

CURRICULUM VITAE

NATASHA DOBRINEN

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EMPLOYMENT

- FWF Postdoctoral Fellowship
Kurt Gödel Research Center for Mathematical Logic, October 2004 - present.
- NSF VIGRE S. Chowla Research Assistant Professor
The Pennsylvania State University, August 2001 - May 2004.
- Teaching Assistant
University of Minnesota, September 1996 - May 2001.

RESEARCH INTERESTS

- Logic and Foundations of Mathematics: Set Theory, Boolean Algebras, Computability and Recursion Theory, and Reverse Mathematics; Set-theoretic Topology; Measure Theory.

EDUCATION

- Ph.D. in Mathematics, University of Minnesota, July 2001.
Thesis advisor: 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, with High Honors, University of California - Berkeley, May 1996.
Honor’s Thesis advisor: Professor Richard E. Borcherds
Honor’s Thesis title: “The prime number theorem.”

PUBLICATIONS

- General distributive laws and games in Boolean algebras.
Proceedings of the American Mathematical Society. 131 (2003), 309-318.
- Complete embeddings of the Cohen algebra into three families of c.c.c., non-measurable Boolean algebras.
Pacific Journal of Mathematics. 214(2) (2004) 201-222.
- (with Stephen G. Simpson) Almost everywhere domination.
Journal of Symbolic Logic. 69(3) (2004) 914-922.
- (with Sy-David Friedman) Co-stationarity of the ground model.
Journal of Symbolic Logic. 71 (3) (2006) 1029-1043.
- (with James Cummings) The hyper-weak distributive law and a related game in Boolean algebras. Accepted in the *Annals of Pure and Applied Logic*.
- κ -stationary subsets of $\mathcal{P}_\kappa\lambda$, infinitary games and distributive laws in Boolean algebras. Submitted.
- More ubiquitous undetermined games and other results on uncountable length games in Boolean algebras. Submitted.
- (with Sy-David Friedman) Internal consistency and global co-stationarity of the ground model. Submitted.
- Global co-stationarity of the ground model from new ω -sequences. Submitted.
- (with Sy-David Friedman) Measure one covering relative to HOD. Preprint.
- (with Karel Prikry) On perfect trees and distributivity. In progress.
- Book review: Herbert B. Enderton, *A Mathematical Introduction to Logic*, Second edition.
Bull. Symbolic Logic. 9(3) (2003), 406-407.

TALKS

INVITED PLENARY LECTURES

- ASL Annual Meeting, Gainesville March 2007
- BEST, Boise March 2006
Co-stationarity of the ground model
- Foundations of the Formal Sciences V, Bonn November 2004
Infintary games in Boolean algebras
- MAMLS, Hofstra March 2004
Infinitary 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

- 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: Special Session in Set Theory, Mainz June 2005
Stationary subsets of $\mathcal{P}_{\kappa+\lambda}$ with respect to the ground model
- Joint Mathematics Meeting: ASL/AMS Special Session in Reverse Mathematics, Atlanta January 2005
Almost everywhere domination
- ASL Annual Meeting, Special Session in Set Theory, Carnegie Mellon University May 2004
 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

- 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

- 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
- 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
- Oberwolfach Workshop on Set Theory December 2005
Co-stationarity of the ground model
- 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, 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

INVITED RESEARCH STAYS

- Oberwolfach Workshop in Set Theory
one-week invited research conference December 2005
- ICREA, Barcelona
one-week invited research stay March 2005
- AIMS: Recent Advances in Core Model Theory, Palo Alto
one-week invited research conference December 2004
- The Center For Theoretical Studies and
The Academy of Sciences of the Czech Republic, Prague
10-day invited research stay August 2003
- Dartmouth College
one-week invited research stay May 2003
- The Center For Theoretical Studies and
The Academy of Sciences of the Czech Republic, Prague
one-week invited research stay August 2002

AWARDS / FELLOWSHIPS

- FWF Postdoctoral Fellowship October 2004 - present
- NSF VIGRE Postdoctoral Fellowship August 2001 - May 2004
- AWM Travel Award
to speak in the AWM Workshop at the Joint Mathematics Meetings January 2004
- ASL Travel Awards
to speak at MAMLS 2001, 2004
- Penn State Logic Seminar Travel Award
to speak at the Penn State Logic Seminar April 2001
- NSF Travel Awards
to attend/speak at the ASL European Summer Meeting 1999 - 2001
- University of Minnesota Summer Research Fellowships 1997 - 2001

TEACHING

TEACHING EXPERIENCE

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)
- **Resource Teaching Assistant** 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 AND COMPUTER SKILLS

- 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.

SERVICE

- Referee for the Journal of Symbolic Logic 2006
- Referee for the Archive for Mathematical Logic 2006
- Penn State Logic Seminar Coordinator Fall 2002 - Spring 2004
- Climate and Diversity Committee, Penn State, Dept. of Math.
Committee member Fall 2002 - Spring 2004
- Women in Mathematics (WIM), Penn State, Dept. of Math.
Board member Spring 2003 - Spring 2004

MEMBERSHIPS IN MATHEMATICAL ORGANIZATIONS

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

REFERENCES

Mirna Džamonja, Professor, University of East Anglia

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