GRIGORY MALINOVSKY

grigorii.malinovskii@epfl.ch
grigory-malinovsky.github.io
Lausanne, Switzerland

EDUCATION

King Abdullah University of Science and Technology (KAUST) *January 2022 – June 2026*
PhD in Applied Mathematics and Computational Sciences Thuwal, Saudi Arabia
Advisor: Peter Richtárik
Thesis: Theoretical Foundations of Communication-Efficient, Robust, and Practical Distributed and Federated Optimization

King Abdullah University of Science and Technology (KAUST) *August 2020 – December 2021*
MS in Applied Mathematics and Computational Sciences Thuwal, Saudi Arabia
Advisor: Peter Richtárik **GPA:** 3.83/4.0

Moscow Institute of Physics and Technology (MIPT) *September 2014 – July 2019*
BS in Applied Mathematics and Physics Dolgoprudny, Russia
Advisor: Boris Polyak **GPA:** 4.73/5.0
Thesis: Averaged Heavy Ball Method

RESEARCH INTERESTS

Optimization for ML, Stochastic and Adaptive Methods, Federated Learning, Privacy and Robustness

WORK EXPERIENCE

EPFL *November 2026 – Present*
Postdoctoral Researcher Lausanne, Switzerland
Optimization for Machine Learning, with Prof. Volkan Cevher (LIONS)

Samsung R&D Institute UK *April 2024 – October 2024*
Research Intern Engineer Staines, United Kingdom
Optimization Theory for LLMs

MIPT Research Group *January 2020 – July 2020*
Junior Researcher Moscow, Russia
Non-Convex Optimization

RESEARCH VISITS

Mohamed bin Zayed University of Artificial Intelligence *October 2023*
Department of Machine Learning Abu Dhabi, UAE
I worked with Samuel Horvath and Eduard Gorbunov

CISPA Helmholtz Center for Information Security *June 2022*
Saarland University Saarbrücken, Germany
Internship in the group of Sebastian Stich

Moscow Institute of Physics and Technology *June 2021 – August 2021*
Machine Intelligence Laboratory Dolgoprudny, Russia
I worked with Ilia Zharikov

King Abdullah University of Science and Technology *January 2020 – February 2020*
Visual Computing Center Thuwal, Saudi Arabia
Internship in the group of Peter Richtárik

SCHOLARSHIPS, HONORS AND AWARDS

- **Foundational AI Postdoctoral Fellowship, Cornell University**
  Cornell Ann S. Bowers College of Computing and Information Science, Department of Computer Science. Selected for the fellowship; appointment could not be initiated due to J-1 visa complications.
- **2026 CEMSE Dean's List Award** for excellent results at KAUST ($2,500 cash prize)
- **Gold Reviewer** at ICML 2026 (free registration)
- **Runner-Up for the Best Paper Award** for paper "Streamlining in the Riemannian Realm: Efficient Riemannian Optimization with Loopless Variance Reduction" at the International Conference on Computational Optimization (ICOMP 2025)
  Abu Dhabi, UAE, 2025
- **Top Reviewer** at NeurIPS 2025 (free registration)
- **2025 CEMSE Dean's List Award** for excellent results at KAUST ($2,500 cash prize)
- **Notable Reviewer** at ICLR 2025
- **Membership** in the American Mathematical Society (AMS) (one of four KAUST recipients)
- **Progress Towards PhD** Rated as **"Outstanding"** for the 2021–2025 academic years at KAUST
- **Top Reviewer Award** at NeurIPS 2024 (free registration)
- **Best Reviewer Award** at ICML 2024 (free registration)
- **2024 CEMSE Dean's List Award** for excellent results at KAUST ($2,500 cash prize)
- One of three KAUST nominees for the **Apple Scholars** in AI/ML PhD fellowship in 2023
- **Summer of Reproducibility 2023 Flower AI Award** for completing the following baseline:
  TAMUNA: Doubly Accelerated Federated Learning with Local Training, Compression, and Partial Participation
  (jointly with Ivan Agarsky, $ 2000 cash prize)
- **2023 CEMSE Dean's List Award** for excellent results at KAUST ($2,500 cash prize)
- **Top Reviewer Award** at NeurIPS 2022 (free registration)
- **2022 CEMSE Academic Excellence Award** for excellent results at KAUST ($2,500 cash prize)
- **2021 CEMSE Research Excellence Award** for excellent results at KAUST ($1,000 cash prize)
- **Dean's Award** for a few top students accepted to KAUST ($6,000 annually during 3 years)
- **Best Talk Award** at 62nd Scientific Conference at MIPT, Section "Data Analysis, Recognition and Prediction"
  Dolgoprudny, Russia, November 18–23, 2019
- **Best Poster Award** at Traditional Youth School "Control, Information and Optimization"
  Voronovo, Russia, June 17–22, 2019
- **Abramov's Fund Scholarship** for top students at MIPT
  Moscow, Russia, September 2016 – January 2017
- **Bronze Medal** at International Zhautykov Physics Olympiad
  Almaty, Kazakhstan, 2014
- **Prizewinner** at All-Russian Physics Olympiad, Final Round
  Vladivostok, Russia, 2013
- **Winner** at All-Russian Astronomy Olympiad, Region Round
  Kazan, Russia, 2013

