

Ilya Losev

Email: il320@cam.ac.uk

Education

University of Cambridge

October 2021 – Present

PhD in Mathematics of Information

Supervisor: James Norris

St. Petersburg State University

September 2019 – June 2021

Master in Mathematics; GPA: 5/5

Supervisor: Yurii Belov

University of Geneva, SwissMAP Master Class

September 2019 – August 2020

Master in Mathematical Physics; GPA: 5.9/6

Supervisor: Stanislav Smirnov

St. Petersburg State University

September 2015 – June 2019

Bachelor in Mathematics; GPA: 5/5

Supervisor: Yurii Belov

Job experience

Research Assistant

November 2017 – September 2021

Chebyshev Laboratory, St. Petersburg State University

Organizer of St. Petersburg Math Olympiad

September 2016 – May 2018

Mathematics Olympiad Committee, St. Petersburg

Teaching Assistant

September 2015 – August 2019

Physics and Mathematics Lyceum 239, St. Petersburg

Research interests

My research is mainly focused on problems related to probability theory, statistical physics and quantum field theories. I am studying probabilistic models that come from mathematical physics, and I am interested in questions related to the description of their large-scale or large-time (for stochastic processes) behaviour.

Research papers

- Large Deviations of the Schwarzian Field Theory; *arXiv:2406.17069*, 2024;
- Probabilistic derivation of the correlation functions of the Schwarzian Field Theory; *arXiv:2406.17071*, 2024;

- Probabilistic Definition of the Schwarzian Field Theory; (with R. Bauerschmidt and P. Wildemann), *arXiv:2406.17068*, 2024;
- How long are the arms in DBM?; (with S. Smirnov), *arXiv:2307.14931*, 2023;
- Jacobi matrices with lacunary spectrum; *Journal of Mathematical Analysis and Applications*, Volume 503, Issue 1, 2021.

Awards

Edouard Gans Prize	2020
Best Master's Thesis in Mathematics, University of Geneva	
International Mathematics Competition, Gold Medal	2017
University Level Competition	

Research talks and posters

Sapienza Probability Seminar	Rome, Italy; March 2024
How long are the arms in DBM?	<i>Seminar Talk</i>
Cambridge Probability Seminar	Cambridge, UK; October 2023
How long are the arms in DBM?	<i>Seminar Talk</i>
Phase Transitions and Correlated Random Processes	Cambridge, UK; May 2023
Schwarzian Field Theory	<i>Short Talk</i>
Probability and Mathematical Physics Conference	Helsinki, Finland; July 2022
How long are the arms in DBM?	<i>Poster</i>
7th SwissMAP General Meeting	Gstaad, Switzerland; August 2020
How long are the arms in DBM?	<i>Poster</i>
SwissMAP Site Visit	Online; June 2020
How long are the arms in DBM?	<i>Poster</i>
Emergent Trends in Complex Function Theory Workshop	Barcelona, Spain; October 2019
Jacobi matrices with lacunary spectrum	<i>Short Talk</i>
Spectral Function Theory	St. Petersburg, Russia; April 2019
International Spring School	<i>Short Talk</i>
Jacobi matrices with lacunary spectrum	

Other research visits

Oberwolfach Arbeitsgemeinschaft	Oberwolfach, Germany; December 2023
QFT and Stochastic PDEs	<i>Reading Group</i>
SwissMAP Research Station	Les Diablerets, Switzerland; August 2023
Short Research Stay	<i>Research Visit</i>