

## RESUME

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### Areas of specialization

Mathematical logic, set theory

### Education

DSc. in Mathematics, Czech Academy of Sciences 2007

Ph. D. in Mathematics, The Pennsylvania State Univ. 1995, supervisor T. Jech

M. A. in Mathematics, Charles University, Prague 1994

B. A. in Mathematics, Charles University, Prague 1990

### Employment

2009-present professor, University of Florida

2009-2012 Purkyně Fellow, Academy of Sciences, Czech Republic

2005-2009 associate professor, University of Florida

2000-2005 assistant professor, University of Florida

1998-2000 John Wesley Young instructor, Dartmouth College

1996-1998 Bateman research instructor, California Institute of Technology

1995-1996 postdoctoral fellow, Math. Sciences Research Institute Berkeley

1990-1995 teaching assistant, The Pennsylvania State University

### Publications

Geometric set theory, with Paul Larson, monograph in preparation

Hypergraphs and proper forcing, submitted to Journal of Mathematical Logic  
Bounded Namba Axiom may fail, Math. Logic Quarterly 64 (2018), no. 3,  
170–172

Cardinal invariants of closed graphs, with Francis Adams, Israel J. Math. 227  
(2018), no. 2, 861-888

Canonical models for fragments of the axiom of choice, with Paul Larson, J.  
Symb. Log. 82 (2017), no. 2, 489-509

Strong measure zero sets in Polish groups, with Michael Hrušák, Illinois J. Math.  
60 (2016), no. 3-4, 751-760

Ramsey ultrafilters and countable-to-one uniformization, with Paul Larson and  
Richard Ketchersid, Topology Appl. 213 (2016), 190-198

Interpreter for topologists, J. Log. Anal. 7 (2015), Paper 6, 61 pp.

Why  $Y$ -c.c., with David Chodounský, Annals of Pure and Applied Logic 166  
(2015) 1123-1149

Dimension theory and forcing. *Topology Appl.* 167 (2014), 3135  
 Cofinalities of Borel ideals, with Michael Hrusak and Diego Rojas Rebolledo, *Math. Log. Q.* 60 (2014), no. 1-2, 3139  
 Analytic equivalence relations and the forcing method. *Bull. Symbolic Logic* 19 (2013), no. 4, 473-49  
 Canonical Ramsey theory on Polish spaces, with Vladimir Kanovei and Marcin Sabok, *Cambridge Tracts in Mathematics*, 202. Cambridge University Press, Cambridge, 2013  
 Separation problems and forcing. *J. Math. Log.* 13 (2013), no. 1350002, 23 pp.  
 On the Steinhaus and Bergman properties for infinite products of finite groups, with Simon Thomas, *Confluentes Math.* 4 (2012 )1250002, 26 pp.  
 Pinned equivalence relations, *Mathematical Research Letters* 18 (2011) 559-564  
 More ideals with the Komjath-Laczkovich property, *Topology and Its Applications* 158 (2011) 1149-1156  
 Forcing properties of ideals of closed sets, with Marcin Sabok, *J. Symbolic Logic* 76 (2011) 1075–1095  
 Ramsey theorem for product of finite sets with submeasures, with Saharon Shelah, *Combinatorica* 31 (2011) 225-244  
 On the existence of a sigma-closed dense subset, *Comment.Math.Univ.Carolin.* 51,3 (2010) 513-517  
 Applications of the ergodic iteration theorem. *Math. Log. Q.* 56 (2010), no. 2, 116-125  
 Regular embeddings of the stationary tower and Woodin’s Sigma Two Two maximality theorem, with Richard Ketchersid and Paul Larson, *J. Symbolic Logic* 75 (2010), no. 2, 711-727  
 Preserving  $PP$ -points in definable forcing. *Fund. Math.* 204 (2009), no. 2, 145-154  
 Increasing  $\delta_2^1$  by a Namba-style forcing, with Richard Ketchersid and Paul Larson, *J. Symbolic Logic* 72 (2007), 1372–1378  
 On the structure of stationary sets, with Qi Feng and Thomas Jech, *Sci. China Ser. A* 50 (2007) 615-627  
 Forcing with quotients, with Michael Hrušák, *Archive Math. Logic* 47 (2008), 719-739  
 Forcing idealized, *Cambridge Tracts in Mathematics*, Cambridge University Press 2008, ISBN 9780521874267  
 Proper forcing and rectangular Ramsey theorems, *Israel J. Math.* 152 (2006), 29–47  
 Between Maharam’s and von Neumann’s problem, with Ilijas Farah, *Math. Research Letters* 11 (2004), 673–684  
 Four and more, *Ann. Pure Appl. Logic*, with Ilijas Farah, *Ann. Pure Appl. Logic* 140 (2006), 3–39  
 Descriptive set theory and definable forcing, *Memoirs Amer. Math. Soc.* 793 (2004)  
 Games with creatures, with S. Shelah, *Comm. Math. Univ. Carolinae* 44 (2003), 9–23