SUPERVISION & MENTORING

I supervised or co-mentored the following students and interns on these projects:

4. **Zhirayr Tovmasyan**. Project on the analysis of the Stochastic Proximal Point method under generalized smoothness and similarity assumptions.
   Led to a paper published in the Journal of Nonlinear and Variational Analysis (2026): **Revisiting Stochastic Proximal Point Methods: Generalized Smoothness and Similarity** *arXiv:2502.03401, 2025*

3. **Michał Grudzień**. Project on compression and importance sampling in accelerated Federated Learning.
   Led to a paper accepted to ICOMP 2025 (Oral): **Improving Accelerated Federated Learning with Compression and Importance Sampling**, *arXiv:2306.03240, 2023*

2. **Michał Grudzień**. Project on partial participation in accelerated Federated Learning.
   Led to the paper accepted to AISTATS 2023: **Can 5th Generation Local Training Methods Support Client Sampling? Yes!** *arXiv:2212.14370, 2023*

1. **Abdurakhmon Sadiev**. Project on compression and Random Reshuffling in Federated Learning.
   Led to a paper accepted to NeurIPS 2024: **Don't Compress Gradients in Random Reshuffling: Compress Gradient Differences**, *arXiv:2206.07021, 2022*

TEACHING

Teaching Assistant / Seminar Instructor

- Introduction to Machine Learning Aramco Master course — *Saudi Aramco Fall 2025*
- Stochastic Gradient Descent Methods (CS 331) — *KAUST Fall 2021, Fall 2022, Spring 2024, Fall 2025*
- TAHAKOM Federated Learning course — *KAUST Fall 2023*
- Graduate Seminar (CS 398) — *KAUST Fall 2022, Spring 2023*
- Introduction to Optimization Aramco Master course — *Saudi Aramco Fall 2022, Summer 2025*
- Convex Optimization — *OZON Masters Spring 2020*
- Optimization Methods (DIHT) — *MIPT Fall 2019*
- Machine Learning (DCAM) — *MIPT Spring 2019*

PAPERS

29. **How Does Muon Work in Private Deep Learning? Scalable Differentially Private Training via Orthogonalization**
    Alexander Gaponov, Grigory Malinovsky, Egor Shulgin, Peter Richtárik
    arXiv:2610.24736, 2026

28. **Distance-Aware Muon: Adaptive Step Scaling for Normalized Optimization**
    Yury Demidovich, Abhishek Chakraborty, Grigory Malinovsky, Angelia Nedić, Peter Richtárik
    arXiv:2605.18999, 2026

27. **Communication-Efficient Gluon in Federated Learning**
    Xun Qian, Alexander Gaponov, Grigory Malinovsky, Peter Richtárik
    arXiv:2604.10689, 2026

26. **Byzantine-Robust and Differentially Private Federated Optimization under Weaker Assumptions**
Rustem Islamov, Grigory Malinovsky, Alexander Gaponov, Aurelien Lucchi, Peter Richtárik, Eduard Gorbunov
42nd Conference on Uncertainty in Artificial Intelligence, UAI 2026
arXiv:2603.23472, 2026

25. **First Provable Guarantees for Practical Private FL: Beyond Restrictive Assumptions**
Egor Shulgin, Grigory Malinovsky, Sarit Khirirat, Peter Richtárik
Tiny Titans: The next wave of On-Device Learning for Foundational Models, ICML Workshop 2025
The 17th International OPT Workshop on Optimization for Machine Learning, NeurIPS Workshop 2025
arXiv:2512.21521, 2025

24. **Parameter-Agnostic Error Feedback Enhanced With Hessian-Corrected Momentum**
Abdurakhmon Sadiev, Yury Demidovich, Grigory Malinovsky, Igor Sokolov, Sarit Khirirat, Peter Richtárik
The 17th International OPT Workshop on Optimization for Machine Learning, NeurIPS Workshop 2025
arXiv:2511.14501, 2025

