

MEHMET KIRTIŞOĞLU

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<https://mkirtisoglu.github.io>

RESEARCH INTEREST

- My research interest lies in algebraic (computational) topology: Homotopy, homology, cohomology, and category theory.

EDUCATION

Bilkent University

M.Sc. in Mathematics

Ankara, Turkey

2022–2024

- Research Area: Algebraic Topology “Thomason’s Homotopy Colimit Theorem and Cohomology of Categories”,
Advisor: [Prof. Dr. Ergün Yalçın](#)

Bilkent University

B.Sc. in Mathematics

Ankara, Turkey

2018–2022

- Senior Project: “Reconstruction of Networks of Chaotic Systems”,
Advisor: [Prof. Dr. Fatihcan Atay](#)

TAKEN COURSES

- In M.Sc.:** Group Representations, Manifold Theory, Real Analysis, Quantum Computation, Algebra II, Algebraic Topology I ([Homology and Cohomology by eCHT research community](#)), Cohomology of Groups, Complex Analysis, [Homotopy Theory](#)
- In B.Sc.:** Abstract Mathematics I-II, Calculus I-II, Advanced Calculus I-II, Linear Algebra I-II, Differential Equations, Finite and Discrete Mathematics, Complex Analysis, Algebra I-II, Topology, Topics in Ordinary Differential Equations, Probability and Statistics, Graduate Algebra I, Number Theory, Real Analysis, Representation Theory, Modeling and Optimization, Programming in Python

ACADEMIC EXPERIENCE

Bilkent University

Graduate Assistantship

Ankara, Turkey

Sep 2022 –May 2024

- Introduction to Calculus I, Introduction to Calculus II, Introduction to Linear Algebra, Topology, Calculus II

Network Oriented Dynamics and Data Science Research Group ([NODDS](#))

Internship at Kadir Has University

Istanbul, Turkey

Nov 2020 –May 2022

- Worked on Graph Theory, Stability Theory, Synchronization Theory, Pinning Theory, and executed related simulations in Python.

Bilkent University

Grading Assistant

Ankara, Turkey

Sep 2019 –Jan 2020

- MATH 220 Linear Algebra

SCHOLARSHIPS AND AWARDS

2022-2024	Graduate Assistantship by Bilkent University
2017-2022	Outstanding Success Scholarship by Turkish Educational Foundation
2017-2022	National Undergraduate Scholarship Program (2205) by The Scientific and Technological Research Council of Turkey
2017-2022	Comprehensive Scholarship of Bilkent University
2017	Ranked in first 4000 in Nationwide University Entrance Exam among 2 million high school students in Turkey

WORKSHOPS

- [Cakilarasi Math Village](#) Topology of Surfaces, Turkey 14 - 18 Aug 2023
- [DRP Türkiye](#) Direct Reading Program,Turkey (mentored by [Assist. Prof Feride Ceren Köse](#)) Summer 2022
- [Nesin Math Village](#) Summer and Winter Schools, Turkey 2016–2021
- [Cakilarasi Math Village](#) Five Selected Topics for an Introduction to Graph Theory, Turkey 10 - 14 Sep 2018

CONTRIBUTED TALKS

1. **Bilkent Math Graduate Seminars** October 2023
“Thomason’s Homotopy Colimit Theorem”
2. **Bilkent Math Graduate Seminars** December 2022
“Simplicial Quantum Contextuality”
3. **DRP Turkey Symposium at Bogazici University** Aug 2022
“Seifert Van Kampen Theorem and Its Applications”
4. **Network Oriented Dynamics and Data Science Research Group** Jul 2021
“Generalized Synchronization of Chaos”
5. **Bahar Mathematics Meeting VI, Hacettepe University** October 2019
“An Algebraic Topological Proof of the Fundamental Theorem of Algebra”
6. **Bahar Mathematics Meeting IV, Middle East Technical University** October 2018
“An Introduction to Modern Geometry: Inversion”

ORGANIZING

- **IV. Mathematics Meeting, Middle East Technical University** Oct 2018
Student seminars series. The meeting is held at different universities each semester and five to six hundred students attend.
- **V. Mathematics Meeting, Istanbul Bilgi University** March 2019
- **VI. Mathematics Meeting, Hacettepe University** Oct 2019

VOLUNTEERING

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| Bilkent University Animal Friends Society | Ankara,Turkey
Aug 2022 –June 2023 |
| Social Awareness Projects | Ankara, Turkey |
| School Teacher | Aug 2020 –Jun 2021 |

SKILLS AND HOBBIES

- **Languages:** English (Fluent), Turkish (Native), German (A2.1)
- **Computer Skills:** Python, R, CPLEX, LaTeX, Html, Css
- **Hobbies:** Playing Saz, GO (Weichi), Fitness