

MICHAŁ KORCH

ADDRESS

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PERSONAL DATA

Date of birth: 1985-10-01
Place of birth: Warszawa

MATHEMATICS

PhD: 2018,

position: lecturer,

affiliation: Faculty of Mathematics Informatics and Mechanics, University of Warsaw

scientific interests: structure of the real line and other Polish spaces, measure, category and convergence, generalized Cantor space 2^κ

additional scientific interests: automata theory, languages of words of transfinite length

PAPERS

- 2016 Michał Korch and Tomasz Weiss. On the class of perfectly null sets and its transitive version. Bull. Pol. Acad. Sci. Math., 64:1–20, 2016
- 2017 Michał Korch. Generalized Egorov's statement for ideals. Real Anal. Exchange, 42(2):269–282, 2017.
- 2018 Michał Korch and Tomasz Weiss. Special subsets of the generalized Cantor space 2^κ . sent to Mathematical Logic Quarterly.
- 2018 Michał Korch. Special subsets with respect to the canonical measure on a perfect subset of Cantor space. in preparation.
- 2018 Michał Korch. Convergence of sequences of functions on the generalized Cantor space 2^κ . in preparation.
- 2018 Michał Korch. Knaster-Reichbach Theorem in 2^κ . in preparation.

CONFERENCES, SEMINARS AND SCIENTIFIC VISITS

- 2012 5th Young Set Theory Workshop, Oropa, Italy, poster and talk: "Perfectly null sets".
- 2014 Joint Meeting of DMV and PTM, Poznań, Poland, poster: "The class of perfectly null sets and its transitive version".
- 2014 7th Young Set Theory Workshop, Będlewo, Poland, member of Organizing Committee, poster: "Reals from the ground model are strongly meagre after adding a single random real".
- 2014 seminar Set Theory, University of Warsaw, talk "The class of sets of perfectly measure zero and its transitive version".
- 2015 Winter School in Abstract Analysis, Hejnice, Czech Republic, talk: "The class of perfectly null sets and its transitive version".

- 2015 5th European Set Theory Conference, Cambridge, UK, talk: "The class of perfectly null sets and its transitive version".
- 2015 seminar Set theory and Topology, University of Wrocław, talk "The class of sets of perfectly measure zero".
- 2015 seminar Set Theory, University of Warsaw, talk "Generalized Egorov's statement for ideals".
- 2015 8th Young Set Theory Workshop / 19th Midrasha Mathematicae, Jerusalem, Israel, poster: "Generalized Egorov's statement for ideals".
- 2017 seminar Set Theory, University of Warsaw, talk "Special subsets of the generalized Cantor space, part 1.".
- 2017 seminar Set Theory, University of Warsaw, talk "Special subsets of the generalized Cantor space, part 2.".
- 2018 Winter School in Abstract Analysis, Hejnice, Czech Republic, talk: „Special subsets in the generalized Cantor space 2^κ ".
- 2018 Prague Set Theory Seminar, Institute of Mathematics CAS, Prague, Czech Republic, talk: "Perfectly null sets".
- 2018 two-week visit at Institute of Mathematics CAS, Prague, Czech Republic
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EDUCATION

- 2018 PhD in mathematics, doctoral thesis "Measure and category: special subsets of the real line and their generalizations". University of Warsaw. Advisor: Dr Hab. Tomasz Weiss
- 2010 master degree in mathematics, "Topologies and function spaces on countable spaces – a comparison of descriptive complexity". University of Warsaw. Advisor: Prof. Witold Marciszewski
- 2008 master degree in computer science, "Languages of trees describable using first order logic". University of Warsaw. Advisor: Prof. Mikołaj Bojańczyk
- 2007 bachelor in mathematics "A group of automata transformation as a solution to the Burnside's problem". University of Warsaw. Advisor: Prof. Zbigniew Marciniak
- 2006 bachelor in computer science (group programming project). University of Warsaw.
- 2003 – 2009 student (mathematics and computer science), University of Warsaw
- 1999 – 2003 a student of a mathematical class at 14th Staszic High School in Warsaw
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POPULARIZATION OF SCIENCE

