
- [6] Natasha Dobrinen. More ubiquitous undetermined games and other results on uncountable length games in Boolean algebras. *Note di Matematica*. 27 (2007), suppl. 1, 65–83.
- [5] James Cummings and Natasha Dobrinen. The hyper-weak distributive law and a related game in Boolean algebras. *Annals of Pure and Applied Logic*. 149 (2007), no. 1-3, 14–24.
- [4] Natasha Dobrinen and Sy-David Friedman. Co-stationarity of the ground model. *Journal of Symbolic Logic*. 71 (3) (2006), no. 3, 1029-1043.
- [3] Natasha Dobrinen and Stephen G. Simpson. Almost everywhere domination. *Journal of Symbolic Logic*. 69 (2004), no. 3, 914-922.
- [2] Natasha Dobrinen. Complete embeddings of the Cohen algebra into three families of c.c.c., non-measurable Boolean algebras. *Pacific Journal of Mathematics*. 214 (2004), no. 2, 201-222.

- [1] Natasha Dobrinen. Games and general distributive laws in Boolean algebras. *Proceedings of the American Mathematical Society*. 131 (2003), no. 1, 309-318.

PUBLISHED INVITED BOOK REVIEWS

- [3] Natasha Dobrinen. Book Review: Appalachian Set Theory 2006 - 2012, James Cummings and Ernest Schimmerling Editors. *Bulletin for Symbolic Logic*. 20 (2014), no. 1, 94-97.
- [2] Natasha Dobrinen. Book review: Steven Givant and Paul Halmos, *Introduction to Boolean Algebras*. *Bulletin for Symbolic Logic*. 16 (2010), no. 2, 281-282.
- [1] Natasha Dobrinen. Book review: Herbert B. Enderton, *A Mathematical Introduction to Logic*, Second edition. *Bulletin for Symbolic Logic*. 9 (2003), no. 3, 406-407.

IN PREPARATION

- Natasha Dobrinen. The universal triangle-free graph has finite big Ramsey degrees. 50+ pp
- Alvaro Arias, Natasha Dobrinen, Gabriel Girón Garnica, and José Mijares. Banach spaces from high-dimensional Ellentuck spaces. 25+ pp.
- Natasha Dobrinen and Daniel Hathaway. Perfect tree forcings and singular cardinals. 28+ pp.
- Natasha Dobrinen and Ana Mamatelashvili. Tukey order and subsets of κ . 9+ pp.
- Natasha Dobrinen and Sonia Navarro Flores. Ramsey numbers for ultrafilters associated with topological Ramsey spaces. 23+ pp.

IN PROGRESS

- Natasha Dobrinen. Initial Rudin-Keisler and Tukey structures of ultrafilters generic for $\mathcal{P}(B)/\text{FIN}^B$.
- Natasha Dobrinen and Daniel Hathaway. Effects of forcing on the Halpern-Läuchli Theorem.

TALKS

INVITED LECTURES AND TUTORIALS

- Arctic Set Theory III, Kilpisjärvi, Finland January 2017
On the finite big Ramsey degrees for the universal triangle-free graph: A progress report
- Seventh Indian Conference on Logic and its Applications (plenary) January 2017
Indian Institute of Technology, Kanpur, India
Ramsey theory on Trees and Applications
- Ramsey DocCourse, Prague, Āech Republic December 2016
The universal triangle-free graph (most likely) has finite big Ramsey degrees
- Workshop on Infinite Combinatorics and Forcing Theory (tutorial) November 2016
Research Institute for Mathematical Sciences, Kyoto, Japan
Tutorial - three 50-minute lectures
Ramsey theory in forcing
- Applications of Set Theory to Topology September 2016
Casa Matematica de Oaxaca and Banff International Research Station
Creature forcing and topological Ramsey spaces
- Boise Extravaganza in Set Theory (plenary) June 2016
San Diego, CA
Ramsey spaces coding universal triangle-free graphs and applications to Ramsey degrees
- Association for Symbolic Logic Winter Meeting (plenary) January 2016
Joint Mathematics Meeting, Seattle
Inner topological Ramsey spaces
- 1st Pan Pacific International Conference on Topology and Applications November 2015
Min Nan Normal University, Zhangzhou, China
Tukey theory of ultrafilters
- 5th European Set Theory Conference (plenary) August 2015
Isaac Newton Institute, Cambridge, UK
Infinite dimensional Ellentuck spaces
- Summer Topology Conference, Galway, Ireland (semi-plenary) July 2015
High dimensional Ellentuck spaces
- Spring Topology and Dynamics Conference, (semi-plenary) May 2015
Bowling Green State University, Special Session on Set Theoretic Topology
Canonical cofinal maps on ultrafilters and properties inherited under Tukey reducibility
- Forcing and Its Applications Retrospective Workshop (plenary) March 2015
Fields Institute, Toronto, Canada
High and higher dimensional Ellentuck spaces

