

## Curriculum Vitae - Andrea Medini

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**ADDRESS** Institut für Diskrete Mathematik und Geometrie  
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**WEBPAGE** <http://www.dmg.tuwien.ac.at/medini/>

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**YEAR OF BIRTH** 1983

**CITIZENSHIP** Italian

**RESEARCH AREAS** General Topology, Set Theory

**EDUCATION** **Università di Bologna, Italy**  
Laurea in Mathematics (110/110 with honors, December 2004)  
Laurea Specialistica in Mathematics (110/110 with honors, June 2006)

**University of Wisconsin - Madison, USA**  
M.A. in Mathematics (May 2008)  
Ph.D. in Mathematics (August 2013)

**CURRENT POSITION** **Projekt Leiter** (Project Leader)  
for the FWF grant P 35655 - N (€242,518.50)  
Project title: Questions on topological homogeneity  
for the period February 2022 - January 2025  
at the Institut für Diskrete Mathematik und Geometrie

**PREVIOUS POSITIONS** **Graduate Student and Teaching Assistant**  
University of Wisconsin - Madison  
for the period July 2006 - August 2013

**Wissenschaftlicher Mitarbeiter** (Scientific Collaborator)  
for the FWF grant I 1209 - N25 (€304,006.50)  
Project title: General topology and set-theoretic methods  
for the period October 2013 - May 2015 and July 2017 - September 2017  
at the Kurt Gödel Research Center  
Project Leader: Lyubomyr Zdomskyy

**Projekt Leiter** (Project Leader)  
for the FWF grant M 1851 - N35 (€147,020)  
Project title: Topological homogeneity and infinite powers  
for the period July 2015 - June 2017  
at the Kurt Gödel Research Center  
Coapplicant: Sy-David Friedman

**Projekt Leiter** (Project Leader)

for the FWF grant P 30823 - N35 (€298,578)

Project title: The topology of filters

for the period November 2017 - October 2021

at the Kurt Gödel Research Center

PUBLICATIONS

1. A. Medini. A non-CLP-compact product space whose finite subproducts are CLP-compact. *Topology Appl.* **157:18** (2010), 2829–2833
2. A. Medini. Products and h-homogeneity. *Topology Appl.* **158:18** (2011), 2520–2527
3. A. Medini, D. Milovich. The topology of ultrafilters as subspaces of  $2^\omega$ . *Topology Appl.* **159:5** (2012), 1318–1333
4. A. Medini. Products and countable dense homogeneity. *Topology Proc.* **46** (2015), 135–143
5. A. Medini, L. Zdomskyy. Between Polish and completely Baire. *Arch. for Math. Logic.* **54:1-2** (2015), 231–245
6. A. Medini. Countable dense homogeneity in powers of zero-dimensional definable spaces. *Canad. Math. Bull.* **58:2** (2015), 334–349
7. K. Kunen, A. Medini, L. Zdomskyy. Seven characterizations of non-meager P-filters. *Fund. Math.* **231:2** (2015), 189–208
8. A. Medini. Distinguishing perfect set properties in separable metrizable spaces. *J. Symbolic Logic.* **81:1** (2016), 166–180
9. A. Medini, J. van Mill, L. Zdomskyy. A homogeneous space whose complement is rigid. *Isr. J. Math.* **214:2** (2016), 583–595
10. A. Medini, L. Zdomskyy. Every filter is homeomorphic to its square. *Bull. Pol. Acad. Sci., Math.* **64:1** (2016), 63–67
11. A. Medini, L. Zdomskyy. Productively Lindelöf spaces of countable tightness. *Houston J. Math.* **43:4** (2017), 1263–1272
12. A. Medini, D. Repovš, L. Zdomskyy. Non-meager free sets and independent families. *Proc. Am. Math. Soc.* **145:9** (2017), 4061–4073
13. A. Medini, J. van Mill, L. Zdomskyy. Infinite powers and Cohen reals. *Canad. Math. Bull.* **61** (2018), 812–821
14. A. Medini. On Borel semifilters. *Topology Proc.* **53** (2019), 97–122
15. R. Carroy, A. Medini, S. Müller. Every zero-dimensional homogeneous space is strongly homogeneous under determinacy. *J. Math. Logic.* **20:3** (2020), 2050015
16. R. Carroy, A. Medini, S. Müller. Constructing Wadge classes. To appear in *Bull. Symb. Log.*
17. A. Medini, Z. Vidnyánszky. Zero-dimensional  $\sigma$ -homogeneous spaces. To appear in *Ann. Pure Appl. Logic.*

