# Aleksandr Zimin

D.O.B. August 24, 1997

## Education

- 2021–now PhD in Mathematics, Massachusetts Institute of Technology.
- 2019–2021 Master degree, Faculty of Mathematics, Higher School of Economics, Moscow.
  - GPA: 10/10
  - My term paper On existence of measure with given marginals supported on a hyperplane won the first price at Student Research Paper Competition held by HSE University
- 2019–2021 Master degree, Mathematical and Theoretical Physics, Skolkovo Institute of Science and Technology, Moscow.

• GPA: 5/5

- 2015–2019 Bachelor degree, Faculty of Mathematics, Higher School of Economics, Moscow.
  - Diploma with the Highest Distinction
  - GPA: 9.79/10
  - Thesis: Duality Theory for Multistochastic Monge-Kantorovich Problem – Final Grade: 10

# Other education

- 2017–2019 **Professional retraining diploma**, Department «Computer science», Yandex School of Data Analysis, Moscow.
  - 672 lecture hours on a broad range of theoretical and applied Computer Science

### Research experience

- 2018– Research assistant, International Laboratory of Stochastic Algorithms and High-Dimensional Inference, Higher School of Economics
- 2019, 2021 Teaching assistant for the course "Linear programming", Faculty of Mathematics, Higher School of Economics

# Programming skills

- C++ Learning C++, Part 1, Yandex School of Data Analysis, Grade: 5/5 Learning C++, Part 2, Yandex School of Data Analysis, Grade: 5/5
- Python Programming in Python, Yandex School of Data Analysis, Grade: 5/5
  Introduction into Python, Higher School of Economics, Grade: 10/10
  Basics of Programming in Python-2, Higher School of Economics, 10/10
  - ML Skills in different fields of machine learning like deep learning, reinforcement learning, natural language processing, and computer vision.

#### Working papers under revision

Boerma J., Tsyvinski A., Zimin A.P., Bunching and Taxing Multidimensional Skills. **Revision requested by Econometrica**, 2022 DOI: 10.3386/w30015

Boerma J., Tsyvinski A., Zimin A.P., Sorting with Team Formation. **Revision requested by Journal of Political Economy**, 2021 DOI: 10.3386/w29290

## Other working papers and publications

Kolesnikov A., Sandomirskiy F., Tsyvinski A., Zimin A.P., Beckmann's approach to multi-item multi-bidder auctions. arxiv: 2010.07263

Gladkov N.A., Kolesnikov A.V., Zimin A.P., The multistochastic Monge-Kantorovich problem / Journal of Mathematical Analysis and Applications. 2020 DOI: 10.1016/j.jmaa.2021.125666

Gladkov N.A., Zimin A.P., An explicit solution for a multimarginal mass transportation problem. **SIAM Journal on Mathematical Analysis**, 2020 DOI: 10.1137/18M122707X

Gladkov N.A., Kolesnikov A.V., Zimin A.P., On multistochastic Monge– Kantorovich problem, bitwise operations, and fractals. **Calculus** of Variations and Partial Differential Equations. 2019 DOI: 10.1007/s00526-019-1610-4

Zimin A.P., On existence of measure with given marginals supported on a hyperplane. arXiv: 2010.07263

#### Participation in conferences

November 2018	Optimal	Transport and	Applications,	SNS,	Pisa
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- December 2018 Bielefeld University
- February 2019 New frontiers in high-dimensional probability and statistics, HSE
  - March 2019 Workshop on optimal transport and applications, CIMI-Université de Toulouse
    - July 2019 Eight or Nine Talks on Contemporary Optimal Transport Problems, IRMA, Strasbourg
- October 2019 Recent advances in mass transportation, HSE
- February 2020 Math of Machine Learning, Sirius University of Science and Technology, Sochi
  - May 2021 New Frontiers in High-Dimensional Probability and Applications to Machine Learning, Sochi

#### Participation in olympiads

- 2015 International Mathematical Olympiad national team member, silver medal
- 2011–2015 All-Russian Mathematical Olympiads prize-winner
  - 2018 ACM-ICPC (The International Collegiate Programming Contest) World Finals, team HSE Bluebell
  - $2015 \quad {\rm Romanian\ Master\ in\ Mathematics\ --\ national\ team\ member,\ gold\ medal}$
  - 2013 China National Olympiad in Mathematics national team member, gold medal