- Arctic Set Theory II, Kilpisjärvi, Finland February 2015
High and higher dimensional Ellentuck spaces and initial structures in the Rudin-Keisler and Tukey types of non-p-points
- Set Theory Workshop in Freiburg, Freiburg, Germany June 2014
High dimensional Ellentuck spaces and initial chains in the Tukey types of non-p-points
- Oberwolfach Set Theory Workshop, Oberwolfach, Germany January 2014
Progress in Ramsey theory
- Fourth European Set Theory Conference, Barcelona July 2013
General framework for topological Ramsey spaces and ultrafilters with partition properties
- Sy Friedman's 60th Birthday Conference, Vienna, Austria July 2013
Sliders
- Arctic Set Theory, Kilpisjärvi, Finland February 2013
Ramsey theory and Tukey types
- Mathematical Logic and General Topology, Novi Sad, Serbia September 2012
Tukey types of ultrafilters
- Third European Set Theory Conference, Edinburgh, Scotland July 2011
Canonization theorems on Ramsey spaces and their application to the Tukey theory of ultrafilters
- BLAST 09, Las Cruces August 2009
Tutorial on Set Theory and Boolean Algebras
- 2nd New York Women in Mathematics Conference, New York May 2008
The tree property
- First European Young Set Theory Meeting, Bonn, Germany January 2008
The tree property
- ASL North American Annual Meeting, Gainesville (plenary) March 2007
Co-stationarity of the ground model
- BEST, Boise March 2006
Co-stationarity of the ground model
- Oberwolfach Workshop on Set Theory, Oberwolfach, Germany December 2005
Co-stationarity of the ground model
- Foundations of the Formal Sciences V, Bonn, Germany (plenary) November 2004
Infintary games in Boolean algebras
- MAMLS, Hofstra March 2004
Infintary Games and Distributive Laws in Boolean algebras
- MAMLS, Washington D.C. April 2001
Weak distributive laws in Boolean algebras and issues related to a problem of von Neumann

INVITED SPECIAL SESSION LECTURES

- Association for Symbolic Logic, Boise State University March 2017
Session on Set Theory and its Applications to Analysis and Topology
- Spring Topology and Dynamical Systems Conference, March 2017
New Jersey City University
Session on Set-theoretic Topology
- Summer Topology Conference, CUNY Staten Island July 2014
Session on Set-theoretic topology
Turned down due to previously scheduled research stay in Vienna.
- Association for Symbolic Logic North American Annual Meeting, May 2014
Special Session in Honor of Rich Laver, University of Colorado - Boulder
Some recent progress in Ramsey theory
- Spring Topology and Dynamics Conference, March 2014
Session on Set-theoretic topology, University of Richmond, Virginia
The initial Tukey structure below the generic ultrafilter forced by $\mathcal{P}(\omega \times \omega)/\text{Fin}^{\otimes 2}$
- Association for Symbolic Logic North American Annual Meeting, May 2013
Special Session on Set Theory, Waterloo, Canada
Initial segments in of the Tukey hierarchy
- American Mathematical Society Spring Southeastern Sectional, March 2013
Special Session on Set Theory and Its Applications, Oxford, MS
(Had to miss due to broken wrist)
- 15th Latin American Symposium on Mathematical Logic, Bogota June 2012
Special Session on Set Theory
The structure of the Tukey types of ultrafilters
- Joint Mathematics Meeting January 2012
Online Panelist for the Association for Women in Mathematics
Panel on Coauthoring
- AMS, Sectional Meeting, UCLA October 2010
Special Session on Large Cardinals and the Continuum
Structure theorems for Tukey types of ultrafilters
- ASL North American Annual Meeting, Washington DC March 2010
Special Session on Set Theory
Tukey types of ultrafilters
- ISLA 2010, Hyderabad, India January 2010
Tukey types of ultrafilters
- Université Paris VII, Logic Meeting, Paris July 2009
Tukey degrees of ultrafilters
- ESI Workshop on Large Cardinals and Descriptive Set Theory, June 2009
Vienna
Tukey degrees of ultrafilters

