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 (MMMA), 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 comptetition 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

2017–now	**Junior Researcher** at the International Laboratory of Deep Learning and Bayesian Methods of the National Research University Higher School of Economics

Teaching experience

{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 Seminars and practical sessions. Lecturer: Dmitry Kropotov.
{02–05}/2017	**Optimization Methods in Machine Learning** at the Yandex School of Data Analysis Seminars and practical sessions. Lecturer: Dmitry Kropotov.
{01–03}/2017	**Optimization Methods** at the Faculty of Computer Science, Higher School of Economics Seminars and practical sessions. Lecturer: Dmitry Kropotov.
{09–12}/2016	**Optimization Methods in Machine Learning** at the Faculty of Computational Mathematics and Cybernetics, Moscow State University Seminars and practical sessions. Lecturer: Dmitry Kropotov.
{02–05}/2016	**Optimization Methods in Machine Learning** at the Yandex School of Data Analysis Seminars and practical sessions. Lecturer: Dmitry Kropotov.
{11–12}/2015	**Machine Learning** at the Skolkovo Institute of Science and Technology Seminars and practical sessions. Lecturer: Victor Kitov.
{02–05}/2015	**Optimization Methods in Machine Learning** at the Yandex School of Data Analysis Seminars and practical sessions. Lecturer: Dmitry Kropotov.

Languages

Russian	**Native**
English	**Advanced** (TOEFL iBT: 97/120, August 2017)