# SERGEY SHUVAEV

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Ph.D. in applied mathematics and physics with a focus on computer science and neuroscience
Academic experience in applying machine-learning methods to modeling behavioral and neural data

## Experience

**Postdoctoral Fellow** 11/22-now**, Research Assistant** 7/21-10/22**, Student in Residence** 7/16-6/21,
*Koulakov Lab*, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

- Developed data-driven models of decision-making for stay-or-leave decisions (NeurIPS '20), motivation (Front Sys Neurosci '21), and social conflict (arXiv '23)
- Co-developed approaches to network compression (bioRxiv '21) and self-assembly (PNAS '19)
- Worked on the function of olfactory receptors (ICML '19) and structure of olfactory connectivity

**Research Assistant** 7/16-12/18**, Research Technician** 1/12-6/16**,**
*Enikolopov Lab*, Moscow Institute of Physics and Technology, Moscow, Russia

- Developed automatic procedures to analyze cell populations in whole-brain samples: microscopy (MethodsX '19), brain alignment (Sci Reports '22), and cell detection (Front Neuroanat '17)
- Performed microscopy and analyzed data to evaluate common impacts on adult neurogenesis: irradiation (NeuroReport '19); antidepressants, brain development, and cell migration

**Research Technician** 8/13-7/15**,** *Superconductivity Department*, Kurchatov Institute, Moscow, Russia

- Developed numerical models and worked towards experimental measurements of electro- and thermodynamics in high-current superconductive cables to pursue requirement-based design

## Education

**Ph.D., Physics and Mathematics (Biophysics),** Moscow Institute of Physics and Technology, 2022
**M.S., Applied Mathematics and Physics,** Moscow Institute of Physics and Technology, 2015, GPA 4.0
**B.S., Applied Mathematics and Physics,** Moscow Institute of Physics and Technology, 2013, GPA 4.0

## Publications

- 10+ publications, 100+ citations | scholar.google.com/citations?user=A2rXeeQAAAAJ
- 5 first-authored papers (incl. NeurIPS and PNAS); 3 co-authored papers (incl. ICML); 3 preprints

## Professional service

**Reviewer** for NeurIPS, ICLR, ICML, COSYNE

## Skills and qualifications

- Python, PyTorch, TensorFlow, Matlab, Mathematica, C, C++, git, shell, LaTeX
- Deep learning, computer vision, Bayesian statistics, sequence modeling, reinforcement learning

## Awards

- Highlighted Reviewer: ICLR, 2022; NeurIPS, 2022. *Awarded to top-5%/top-10% reviewers*
- Travel awards: CSHL; Gatsby Charitable, Burroughs Wellcome, Google DeepMind, Simons, 2020
- Swartz Fellow in Computational Neuroscience, 2016-2017. *$100k+/2yrs toward salary and travel*
- Alexandrov Scholar, 2012-2015. *Awarded to students with recent conference records & top-tier GPA*
- Abramov and Frolov Scholar, 2010-2012. *Awarded to undergraduate students with the 4.0 GPA*
- Kurchatov Award for Outstanding Research, 2013

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