

ÖZLEM UĞURLU

📍 Department of Mathematics and Statistics, Saint Louis University, Ritter Hall 221, St. Louis, Missouri

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employment

- **Saint Louis University** *Saint Louis, MO*
2021 - Present
Assistant Professor, Department of Mathematics and Statistics
- **Palm Beach State College** *Boca Raton, FL*
2018 - 2021
Professor I, Department of Mathematics

education

- **Tulane University** *New Orleans, LA*
May 2018
Ph.D. in Mathematics
- **Dokuz Eylul University** *Izmir, Turkey*
June 2012
Master of Science in Mathematics
- **Dokuz Eylul University** *Izmir, Turkey*
June 2010
Bachelor of Science in Mathematics

publications

6. *On Minimal Symplectic Alternating Algebras* 2023
Joint work with Layla Sorkatti and Manisha Varahagiri
<https://doi.org/10.48550/arXiv.2311.11987>, (To appear)
5. *K-Orbit Closures and Hessenberg Varieties* 2023
Joint work with Mahir Bilen Can, Martha Precup, and John Shareshian
<https://doi.org/10.48550/arXiv.2309.05770>, (To appear)
4. *DIII clan combinatorics for the orthogonal Grassmannian* 2021
Joint work with Aram Bingham
Australasian Journal of Combinatorics, Volume 79(1), Pages 55–86
<https://ajc.maths.uq.edu.au/pdf/79/ajc-v79-p055.pdf>
3. *Sects and lattice paths over the Lagrangian Grassmannian* 2020
Joint work with Aram Bingham
The Electronic Journal of Combinatorics, Volume 27, Issue 1, Paper No. 1.51, 28
<https://doi.org/10.37236/8664>
2. *The genesis of involutions (polarizations and lattice paths)* 2019
Joint work with Mahir Bilen Can
Discrete Mathematics, Volume 342, Issue 1, Pages 201-216
<https://doi.org/10.1016/j.disc.2018.09.026>
1. *Counting Borel Orbits in Symmetric Varieties of Types BI and CII* 2018
Joint work with Mahir Bilen Can
Arnold Mathematical Journal, 4, 213–250
<https://doi.org/10.1007/s40598-018-0092-3>

presentations

25. *Hessenberg varieties and K-Orbit Closures*, *January 10, 2025*
AMS Contributed Papers, Commutative Algebra and Algebraic Geometry,
2025 Joint Mathematics Meeting in Seattle, WA

24. *Combinatorics and Geometry of Flag Varieties*,
Colloquium, Hunter College, New York, NY *December 19, 2024*
23. *Understanding Hessenberg varieties through K -Orbit Closures*,
Southern Regional Algebra Conference (SRAC), University of Houston-Downtown, Houston, TX *March 23, 2024*
22. *Bridging Algebra, Geometry, and Combinatorics: Toric Varieties*,
AWM Student Chapter at Saint Louis University, Saint Louis, MO *March 25, 2024*
21. *Transforming Classroom Dynamic through Active Learning*,
Education Colloquium, Saint Louis University, Saint Louis, MO *February 25, 2024*
20. *A Brief Introduction to Ehrhart Theory*,
AWM Student Chapter at Saint Louis University, Saint Louis, MO *October 23, 2023*
19. *Mathematics in Secure Communication*,
Math Club at Saint Louis University, Saint Louis, MO *April 13, 2022*
18. *DIII Clan Combinatorics for the orthogonal Grassmannian*,
Combinatorics Seminar, Washington University in Saint Louis, MO *March 28, 2022*
17. *Clans, Sects and Lagrangian Grassmannians*,
Colloquium, Saint Louis University, Saint Louis, MO *March 25, 2022*
16. *Why did the Mathematician Cross the Road*,
AWM Student Chapter at Saint Louis University, Saint Louis, MO *November 15, 2021*
15. *Gradescope: Streamline Grading While Providing Detailed Feedback*,
Palm Beach State College Professional Development Day, Lake Worth, FL *March 26, 2019*
14. *Borel Orbits and Lattice Paths*,
MAA Florida Section Joint Annual Meetings 2019, Polk State College, Lakeland, FL *February 16, 2019*
13. *The Genesis of Involutions*,
Special Session in “Combinatorial Representation Theory”,
AMS Eastern Section Meeting at Northeastern University, Boston, MA *April 21, 2018*
12. *Counting Borel Orbits in Symmetric Varieties of Types BI and CII*,
CombinaTexas 2018, Texas A & M University, College Station, TX *February 11, 2018*
11. *Borel Orbits in Polarization and Lattice Paths*,
Pure Mathematics Seminars, University of South Alabama, Mobile, AL *January 19, 2018*
10. *Counting Borel Orbits in Polarizations*,
Conference on commutative algebra and representation theory at
Tulane University, New Orleans, LA *November 8-10, 2018*
9. *Enumeration on Borel Orbits in Symmetric Varieties of Types B and C*,
Algebra and Combinatorics Research Seminars at Tulane University, New Orleans, LA *February 16, 2018*
8. *K -Orbits in the Flag Variety and Clans*,
Graduate Student Seminars at Tulane University, New Orleans, LA *November 14, 2017*
7. *The Genesis of Involutions*,
Algebra and Combinatorics Research Seminars at Tulane University, New Orleans, LA *November 2, 2017*
6. *PhD in Mathematics*,
Graduate Student Panel at Tulane University, New Orleans, LA *October 2, 2017*
5. *Focus on Women in STEM*,
Graduate Student Panel at Tulane University, New Orleans, LA Breakout Session, *October 2, 2017*
4. *Toric Varieties*,
Graduate Student Seminars at Tulane University, New Orleans, LA *November 19, 2015*

