May 17, 2015
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Michal Doucha

CURRENT POSITION

Institute of Mathematics, Polish Academy of Sciences, IMPACT fellowship, Marie-Curie type post-doctoral position

RESEARCH INTERESTS

- topological group theory, functional analysis, metric spaces/embeddings, descriptive set theory

EDUCATION

Charles University in Prague, Faculty of Mathematics and Physics
- Doctoral degree, *2009-2013*
  - Advisor: Jindřich Zapletal
  - Field of study: Geometry, Topology, Global analysis and General structures
  - Thesis title: Forcing, descriptive set theory, analysis
  - Graduation: June 2013

Masaryk University in Brno, Faculty of Science
- Master's degree, *2007-2009*
  - Field of study: Algebra and Discrete Mathematics
  - Master's thesis: Combinatorial Set Theory
  - Advisor: Bohuslav Balcar
- Bachelor's degree, *2004 - 2007*
  - Field of study: Mathematics
  - Bachelor's thesis: Homogeneous Sets
  - Advisor: David Kruml

PUBLICATIONS AND PREPRINTS

M. Doucha, *Canonizing certain Borel equivalences for Silver forcing*, Topology Appl. 159 (2012), no. 13, 2973-2979

M. Doucha, *F_σ equivalence relations and Laver forcing*, J. Symbolic Logic 79(2014), issue 02, pp. 644–653

B. Balcar, M. Doucha, M. Hrušák, *Base tree property*, Order 32 (2015), Issue 1, 69–81

M. Doucha, *Scott rank of Polish metric spaces*, Ann. Pure Appl. Logic 165 (2014), Issue 12, 1919–1929

M. Doucha, *Non-abelian group structure on the Urysohn space*, Fund. Math. 228 (2015), no. 3, 251–263

M. Doucha, *Non-universality of automorphism groups of uncountable ultrahomogeneous structures*, Topology Appl. 180 (2015), 209–217

M. Doucha, *Universal and homogeneous structures on the Urysohn and Gurarij spaces*, submitted, 2015, arXiv:1503.05204

M. Doucha, *Metrically universal abelian groups*, conditionally accepted to Trans. Amer. Math. Soc., arXiv:1312.7683 [math.GN], 2014

M. Doucha, *Metrical universality for groups*, submitted, arXiv:1410.1380 [math.GR], 2015

M. Cúth, M. Doucha, *Lipschitz-free spaces over ultrametric spaces*, to appear in Mediterr. J. Math., DOI 10.1007/s00009-015-0566-7

M. Doucha, *An example of a non-commutative uniform Banach group*, preprint, arXiv:1504.05841 [math.FA], 2015

M. Cúth, M. Doucha, P. Wojtaszczyk, *On the structure of Lipschitz-free spaces*, in preparation

I. Ben Yaacov, M. Doucha, A. Nies, T. Tsankov, *Continuous Scott analysis*, in preparation

GIVEN TALKS   Conferences

Dec 20, 2014	Metrically universal groups, ARA workshop, Research Center Whiritoa, New Zealand
Sep 16, 2014	Metrically universal Polish group, Workshop in set theory, Bedlewo, Poland
Jul 4, 2014	Group structures on the Urysohn universal space, 2014 International Conference on Topology and its Applications, Nafpaktos, Greece
Mar 4, 2014	Scott rank of Polish metric spaces, Infty Final Conference, Bonn, Germany
Jan 27, 2014	Universal groups and group structures on the Urysohn space, Winter School on Abstract Analysis 2014, Hejnice, Czech Republic
Jun 13, 2013	Universal and ultrahomogeneous Polish metric structures, Young Set Theory Workshop 2013, Santuario di Oropa, Italy
Feb 1, 2013	Universal objects on the Urysohn universal space, Winter School on Abstract Analysis 2013, Hejnice, Czech Republic
Jul 8, 2012	Borel equivalence relations and Laver forcing, Trends in Set Theory 2012, Warsaw, Poland
Aug 11, 2011	Canonizing Borel equivalence relations for the Silver forcing,Toposym 2011, Prague, Czech Republic
Feb 27, 2010	Base tree property, South Eastern Logic Symposium, Gainesville, Fl, USA

RESEARCH STAYS

- University of Auckland, Auckland, New Zealand
  - November 20, 2014 - January 30, 2015
  - invited by prof. André Nies for collaboration
- The Hausdorff Research Institute for Mathematics, Bonn, Germany
  - September 2 - December 20 2013
  - Participant of the Universality and Homogeneity trimester program
- Fields Institute for Research in Mathematical Sciences, Toronto, Canada
  - Sep 6-Oct 10 2012
  - Participant of the thematic program on forcing
- University of Florida, Gainesville, USA
  - Jan 5-Mar 3 2012
  - Visiting scholar
- University of Florida, Gainesville, USA
  - Jan 28-Apr 26 2010
  - Visiting scholar

PROFESSIONAL EXPERIENCE

Journal reviewer for Topology and its Applications