- 2018 a lecture during Mathematical Workshop of Polish Children's Fund on colouring of graphs
- 2018 a lecture during Mathematical Workshop of Polish Children's Fund about infinitive combinatorics
- 2018 lecture on "Mathematical Education, Global Learning and quality" during an international meeting of coordinators of programme "Global Issues, Global Subjects" organized by Centre for Citizenship Education.
- 2018 9 popular science lectures at MIM for high school groups
- 2018 the main lecturer and group teacher in the project "Mathematics for curious of the world" (series of lectures for high school students and junior high school students, preparation of classes, teaching classes) organized by ICM and MIM University of Warsaw and by the city. Topic: "Combinations about infinity" (combinatorics, set theory, mathematical analysis, programming) (20h)

- 2018 a workshop for primary school (class 4-6) "Excursion to the Number Universe" for University of Children (20h)
- 2018 a talk at TEDx Copernicus33 "Can you prove that $2 + 2 = 5$?"
- 2017 a lecture during Mathematical Workshop of Polish Children's Fund about infinitive combinatorics
- 2017 two popular science lectures at MIM for high school groups
- 2017 a workshop for primary school (class 4-6) "Excursion to the Number Universe" for University of Children (20h)
- 2017 a lecture "Mathematician at a poll", Science Festival, Faculty of Mathematics, Mechanics and Informatics, University of Warsaw
- 2017 a lecture "Non-euclidean geometries", The Popularization of Mathematics Day at MINI, Technical University of Warsaw
- 2017 a workshop for junior high school students "Number Universe" for University of Children (8h)
- 2017 the main lecturer in the project "Mathematics for curious of the world" (series of lectures for high school students and junior high school students, preparation of classes) organized by ICM and MIM University of Warsaw and by the city. Topic: "Mathematical world of languages" (theory of languages and calculations, for high school students) and "Geometry of the Universe" (non-euclidean geometries, relativity theory, cosmology, for junior high school students) (20h)
- 2017 two lectures on infinity for primary school students
- 2016 lecture "Infinity", The Popularization of Mathematics Day at MINI, Technical University of Warsaw
- 2016 the main lecturer in the project "Mathematics for curious of the world" (series of lectures for high school students and junior high school students, preparation of classes) organized by ICM and MIM University of Warsaw and by the city. Topic: "How to count? How to measure?" (set theory, topology, measure theory, for high school students) and "Number Universe" (set of numbers, for junior high school students) (14h)
- 2015 the main lecturer in the project "Mathematics for curious of the world" (series of lectures for high school students and junior high school students, preparation of classes) organized by ICM and MIM University of Warsaw and by the city. Topic: "Mathematical world of languages" (theory of languages and calculations, for high school students) and "Number Universe" (set of numbers, for junior high school students) (15h)
- 2014 lecture "Infinity", Festival of Mathematics organized by Gazeta Wyborcza
- 2014 the main lecturer in the project "Mathematics for curious of the world" (series of lectures for high school students, preparation of classes) organized by ICM and MIM University of Warsaw and by the city. Topic: "How to count? How to measure?" (set theory, topology, measure theory). (11h)
- 2010 volunteer during the finals of Mathematical Olympiad, workshop during Scientific Camp of the Olympiad in Zwardoń,
- 2005 paper "Seeing the invisible" with Prof. Wiera Oliferuk in popular-science magazine "Delta".
- 2003 – 2004 co-leader of mathematics club in 14th Staszic High School
- 2002 paper in popular-science magazine "Delta" regarding a workshop by Prof. Jan Gaj
- 2002 – 2003 organization of lessons "Isolation of DNA from an onion" in primary schools for the Festival of Science School
- 2001 – 2007 volunteer during festival lessons during Festival of Science in Institute of Fundamental Technological Research of Polish Academy of Science

- 2000 paper "Quantum Hall effect" in popular-science magazine "Delta" regarding a workshop by Dr Hab. Grzegorz Grabecki
- 2000 – 2007 mathematical lectures in the programme for talented children of Polish Children Fund.