- DMV Annual Meeting: Special Session in Set Theory, Bonn September 2006
Co-stationarity of the ground model
- ASL European Summer Meeting: Special Session in Set Theory, Nijmegen July 2006
Co-stationarity of the ground model, internal consistency, and new sequences
- AMS-DMV-OeMG Joint Meeting, Mainz June 2005
Special Session in Set Theory
Stationary subsets of $\mathcal{P}_{\kappa+\lambda}$ with respect to the ground model
- Joint Mathematics Meeting, Atlanta January 2005
ASL/AMS Special Session in Reverse Mathematics
Almost everywhere domination
- ASL Annual Meeting, Carnegie Mellon University May 2004
Special Session in Set Theory
 κ -stationary subsets of $\mathcal{P}_{\kappa}\lambda$ and relationships with infinitary distributive laws and related games in Boolean algebras
- AWM Workshop for Women Graduate Students and Recent PhDs Joint Mathematics Meeting, Phoenix January 2004
Measurably dominating randomness: some measurable similarities between set theory and recursion theory regarding dominating functions

INVITED COLLOQUIUM AND SEMINAR LECTURES

- Logic Seminar, University of Illinois-Urbana Champaign March 2017
- Model Theory Seminar, University of Leeds, UK January 2017
The universal triangle-free graph has finite Ramsey degrees
- Centre de Recerca Matemàtica, Barcelona, Spain December 2016
The universal triangle-free graph has finite Ramsey degrees
- Mathematics Department Colloquium, Auburn University, AL April 2016
Tukey theory of ultrafilters
- Analytic Topology Seminar, University of Oxford, UK December 2015
On the Tukey theory of ultrafilters
- The Emmy Noether Society, University of Cambridge, UK November 2015
Canonical Ramsey theory
- Mini-Workshop on Set Theory, Vienna, Austria February 2015
Kurt Gödel Research Center for Mathematical Logic
High and higher dimensional Ellentuck spaces and initial structures in the Rudin-Keisler and Tukey types of non- p -points
- University of Calgary Discrete Mathematics Lectures February 2014
Ramsey theory and initial structures in the Tukey types of p -points, Parts 1 and 2
- CUNY Set Theory Seminar, New York October 2013

Survey on the Tukey theory of ultrafilters

- University of Wisconsin - Madison Logic Seminar October 2013
Survey on the Tukey theory of ultrafilters
- University of Colorado at Boulder Logic Seminar October 2013
Survey on the Tukey theory of ultrafilters
- CUNY Logic Seminar, New York December 2012
Ramsey theory and Tukey types of ultrafilters
- University of Toronto, Women in Math Colloquium September 2012
Tukey types of ultrafilters
- Fields Institute Set Theory Seminar, Toronto August 2012
Ramsey-classification theorems and their applications in the Tukey theory of ultrafilters
- CU Boulder Logic Seminar April 2010
The current status of Tukey types of ultrafilters
- MIG 4, Boulder April 2010
Further understanding of Tukey types of ultrafilters
- California Institute of Technology, Logic Seminar January 2010
Tukey degrees of ultrafilters
- MIG 1, Boulder October 2009
Current status of work on Tukey degrees of ultrafilters
- University of Wisconsin, Logic Seminar April 2009
Tukey degrees of ultrafilters
- Fields Institute, Set Theory Seminar March 2009
Tukey degrees of ultrafilters
- Université Paris VII, Logic Seminar December 2008
The tree property
- Fields Institute, Set Theory Seminar February 2008
The tree property at the double successor of a measurable
- ICREA, Barcelona March 2005
 κ -stationary sets and distributive laws in Boolean algebras
- Chatham College Science Seminar November 2003
Almost everywhere domination
- Carnegie Mellon Mathematical Logic Seminar November 2003
The hyper-weak distributive law and related infinitary games in Boolean algebras
- Center for Theoretical Studies, Prague August 2003
Distributive laws, games, and $\geq \nu$ -club sets
- Dartmouth Math Colloquia May 2003

