Burak Kaya

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https://blog.metu.edu.tr/burakk

Personal Info Born on March 22, 1988. Turkish citizen.

Education

Ph.D. in Mathematics,   May 2016
Rutgers, The State University of New Jersey,
New Brunswick, NJ, USA

Dissertation: *Cantor minimal systems from a descriptive perspective*
Advisor: Simon Thomas

B.S. in Mathematics with High Honor,   June 2010
CGPA: 3.90 / 4.00,
Middle East Technical University,
Ankara, Turkey

Positions

- Teaching Assistant
  Rutgers University   September 2010-May 2016.
- Instructor
  METU   July 2016-August 2016, February 2017-September 2017.
- Assistant Professor
  METU   September 2017-present.

Research Interests Set theory, descriptive set theory and its applications.

Publications

- *The complexity of the topological conjugacy problem for Toeplitz subshifts*, Israel J. Math. 220 (2017), no. 2, 873-897.
  doi:10.1007/s11856-017-1537-4
- *The complexity of topological conjugacy of pointed Cantor minimal systems*, Arch. Math. Logic 56 (2017), no. 3-4, 215–235.
  doi:10.1007/s00153-017-0534-y
- (with Otto H. Kegel and Mahmut Kuzucuoğlu) *On the existence of κ-existentially closed groups*, 111 (2018), no. 3, 225-229.
  doi:10.1007/s00013-018-1213-x

Conferences and Workshops Attended

- IMBM Mathematics Days II
  Istanbul, Turkey   September 2018
- Simon Thomas, the first 60 years
  Rutgers University, New Brunswick, NJ.   September 2017
- Association for Symbolic Logic 2016 North American Annual Meeting
  Storrs, CT.   May 2016
- 2015 Canadian Mathematical Society Winter Meeting
  Montréal, Canada.   December 2015
- 8th Young Set Theory Workshop
  Jerusalem, Israel.   October 2015

- Antalya Algebra Days XVII
  Izmir, Turkey. May 2015

- 2014 Rutgers Logic Conference
  Rutgers University, New Brunswick, NJ. October 2014

- 7th Young Set Theory Workshop
  Będlewo, Poland. May 2014

- 2013 Fall Mid-Atlantic Mathematical Logic Seminar
  Rutgers University, New Brunswick, NJ. October 2013

- 6th Young Set Theory Workshop
  Oropa, Italy. June 2013

- NY Graduate Student Logic Conference
  CUNY Graduate Center, New York City, NY. April 2013

- 2012 Fall Mid-Atlantic Mathematical Logic Seminar
  Rutgers University, New Brunswick, NJ. October 2012

Talks and Seminars

- Çankaya University
  Ankara, Turkey November 2018

- Atılım University
  Ankara, Turkey October 2018

- IMBM Mathematics Days II
  Istanbul, Turkey September 2018

- METU Mathematics Department, General Seminar
  Ankara, Turkey. October 2016, November 2017

- Hacettepe Mathematics Department, General Seminar
  Ankara, Turkey. October 2017

- Association for Symbolic Logic 2016 North American Annual Meeting
  Storrs, CT. May 2016

- Rutgers Mathematics Department, Logic Seminar
  Piscataway, NJ. February 2016

- 2015 Canadian Mathematical Society Winter Meeting
  Montréal, Canada. December 2015

- Cornell Mathematics Department, Logic Seminar
  Ithaca, NY. November 2015

- MSFAU Mathematics Department, General Seminar
  Istanbul, Turkey.
  January 2014/2015, December 2015, November 2016, March 2018

- METU Mathematics Department, Algebra Seminar
  Ankara, Turkey.
  December 2013/2014/2015, June 2015, Fall 2017, Spring 2018

- Rutgers Mathematics Department, Descriptive Set Theory Seminar
  Piscataway, NJ. Fall 2013

Teaching Experience	Instructor at METU

- MATH 111 Fundamentals of Mathematics   Fall 2018
- MATH 119 Calculus with Analytic Geometry   Fall 2017/2018
- MATH 120 Calculus of Functions of Several Variables
       Summer 2016/2017/2018, Spring 2017
- MATH 319 Lebesgue Integral   Fall 2017
- MATH 320 Set Theory   Spring 2017/2018

Instructor at Rutgers University

- MATH 151 Calculus I for Mathematical and Physical Sciences   Summer 2012

Teaching assistant at Rutgers University

- MATH 135 Calculus I   Fall 2011, Spring 2012
- MATH 151 Calculus I for Mathematical and Physical Sciences   Fall 2012/2013
- MATH 152 Calculus II for Mathematical and Physical Sciences
       Fall 2014, Spring 2016

Grader at Rutgers University

- MATH 300 Introduction to Mathematical Reasoning   Fall 2010, Spring 2011
- MATH 403 Introduction to Theory of Functions of a Complex Variable
       Spring 2011

Mentor for the Directed Reading Program of Rutgers Mathematics Department

- Supervised Yao Rui Yeo for his project in Set Theory.   Spring 2013
- Supervised Brennan Young for his project in Set Theory.   Fall 2013

(Voluntary) Instructor at the Nesin Mathematics Village

- Some results in combinatorial set theory   Summer 2017
- Paradoxical decompositions: The Banach-Tarski paradox and others
       Summer 2018
- Axiom of determinacy and some of its consequences   Summer 2018

Academic Honors and Awards	

- Received The Scientific and Technological Research Council of Turkey Scholarship for Undergraduates.   2006-2010

Professional memberships	

- American Mathematical Society
- Association for Symbolic Logic

Languages	Turkish (native), English (fluent).