

# Oğuz Gürerk

## Education

- 2013-present **B.Sc. in Mathematics with Honors**, *Boğaziçi University*, İstanbul, Turkey.  
Senior Project Supervisor: Ümit Işlak  
Project Title: Outlier Analysis under Heavy Tails
- 2014-present **B.A. in Economics with Honors**, *Boğaziçi University*, İstanbul, Turkey.  
01-05/2018 **Exchange Program**, *McGill University*, Montreal, Canada.  
Courses taken: graduate stochastic processes, sp. topics in microeconomics,  
honors econometrics II

## Research Interests

Probability theory and related fields, nonparametric statistics, outlier analysis, random graphs,  
game theory, political economy of conflict

## Working Papers

1. **A study on random permutation graphs**, joint with Ümit Işlak and Mehmet Akif Yıldız;  
arXiv:1901.06678v1

## In Preparation

1. **Unfair trees and unfair permutation graphs**, joint with Ümit Işlak and M. Akif Yıldız
2. **A survey on Outlier Analysis**

## Talks

- 12/2018 *Concentration of Measure for Spheres*, student seminar at Boğaziçi University, İstanbul
- 10/2018 *New perspectives on Outlier Analysis*, IMBM Probability Days, İstanbul Center for Mathematical Sciences (IMBM), Boğaziçi University, İstanbul
- 07/2018 *Stable Laws and the Generalized CLT*, student seminar at Boğaziçi University, İstanbul
- 07/2018 *Similarity Measures for Outlier Detection*, student seminar at Boğaziçi University, İstanbul
- 12/2017 *Outlier Analysis under Heavy tails: It's (mostly) Political*, Senior thesis defense, Boğaziçi University, İstanbul
- 11/2017 *Graph-theoretic Measures of Multivariate Association and Prediction*, student seminar at Boğaziçi University, İstanbul
- 11/2017 *An Unsupervised approach for Outlier Detection Methods*, student seminar at Boğaziçi University, İstanbul

- 10/2017 *Selected Topics in Outlier Analysis*, 2. Spring Mathematics Meeting, Bilkent University, Ankara
- 10/2017 *Basic Non-parametric Tests and Multivariate Generalizations*, student seminar at Boğaziçi University, Istanbul
- 10/2017 *Kolmogorov-Smirnov Test and its Multivariate Generalization*, student seminar at Boğaziçi University, Istanbul
- 03/2017 *Outliers, the Law of large Numbers, and Heavy Tails*, 1. Spring Mathematics Meeting, Mimar Sinan University, Istanbul
- 01/2017 *Outliers, Index of Stability, and Heavy Tails*, The Nesin Mathematics Village, Şirince/Izmir
- 01/2017 *Two lectures on "A simple model of herd behavior (Banerjee, 1992)"*, The Nesin Mathematics Village, Şirince/Izmir

## Awards/Honors

- 2014-2018 *2205-National Undergraduate Scholarship Programme*, approx. USD 18.000  
The Scientific and Technological Research Council of Turkey  
> given to somewhat successful students
- 06/2013 Ranked top 1.6percent among 2 million entrants at the University Entrance Exam in Turkey

## Conference/Workshop Participation without Talk

- 06/2018 Workshop on Randomness in Complex Geometry and Complex Analysis, The Nesin Mathematics Village, Şirince/Izmir
- 02/2016 Combinatorial Algebraic Geometry Workshop, The Nesin Mathematics Village, Şirince/Izmir
- 06/2014 Annual Summer Workshop in Economics, Bilkent University, Ankara
- 07/2012 GAMES2012, The 4th Game Theory Congress, Bilgi University, Istanbul

## Teaching Experience

**Boğaziçi University**, *Student Assistant*, Mathematics Department.  
MATH 345 - *Probability Theory*, Summer 2018  
MATH 344 - *Statistics*, Fall 2017  
MATH 345 - *Probability Theory*, Summer 2017

## Computer Skills

R, C, C++, LaTeX

## Extra-curricular Activities

- My Personal Blog (or scratch) on methodology, ideology, aesthetics, and political economy:  
<http://usavurmasanati.blogspot.com/>
- On summers through 2012-17 Voluntary service at The Nesin Mathematics Village

## Languages

Turkish (native), English (fluent), German (B1-level)

---

## References

- 1- Ümit Işlak, Associate Professor of Mathematics, Boğaziçi University, [umit.islak1@boun.edu.tr](mailto:umit.islak1@boun.edu.tr)
- 2- Ferit Öztürk, Professor of Mathematics, Boğaziçi University, [ferit.ozturk@boun.edu.tr](mailto:ferit.ozturk@boun.edu.tr)
- 3- Serdar Altok, Associate Professor of Mathematics, Boğaziçi University, Scottsdale Collage  
[serdar.altok@boun.edu.tr](mailto:serdar.altok@boun.edu.tr)