Infinitary games in Boolean algebras and related forcing properties

- MIT Logic Seminar April 2003
General infinitary distributive laws and related games in Boolean algebras
- CUNY Logic Workshop March 2003
Infinitary games in Boolean algebras and related forcing properties
- Carnegie Mellon Mathematical Logic Seminar October 2002
General infinitary distributive laws and related games in Boolean algebras
- The Academy of Sciences of the Czech Republic, Prague August 2002
Generalized distributive laws and games in Boolean algebras
- Pennsylvania State University Mathematical Logic Seminar April 2001
A complete embedding of the Cohen algebra into the Argyros algebra

CONTRIBUTED TALKS

- Logic Colloquium, Leeds, UK July 2016
Rainbow Ramsey simple structures
- Toposym, Prague, Čech Republic July 2016
Creature forcing and topological Ramsey spaces
- BLAST, University of North Texas June 2015
Continuous and other finitely generated canonical cofinal maps on ultrafilters
- ASL European Summer Meeting, Vienna July 2014
Generalized Ellentuck spaces and initial Tukey chains of non- p -points
- Ramsey Theory Conference, University of Denver May 2014
Boolean algebras as initial structures in the Tukey types of p -points
- BLAST 2013, Orange CA August 2013
General framework for topological Ramsey spaces, canonization theorems, and Tukey types of ultrafilters with weak partition properties
- Erdős Centenary Conference, Budapest July 2013
Ramsey-classification theorems and applications in the Tukey theory of ultrafilters (poster)
- Czech Winter School in Abstract Analysis, Prague February 2012
Ramsey-classification theorems and Tukey types
- Infinite and Finite Sets, Hajnal's 80th Birthday Conference June 2011
Budapest
Canonization theorems on Ramsey spaces and their application to the Tukey theory of ultrafilters
- BLAST, Lawrence June 2011
Canonization theorems on Ramsey spaces and their application to the Tukey theory of ultrafilters
- ASL European Summer Meeting, Paris July 2010

Continuous cofinal maps on ultrafilters

- BEST, Boise March 2010
Tukey types of ultrafilters
- Kunen Fest, University of Wisconsin April 2009
Tukey degrees of ultrafilters
- BLAST 08, Denver August 2008
The tree property
- ASL European Meeting, Bern July 2008
Homogeneous iteration and measure-one covering relative to HOD
- Advances in Set-theoretic Topology, Erice June 2008
The tree property
- Joint Mathematics Meetings, New Orleans January 2007
Coding a new countable-length sequence
- Toposym, Prague August 2006
Boolean algebras and co-stationarity of the ground model
- Selection Principals in Mathematics Workshop, Boise March 2006
A More ubiquitous undetermined uncountable length game
- Joint Mathematics Meetings, ASL Session, San Antonio January 2006
Co-stationarity of the ground model
- Workshop on Games and Selection Principals in Topology, Lecce December 2005
More on undetermined uncountable-length games
- Logic in Hungary, Budapest August 2005
Co-stationarity of the ground model
- ASL European Summer Meeting, Athens July 2005
 κ -stationary subsets of $\mathcal{P}_{\kappa+\lambda}$
- Prague Winter School in Abstract Analysis, Bohemia February 2005
 κ -stationary sets
- ASL European Summer Meeting, Torino July 2004
Almost everywhere domination
- ASL European Summer Meeting, Helsinki August 2003
A very weak distributive law and a related game in Boolean algebras
- ASL Annual Meeting, Chicago June 2003
A very weak distributive law and a related game in Boolean algebras
- BEST, Boise March 2003
A very weak distributive law and a related game in Boolean algebras
- BEST, Boise March 2002
Complete embeddings of the Cohen algebra

- ASL European Summer Meeting, Vienna August 2001
Complete embeddings of the Cohen algebra into three complete, atomless, c.c.c. Boolean algebras
- ASL Meeting, Minneapolis May 2001
A complete embedding of the Cohen algebra into the Galvin-Hajnal algebra