23. **Revisiting Stochastic Proximal Point Methods: Generalized Smoothness and Similarity**
Zhirayr Tovmasyan, Grigory Malinovsky, Laurent Condat, Peter Richtárik
The 17th International OPT Workshop on Optimization for Machine Learning, NeurIPS Workshop 2025
Journal of Nonlinear and Variational Analysis, JNVA 2026
arXiv:2502.03401, 2025

22. **Methods with Local Steps and Random Reshuffling for Generally Smooth Non-Convex Federated Optimization**
Yury Demidovich, Petr Ostroukhov, Grigory Malinovsky, Samuel Horváth, Martin Takáč, Peter Richtárik, Eduard Gorbunov
The 13th International Conference on Learning Representations, ICLR 2025
arXiv:2412.02781, 2024

21. **Randomized Asymmetric Chain of LoRA: The First Meaningful Theoretical Framework for Low-Rank Adaptation**
Grigory Malinovsky, Umberto Michieli, Hasan Abed Al Kader Hammoud, Taha Ceritli, Hayder Elesedy, Mete Ozay, Peter Richtárik
Tiny Titans: The next wave of On-Device Learning for Foundational Models, ICML Workshop 2025
The 17th International OPT Workshop on Optimization for Machine Learning, NeurIPS Workshop 2025
arXiv:2410.08305, 2024

20. **MicroAdam: Accurate Adaptive Optimization with Low Space Overhead and Provable Convergence**
Ionut-Vlad Modoranu, Mher Safaryan, Grigory Malinovsky, Eldar Kurtic, Thomas Robert, Peter Richtárik, Dan Alistarh
38th Conference on Neural Information Processing Systems, NeurIPS 2024
arXiv:2405.15593, 2024

19. **Streamlining in the Riemannian Realm: Efficient Riemannian Optimization with Loopless Variance Reduction**
Yury Demidovich, Grigory Malinovsky, Peter Richtárik
International Conference on Computational Optimization, Oral, ICOMP 2025
arXiv:2403.06677, 2024

18. **MAST: Model-Agnostic Sparsified Training**
Yury Demidovich, Grigory Malinovsky, Egor Shulgin, Peter Richtárik
Workshop on Nonsmooth Optimization and Applications, NOPTA 2024
The 13th International Conference on Learning Representations, ICLR 2025
arXiv:2311.16086, 2023

17. **Byzantine Robustness and Partial Participation Can Be Achieved at Once: Just Clip Gradient Differences**
Grigory Malinovsky, Peter Richtárik, Samuel Horváth, Eduard Gorbunov
Privacy Regulation and Protection in Machine Learning Workshop at ICLR 2024
38th Conference on Neural Information Processing Systems, NeurIPS 2024
arXiv:2311.14127, 2023

16. **Improving Accelerated Federated Learning with Compression and Importance Sampling**
Michał Grudzień, Grigory Malinovsky, Peter Richtárik
Federated Learning and Analytics in Practice: Algorithms, Systems, Applications, and Opportunities Workshop at ICML 2023
International Conference on Computational Optimization, Oral, ICOMP 2025
arXiv:2306.03240, 2023

15. **A Guide Through the Zoo of Biased SGD**
Yury Demidovich, Grigory Malinovsky, Igor Sokolov, Peter Richtárik
37th Conference on Neural Information Processing Systems, NeurIPS 2023
arXiv:2305.16296, 2023

14. **TAMUNA: Doubly Accelerated Federated Learning with Local Training, Compression, and Partial Participation**
Laurent Condat, Ivan Agarský, Grigory Malinovsky, Peter Richtárik
International Workshop on Federated Learning in the Age of Foundation Models in Conjunction with NeurIPS 2023, FL@FM-NeurIPS'23
arXiv:2302.09832, 2023

13. **Federated Learning with Regularized Client Participation**
Grigory Malinovsky, Samuel Horváth, Konstantin Burlachenko, Peter Richtárik
Federated Learning and Analytics in Practice: Algorithms, Systems, Applications, and Opportunities Workshop at ICML 2023
arXiv:2302.03662, 2023

12. **An Optimal Algorithm for Strongly Convex Min-min Optimization**
Dmitry Kovalev, Alexander Gasnikov, Grigory Malinovsky
41st Conference on Uncertainty in Artificial Intelligence, UAI 2025
arXiv:2212.14439, 2022

