# Özlem Uğurlu

Tulane University Graduate Department of Mathematics http://ozlemugurlu.com/ ougurlu@tulane.edu

# Education

# Ph.D. in Mathematics, Tulane University, 2013-present

Anticipate completion and defense of dissertation in May 2018.

Advisor: Associate Prof. Mahir Bilen Can

# Master of Science in Mathematics, Dokuz Eylul University, Izmir/Turkey, 2012

Title of Thesis: The Geometry of Toric Varieties Advisor: Asst. Prof. Dr. Murat Altunbulak

Bachelor of Science in Mathematics, Dokuz Eylul University, Izmir/Turkey, 2010

#### Research Interests

Combinatoric Representation Theory Algebraic Geometry Toric Geometry

# **Publications**

# Preprints (submitted, or to be submitted)

The genesis of involutions (polarizations and lattice paths) (Joint work with M. Can) submitted for publication, preprint can be found at https://arxiv.org/abs/1703.09881

Counting Borel Orbits in Symmetric Varieties of Types BI and CII (Joint work with M. Can) submitted for publication, preprint can be found at http://arxiv.org/abs/1801.05524

On the Number of Borel Orbits in Symmetric Varieties of Types C and D In Preparation

# Given\Scheduled Future Talks

# Northeastern University

The Genesis of Involutions, Special Session in "Combinatorial Representation Theory", AMS Eastern Section Meeting, April 21-22, 2018

#### Texas A & M University

Counting Borel Orbits in Symmetric Varieties of Types BI and CII, CombinaTexas 2018, February 10-11, 2018

# University of South Alabama

Borel Orbits in Polarization and Lattice Paths, Pure Mathematics Seminars, January 19, 2018

# Tulane University

K-Orbits in the Flag Variety and Clans, Graduate Student Seminars, November 14, 2017

The Genesis of Involutions, Algebra and Combinatorics Research Seminars, November 2, 2017

PhD in Mathematics, Graduate Student Panel, October 2, 2017

Focus on Women in STEM, Graduate Student Panel, Breakout Session, October 2, 2017

Toric Varieties, Graduate Student Seminars, November 19, 2015

# Dokuz Eylul University

Geometry and Combinatorics of Toric Varieties, December 05, 2011

Homology Group of Cell Complexes from Yukio Matsumoto's book: An Introduction to Morse Theory, DEU Geometry-Topology Seminars, April 20, 2010

Intersection Forms from Yukio Matsumoto's book: An Introduction to Morse Theory, DEU Geometry-Topology Seminars, May 17, 2010

# Conferences/Seminars/Workshops

# Joint Mathematical Meeting 2018, San Diego

January 10-13 2018

Tulane University Fall 2017

Intel Artificial Intelligence (AI), Workshop, November 8
Data Analysis and Visualization using MATLAB, October 24

# MSRI, University of California Berkeley

Summer 2017

Two week summer school on Positivity Questions on Combinatorics, Berkeley

### USA, University Of South Alabama

Spring 2016

 $Southern\ Regional\ Algebra\ Conference,\ Mobile\ Alabama$ 

#### 22. GOKOVA Geometry-Topology Workshop

Summer 2016

A week conference on geometry and topology, Mugla, Turkey

## **Bosphorus University**

Summer 2016

Three week workshop on Lie groups, algebras, and their representations, Istanbul, Turkey

# Clifford Lectures, Tulane University

Spring 2015

A week conference on Algebraic Groups: Structure and Actions, New Orleans

#### Stony Brook University

Fall 2013

A week conference on Hilbert Schemes, Long Island.

#### Tulane University

Fall 2013

Interactions between Commutative Algebra and Algebraic Geometry II, New Orleans

#### 20. GOKOVA Geometry-Topology Workshop

Summer 2013

#### Leibniz University

 $Summer\ 2013$ 

A week summer school on Toric Geometry, Dimers and String Theory, Hannover, Germany

#### 19. GOKOVA Geometry-Topology Workshop

 $Summer\ 2012$ 

# MSI, University of Perugia

Summer 2011

A month summer school on Algebra and Algebraic Geometry, Perugia, Italy

# Karatekin University

Summer 2011

A week conference on Combinatorics, Algebra, Geometry and Interactions, Cankiri, Turkey

#### CIMPA Istanbul Summer School

Summer 2010

Two week summer school/conference on Commutative Algebra and Applications to Combinatorics and Algebraic Geometry, Istanbul, Turkey

# Feza Gursey Institute

Algebra-Geometry Days March 05, 2010

Toric and Tropical Geometry April 30, 2010 - May 31, 2010

Differential Geometry May 27-29, 2011, Istanbul, Turkey

### Nesin Mathematic Village

2009 Turkish Mathematical Society Undergraduate and Graduate Mathematics Summer School, attendance week July 27 - August 2

2011 The Turkish Mathematical Society Undergraduate and Graduate Mathematics Summer School, attendance week September 5-12

2012 Graduate Mathematics School, attendance week October 24-29, Izmir, Turkey

# Dokuz Eylul University

I attended and also voluntarily helped organizing committee for the following workshops; Izmir Algebraic Geometric Topology Days II, January 09-14, 2011 Algebraic Geometric Topology Days, January 14-19, 2009

#### Skills

### **Problem Solving**

Excellent analytical and logical reasoning skills. Creative, motivated. Can learn new skills quickly. Able to lead or work within a group environment. LATEX, mathematical ability. Teaching skills

### Computer Languages

Some experience with Pyhton, Fortran, Mathematica, Maple, MATLAB. Can become proficient in any of these (or other) languages upon request.

# Employment, Tulane and Dokuz Eylul University

# Teaching

Long Calculus II Spring 2018

# Teaching Assistant

Spring 2010 to present

Ran discussion/problem/review sessions once a week that augmented the Calculus I-II-III, Linear algebra, Real Analysis courses, graded homeworks and quizzes, some guest lecturing, supervision of group work. For some courses, I also needed to write and grade tests and quizzes.

Long Calculus Fall 2015

 Calculus I
 Fall 2014, Fall 2016, Fall 2017

 Calculus II
 Spring 2011, Fall 2014, Spring 2015

 Calculus III
 Fall 2012, Spring 2016, Spring 2017

Real Analysis Fall 2016

Linear Algebra Spring 2011, Fall 2013, Fall 2015

Tutor Fall 2015

Staffed weekly university "Help Room" where students go for help in the undergraduate Calculus courses.

# Other Employment

**Private Mathematics Tutor** 

2010 to present

Private mathematics tutor for various high school, undergraduate, and graduate math courses.

# Awards and Honors

Tulane University

2015-2017

Member of the Tulane Graduate Honor Board Pool.

# Graduation Award from Dokuz Eylul University

June 2010

Ranked first among Faculty of Arts and Sciences graduates of the bachelors degree programs in the 2009-2010 academic year.

# Grand and External Funding

2010-2013

National Scholarship Programme for PhD Student, is given by The Scientific and Technological Research Council of Turkey,

National Scholarship Programme for MSc Student, is given by The Scientific and Technological Research Council of Turkey.