RESEARCH STAYS

- American Institute of Mathematics, Palo Alto, CA August 2017
Nonstandard methods in combinatorial number theory
- University of Illinois - Urbana Champaign March 2017
- University of Leeds January 2017
- Charles University, Prague, Āech Republic December 2016
Ramsey DocCourse Prague 2016
- Centre de Recerca Matemàtica, Barcelona, Spain December 2016
IRP on Large Cardinals and Strong Logics
- Casa Matemàtica de Oaxaca, Oaxaca, Mexico September 2016
Workshop on Set Theory and Its Applications in Topology
- University of Auburn, Auburn, Alabama April 2016
- Isaac Newton Institute, Cambridge, UK August, November, December 2015
Mathematical, Foundational and Computational Aspects of the Higher Infinite
- Technisches Universitat, Vienna, Austria February 2015
- University of Calgary, Canada August 2014
- Technisches Universitat, Vienna, Austria July-August 2014
- American Institute of Mathematics, Palo Alto, CA June 2014
Workshop on Inner Models and Descriptive Set Theory
- University of Calgary, Canada January-February 2014
- Oberwolfach Workshop in Set Theory, Germany January 2014
- City University of New York, New York October 2013
- University of Wisconsin, Madison October 2013
- Fields Institute, Toronto July - December 2012
Thematic Program on Forcing and Its Applications
- University of Michigan February 2012
- Universite of Paris VII July-August 2011
- Universite of Paris VII June-August 2010

- Université of Paris VII December 2010
- California Insitute of Technology January 2010
- Mittag-Leffler Institute, Sweden November-December 2009
- Université Paris VII July-August 2009
- University of Vienna June 2009
- University of Wisconsin April 2009
- University of Toronto March 2009
- Université Paris VII November - December 2008
- Université Paris VII July 2008
- University of Toronto January - March 2008
- Oberwolfach Workshop in Set Theory December 2005
- ICREA, Barcelona March 2005
- American Institute of Mathematics, Palo Alto, CA December 2004
Recent Advances in Core Model Theory
- The Center For Theoretical Studies and August 2003
The Academy of Sciences of the Czech Republic, Prague
- Dartmouth College May 2003
- The Center For Theoretical Studies and August 2002
The Academy of Sciences of the Czech Republic, Prague

SERVICE

PROFESSIONAL COMMITTEES AND SERVICE

- Association for Symbolic Logic 2014 - present
Member of the Committee for Logic in North America
- Association for Symbolic Logic 2014 - present
Web Advisory Committee Member
- Association for Women in Mathematics Panelist 2012
at the Joint Mathematics Meetings
- Conference Organizer and Program Committee Member (see page 4)

GRANT REVIEWER

- NSF Review Panelist November 2016
- Reviewer for NSF Grant Applications (2) 2015
- Reviewer for the DU PROF research grants 2013
- Reviewer for NSF Grant Applications (2) 2010
- Reviewer for CUNY Grant Applications (2) 2010

THESIS COMMITTEE MEMBER

- Member of Dissertation Committee 2016
for PhD candidate Charles Scherer, Department of Mathematics, CU Boulder
- Member of Dissertation Committee 2014
for PhD candidate Timothy Trujillo,
Department of Mathematics, University of Denver
- Member of Dissertation Committee 2014
for PhD candidate Kevin Selker, Department of Mathematics, CU Boulder
- Member of Honor Thesis Committee 2012
for undergraduate Patrick Walsh, for BS with honors,
Department of Philosophy, University of Denver
- Member of Dissertation Committee 2011
for PhD candidate Joshua Wiscons, Department of Mathematics, CU Boulder

FREQUENT REFEREE FOR THE FOLLOWING JOURNALS

Annals of Pure and Applied Logic
Archive for Mathematical Logic
Commentationes Mathematicae Universitatis Carolinae
Discrete Mathematics
Fundamenta Mathematicae
Journal of Mathematical Logic

Journal of Symbolic Logic
 Mathematical Logic Quarterly
 Proceedings of the American Mathematical Society
 Topology and Its Applications
 Transactions of the American Mathematical Society

