Dorottya Sziráki

Contact Information

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Research Interests

Mathematical logic, especially model theory, algebraic logic, and their connections. Set theory, generalized descriptive set theory, infinitary combinatorics.

Employment

2015 – **Young Researcher** at the Alfréd Rényi Institute of Mathematics, Hungarian Academy of Sciences, Budapest, Hungary.

Education

2012 – **Ph.D. in Mathematics** Central European University, Budapest
My topic involves examining variants of the model theoretic spectrum functions using tools from algebraic logic, (generalized) descriptive set theory and infinitary combinatorics. Supervisor: Gábor Sági.

Sep – Nov, 2014 **Visiting Research Student** University of Helsinki, Helsinki
I visited the Helsinki Logic Group at the Department of Mathematics and Statistics of the University of Helsinki. Supervisor: Jouko Väänänen.

2010 – 2012 **M.Sc. in Pure Mathematics** (with Honors) Eötvös Loránd University, Budapest
Thesis title: *Model Theoretic Spectrum Functions and Algebraic Logic*. Supervisor: Gábor Sági.

2006 – 2010 **B.Sc. in Mathematics** (grade: excellent) Budapest University of Technology and Economics, Budapest
Thesis title: *On Variants of Vaught's Conjecture*. Supervisor: Gábor Sági.

Awards and Grants

2016 **Award for Advanced Doctoral Students,**
Central European University.

2014 The **CEU Doctoral Research Support Grant** of the Central European University Budapest Foundation, for a research visit of three months at the University of Helsinki.

2014 **Academic Achievement Award for First-Year Doctoral Students,**
Central European University.

2012 **Excellent Student Award,**
Eötvös Loránd University, Faculty of Science.

2011 **Special Award**, *XXX. National Student Research Conference*, College of Nyíregyháza.

2010 **Second Prize**, *Student Research Conference*, Eötvös Loránd University.

Publications

D. Sziráki, J. Väänänen. *A dichotomy theorem for the generalized Baire space and elementary embeddability at uncountable cardinals*, accepted for publication in Fundamenta Mathematicae.

G. Sági, D. Sziráki. *Some variants of Vaught's conjecture from the perspective of algebraic logic*, Logic Journal of the IGPL **20** (2012), no. 6, 1064–1082.

Talks

Nov 2016 — *Dichotomies for independent subsets of the generalized Baire space*, IRP on Large Cardinals and Strong Logics, Young Researchers' Seminar Week, CRM, Bellaterra (Barcelona), Spain.

Sept 2016 — *A dichotomy for infinitely many $\mathbf{\Sigma^0_2}(\kappa)$ relations on the κ-Baire space*, Bonn Set Theory Workshop 2016, Bonn, Germany.

Aug 2016 — *A dichotomy for infinitely many $\mathbf{\Sigma^0_2}(\kappa)$ relations on the κ-Baire space*, Logic Colloquium 2016, Leeds, United Kingdom.

Sept 2015 — *A dichotomy for $\mathbf{\Sigma^0_2}$ relations and elementary embeddability at uncountable cardinals*, Hamburg Workshop on Set Theory 2015, Hamburg, Germany.

Aug 2015 — *A dichotomy theorem for the generalized Baire space and elementary embeddability at uncountable cardinals*, Logic Colloquium 2015, Helsinki, Finland.

June 2015 — *On $\mathbf{\Sigma^0_2}$ binary relations and elementary embeddability at uncountable cardinals*, Topology, Algebra and Categories in Logic (TACL 2015), Ischia, Italy.

Nov 2014 — *Algebraic Logic and Vaught's Conjecture*, Colloquium on Mathematical Logic, University of Amsterdam.

Sept 2014 — *Algebraic Logic and Vaught's Conjecture*, Helsinki Logic Seminar, University of Helsinki.

Teaching

Spring 2014 — Teaching Assistant for the course *Foundations of Mathematics*.
Eötvös Loránd University, Institute of Mathematics, Department of Computer Science.

Spring 2010 — Demonstrator, (correcting and marking exams of undergraduate engineer students, on the topics of calculus and linear algebra).
Budapest University of Technology and Economics, Institute of Mathematics, Department of Algebra.

Language Skills

Hungarian (native), English (fluent).