

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

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

Research

Preprints

The number of random 2-SAT solutions is asymptotically log-normal A. Chatterjee, A. Coja-Oghlan, N. Müller, C. Riddlesden, M. Rolvien, P. Zakharov, H. Zhu, To appear in <i>Theory of Computing</i> .	2024
The random k-SAT Gibbs uniqueness threshold revisited, A. Chatterjee, A. Coja-Oghlan, C. Greenhill, V. Pfenninger, M. Rolvien, P. Zakharov, K. Zampetakis, To appear in <i>Combinatorics, Probability and Computing</i> .	2025

Journal publications

WalkSAT is linear on random 2-SAT, P. Berenbrink, A. Coja-Oghlan, C. Cooper, T. Götze, L. Hintze, P. Zakharov, <i>SIAM Journal on Discrete Mathematics</i> 39 (4) (2025) 1939–1952.
Fractional colourings of random hypergraphs, D. Shabanov, P. Zakharov, <i>Russian Mathematical Surveys</i> 78 (6) (2023) 183–184.
Asymptotic normality of the giant component size in a random bipartite graph, D. Shabanov, P. Zakharov, <i>Trudy MIPT</i> 15 (2023) 23–32 (in Russian).
On the maximal cut in a random hypergraph, D. Shabanov, P. Zakharov, <i>Doklady Mathematics</i> 104 (2021) 336–339.

Talks

Algorithmic Decision Theory Reading Group , <i>Sydney, Australia.</i>	2025
22nd International Conference on Random Structures and Algorithms , <i>Vienna, Austria.</i>	2025
28th International Conference on Randomization and Computation , <i>London, United Kingdom.</i>	2024
Algorithms, Dynamics, and information Flow in Networks Seminar , <i>Online.</i>	2024
European Conference on Combinatorics, Graph Theory and Applications , <i>Online.</i>	2021

Research grants

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

Teaching

<i>Higher School of Economics, Faculty of Computer Science</i>	2021 – 2024
Theoretical Computer Science — Lecturer, course design	
Mathematical Statistics — Design of study materials, tutoring	
Algorithms and Data Structures — Design of study materials, tutoring	
Theory of Computation — Tutoring	
Convex Programming and Approximation Algorithms — Tutoring	
Probability Theory — Tutoring	
<i>Sberbank</i>	2021/22
Graph Theory – Tutoring	

Service and outreach

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

Other

Ilya Segalovich scholarship	2021-2022
Awarded by Yandex, €10K	