TEACHING

- 2018 – 2019 Classes, University of Warsaw. Linear Algebra and Geometry I, MIM UW, 60h, Linear Algebra, WNE UW, 120h .
- since 2018 lecturer at Faculty of Mathematics Informatics and Mechanics, University of Warsaw.
- 2017 – 2018 Classes, University of Warsaw. Introduction to mathematics (set theory), MIM UW, 30h (graded 6.82/7 in students' survey and 1.8/2 in the survey by Pracownia Ewaluacji Jakości Kształcenia UW). Linear Algebra, WNE UW, 120h (graded 4.38/5 in students' survey). Mathematical analysis 2 WNE UW, 24h (part of the semester).
- 2016 – 2017 Classes, University of Warsaw. Introduction to mathematics (set theory), MIM UW, 60h (graded 6.65/7 in students' survey). Linear Algebra, WNE UW, 60h (graded 4.43/5 in students' survey).
- 2016 – 2017 Classes, Cardinal Stefan Wyszyński University in Warsaw. Mathematical analysis, 60h. Mathematical analysis 2, 60h.
- 2015 – 2016 Classes, University of Warsaw. Linear Algebra, WNE UW, 120h (graded 4.82/5 in students' survey). Information technology, 60h.
- 2015 – 2016 Classes, Cardinal Stefan Wyszyński University in Warsaw. Elements of logic and set theory, 30h. Mathematical analysis, 30h. Mathematical analysis 2, 30h (graded 4.72/5p in students' survey). Information technology for students of Didactics of mathematics, 30h
- 2013 – 2014 Classes, University of Warsaw. Introduction to mathematics (set theory), MIM UW, 30h (graded 6.379/7 in students' survey, which qualifies to 25% best classes). Information technology, 60h (graded 1.9/2 in survey by Pracownia Ewaluacji Jakości Kształcenia UW)
- 2012 – 2013 Classes, University of Warsaw. Introduction to mathematics (set theory), MIM UW, 30h (graded 6.508/7 in students' survey, which qualifies to 25% best classes). Linear Algebra, WNE UW, 60h (graded 10/10 in students' survey). Information technology, 120h. Compensatory classes for Foundations of Mathematics (for students of computer science) , MIM UW, 30h.
- 2012 Course "Didactics of higher school" completed. Grade: 5.
- 2011 – 2012 Classes, University of Warsaw. Introduction to mathematics (set theory), MIM UW, 30h. Linear Algebra , WNE UW, 60h. Compensatory classes for Foundations of Mathematics (for students of computer science), 30h.
- 2007 Course "Didactics of mathematics" completed. Grade: 5.

ACHIEVEMENTS

- 1994 – 2003 scholarship in of Polish Children's Found for particularly talented children
- 2002 – 2003 finalist in Mathematical Olympiad (twice) and Physics Olympiad
- 2004 – 2008 scholarship for academic performance at University of Warsaw

SCOUTING

2010 – 2018	leader, and then member of the Training Team in Warszawa-Ochota Scout District (organization and teaching during many courses for future scout leaders and scout leaders of higher degree),
since 2015	scoutmaster
since 2014	member of the commission for scouting leaders degrees in Warszawa-Ochota Scout District
since 2010	course for trainers of scout leaders completed,
2012 – 2013	recreating 21. Scouting Group, leader of the group, organizing centennial celebration
2007 – 2017	member of authorities of Warszawa-Ochota Scout District (leader of the audit committee, then member of the authorities responsible for development and support for scouting leaders)
since 2006	scout leader
2006 – 2010	co-leader of 21. Scouting High School Troop
2004 – 2009	creating, co-leader and leader of 21. Scouting Troop for primary school students
since 2002	scouting pre-medical rescuer

PROGRAMMING

Java, Python, PHP, C, C++, HTML, CSS, SQL, JavaScript, Ocaml, Scheme, Smalltalk.

LANGUAGES

Polish	native speaker
English	advanced (C1) (CAE: 2002, teaching classes in English: 2017)
Russian	upper-intermediate (B2)
German	intermediate (B1/A2)
Spanish	elementary (A2)
French	beginner (A1)
Belarusian, Ukrainian	understanding in speech and writing

HOBBIES

travelling, guitar playing, mountains, photography. :)

You can find my full CV here:

http://duch.mimuw.edu.pl/~m_korch/wp-content/uploads/2015/05/cv-michal-korch-en.pdf.

Warsaw, November 30, 2018