

Sergey Samsonov

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Personal

Born on April 26, 1997.

Russian Federation Citizen.

Education

PhD, 2019-current

Higher School of Economics, Faculty of Mathematics,
supervisor: dr. Alexey Naumov;

M.Sc., 2017-2019

Higher School of Economics (Faculty of Computer Science) and Skoltech, joint M.Sc.
program "Statistical Learning Theory";

Thesis: Concentration inequalities for functionals of Markov chains with applications to
variance reduction, supervisor: dr. Alexey Naumov; degree with honours;

GPA: 9.93/10.0;

B.Sc., 2013-2017

Moscow State University, Faculty of Computational Mathematics and Cybernetics, De-
partment of Mathematical Statistics;

Thesis: Statistical analysis of rounded data, supervisor: prof. Vladimir Ushakov; degree
with honours; GPA: 4.95/5.0; 2nd place in CMC MSU diploma thesis competition;

High School

Lyceum of BMSTU, Balashiha, Moscow region (Specialization: Physics, Mathematics,
Programming);

Gold medal; winner of Moscow Physics Olympiad, BMSTU Physics Olympiad; prizewin-
ner of Moscow Mathematical Olympiad, region stage of Russian Olympiad at mathematics
and physics

Awards

2nd place in CMC MSU diploma thesis competition - 2017

B.Sc. diploma with honours - 2017

Governors of Moscow region scholarship - 2013,2014

Grants

RSF grant N18-11-00132, Analysis of high dimensional random objects with applications to large scale data processing, 2018-2020 (HSE)

Research Interests

High-dimensional probability and statistics, Markov Chain Monte Carlo methods, the concentration of measure phenomenon.

Conferences

1. New frontiers in high-dimensional probability and statistics 2, 22-23.02.2019, Concentration inequalities for functionals of Markov Chains with applications to variance reduction (talk)
2. Structural Inference in high-dimensional models 2, 26-31.08.2019, Variance Reduction for Dependent Sequences via Empirical Variance Minimisation (poster session)

Publications

- [1] D. Belomestny, L. Iosipoi, E. Moulines, A. Naumov, S. Samsonov. Variance reduction for Markov chains with application to MCMC. *arXiv:1910.03643*
- [2] S.V. Samsonov, N.G. Ushakov, V.G. Ushakov. Estimation of the second moment based on rounded data. *Journal of Mathematical Sciences*, Vol. 237, No. 6, 819–825, March, 2019
- [3] S.V. Samsonov, N.G. Ushakov, V.G. Ushakov. Consistent variance estimation based on rounded data. *Book of abstracts of XXXIV. International Seminar on Stability Problems for Stochastic Models*, 121, Debrecen, Hungary, August 2017

Teaching Experience

Higher School of Economics, Faculty of Computer Science:

Seminars, Mathematical Analysis-2, 2019-2020;

Seminars, Stochastic Analysis, 2019-2020 (autumn semester);

Teaching Assistant, Mathematical Analysis-2, 2018-2109;

Working Experience

Junior Research Fellow

Higher School of Economics, Faculty of Computer Sciences, International Laboratory of Stochastic Algorithms and High-Dimensional Inference, 05/2018 – current

Assistant Engineer

Samsung Research Russia (SRR); Samsung Electronics; Vision, Learning and Telepresence Lab; supervisor - Victor Lempitsky, summer 2018.

Analyst

Financial Racers ltd, the Department of investment technologies, derivatives pricing and trading systems development, 05/2016 – 08/2017

Language skills

Russian - mother's language

English - advanced level (C1), 7.5 IELTS Academic score 24/06/2017

Professional skills and other interests

Financial mathematics (time series analysis, derivatives pricing);

Machine learning with Python, R;