CURRENT SERVICE AT THE UNIVERSITY OF DENVER

- Math Department Graduate Student Professionalism and Harassment Awareness Training 2015 - present
Initiated, fielded the development of, and presented the training session for the graduate students in the Department of Math, and continue developing ways to train our graduate students
- AWM Faculty Co-sponsor 2016 - present
 Sponsor our new student chapter of the Association for Women in Mathematics
- Graduate Student Women in Math Mentoring Coordinator 2012 - present
- Math Women Lunches Coordinator 2011 - present
- Graduate Committee Member, Math Department 2009 - present
- Faculty Advisor to undergraduate students 2008 - present
 Currently 12 undergraduates.
- Faculty Advisor to graduate students 2008 - present
 Currently 4 graduate students.

PAST SERVICE AT THE UNIVERSITY OF DENVER

- Chair, Math Department Hiring Committee 2015 - 2016
 for two Teaching Assistant Professor Positions
- Member of Tenure and Promotion Committee 2015 - 2016
 Math Department
- Member of Pre-Tenure Review Committee 2015 - 2016
 Math Department
- NSM Faculty Representative for the Internationalization Counsel 2014 - 2016
- Participated in the NSM Winter Streaming Conversations 2015
Status of Women Study, with Dr. Shelly Smith-Acuna
- Faculty Adviser and Organizer 2008 - 2014
 for the DU Graduate Student Seminar / Colloquium
- Chair of Hiring Committee for Math Department Lecturers 2014
- PROF Grant Committee Member 2013
- Pre-tenure Review Committee Member, Math Department 2012
- Teaching Load Committee Member, Math Department 2012
- Tenure Review Committee Member, Math Department 2012

- Member of Hiring Committee for a Lecturer, Math Department 2012
- Graduate Student Mentoring Committee, Committee Chair 2011 - 2012
- Pre-tenure Review Committee Member, Math Department 2011
- Member of the Search Committee for a new faculty, Math Department 2010 - 2013
- Scholarship Committee for Incoming Mathematics Majors Spring 2009
- Faculty Adviser to 14 first-year students 2008 - 2009
- Independent Study Adviser
Spring 2008, Autumn 2008, Spring 2009, Autumn 2009

SERVICE AT THE PENNSYLVANIA STATE UNIVERSITY

- Penn State Logic Seminar Coordinator Fall 2002 - Spring 2004
- Climate and Diversity Committee Member Fall 2002 - Spring 2004
- Women in Mathematics (WIM) Board member Spring 2003 - Spring 2004

TEACHING

COURSES TAUGHT AT THE UNIVERSITY OF DENVER

MATH 3050 – Set Theory	Autumn 2016
MATH 1951 – Calculus I	Autumn 2016
MATH 1150 – Perspectives in Art (2 sections)	Spring 2016
MATH 3162 – Intro to Real Analysis II	Winter 2016
MATH 1952 – Calculus II (2 sections)	Winter 2016
MATH 4050 – Combinatorial Set Theory	Spring 2015
MATH 1150 – Perspectives in Art	Spring 2015
MATH 3050 – Set Theory	Autumn 2014
MATH 1951 – Calculus I	Autumn 2014
MATH 1150 – Perspectives in Art	Spring 2014
MATH 1150 – Perspectives in Art (2 sections)	Spring 2013
MATH 3060/4260 – Metric Spaces	Winter 2013
MATH 1952 – Calculus II (2 sections)	Winter 2013
MATH 4705 – Descriptive Set Theory (graduate level)	Spring 2012
MATH 1150 – Perspectives in Art (2 sections)	Spring 2012
MATH 1951 – Calculus I	Autumn 2011
MATH 3050 – Set Theory	Autumn 2011
MATH 4995 – Independent Research	Autumn 2011
MATH 4300 – Graduate Student Seminar	Autumn 2011
MATH 1150 – Perspectives in Art	Spring 2011 (2 sections)
MATH 4991 – Independent Study: Multiple Forcing	Spring 2011
MATH 4995 – Independent Research	Spring 2011
MATH 4300 – Graduate Student Seminar	Spring 2011
MATH 3060 – Mathematical Logic	Winter 2011
MATH 4991 – Independent Study	Winter 2011
MATH 4995 – Independent Research	Winter 2011
MATH 4300 – Graduate Student Seminar	Winter 2011
MATH 1951 – Calculus I (2 sections)	Autumn 2010

