

HAKAN MÜLAYIM

M.A. Candidate in Economics, Sabancı University

hakan.mulayim@sabanciuniv.edu · +90 545 789 5180 · Istanbul, Türkiye

EDUCATION

Sabancı University

2024 – June 2027 (expected)

M.A. in Economics (with thesis), GPA 3.33/4.00

- Thesis: *Optimal Financing of Public Transit* (Advisor: Eren İnci)
- Selected coursework: Discrete Choice Methods, Matchings and Markets, Microeconomics I, Advanced Macroeconomics

Mimar Sinan Fine Arts University

2021 – 2024

B.Sc. in Mathematics, GPA 3.33/4.00

- Selected coursework: Real Analysis (Advanced Calculus I–II), Linear Algebra, Abstract Algebra, Complex Analysis, Metric Spaces, Algebraic Topology, Differential Geometry, Probability, Stochastic Modelling

Istanbul Bilgi University

2016 – 2021

Coursework in Mathematics

RESEARCH INTERESTS

Microeconomic Theory; Game Theory; Industrial Organization; Matching and Market Design; Applications to Transportation and Urban Economics

RESEARCH

Working Papers

“Financing Transit Through Economic Activity” (with Kevin Hasker and Eren İnci)

Submitted to Transportation Research Part B: Methodological

Develops an equilibrium model in which transit serving shopping trips is financed by a fare and a sales tax, and shows that shifting revenue from the fare to the sales tax raises welfare. The welfare-maximizing fare is zero, driven by an insurance effect (the fare is paid regardless of whether a purchase occurs, the tax only upon purchase) and reinforced by a participation effect under economies of scale.

Other Projects

“Time vs. Money Under Conscription: A Hybrid Choice Analysis of Turkey’s Paid Military Service”

Course project (team of four), ECON 635 Discrete Choice Methods, Sabancı University

Fall 2025

Proposes a hybrid choice (ICLV) specification of the choice between six-month standard service and a three-week paid exemption to estimate the value of time, with latent attitudes shifting time and cost sensitivities; estimation in Biogeme (Python) in progress.

TEACHING EXPERIENCE

Teaching Assistant, Sabancı University

- ECON 201 Games and Strategies (Eren İnci) Spring 2026
- MATH 306 Statistical Modelling, three terms (E. Aydın, S. O. Sezer, T. Bayraktar) Fall 2024 – Fall 2025

Nesin Mathematics Village

- Instructor, Summer Program Summer 2026
- Teaching Assistant, Mustafa Yağcı Semester Program 2020

MATHEMATICS RESEARCH EXPERIENCE

Graduation project on Khovanov homology (advisor: Mustafa Topkara) 2023 – 2024
Directed Reading Program Turkey: exotic discs in the 4-ball (mentor: Eylem Zeliha Yıldız, Duke) 2022
Talk at the Bahar Mathematics Meeting, Istanbul University Oct. 2022
Reading seminars, Galatasaray University: persistent homology (Serap Güler), 2021 – 2022
Young’s lattices (Meral Tosun), modular groupoids and braids (Ayberk Zeytin)
Audited graduate courses, Galatasaray University: Spring 2022
MATH 509 Homological Algebra (Serap Güler), MATH 532 Real Algebraic Curves (Meral Tosun)

HONORS, SCHOLARSHIPS AND FUNDING

Full Tuition Waiver and Housing Scholarship, M.A. in Economics, Sabancı University 2024 – 2027
Travel Funding, Young Topologists Meeting, University of Münster 2024
Funding, Directed Reading Program Turkey 2022
Travel and Accommodation Funding, GGTI Workshops, Gökova Geometry–Topology Institute 2021, 2022
Full Funding, Antalya Algebra Days XXII, Nesin Mathematics Village 2023
Scholarship Student, summer and winter mathematics programs, Nesin Mathematics Village 2017 – 2024

SKILLS

Computing Languages	Python (NumPy, pandas, Biogeme), Stata, MATLAB, $\text{\LaTeX}$, Lean 4 (formal verification) Turkish (native), English (fluent), French (basic)
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REFERENCES

Eren İnci

Professor of Economics
Sabancı University
Research Affiliate, ITS Lab, MIT
ereninci@sabanciuniv.edu

Özgür Kıbrıs

Professor and Dean, Faculty of
Business Administration, Bilkent University
(formerly Professor of Economics, Sabancı)
kibris@bilkent.edu.tr