11. **Can 5th Generation Local Training Methods Support Client Sampling? Yes!**
Michał Grudzień, Grigory Malinovsky, Peter Richtárik
26th International Conference on Artificial Intelligence and Statistics, AISTATS 2023
arXiv:2212.14370, 2022

10. **Minibatch Stochastic Three Points Method for Unconstrained Smooth Minimization**
Soumia Boucherouite, Grigory Malinovsky, Peter Richtárik, El Houcine Bergou
The 38th AAAI Conference on Artificial Intelligence, AAAI 2024
arXiv:2209.07883, 2022

9. **Variance Reduced ProxSkip: Algorithm, Theory and Application to Federated Learning**
Grigory Malinovsky, Kai Yi, Peter Richtárik
36th Conference on Neural Information Processing Systems, NeurIPS 2022
arXiv:2207.04338, 2022

8. **Dont́ Compress Gradients in Random Reshuffling: Compress Gradient Differences**
Abdurakhmon Sadiev, Grigory Malinovsky, Eduard Gorbunov, Igor Sokolov, Ahmed Khaled, Konstantin Burlachenko, Peter Richtárik
Federated Learning and Analytics in Practice: Algorithms, Systems, Applications, and Opportunities Workshop at ICML 2023
38th Conference on Neural Information Processing Systems, NeurIPS 2024
arXiv:2206.07021, 2022

7. **ProxSkip: Yes! Local Gradient Steps Provably Lead to Communication Acceleration! Finally!**
Konstantin Mishchenko, Grigory Malinovsky, Sebastian Stich, Peter Richtárik
39th International Conference on Machine Learning, ICML 2022
arXiv:2202.09357, 2022

6. **Server-Side Stepsizes and Sampling Without Replacement Provably Help in Federated Optimization**
Grigory Malinovsky, Konstantin Mishchenko, Peter Richtárik
4th International Workshop on Distributed Machine Learning, DistributedML 2023
NeurIPS 13th Annual Workshop on Optimization for Machine Learning, NeurIPS 2021
arXiv:2201.11066, 2022

5. **Federated Random Reshuffling with Compression and Variance Reduction**
Grigory Malinovsky, Peter Richtárik
International Workshop on Federated Learning for User Privacy and Data Confidentiality, ICML 2021
arXiv:2205.03914, 2022

4. **Averaged Heavy-Ball Method**
Marina Danilova, Grigory Malinovsky
Computer Research and Modeling, 2022, vol. 14, no. 2, pp. 277–308, Article
arXiv:2111.05430, 2021

3. **Random Reshuffling with Variance Reduction: New Analysis and Better Rates**
Grigory Malinovsky, Alibek Sailanbayev, Peter Richtárik
39th Conference on Uncertainty in Artificial Intelligence, UAI 2023
Spotlight at NeurIPS 13th Annual Workshop on Optimization for Machine Learning, NeurIPS 2021
arXiv:2104.09342, 2021

2. **Distributed Proximal Splitting Algorithms with Rates and Acceleration**
Laurent Condat, Grigory Malinovsky, Peter Richtárik
Spotlight at NeurIPS 12th Annual Workshop on Optimization for Machine Learning, NeurIPS 2020
Frontiers in Signal Processing, Section Signal Processing for Communications 2022, Article
arXiv:2010.00952, 2020

1. **From Local SGD to Local Fixed-Point Methods for Federated Learning**
Grigory Malinovsky, Dmitry Kovalev, Elnur Gasanov, Laurent Condat, Peter Richtárik
37th International Conference on Machine Learning, ICML 2020
arXiv:2004.01442, 2020

