

Aziz Burak Gülen

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Education

<i>August 2018—</i>	Ph.D., Mathematics
<i>Present</i>	The Ohio State University, Columbus, OH
	Advisor: Facundo Mémoli
	CGPA: 3.97/4.00
<i>September 2013—</i>	B.Sc., Mathematics
<i>June 2018</i>	Middle East Technical University, Ankara, Turkey
	CGPA: 3.88/4.00

Employment

<i>August 2018—</i>	Graduate Teaching Associate / Graduate Research Associate
<i>Present</i>	Department of Mathematics, The Ohio State University
<i>February 2016—</i>	Student Assistant
<i>June 2017</i>	Department of Mathematics, Middle East Technical University

Publications / Preprints

- Orthogonal Möbius Inversion and Grassmannian Persistence Diagrams. With F. Mémoli and Z. Wan, arXiv:2311.06870
- A Generalization of the Persistent Laplacian to Simplicial Maps. With F. Mémoli, Z. Wan, and Y. Wang. In 39th International Symposium on Computational Geometry (SoCG) 2023
- Galois Connections in Persistence Homology. With A. McCleary, arXiv:2201.06650 (submitted)

Teaching Experience

THE OHIO STATE UNIVERSITY

• TA Training Instructor	Summer 2023
• Calculus III, MATH2153, TA for three sections	Autumn 2022
• TA Training Instructor	Summer 2022
• Calculus for Business, MATH1131, TA for two sections	Spring 2022
• Engineering Mathematics B, MATH2173, TA for three sections	Autumn 2021
• Combinatorics, MATH4575 & Linear Algebra, MATH2568, Grader	Spring 2021
• Precalculus, MATH1150, TA for two sections	Autumn 2020
• Engineering Mathematics A, MATH1172, TA for two sections	Spring 2020

- Calculus II, MATH1152, TA for two sections Autumn 2019
- Calculus II, MATH1152, TA for two sections Spring 2019
- Calculus I, MATH1151, TA for two sections Autumn 2018

MIDDLE EAST TECHNICAL UNIVERSITY

- Calculus for Mathematics Students II, MATH154, Grader Spring 2017
- Calculus for Mathematics Students I, MATH153, Grader Autumn 2016
- Basic Algebraic Structures, MATH116, TA Spring 2016

Honors and Awards

- OSU Math. Department, Special Graduate Assignments (SGA) Spring 2023
- OSU Graduate Associate Teaching Award (GATA) March 2022
- OSU Student Research Assistantship Summer 2019, Summer 2020

Talks

- Orthogonal Möbius Inversion January 2024
JMM 2024
- Orthogonal Möbius Inversion and Grassmannian Persistence Diagrams Dec. 2023
CSU Topology Seminar
- A Generalization of the Persistent Laplacian to Simplicial Map June 2023
SoCG 2023
- Using Galois Connections to Prove Bottleneck Stability June 2023
Workshop on Möbius Inversions and Reeb Spaces
- A Tutorial on Spectral Clustering April 2023
OSU (Topology Geometry and Applications - Graduate Student Seminar)
- Computing Topological Persistence for Simplicial Maps February 2023
OSU NDA Group meeting
- Persistence Laplacian July 2022
OSU NDA Group meeting
- Saecular Persistence March 2022
OSU NDA Group meeting
- Diagrams of Persistence Modules Over Finite Posets February 2022
OSU TGDA Seminar
- Diagrams of Persistence Modules Over Finite Posets February 2022
OSU Topology, Geometry, and Applications - Graduate Student Seminar group
- Bottleneck Stability for Generalized Persistence Diagrams November 2021
OSU NDA Group meeting
- Generalized Persistence Diagrams October 2021
OSU NDA Group meeting
- Linear Systems on Metric Graphs October 2020
OSU Student Algebraic Geometry Seminar

Attended Conferences & Seminars & Summer Schools

- The 39th International Symposium on Computational Geometry Summer 2023
- Geometry and Topology meet Data Analysis and Machine Learning Summer 2023
- Workshop on Algebraic Combinatorics and Category Theory in Topological Data Analysis Spring 2022 (Online)
- Twelve Lectures on Tropical Geometry, Max-Planck-Institut für Mathematik (Online) Summer 2020
- Algebraic and Tropical Meetings (ATOM) (Online) Summer 2020
- Facets of Algebraic Geometry, Michigan October 2019
- GSTGC, Illinois March 2019