Yağmur Yılmaz

CONTACT INFORMATION	Department of Mathematics and Statistics University of Toledo Toledo, Ohio, United States	yyilmaz@rockets.utoledo.edu

EDUCATION

University of Toledo, Toledo, Ohio, USA

Ph.D., Mathematics, 2020 - present
Thesis Title: Supergeometry, Differential Operators and Bracket Structures

- Advisor: Ekaterina Shemyakova

Middle East Technical University(METU), Ankara, Turkey

M.S., Mathematics, 2015 - 2018
Thesis Title: Mayer-Vietoris Sequence for Persistent Homology

- Advisor: Mehmetcik Pamuk

Middle East Technical University(METU), Ankara, Turkey

B.S., Mathematics, June 2015

RESEARCH INTERESTS

Supergeometry, Poisson geometry, Algebraic theory of differential operators, Computational Topology

RESEARCH PROJECTS

- "Persistent Homology" BAP Project (BAP-01-01-2017-003) (Researcher)

- "Persistent Homology and Discrete Morse Theory" TÜBİTAK (The Scientific and Technological Reserch Council of Turkey) 1001 Project (117F015) (Researcher)

PAPERS AND PREPRINTS

- Homological Properties of Persistent Homology (with H.Varlı and M.Pamuk)
  Submitted, arXiv:1805.01274 [math.AT], 2018

EMPLOYEMENT HISTORY

- 2020-Present Teaching Assistant, University of Toledo

TEACHING EXPERIENCE

- Fall 2023, Instructor for Math 1320: College Algebra

- Summer 2023, Teaching Assistant for Math 2890: Numerical Methods and Linear Algebra

- Spring 2023, Teaching Assistant for Math 1850: Calculus I

- Fall 2022, Instructor for Math 1320: College Algebra

- Summer 2022, Teaching Assistant for Math 2860: Elementary Differential Equations

- Spring 2022, Teaching Assistant for Math 1850: Calculus I

- Fall 2021, Instructor for Math 1320: College Algebra
- Summer 2021, Teaching Assistant for Math 2850: Elementary Multivariable Calculus
- Spring 2021, Teaching Assistant for Math 1850: Calculus I
- Fall 2020, Teaching Assistant for Math 1850: Calculus I
- Summer 2020, Teaching Assistant for Math 2860: Elementary Differential Equations
- Spring 2020, Teaching Assistant for Math 2860: Elementary Differential Equations

TALKS GIVEN

- Bracket Structures, Non-linear Pullback and Quantum Thick Morphisms, 49th Annual Mathematics Conference, Sep 30, Miami University, Ohio
- Bracket Structures and Non-linear Pullback, 2023 Georgia Topology Conference, May 23 2023, University of Georgia, Georgia
- Construction and Properties of Classical Koszul Bracket on Differential Forms and Its Generalization, Colloquium, May 17 2023, Yozgat Bozok University, Turkey
- Persistent Homology, Student Seminer, University of Toledo, February 5 2020, Ohio
- Mayer-Vietoris Sequence for Persistent Homology, 5th Workshop of the Association for Turkish Women in Mathematics, May 2018, Dicle University, Turkey
- Introduction to Persistent Homology, Winter Workshop 2017, Gökova Geometry Topology Institute, December 25−29 2017, Turkey
- Perfect Discrete Morse Functions on 2-complexes, Graduate Seminar, May 9 2017, METU, Turkey

AWARDS, GRANTS AND HONORS

- University of Toledo, College of Natural Sciences and Mathematics Diversity Achievement Awards, 2022

CONFERENCES, WORKSHOPS AND SUMMER SCHOOLS

- 49th Annual Mathematics Conference, Sep 29-30, Miami University, Ohio
- 2023 Georgia Topology Conference, May 24-28 2023, University of Georgia, USA
- 27th Gökova Geometry and Topology Conference, Turkey, May 30 − June 4 2022.
- Workshop on Supergeometry and Bracket Structures in Mathematics and Physics, March 21-25 2022, Fields Institute, Canada
- Lie Theory and Poisson Geometry, January 10-14 2022, CIRM, France
- Online Summer School on Geometry and Topology 2021 Organized by Faculty of Science of University of Hradec Králové (Czech Republic) and Mathematical Center in Akademgorodok (Novosibirsk, Russia), July 7 – August 6 2021.
- Midwest Several Complex Variables Conference, October 11-13 2019, University of Michigan-Dearborn, MI
- 26th Gökova Geometry and Topology Conference, Turkey, May 27 − June 1 2019.

- Algebraic Topology: Methods, Computation and Science, June 25−29 2018, Vienna, Austria

- 25th Gökova Geometry and Topology Conference, Turkey, May 28 − June 2 2018.

- 5th Workshop of the Association for Turkish Women in Mathematics, May 2018, Dicle University, Turkey.

- Winter Workshop 2017, Gökova Geometry Topology Institute, December 25−29 2017, Turkey.

- Applied Topology in Bedlewo 2017, June 6 − July 1 2017, Bedlewo, Poland.

- 24th Gökova Geometry and Topology Conference, Turkey, May 29 − June 3 2017.

- 4th Workshop of the Association for Turkish Women in Mathematics, April 2017, METU.

- Association for Turkish Women in Mathematics Graduate Summer School I, June 20 − July 1 2016, METU.

Outreach and Service

- **Mentor** DRP Turkey 2023

- **President** AMS Student Chapter, 2022-2023

- **Mentor** DRP Turkey 2022

- **Member at Large** AMS Student Chapter, 2021-2022