POSTERS AND TALKS

- **Talk: "An Optimal Algorithm for Strongly Convex Min-min Optimization"**
  Swiss Optimization Symposium
  Ascona, Switzerland, August 27, 2026
- **Talk: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Difference"**
  ETH ODI group seminar
  Zurich, Switzerland, August 21, 2026
- **Talk: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Difference"**
  University of Zurich group seminar
  Zurich, Switzerland, August 19, 2026
- **Poster: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Difference"**
  Rising Stars in AI Symposium 2026
  Thuwal, Saudi Arabia, February 9-11, 2026
- **Poster: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Difference"**
  Arizona State University EE Seminar
  Tempe, USA, December 8, 2025
- **Poster: "Parameter-Agnostic Error Feedback Enhanced With Hessian-Corrected Momentum"**
  The 17th International Workshop on Optimization for Machine Learning (Workshop at NeurIPS 2025)
  San Diego, USA, December 6, 2025
- **Poster: "First Provable Guarantees for Practical Private FL: Beyond Restrictive Assumptions"**
  The 17th International Workshop on Optimization for Machine Learning (Workshop at NeurIPS 2025)
  San Diego, USA, December 6, 2025
- **Poster: "Revisiting Stochastic Proximal Point Methods: Generalized Smoothness and Similarity"**
  The 17th International Workshop on Optimization for Machine Learning (Workshop at NeurIPS 2025)
  San Diego, USA, December 6, 2025
- **Poster: "Toward the First Optimization Framework for Low-Rank Adaptation "**
  The 17th International Workshop on Optimization for Machine Learning (Workshop at NeurIPS 2025)
  San Diego, USA, December 6, 2025
- **Talk: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Difference"**
  USC CS Seminar
  Los Angeles, USA, December 1, 2025
- **Poster: "Randomized Asymmetric Chain of LoRA: The First Meaningful Theoretical Framework for Low-Rank Adaptation"**
  KAUST Workshop on Distributed Training in the Era of Large Models
  Thuwal, Saudi Arabia, November 24, 2025
- **Talk: "Randomized Asymmetric Chain of LoRA: The First Meaningful Theoretical Framework for Low-Rank Adaptation"**
  MBZUAI Stats seminar *Abu Dhabi, UAE, October 21, 2025*

- **Poster and Talk: "Streamlining in the Riemannian Realm: Efficient Riemannian Optimization with Loopless Variance Reduction"**
  International Conference on Computational Optimization (ICOMP 2025)
  Abu Dhabi, UAE, October 17, 2025
- **Poster and Talk:"Improving Accelerated Federated Learning with Compression and Importance Sampling"**
  International Conference on Computational Optimization (ICOMP 2025)
  Abu Dhabi, UAE, October 17, 2025
- **Poster: "Randomized Asymmetric Chain of LoRA: The First Meaningful Theoretical Framework for Low-Rank Adaptation"**
  Tiny Titans: The next wave of On-Device Learning for Foundational Models (Workshop at ICML 2025)
  Vancouver, Canada, July 18, 2025
- **Poster: "First Provable Guarantees for Practical Private FL: Beyond Restrictive Assumptions"**
  Tiny Titans: The next wave of On-Device Learning for Foundational Models (Workshop at ICML 2025)
  Vancouver, Canada, July 18, 2025
- **Poster: "Methods with Local Steps and Random Reshuffling for Generally Smooth Non-Convex Federated Optimization"**
  13th International Conference on Learning Representations (ICLR 2025)
  Singapore, April 24-28, 2025
- **Poster: "MAST: Model-Agnostic Sparsified Training"**
  13th International Conference on Learning Representations (ICLR 2025)
  Singapore, April 24-28, 2025
- **Poster: "MicroAdam: Accurate Adaptive Optimization with Low Space Overhead and Provable Convergence"**
  Rising Stars in AI Symposium 2025
  Thuwal, Saudi Arabia April 7-11, 2025
- **Poster: "Don't Compress Gradients in Random Reshuffling: Compress Gradient Differences"**
  38th Annual Conference on Neural Information Processing Systems (NeurIPS 2024)
  Vancouver, Canada, December 10-15, 2024
- **Poster: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Differences"**
  38th Annual Conference on Neural Information Processing Systems (NeurIPS 2024)
  Vancouver, Canada, December 10-15, 2024
- **Poster: "MicroAdam: Accurate Adaptive Optimization with Low Space Overhead and Provable Convergence"**
  38th Annual Conference on Neural Information Processing Systems (NeurIPS 2024)
  Vancouver, Canada, December 10-15, 2024
- **Talk: "Introduction to Federated Optimization"**
  Samsung AI Reading Club
  Staines, United Kingdom, July 30, 2024
- **Talk: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Differences"**
  Federated Learning One World Seminar (FLOW)
  Online, March 27, 2024

- **Poster: "Byzantine Robustness and Partial Participation Can Be Achieved Simultaneously: Just Clip Gradient Differences"**
  Rising Stars in AI Symposium 2024 at KAUST
  Thuwal, Saudi Arabia, February 21, 2024

- **Talk: "Server-side stepsizes and sampling without replacement provably help in federated optimization"**
  4th International Workshop on Distributed Machine Learning
  Paris, France, December 8, 2023

- **Poster: Random reshuffling with variance reduction: New analysis and better rates**
  39th Conference on Uncertainty in Artificial Intelligence
  Online, July 31 – August 4, 2023,