Duality and the PCF theory, with S. Shelah, *Math. Research Letters* 9 (2002), 585–595  
 Forcing with ideals of closed sets, *Comm. Math. Univ. Carolinae* 43,1 (2002), 181–188  
 Isolating cardinal invariants, *J. Math. Logic*, 2003, 143–162  
 Terminal notions in set theory, *Ann. Pure Appl. Logic* 109 (2001), 89–116  
 Transfinite open games, *Topology and Its Applications* 111 (2001), 289–297  
 Killing ideals and adding reals, *J. Symbolic Logic* 65 (2000), 747–755  
 The nonstationary ideal and the other sigma ideals on omega one, *Trans. Amer. Math. Soc.* 352 (2000), 3981–3993  
 Terminal notions, *Bull. Symbolic Logic* 5 (1999), 470–484  
 On the Alaoglu-Birkhoff equivalence of posets, with S. Todorcevic, *Illinois J. Math.* 43 (1999), 281–292  
 Canonical models for aleph one combinatorics, with S. Shelah, *Ann. Pure Appl. Logic* 98 (1999), 217–259  
 Proper forcing and absoluteness in  $L(R)$ , with I. Neeman, *Comm. Math. Univ. Carolinae* 39 (1998), 281–301  
 A dichotomy for forcing notions, *Math. Res. Lett.* 5 (1998) 213–226  
 Preserving sigma-ideals, *J. Symbolic Logic* 63 (1998), 1437–1441  
 Keeping additivity of the null ideal small, *Proc. Amer. Math. Soc.* 125 (1997), 2443–2451  
 Embeddings of Cohen algebras, with S. Shelah, *Adv. Math.* 126 (1997), 93–119  
 Semi-Cohen boolean algebras, with B. Balcar and T. Jech, *Ann. Pure Appl. Logic* 87 (1997), 187–208  
 Strongly almost disjoint functions, *Israel J. Math.* 97 (1997), 101–111  
 Small forcings and Cohen reals, *J. Symbolic Logic* 62 (1997), 280–284  
 Splitting number at uncountable cardinals, *J. Symbolic Logic* 62 (1997), 35–42  
 A classification of definable partial orders on omega one, *Fund. Math.* 153 (1997), 141–144  
 Characterization of the club forcing, in *Papers on General Topology and Applications*, S. Andima, R. Flagg, G. Itzkowitz, Y. Kong, R. Kopperman and P. Misra, eds., *Annals of the New York Academy of Sciences* 806 (1996), 476–484  
 A new proof of Kunen inconsistency, *Proc. Amer. Math. Soc.* 124 (1996), 2203–2205  
 More on the cut and choose game, *Ann. Pure Appl. Logic* 76 (1995), 291–301