3. *Geometry and Combinatorics of Toric Varieties*,
Dokuz Eylul University, Graduate Student Seminars, Izmir, Turkiye *December 05, 2011*
2. *Homology Group of Cell Complexes*,
Dokuz Eylul University, Geometry-Topology Seminars, Izmir, Turkiye *April 20, 2010*
1. *Intersection Forms*,
Dokuz Eylul University, Geometry-Topology Seminars, Izmir, Turkiye *May 17, 2010*

teaching

Saint Louis University

Saint Louis, MO

- *MATH 1660 Discrete Mathematics*
Spring 2024, Fall 2024 (31 students) & 34 students), Spring 2024 (31 students & 35 students), Fall 2023 (29 students & 21 students), Spring 2023 (20 students), Summer 2022 (3 students), Spring 2022 (28 students), Fall 2021 (25 students)
- *MATH 1510 Calculus I*
Fall 2023 (27 students), Spring 2023 (27 students & 26 students), Fall 2022 (31 students)
- *MATH 1520 Calculus II*
Summer 2024 (27 students), Summer 2023 (14 students), Fall 2022 (29 students)
- *MATH 2530 Calculus III*
Fall 2024 (31 students), Spring 2022 (11 students), Fall 2021 (20 students & 12 students)
- *MATH 3120 Intro to Linear Algebra*
Spring 2022 (10 students)
- *MATH 3600 Combinatorics*
Spring 2024 (18 students)
- *MATH 5980 Graduate Reading Course (in Combinatorics)*
Spring 22 (1 student)
- *MATH 5140 Algebraic Combinatorics*, Spring 2025 (9 students)

Palm Beach State College

Boca Raton, FL

The average class size in the Mathematics Department was 30 students.

- *MAC 2311 Calculus I*, Fall 2020, Summer 2020,
- *MAC 2312 1520 Calculus II*, Spring 2021, Fall 2020, Summer 2019
- *MAC 2313 Calculus III*, Summer 2020, Summer 2019
- *STA 2023 Statistics*, Summer 2021
- *MAC 2233 Survey of Calculus*, Summer 2020,
- *MAC 1147 Precalculus Algebra and Trigonometry*, Summer 2020
- *MAC 1114 Precalculus*, Spring 2021, Fall 2020, Spring 2020, Fall 2019, Summer 2019, Fall 2018
- *MAC 1105 Trigonometry*, Spring 2021, Fall 2020, Spring 2020, Fall 2019, Summer 2019, Spring 2019, Fall 2018
- *MAC 1105 College Algebra*, Fall 2020, Spring 2020, Spring 2019, Fall 2019, Spring 2019, Fall 2018
- *MAT 1033C Intermediate Algebra*, Spring 2021, Fall 2020, Spring 2020, Fall 2019, Spring 2019, Fall 2018

