Kirill Neklyudov

Email: k.necludov@gmail.com   **LinkedIn**: linkedin.com/in/kirill-neklyudov/

GoogleScholar: link   **GitHub**: github.com/necludov

Publications

Wasserstein Quantum Monte Carlo: A Novel Approach for Solving the Quantum Many-Body Schrödinger Equation

Kirill Neklyudov, Jannes Nys, Luca Thiede, Juan Carrasquilla, Qiang Liu, Max Welling, Alireza Makhzani.

Action Matching: Learning Stochastic Dynamics from Samples

Kirill Neklyudov, Rob Brekelmans, Daniel Severo, Alireza Makhzani.

ICML 2023.

Orbital MCMC

Kirill Neklyudov, Max Welling.

AISTATS 2022 (oral).

Involutive MCMC: a Unifying Framework

Kirill Neklyudov, Max Welling, Evgenii Egorov, Dmitry Vetrov.

ICML 2020.

The Implicit Metropolis-Hastings Algorithm

Kirill Neklyudov, Evgenii Egorov, Dmitry Vetrov.

NeurIPS 2019.

Variance Networks: When Expectation Does Not Meet Your Expectations

Kirill Neklyudov, Dmitry Molchanov, Arsenii Ashukha, Dmitry Vetrov.

ICLR 2019.

Structured Bayesian Pruning via Log-Normal Multiplicative Noise

Kirill Neklyudov, Dmitry Molchanov, Arsenii Ashukha, Dmitry Vetrov.

NeurIPS 2017.

Particle Dynamics for Learning EBMs

Kirill Neklyudov, Priyank Jaini, Max Welling.

NeurIPS 2021 Workshop on Deep Generative Models (oral)

Deterministic Gibbs Sampling via Ordinary Differential Equations

Kirill Neklyudov, Roberto Bondesan, Max Welling.

Metropolis-Hastings view on variational inference and adversarial training

Kirill Neklyudov, Evgenii Egorov, Pavel Shvechikov, Dmitry Vetrov.

Reviewer experience

NeurIPS 2020, 2021 (outstanding reviewer award), 2022 (top reviewer), 2023

ICLR 2021, 2022 (highlighted reviewer)

AISTATS 2021, 2022

TMLR 2022, 2023

JMLR 2022

Research experience   **Vector Institute**   Toronto, Canada

Postdoctoral Researcher   Nov 2021 – Present
Topic: Generative Modeling, Quantum Variational Monte Carlo.

University of Amsterdam, AMLab   Amsterdam, the Netherlands
Postdoctoral Researcher   Sep 2020 – Oct 2021
Topic: deterministic Monte Carlo methods.

Samsung, AI center   Moscow, Russia
Researcher   Apr 2018 – Aug 2020
Topics: improvement of deep generative models, deep Monte Carlo methods.

Higher School of Economics, CS department   Moscow, Russia
Researcher   Feb 2018 – Aug 2020
Topic: Bayesian deep learning.

Yandex, Research   Moscow, Russia
Researcher   Apr 2017 – Jan 2018
Topic: sparsification of deep neural networks.

Industry experience   **Yandex,** Data Factory   Moscow, Russia
Data Scientist   Jul 2014 – Mar 2017
Problems: image segmentation, industrial processes optimization.
Responsibilities: problem statement, developing and evaluating predictive models, prototyping the solution.

Yandex, Data Factory   Moscow, Russia
Intern   Nov 2013 – Jun 2014
Problem: GPS tracks classification.
Responsibilities: problem statement, developing and evaluating predictive models, prototyping the solution.

Teaching experience   **Assistant lecturer**
CS Department (National Research University Higher School of Economics)
Bayesian methods in Machine Learning   Sep 2017 – Apr 2020
Responsibilities: participating in course development (assignments and lectures), evaluation of students.

Assistant lecturer
CS Department (National Research University Higher School of Economics)
Machine Learning   Sep 2016 – Dec 2018
Responsibilities: participating in course development (assignments and lectures), evaluation of students.

Tutor   Sep 2016 – Dec 2018

Math and Physics for university and high school students

Education

Higher School of Economics   Moscow, Russia
PhD in Computer Science   Sep 2016 – Nov 2020
Supervisor: Dmitry Vetrov.

Yandex School of Data Analysis   Moscow, Russia
Additional education in Data Science   Sep 2014 – Jun 2016

Moscow Institute of Physics and Technology   Moscow, Russia
MA in Applied Physics and Mathematics   Sep 2014 – Jul 2016
Supervisor: Viktor Lobachev. *GPA: 4.76 / 5.0.*

Moscow Institute of Physics and Technology   Moscow, Russia
BA in Applied Physics and Mathematics   Sep 2010 – Jul 2014
Supervisor: Viktor Lobachev. *GPA: 4.82 / 5.0.*

Talks

Wasserstein Quantum Monte Carlo   Jun 2023
Quantum-ML Workshop at Vector Institute

Introduction to Generative Modeling via Diffusion   Mar 2023
PIQuIL Group Seminar at Perimeter Institute

Action Matching   Feb 2023
Shannon's Bandwagon Seminar at Google AI

Fokker-Planck Equation   Feb 2022
Guest Lecture at University of Southern California

Langevin Dynamics for Sampling and Global Optimization   Aug 2019
Deep Bayes Summer School

Bayesian Sparsification of Deep Neural Networks   Aug 2018
Deep Bayes Summer School