18. A. Medini. On the scope of the Effros theorem. To appear in *Fund. Math.*

TEACHING

**Math 221** Calculus and Analytic Geometry

Summer 2011, TA

Fall 2011, TA for the WES program

**Math 222** Calculus and Analytic Geometry

Fall 2006, TA

**Math 234** Calculus – Functions of Several Variables

Fall 2010, TA (Teaching evaluation: Superior)

Spring 2013, TA

**Math 319** Techniques in Ordinary Differential Equations

Fall 2012, TA (Teaching evaluation: Superior)

**Math 171** Calculus with Algebra and Trigonometry I

Fall 2009, TA

**Math 217** Calculus with Algebra and Trigonometry II

Spring 2011, TA (Teaching evaluation: Superior)

Spring 2012, TA

**Math 210** Topics in Finite Mathematics

Spring 2007, TA

Fall 2007, TA

**Math 211** Calculus

Spring 2008, TA

Fall 2008, TA (Teaching evaluation: Superior)

Spring 2009, TA

Spring 2010, TA

**VIGRE Summer Enhancement Program** in Logic

Summer 2009

**International TA Training**

Summer 2012

Summer 2013

SCHOLARSHIPS,  
FELLOWSHIPS

**INdAM Scholarship** for the academic year 2001/02 (€3,100)

Renewed for the academic year 2002/03 (€4,000)

Renewed for the academic year 2003/04 (€4,000)

**INdAM Scholarship** for the academic year 2004/05 (€4,000)

Renewed for the academic year 2005/06 (€4,000)

**VIGRE Teaching Fellowship** for Summer 2009 (\$1,500)

AWARDS

**Rotary “Guido Paolucci” Award** for the academic year 2005/06 (€500)  
Best graduate in Mathematical, Physical and Natural Sciences in Bologna

SELECTED TALKS

**The topology of ultrafilters as subspaces of  $2^\omega$**

AMS Sectional Meeting, session on Set Theory. September 10, 2011  
ASL North American Annual Meeting, session on Set Theory. April 2, 2012

**Clopen sets in products: CLP-compactness and h-homogeneity**

Seminar, Auburn University. March 2, 2012

**Countable dense homogeneity and set theory**

AMS Sectional Meeting, session on Set Theory and Boolean Algebras. April 13, 2013

**Seven characterizations of non-meager  $\mathbf{P}$ -filters**

Spring Topology and Dynamics Conference. March 15, 2014

**Dropping Polishness**

Summer Conference on Topology and its Applications. July 24, 2014  
Seminar, University of Turin. March 6, 2015  
Sets and Computations, Singapore. March 31, 2015

**Topological homogeneity and infinite powers**

Seminar, Technische Universität Wien. March 25, 2015  
Semi-plenary talk, Summer Conference on Topology and its Applications. June 24, 2015

**Almost all homogeneous Borel spaces are semifilters**

Summer Conference on Topology and its Applications. August 4, 2016  
Prague-Vienna Set Theory Workshop. October 18, 2016

**Homogeneous spaces and Wadge theory**

Semi-plenary talk, Summer Conference on Topology and its Applications. July 18, 2018

**Topological applications of Wadge theory**

Tutorial (3 lectures), Winter School in Abstract Analysis. January 26-28, 2020  
Fields Institute Set Theory Seminar. November 20, 2020

PEER REVIEW  
ACTIVITIES

**Referee work**

for Topology and its Applications (6 articles)  
for Fundamenta Mathematicae (3 articles)  
for the Journal of Symbolic Logic (2 articles)  
for Topology Proceedings (2 articles)  
for Acta Mathematica Hungarica (1 article)  
for Commentationes Mathematicae Universitatis Carolinae (1 article)  
for Monatshefte für Mathematik (1 article)

**Reviews**

for zbMATH (8 articles)  
for MathSciNet (3 articles)