



## **Personal information**

Surname(s) / First name(s)

e(s) Danilova, Marina

Address(es)

1, Bul'var Imeni Umberto Nobile, apt. 250, 141701, Dolgoprudny, Moscow Oblast

Telephone(s)

+7 916 468 52 12 (cell)

Email(s)

danilovamarina15@gmail.com(preferred);danilovamarina15@mail.ru

Nationality(-ies)

Russia

Date of birth

April 15, 1994

## **Education and training**

September 2012 - July 2016

Position

BSc degree in Applied Math and Physics

Organization

Moscow Institue of Physics and Technology, 9, Institutskiy per., 141701, Dolgoprudny, Russia

Department Control and Applied Mathematics

GPA

4.8/5.0

Thesis

Research the method of iteratively reweighted least squares

Date

September 2016 - July 2018

Position

MSc degree in Applied Math and Physics

Organization

Moscow Institue of Physics and Technology, 9, Institutskiy per., 141701, Dolgoprudny, Russia

Department

Control and Applied Mathematics

GPA

5.0/5.0

Thesis

Non-monotone behavior of the Heavy ball method

Date

**September 2016 - July 2018** 

Position

MSc degree in Information Technology and Engineering

Organization

Skolkovo Institute of Science and Technology, Skolkovo Innovation Center, Building 3, 143026, Moscow,

Russia

Department

**Energy Systems** 

GPA

4.6/5.0

Thesis

The non-monotonicity effect and exact estimates of the rate of convergence of some optimization meth-

ods

Date

September 2018 - current

Position

PhD in Operations research

Organization

Institute for Control Science, RAS, 65, Profsoyuznaya str, 117997, Moscow, Russia

#### Research interests

Convex optimization; first-order methods; large-scale and huge-scale optimization; stochastic and online optimization; combinatorical optimization

## **Teaching Experience**

**2016 - current:** Moscow Physical Technical University, Department of Control and Applied Mathematics, "Optimization methods"

2017 - 2018: School No.1518, "Olympiad Mathematics"

**2018 - current:** Moscow Physical Technical University, Department of Innovation and High Technology, "Optimization methods"

**2019:** Moscow Physical Technical University, The Russian Presidential Academy of National Economy and Public Administration, "Introduction to convex optimization theory"

## **Work Experience**

2013-2014: Internship at a research institute MNIIEKO TECH

2015: Internship at the Central Bank of the Russian Federation

2017: Internship at the Federal Grid Company of Unified Energy System

2018 - current: Laboratory of Numerical Methods of Applied Structural Optimization, MIPT, Junior Researcher

2019 - current: Researcher at Huawei-MIPT group, Moscow

#### **Summer Schools**

- Member of 25th Jyvaskyla Summer School, Finland
- Member of the Traditional Summer Youth School "Control, Information and Optimization", Russia

## **Editorial Activity, etc**

 Program committee member, Organizer, 61,62 All-Russian Scientific Conference at MIPT, section of mathematical foundations of control

#### **Awards and achievements**

- Diplomas with honours, MIPT
- Abramovskaya scholarship for academic achievement (Foundation for the Development of Innovative Education in the Field of Natural Sciences)
- Increased academic scholarship at Skoltech

## **Conferences**

2018: The 24th International Conference on Difference Equations and Applications

#### **Publications**

**2016:** Kharyonovsky A., Danilova M., Litvinova A., Mahmud T. "Estimation of influence on environment open cut and underground mining coal" Vestnik UDC 622.85: 622.33 (470)

**2017:** Kharyonovsky A., Danilova M., "Protection of the atmosphere at the enterprise of coal industry" Vestnik UDC 622.85: 622.33

2018: Danilova M., Kulakova A., Polyak B., "Non-monotone Behavior of the Heavy Ball Method" arxiv. org/abs/1811.00658 (article filed Springer Proceedings in Mathematics and Statistics, Difference Equations and Discrete Dynamical Systems with Applications)

# Languages

- English (C1)
- French (A2)

## **Computer Skills**

Operating Systems: Microsoft Windows, Linux, Mac OSX

Programming Language: Python, R, MATLAB, C, C++, PI SQL, LATEX

## **Social and Voluntary works:**

Member of the aerobics team of the MIPT Volunteer of organization "Gift a life"