

# Aziz Burak Gülen

guelen.1@osu.edu

---

## 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.S., Mathematics
<i>June 2018</i>	Middle East Technical University, Ankara, Turkey
	CGPA: 3.88/4.00

## Employment

<i>August 2018—</i>	Graduate Teaching 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

- 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

## 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

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

## 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