

Asst. Prof. BURAK KAYA

Personal Information

Email: burakk@metu.edu.tr

Web: <http://blog.metu.edu.tr/burakk>

International Researcher IDs

ScholarID: GPGf3okAAAAJ

ORCID: 0000-0002-9318-5360

Publons / Web Of Science ResearcherID: AAS-5827-2020

ScopusID: 57193827867

Yoksis Researcher ID: 271617

Education Information

Doctorate, Rutgers, The State University of New Jersey, New Brunswick Campus, Graduate School-New Brunswick, Department Of Mathematics, United States Of America 2010 - 2016

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, Turkey 2006 - 2010

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Cantor minimal systems from a descriptive perspective, Rutgers, The State University Of New Jersey, New Brunswick Campus, Graduate School-New Brunswick, Department Of Mathematics, 2016

Research Areas

Mathematics, Dynamic Systems and Ergodic Theory, General Algebraic Systems, General Topology, Mathematical Logic and Foundations

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2017 - 2018

Research Assistant, Rutgers, The State University of New Jersey, New Brunswick Campus, Graduate School-New Brunswick, Department Of Mathematics, 2010 - 2016

Courses

BASIC ALGEBRAIC STRUCTURES, Undergraduate, 2022 - 2023, 2018 - 2019
INTRODUCTION TO NUMBER THEORY, Undergraduate, 2023 - 2024
SET THEORY, Undergraduate, 2022 - 2023, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017
INTRODUCTION TO MATHEMATICAL ANALYSIS, Undergraduate, 2023 - 2024
FUNDAMENTALS OF MATHEMATICS, Undergraduate, 2022 - 2023, 2019 - 2020, 2018 - 2019
ANALYSIS, Postgraduate, 2022 - 2023, 2019 - 2020
CALCULUS WITH ANALYTIC GEOMETRY, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018
SET THEORY, Doctorate, 2021 - 2022
INTRODUCTION TO MATHEMATICAL LOGIC AND MODEL THEORY, Undergraduate, 2021 - 2022, 2019 - 2020
INTRODUCTION TO FUNCTIONAL ANALYSIS, Undergraduate, 2021 - 2022
CALCULUS OF FUNCTIONS OF SEVERAL VARIABLES, Undergraduate, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
SUPERVISED INDEPENDENT STUDY & RESEARCH, Undergraduate, 2021 - 2022, 2019 - 2020
TOPOLOGY, Postgraduate, 2020 - 2021
LEBESGUE INTEGRAL, Undergraduate, 2017 - 2018

Advising Theses

Benli M. G., Kaya B., SOFIC GROUPS , Postgraduate, H.KAĞAN(Student), Continues
Kaya B., Dichotomy theorems and Frucht theorem in descriptive graph combinatorics, Postgraduate, O.BİLGE(Student), 2023
Kaya B., Some new bounds on closed ordinal Ramsey numbers, Postgraduate, I.SAĞLAM(Student), 2020

Designed Lessons

Benli M. G., Karayayla T., Pamuk S., Kaya B., Koçak Benli D., Introduction to Number Theory , Undergraduate, 2023 - 2024
Benli M. G., Pamuk S., Kaya B., Karayayla T., Koçak Benli D., Calculus II, Undergraduate, 2023 - 2024
Benli M. G., Pamuk S., Karayayla T., Kaya B., Koçak Benli D., Calculus I, Undergraduate, 2023 - 2024
Kaya B., Talu E. Y., Solak E., Mathematics for Informatics, Undergraduate, 2018 - 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Frucht's theorem in Borel setting**
BİLGE O., KAYA B.
Periodica Mathematica Hungarica, vol.88, no.1, pp.59-67, 2024 (SCI-Expanded)
- II. **Descriptive complexity of subsets of the space of finitely generated groups**
BENLİ M. G., KAYA B.
Expositiones Mathematicae, vol.40, no.4, pp.1116-1134, 2022 (SCI-Expanded)
- III. **Automorphisms of κ -existentially closed groups**
KAYA B., KUZUCUOĞLU M.
Monatshefte für Mathematik, vol.198, no.4, pp.791-804, 2022 (SCI-Expanded)
- IV. **ON THE CLOSED RAMSEY NUMBERS $R_{cl}(\omega + n, 3)$**
KAYA B., Sağlam I.
ISRAEL JOURNAL OF MATHEMATICS, vol.245, no.2, pp.963-989, 2021 (SCI-Expanded)
- V. **On the existence of kappa-existentially closed groups**
Kaya B., Kegel O. H., Kuzucuoglu M.
ARCHIV DER MATHEMATIK, vol.111, pp.225-229, 2018 (SCI-Expanded)

VI. THE COMPLEXITY OF THE TOPOLOGICAL CONJUGACY PROBLEM FOR TOEPLITZ SUBSHIFTS

Kaya B.

ISRAEL JOURNAL OF MATHEMATICS, vol.220, no.2, pp.873-897, 2017 (SCI-Expanded)

VII. The complexity of topological conjugacy of pointed Cantor minimal systems

Kaya B.

ARCHIVE FOR MATHEMATICAL LOGIC, vol.56, pp.215-235, 2017 (SCI-Expanded)

Articles Published in Other Journals

I. EXISTENTIALLY AND κ -EXISTENTIALLY CLOSED GROUPS

KAYA B., KUZUCUOĞLU M.

International Journal of Group Theory, vol.12, no.1, pp.45-54, 2023 (ESCI)

Metrics

Publication: 8

Citation (WoS): 3

Citation (Scopus): 4

H-Index (WoS): 1

H-Index (Scopus): 1