

Dmitry Kovalev

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Education

King Abdullah University of Science and Technology

MS/PHD IN COMPUTER SCIENCE

Thuwal, Saudi Arabia

Sep. 2018 - PRESENT

Moscow Institute of Physics and Technology

BSC IN APPLIED MATHEMATICS AND PHYSICS

Moscow, Russia

Sep. 2014 - Jun. 2018

Skills

Programming C/C++, Python, LaTeX, Go

Mathematics Calculus, Linear Algebra, Probability and Statistics

Honors & Awards

2015-2017 **Abramov's Fund Scholarship**, for top students of Moscow Institute of Physics and Technology

Moscow, Russia

2014 **Honourable Mention**, APHO (Asian Physics Olympiad)

Singapore

2014 **Prize-Winner**, All-Russian School Physics Olympiad, Final Round

Saint Petersburg,
Russia

2014 **Winner**, All-Russian School Programming Olympiad, Region Round

Moscow, Russia

2014 **Winner**, All-Russian School Math Olympiad, Region Round

Moscow, Russia

2012-2014 **Russian President's Scholarship**, for high school students

Russia

2012-2014 **Moscow Governor's Scholarship**, for high school students

Moscow, Russia

2013 **Winner**, All-Russian School Physics Olympiad, Final Round

Vladivostok, Russia

2012 **Prize-Winner**, All-Russian School Physics Olympiad, Final Round

Saransk, Russia

Papers

Stochastic Newton and Cubic Newton Methods with Simple Local Linear-Quadratic Rates

DMITRY KOVALEV, KONSTANTIN MISHCHENKO, PETER RICHTÁRIK

Dec. 2019

- NeurIPS 2019 Workshop: Beyond First Order Methods in Machine Learning
- arXiv 2019

Accelerated methods for composite non-bilinear saddle point problem

MOHAMMAD ALKOUSA, DARINA DVINSKIKH, FEDOR STONYAKIN, ALEXANDER GASNIKOV, DMITRY KOVALEV

Dec. 2019

- arXiv 2019

Stochastic Proximal Langevin Algorithm: Potential Splitting and Nonasymptotic Rates

ADIL SALIM, DMITRY KOVALEV, PETER RICHTÁRIK

May 2019

- NeurIPS 2019

Revisiting Stochastic Extragradient

KONSTANTIN MISHCHENKO, DMITRY KOVALEV, EGOR SHULGIN, PETER RICHTÁRIK, YURA MALITSKY

May 2019

- NeurIPS 2019 Workshop: Bridging Game Theory and Deep Learning
- arXiv 2019

RSN: Randomized Subspace Newton

ROBERT M. GOWER, DMITRY KOVALEV, FELIX LIEDER, PETER RICHTÁRIK

May 2019

- NeurIPS 2019

Stochastic Distributed Learning with Gradient Quantization and Variance Reduction

SAMUEL HORVÁTH, DMITRY KOVALEV, KONSTANTIN MISHCHENKO, PETER RICHTÁRIK, SEBASTIAN U. STICH

Jan. 2019

- arXiv 2019

Don't Jump Through Hoops and Remove Those Loops: SVRG and Katyusha are Better Without the Outer Loop

DMITRY KOVALEV, SAMUEL HORVÁTH, PETER RICHTÁRIK

Jan. 2019

- arXiv 2019

A hypothesis about the rate of global convergence for optimal methods (Newton's type) in smooth convex optimization

ALEXANDER GASNIKOV, DMITRY KOVALEV

Feb. 2018

- Computer Research and Modeling, 2018, Volume 10, Issue 3, Pages 305–314

Stochastic Spectral and Conjugate Descent Methods

DMITRY KOVALEV, EDUARD GORBUNOV, ELNUR GASANOV, PETER RICHTÁRIK

Feb. 2018

- NeurIPS 2018

Conferences & Talks

ICCOPT 2019

TU, Berlin, Germany

TALK: «REVISITING STOCHASTIC EXTRAGRADIENT METHOD»

5 Aug. 2019

Data Science Summer School 2019

École polytechnique, Paris, France

POSTER: «STOCHASTIC DISTRIBUTED LEARNING WITH GRADIENT QUANTIZATION AND VARIANCE REDUCTION»

26 Jun. 2019

Traditional School (Control, Information and Optimization)

Voronovo, Moscow Region, Russia

POSTER: «STOCHASTIC DISTRIBUTED LEARNING WITH GRADIENT QUANTIZATION AND VARIANCE REDUCTION»

20 Jun. 2019

Weekly seminar «Automatic control and Optimization Theory»

IPU, Moscow, Russia

TALK: «STOCHASTIC SPECTRAL AND CONJUGATE DESCENT METHODS»

26 Mar. 2019

Seminar «Modern Optimization Methods»

MIPT, Moscow, Russia

TALK: «STOCHASTIC DISTRIBUTED LEARNING WITH GRADIENT QUANTIZATION AND VARIANCE REDUCTION»

25 Mar. 2019

Traditional School (Control, Information and Optimization)

Voronovo, Moscow Region, Russia

POSTER: «STOCHASTIC SPECTRAL DESCENT METHODS»

Jun. 2018

Optimization and Big Data Workshop

KAUST, Thuwal, Saudi Arabia

POSTER: STOCHASTIC SPECTRAL DESCENT METHODS

Feb. 2018