### Grants

2014–2018 NSF grant DMS-1362273 to organize annual weekend logic conference at UF, \$45000  
 2012–2016 NSF grant DMS 1161078  
 2010/2011 AIP project MEB051006, cooperation between Academy of Sciences, Czech Republic, and University of Wroclaw, CZK132000  
 2009/2010 AIP project MEB060909, cooperation between Academy of Sciences, Czech Republic, and Kurt Goedel Center in Vienna, CZK126000  
 2009–2012 Purkyně fellowship, Czech Academy of Sciences

2009-present grant IAA100190902 of Grant Agency of the Academy of Sciences of the Czech Republic  
2008-2012 NSF grant DMS 0801114, \$110000  
2006-2007 NSF grant DMS 0532644 (PI) to organize special year in logic at UF, \$138000  
2003-2006 grant GA ĀR 201-03-0933 of the Grant Agency of Czech Republic  
2003-2006 NSF grant DMS 0335481 to organize an annual logic conference at UF, \$15000  
2003-2006 NSF grant DMS 0300201 \$103827  
2000-2003 NSF grant DMS 0071437, \$61431  
2000-2003 grant GA ĀR 201-00-1466 of the Grant Agency of Czech Republic  
1997-2000 grant GA ĀR 201-97-0216 of the Grant Agency of Czech Republic

#### **Selected lectures**

January 2016 ASL Winter Meeting, plenary lecture  
May 2015, Rutgers University, four lecture tutorial  
April 2015 Fields Institute forcing meeting  
October 2014, Luminy set theory meeting  
May 2014, Bedlewo Young Set Theory meeting, a three lecture tutorial  
January 2011 Oberwolfach set theory meeting  
January 2008 Oberwolfach set theory meeting  
October 2007 Special session, AMS regional meeting, Rutgers  
July 2007 First European Set Theory Meeting, Bedlewo, Poland  
October 2006 Luminy set theory meeting  
August 2005 Logic Colloquium, Athens, plenary lecture  
March 2004 Midrasha Mathematicae, Jerusalem, a three lecture tutorial

#### **University Governance and Service**

2007-8 Colloquium committee, Visitors and conferences committee  
2006-7 Postdoc search committee (chair), Visitors and conferences committee  
2005-6 Postdoc search committee (chair), Visitors and conferences committee  
2004-5 Group proposals committee, Visitors and conferences committee  
2002-3 Visitors and conferences committee  
2001-2 Visitors and conferences committee

#### **Refereeing activities**

Referee: Advances in Mathematics, Annals of Pure and Applied Logic, Journal of Symbolic Logic, Fundamenta Mathematica, Order, Proceedings of American Mathematical Society, University Lecture Series of AMS  
Reviewer: DMS NSF, 1999, Israel Science Foundation 2004, United States-Israel Binational Science Foundation 2006, Wissenschaftsfonds (Austrian scientific foundation), 2008  
Panelist: DMS NSF

#### **Honors**

2009 Purkyně Fellowship, Academy of Sciences, Czech Republic  
2001 CLAS research award of University of Florida  
1995 Pritchard dissertation fellowship, The Pennsylvania State University

### **Conferences Organized**

Winter school in theory 2011 and 2012, Hejnice, Czech Republic, program committee  
events of the Special year in Logic 2006-7 at UF, including 6 major meetings and hundreds of guests  
South East Logic Symposium, University of Florida, March 2001, 2003, 2004, 2006, 2008

### **Extended Visits**

August-December 2012 Fields Institute, Toronto  
June 2004 Universidad Nacional Autonoma de Mexico, Morelia, Mexico  
November-December 2003 York University, Toronto  
September-November 2003 CRM, Universita Autonoma Barcelona  
July 2003 National University of Singapore  
June 2003 Kobe University, Kobe, Japan  
May 2003 California Institute of Technology  
July-August 2002 Academia Sinica, Beijing  
June 2002 Universite Paris VII, and IHES  
April-May 2002 International Graduate School, Friedrich-Wilhelms Universität Bonn  
February-March 2002 Hebrew University, Jerusalem