Pavel Zakharov

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Education

TU Dortmund, Germany, Department of Mathematics, PhD Program	2023 – present
Higher School of Economics, Moscow, Russia, Data Science, Math in Machine Learning, Master Program	2021 – 2023
Higher School of Economics, Moscow, Russia, Faculty of Computer Science, Applied Mathematics and Informatics, Bachelor Program	2017 – 2021
Physical-Mathematical School 2007, Moscow, Russia, Graduated with Golden Medal.	2017

Positions

University of New South Wales, Research Internship	2025
TU Dortmund, Department of Computer Science, Research Assistant	2023 – present
HSE University, Laboratory of Theoretical Computer Science, Research Assistant	2019 – 2023
Yandex LLC, Yandex.Routing, Analyst	2020
Yandex LLC, Yandex.Adtech, Software engineer	2019

Research

Journal publications

SIAM Journal on Discrete Mathematics, P. Berenbrink, A. Coja-Oghlan, C. Cooper, T. Götte, L. Hintze, P. Zakharov, *WalkSAT is linear on random 2-SAT*.	2025
Russian Mathematical Surveys, D. Shabanov, P. Zakharov, *Fractional colourings of random hypergraphs*.	2023
Trudy MIPT, D. Shabanov, P. Zakharov, *Asymptotic normality of the giant component size in a random bipartite graph*.	2023
Dokl. RAN, D. Shabanov, P. Zakharov, *On the maximal cut in a random hypergraph*.	2021

Preprints

A. Chatterjee, A. Coja-Oghlan, N. Müller, C. Riddlesden, M. Rolvien, P. Zakharov, H. Zhu, *The number of random 2-SAT solutions is asymptotically log-normal*. arXiv.2405.03302	2024
A. Chatterjee, A. Coja-Oghlan, C. Greenhill, V. Pfenninger, M. Rolvien, P. Zakharov, K. Zampetakis, *The random k-SAT Gibbs uniqueness threshold revisited*. arXiv.2506.01359	2025

Conference talks

22nd International Conference on Random Structures and Algorithms, *Vienna, Austria*.	2025
28th International Conference on Randomization and Computation, *London, United Kingdom*.	2024
European Conference on Combinatorics, Graph Theory and Applications, *Online*.	2021

Research grants

Investigator on "Extremal properties of random graphs". Russian Foundation for Basic Research and Iran National Science Foundation, no. 20-51-56017	2020 – 2022
Investigator on "Structural properties of random graphs and hypergraphs". Russian Science Foundation, no. 22-21-00411	2021 – 2023

Teaching

Higher School of Economics, Faculty of Computer Science **Convex Programming and Approximation Algorithms** — Tutoring	2023/24
Higher School of Economics, Faculty of Computer Science **Theoretical Computer Science** — Lecturer, course design **Mathematical Statistics**, **Theory of Computation** — Design of study materials, tutoring **Probability Theory** — Tutoring **Theory of Computation** — Tutoring	2022/23
Higher School of Economics, Faculty of Computer Science **Theoretical Computer Science** — Lecturer, course design **Algorithms and Data Structures** — Design of study materials, tutoring **Probability Theory and Mathematical Statistics** — Tutoring	2021/22
Sberbank **Graph Theory** – Tutoring	

Service and outreach

Peer reviewing and subreviewing Annals of Applied Probability, Combinatorica, Random Structures and Algorithms, STACS	
"Combi meets Stat Physics" reading group, UNSW Organization	2025
Project programme in mathematics & theoretical computer science, "Sirius" Educational Center Mentor	2022
Mathematics summer school "Kostroma open" Invited teacher	2017

Other

Ilya Segalovich scholarship Awarded by Yandex	2021-2022