

# Anton Rodomanov

## Contact details

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## Education

2017–2021 **PhD in Computer Science**, [National Research University Higher School of Economics](#)  
2015–2017 **MSc in Computer Science**, [National Research University Higher School of Economics](#)  
2011–2015 **BSc in Computer Science**, [Lomonosov Moscow State University](#)

## Publications

- 2016 **A Superlinearly-Convergent Proximal Newton-Type Method for the Optimization of Finite Sums** ([assigned 3rd level funding by HSE Academic Fund Programme in 2017](#))  
A. Rodomanov, D. Kropotov  
Proceedings of the 33rd International Conference on Machine Learning (ICML)  
[\[pdf\]](#) [\[supplementary\]](#) [\[poster\]](#) [\[slides\]](#) [\[code\]](#)
- 2016 **Primal-Dual Method for Searching Equilibrium in Hierarchical Congestion Population Games**  
P. Dvurechensky, A. Gasnikov, E. Gasnikova, S. Matsievsky, A. Rodomanov, I. Usik  
Proceedings of the 9th International Conference on Discrete Optimization and Operations Research and Scientific School (DOOR)  
[\[pdf\]](#)
- 2015 **A Newton-type Incremental Method with a Superlinear Convergence Rate**  
A. Rodomanov, D. Kropotov  
NIPS Workshop on Optimization for Machine Learning (Optimization@NIPS)  
[\[pdf\]](#) [\[poster\]](#)
- 2014 **Putting MRFs on a Tensor Train**  
A. Novikov, A. Rodomanov, A. Osokin, D. Vetrov  
Proceedings of the 31st International Conference on Machine Learning (ICML)  
[\[pdf\]](#) [\[supplementary\]](#) [\[poster\]](#) [\[slides\]](#) [\[code\]](#)

## Talks

- 10/2016 **Incremental Newton Method for Big Sums of Functions**  
Seminar on Stochastic Analysis in Problems, IUM, Moscow, Russia  
[\[slides \(in Russian\)\]](#) [\[video \(in Russian\)\]](#)
- 06/2016 **A Superlinearly-Convergent Proximal Newton-Type Method for the Optimization of Finite Sums**  
International Conference on Machine Learning (ICML), New York, USA [\[slides\]](#) [\[video\]](#)

- 06/2016 **Optimization Methods for Big Sums of Functions**  
Deep Machine Intelligence Workshop, Skoltech, Moscow, Russia [\[slides\]](#)
- 05/2016 **Incremental Newton Method for Minimizing Big Sums of Functions**  
HSE off-site seminar on Machine Learning, Voronovo, Russia [\[slides\]](#)
- 03/2016 **Introduction to the Tensor Train Decomposition and Its Applications in Machine Learning**  
Seminar on Applied Linear Algebra, HSE, Moscow, Russia [\[slides\]](#)
- 02/2016 **Proximal Incremental Newton Method**  
Seminar on Bayesian Methods in Machine Learning, MSU, Moscow [\[slides\]](#)
- 08/2015 **Probabilistic Graphical Models: a Tensorial Perspective**  
International Conference on Matrix Methods in Mathematics and Applications (MMA), Skoltech, Moscow, Russia [\[slides\]](#)
- 06/2015 **A Fast Incremental Optimization Method with a Superlinear Rate of Convergence**  
Summer School on Control, Information and Optimization, Solnechnogorsk, Russia [\[slides\]](#)
- 10/2014 **Markov Chains and Spectral Theory**  
Seminar on Bayesian Methods in Machine Learning, MSU, Moscow, Russia [\[slides \(in Russian\)\]](#)
- 05/2014 **Low-Rank Representation of MRF Energy by means of the TT-Format**  
SIAM Conference in Imaging Science (SIAM-IS), Hong-Kong, China [\[slides\]](#)
- 04/2014 **Fast Gradient Method**  
Seminar on Bayesian Methods in Machine Learning, MSU, Moscow, Russia [\[slides \(in Russian\)\]](#)
- 10/2013 **TT-Decomposition for Compact Representation of Tensors**  
Seminar on Bayesian Methods in Machine Learning, MSU, Moscow, Russia [\[slides \(in Russian\)\]](#)

## Posters

- 06/2016 **A Superlinearly-Convergent Proximal Newton-Type Method for the Optimization of Finite Sums**  
International Conference on Machine Learning (ICML), New York, USA [\[poster\]](#)
- 12/2015 **A Newton-type Incremental Method with a Superlinear Convergence Rate**  
NIPS Workshop on Optimization for Machine Learning (Optimization@NIPS), Montreal, Canada [\[poster\]](#)
- 07/2015 **A Fast Incremental Optimization Method with a Superlinear Rate of Convergence**  
Microsoft Research PhD Summer School, Cambridge, United Kingdom [\[poster\]](#)
- 06/2014 **Putting MRFs on a Tensor Train**  
International Conference on Machine Learning (ICML), Beijing, China [\[poster\]](#)

## Awards

- 2017 [Increased State Academic Scholarship](#) for research and academic achievements
- 2016 [Golden HSE Award in the Silver Nestling](#) nomination
- 2016 [Personal Scholarship of the Lukoil Fund](#)
- 2016 [Ilya Segalovich Scholarship](#) (from Yandex)
- 2015 [Winner of a faculty-wide competition of theses \(1st place\) at the Lomonosov Moscow State University](#)

## Participation in grants

- 2017–2019 [RSF grant 17-11-01027 on Algorithmic optimization for problems with large number of variables](#)  
Project head: Yurii Nesterov.

## Work experience

{01–12}/2017 **Junior Researcher** at the [International Laboratory of Deep Learning and Bayesian Methods](#) of the [National Research University Higher School of Economics](#)

## Teaching experience

{02–05}/2018 **Optimization Methods in Machine Learning** at the [Yandex School of Data Analysis](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

{01–03}/2018 **Continuous Optimization** at the [Faculty of Computer Science, Higher School of Economics](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

{09–12}/2017 **Optimization Methods in Machine Learning** at the [Faculty of Computational Mathematics and Cybernetics, Moscow State University](#) and at the Department of Control and Applied Mathematics, [Moscow Institute of Physics and Technology](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

{02–05}/2017 **Optimization Methods in Machine Learning** at the [Yandex School of Data Analysis](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

{01–03}/2017 **Continuous Optimization** at the [Faculty of Computer Science, Higher School of Economics](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

{09–12}/2016 **Optimization Methods in Machine Learning** at the [Faculty of Computational Mathematics and Cybernetics, Moscow State University](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

{02–05}/2016 **Optimization Methods in Machine Learning** at the [Yandex School of Data Analysis](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

{11–12}/2015 **Machine Learning** at the [Skolkovo Institute of Science and Technology](#)  
Conducting seminars. Lecturer: Victor Kitov.

{02–05}/2015 **Optimization Methods in Machine Learning** at the [Yandex School of Data Analysis](#)  
Conducting seminars. Lecturer: Dmitry Kropotov.

## Languages

Russian	<b>Native</b>
English	<b>Advanced</b> (TOEFL iBT: 97/120, August 2017)