

Sergazy Nurbavliyev

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Department of Mathematics
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Research Interests

Probability theory and stochastic processes: limit theorems, random walks and related topics from statistical mechanics; combinatorics, permutation coding and applications to multivariate statistics.

Education

Ph.D. Candidate, in Mathematics, University of Utah, 2016 – current.

Thesis advisors: Firas Rassoul-Agha and Tom Alberts.

M.Sc. in Mathematics, Bogazici University, 2015.

Thesis: *Disorder regimes of directed polymers: lattice case versus tree case.*

Thesis advisor: Atilla Yilmaz.

B.Sc. in Mathematics, Bogazici University, 2012.

Papers in Preparation

Lyapunov exponents, Shape Theorem, Variational formulas and Busemann functions for random walks in random potentials (with Chris Janjigian and Firas Rassoul-Agha)

Hamiltonian-Jacobian Equation for diffusions of multiplicative cascades (with Tom Alberts)

Research Experience

Current Projects

Research Assistant for Firas Rassoul-Agha, University of Utah (2017 – current)

Research Assistant for Tom Alberts, University of Utah (2017 – current)

Past Projects

Research Assistant for Atilla Yilmaz, Bogazici University (2013 – 2015)

Research Assistant for Askar Dzhumadil'daev, Kazakh-British University (2012 – 2013)

Teaching Experience

University of Utah

Instructor, Math 1090, Business Algebra, (Fall 2019)

Instructor, Math 1050, College Algebra, (Summer 2019)

Instructor, Math 1050, College Algebra, (Spring 2019)

Instructor, Math 1070, Introduction to Statistical Inference, (Spring 2018)

Teaching Assistant, Math 1210, Calculus, (Spring 2017)

Teaching Assistant , Math 2250, Differential Equations and Linear Algebra , (Fall 2016)

Suleyman Demirel University

Instructor, Probability and Statistics for Engineers I and II (2015 – 2016)

Instructor, Linear Algebra (2015 – 2016)

Teaching Assistant, Calculus I and II for Engineers (2012 – 2013)

Teaching Assistant, Linear Algebra (2012 – 2013)

Awards

Summer, Fall 2018. Research Assistanship, Department of Mathematics, University of Utah

Summer, Fall 2017. Research Assistanship, Department of Mathematics, University of Utah

2016 – 2020. Teaching Assistanship, Department of Mathematics, University of Utah

2013 – 2015. Research Assistanship, Department of Mathematics, Bogazici University

2008 – 2012. Mozaik Foundation undergraduate scholarship

2006 – 2007. Eurasion Union Foundation success scholarship

March 2004. National Computer and Mathematical Olympiads, **Gold Medal**

Jan. 2003. National Mathematical Olympiads, **Silver Medal**

Workshops and research programs

March 2019, Interacting Particle Systems, Statistical Mechanics and Related Topics, Los Angeles, CA, US

June 2018, Recent Trends in Continuous and Discrete Probability, Atlanta, GA, US

March 2018, Frontier Probability Days, Corvallis, OR, US

July 2017. Random Matrices, IAS/Park City Mathematics Institute (PCMI), Park City, Utah, US

Mar. 2017. Random structures in statistical mechanics and mathematical physics, CIRM, Marseille, France

June 2015. 2nd Ankara-Istanbul Workshops on Stochastic Processes, Istanbul, Turkey

July 2014. 1st Ankara-Istanbul Workshops on Stochastic Processes, Istanbul, Turkey

Leadership and Service

2019 Spring. Board Member, Gandhi Alliance for Peace

2018 Spring. Organizer, Student Probability Seminar, University of Utah

2015 - 2016. Freshman advisor, Department of Mathematics, Suleyman Demirel University

2015 - 2016. Co-organizer, Faculty Area Research Seminar, Suleyman Demirel University

2015 - 2016. Organizer, Student Probability Seminar, Suleyman Demirel University

2013 - 2015. Organizer, Student Analysis Seminar, Bogazici University