



## Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Nationality(-ies)

Date of birth

Website

**Danilova, Marina**

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

+7 916 468 52 12 (cell)

[danilovamarina15@gmail.com](mailto:danilovamarina15@gmail.com)(preferred);[danilovamarina15@mail.ru](mailto:danilovamarina15@mail.ru)

Russia

April 15, 1994

[marinadanya.github.io](https://marinadanya.github.io)

## Education and training

Date

Position

Organization

Department

GPA

Thesis

**September 2012 - July 2016**

BSc degree in Applied Math and Physics

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

Control and Applied Mathematics

4.8/5.0

Research of the method of iteratively reweighted least squares

Date

Position

Organization

Department

GPA

Thesis

**September 2016 - July 2018**

MSc degree in Applied Math and Physics

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

Control and Applied Mathematics

5.0/5.0

Non-monotone behavior of the Heavy ball method

Date

Position

Organization

Department

GPA

Thesis

**September 2016 - July 2018**

MSc degree in Information Technology and Engineering

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

Energy Systems

4.6/5.0

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

Date

Position

Organization

**September 2018 - current**

PhD in Operations research

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; combinatorial optimization

## Teaching Experience

**2016 - current:** Moscow Institute of Physics and Technology, Department of Control and Applied Mathematics, "Optimization methods"

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

**2018 - current:** Moscow Institute of Physics and Technology, Department of Innovation and High Technology, "Optimization methods"

**2019:** Moscow Institute of Physics and Technology, 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 Jyväskylä 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](https://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"