MATH 4995 – Independent Research: Ultraproducts	Autumn 2010
MATH 4300 – Graduate Student Seminar	Autumn 2010
MATH 1953 – Calculus III (2 sections)	Spring 2010
MATH 4300 – Graduate Student Seminar	Spring 2010
MATH 4300 – Graduate Student Seminar	Winter 2010
MATC 1150 – Perspectives in Art	Autumn 2009
MATH 4705 – Advanced Set Theory	Autumn 2009
MATH 3991 – Independent Study: Topics in Set Theory	Autumn 2009
MATH 4300 – Graduate Student Seminar	Autumn 2009
MATH 1952 – Calculus II	Spring 2009
MATH 1150 – Perspectives in Art	Spring 2009
MATH 4991 – Independent Study: Ultrafilters	Spring 2009
MATH 4300 – Graduate Seminar	Spring 2009
MATH 1952 – Calculus II	Winter 2009
MATH 4300 – Graduate Seminar	Winter 2009
FSEM 1111 – Connections: Mathematics in Art, Literature, and Music	Autumn 2008
MATH 3050 – Set Theory	Autumn 2008
MATH 4991 – Independent Study: Set Theory	Autumn 2008
MATH-4300 – Graduate Seminar	Autumn 2008
MATC 1150 – Mathematics in Art and Music	Spring 2008
MATH 3705/4705 – Topics in Mathematics: Group Theory	Spring 2008
MATH 4991 – Independent Study: Boolean Algebra	Spring 2008
MATH 1951 – Calculus 1	Autumn 2007
MATH 3705/4705 – Topics in Mathematics: Logic	Autumn 2007

TEACHING PRIOR TO TEACHING AT THE UNIVERSITY OF DENVER

The Pennsylvania State University (Fall 2001 - Spring 2004)

- **Lecturer**

- Math 401: Introduction to Analysis I Spring 2004
- Math 496: Independent Studies (Set Theory) Spring 2004
- Math 429: Introduction to Topology Fall 2003

- Math 557: Mathematical Logic (graduate level) Fall 2002
- Math 457: Introduction to Mathematical Logic Fall 2002
- Math 459: Computability and Unsolvability Spring 2002
- Math 250: Ordinary Differential Equations Fall 2001

University of Minnesota (Fall 1996 - Spring 2001)

- **Teaching Assistant** for the Institute of Technology 2000 - Spring 2001
 - Calculus II *Conducted recitation sessions and supervised group projects.*
 - Multivariable Calculus *Conducted recitation sessions and computer laboratory sessions using Mathematica.*
- **Teaching Assistant** for the School of Mathematics 1996 - 1999
Conducted recitation sessions for the following courses:
 - Precalculus I and II
 - Calculus I and II
 - Multivariable Calculus
 - Short Calculus (for business majors)
- **Teaching Assistant Trainer** 1998, 1999
Trained new graduate students in teaching strategies and presentation skills.
- **Tutor** 1996 - 1998, Spring 2000
for the Institute of Technology Tutoring Center.

TEACHING AWARDS / HONORS

- Faculty Escort for the Student Marshal for Penn State's Eberly College of Science December 2003
- Outstanding Teaching Award May 2001
University of Minnesota, Department of Mathematics

TEACHING ENRICHMENT

- Participated in DU Inclusive Excellence Seminar 2014
- Participated in DU Math Department Teaching Excellence Initiative 2013
- Participated in the Provost's Conference October 2009
Mental Health on Campus
- Attended CTL Coffee Break Spring 2009
Millennials Part II: What the Students Say
- Worked with staff from Writing Center Autumn 2008
to develop course materials on works of Jorge Borges for FSEM
- Learned *Scientific Notebook* for Calculus labs Autumn 2007
- Allegheny Section NExT participating member Spring 2002 - Spring 2004
New Experiences in Teaching, sponsored by the MAA
- Mathematica Fall 2000, Spring 2001
Used Mathematica to conduct computer labs for Multivariable Calculus.

MEMBERSHIPS IN MATHEMATICAL ORGANIZATIONS

- The American Mathematical Society (AMS)
- Association for Symbolic Logic (ASL)
- Association for Women in Mathematics (AWM)