Tulane University

New Orleans, LA

- *Long Calculus II*, Spring 2018

mentoring and advising

Undergraduate Mentoring Research Projects

- *Combinatorics of Young Tableaux* *Fall 2024 - Spring 2025*
Supervisor of undergraduate Preet Kaur
- *Survey in Algebraic Geometry* *Fall 2024*
Supervisor of graduate Mahak Jauhri
- *Statistic of Parking Functions* *Summer 2022*
Supervisor of undergraduate Kieran Favazza
- Supervisor of undergraduate Tianhao Zhang for Honor Project *Summer 2020*
- Supervisor of undergraduates Rebecca Salto Laino, Renzo Laino for Honor Projects *Fall 2020*

Mentoring Through Programs

- *Co-Founder of Mentoring Math Minds Program* *Fall 2024 -*
Developed and co-leading a research mentoring program for graduate and undergraduate students interested in mathematical research and professional development with a DEI component with Dr. Elodie Pozzi and Dr. Dorsa Ghoreishi.
- *Mentor in Audre Lorde Scholars Program* *Fall 2021 - Spring 2022*
A non-monetary program at Saint Louis University to promote academic excellence and mentorship among students who identify as women of color
- *Mentor in Mentor Network* *Fall 2022 -*
A program designed by the Association for Women in Mathematics to provide mentoring opportunities to girls and women.

professional services and activities

Committee Work

11. *Chair* of AWM-MAA Etta Zuber Falconer Lecture Selection Committee *Fall 2025*
10. *Member* of AWM-MAA Etta Zuber Falconer Lecture Selection Committee *February 2023 - 2026*
9. *Member* of Committee on Minicourses MAA *July 2022 - 2027*
8. *Member* of Saint Louis University Colloquium Committee *Fall 2021 -*
7. *Chair* of Missouri MAA Section Nominating Committee *Fall 2023 - Spring 2024*
6. *Member* of Lower Division Committee at Saint Louis University *Fall 2021 - Spring 2022*
5. *Member* of HSI Title III Project Math Curriculum Refinement Team *Fall 2019 - Spring 2021*
Florida Atlantic University with partners Palm Beach State College & Broward College
4. *Member* of College Affordability Task Force at Palm Beach State College *Fall 2020 - Spring 2021*
3. *Member* of OER Promotion Subcommittee *Fall 2020 - Spring 2021*
2. *Member* of Online Educational Resources Subcommittee *Fall 2020 - Spring 2021*
1. *Member* of MAC1105 Curriculum Redesign Committee *Fall 2018*

Program, Workshops, and Conference Organization

8. *Local organizer* of 2025 Fall AMS Central Sectional Meeting, Saint Louis, MO *October 18-19, 2025*
7. *Co-organizer* of a special session on combinatorics and geometry of flag varieties at 2025 Fall Central Sectional Meeting, Saint Louis, MO. *October 18-19, 2025*

6. *Program Chair* of 2025 Spring MAA Sectional Meeting, Saint Louis, MO *April 15 - 7, 2025*
5. *Co-organizer* of the session on effective grading at MathFest Indianapolis, IN *August 7, 2024*
4. *Co-organizer* of Sonia Kovalevsky Day at Washington University in Saint Louis *April 5, 2024*
3. *Co-coordinator* of Project NExT sessions at JMM 2024, San Francisco, CA *January 4 - 7, 2024*
2. *Co-organizer* of Math Awareness Week, Palm Beach State College *Fall 2018 - Spring 2021*
1. *Co-organizer* of The Play + Think = Win Competition, Palm Beach State College *Fall 2018*

awards & honors & grants

9. Student Athletes Straight-A Luncheon Invitee *2024*
8. *Project NExT Fellow, Green 23' Cohort* *2023*
7. *Saint Louis University, Stolle Fund,*
Fall 2024, Spring 2024, Fall 2023, Spring 2023, and Fall 2022
6. *Edfinity Affordable Learning Grant supported by the National Science Foundation* *2021*
5. *Member of the Tulane Graduate Honor Board* *2015-2017*
4. *Tulane Graduate Student Summer Research Grant* *2015-2017*
3. *The Scientific and Technological Research Council of Turkey,*
National Scholarship Program for PhD Students *2012 - 2013*
2. *The Scientific and Technological Research Council of Turkey,*
National Scholarship Program for MSc Students *2010-2012*
1. *Graduation Award from Dokuz Eylul University,* *2010*
Ranked first among the Faculty of Arts and Sciences graduates of the bachelor's degree programs in the 2009-2010 academic year.