- **Talk: "Can 5th Generation Local Training Methods Support Client Sampling? Yes!"**
  Third International Conference Mathematics in Armenia: Advances and Perspectives
  Yerevan, Armenia, July 2–8, 2023

- **Talk: "ProxSkip and its Variations: 5th Generation of Local Training Methods in Federated Learning"**
  Google Research Seminar (invited by Zachary Charles)
  Online, June 8, 2023

- **Poster: "Can 5th Generation Local Training Methods Support Client Sampling? Yes!"**
  26th International Conference on Artificial Intelligence and Statistics
  Valencia, Spain, April 25–27, 2023

- **Poster: "Can 5th Generation Local Training Methods Support Client Sampling? Yes!"**
  Rising Stars in AI Symposium 2023 at KAUST
  Thuwal, Saudi Arabia, February 19, 2023

- **Talk: "On 5th Generation of Local Training Methods in Federated Learning"**
  MIPT Intelligent Systems Seminar
  Online, February 9, 2023

- **Talk: "ProxSkip: Breaking the Communication Complexity Barrier of Local Gradient Methods"**
  15th Viennese Conference on Optimal Control and Dynamic Games 2022
  Vienna, Austria, July 12–15, 2022

- **Talk: "ProxSkip: Yes! Local Gradient Steps Provably Lead to Communication Acceleration! Finally!"**
  EPFL Machine Learning and Optimization Laboratory Seminar
  Lausanne, Switzerland, July 3, 2022

- **Talk: "ProxSkip: Yes! Local Gradient Steps Provably Lead to Communication Acceleration! Finally!"**
  Weierstrass Institute for Applied Analysis and Stochastics
  Stochastic Algorithms and Nonparametric Statistics group Seminar
  Online, June 21, 2022

- **Talk: "ProxSkip: Yes! Local Gradient Steps Provably Lead to Communication Acceleration! Finally!"**
  CISPA Helmholtz Center for Information Security Seminar
  Saarbrücken, Germany, June 21, 2022

- **Talk: "ProxSkip: Yes! Local Gradient Steps Provably Lead to Communication Acceleration!"**
  UCL CORE (Yurii Nesterov's group) Optimization Seminar
  Louvain-la-Neuve, Belgium, June 1, 2022

- **Talk: "ProxSkip: Breaking the Communication Complexity Barrier of Local Gradient Methods"**
  All-Russian Optimization Seminar
  Online, April 20, 2022 [Video]
- **Talk: "Server-Side Stepsizes and Sampling Without Replacement Provably Help in Federated Optimization"**
  Federated Learning One World Seminar (FLOW)
  Online, April 6, 2022 [Video]
- **Talk: "ProxSkip: Breaking the Communication Complexity Barrier of Local Gradient Methods"**
  Rising Stars in AI Symposium 2022 at KAUST
  Thuwal, Saudi Arabia, March 13–15, 2022
- **Poster and Talk: "Better Linear Rates for SGD with Data Shuffling"**
  International OPT Workshop on Optimization for Machine Learning, NeurIPS 2021
  Online, December 13, 2021
- **Poster: "On Server-Side Stepsizes in Federated Optimization: Theory Explaining the Heuristics"**
  International OPT Workshop on Optimization for Machine Learning, NeurIPS 2021
  Online, December 13, 2021
- **Poster: "Federated Random Reshuffling with Compression and Variance Reduction"**
  International Workshop on Federated Learning for User Privacy and Data Confidentiality, ICML 2021
  Online, July 24, 2021
- **Poster and Talk: "Random Reshuffling with Variance Reduction New Analysis and Better Rates"**
  Conference "Optimization Without Borders"
  Sochi, Russia, July 12–18, 2021
- **Poster: "Random Reshuffling with Variance Reduction New Analysis and Better Rates"**
  Traditional Youth School "Control, Information and Optimization"
  Voronovo, Russia, June 10–17, 2021
- **Talk: "Random Reshuffling with Variance Reduction New Analysis and Better Rates"**
  KAUST Conference on Artificial Intelligence 2021
  Thuwal, Saudi Arabia, April 28–29, 2021 [Video]
- **Talk: "Determination of Data Complexity Using a Universal Approximating Model"**
  Mathematical Methods for Pattern Recognition: the 19th Russian National Conference with International Participation
  Moscow, Russia, November 26–29, 2019 [Book of abstracts]
- **Talk: "Averaged Heavy Ball Method"**
  62nd Scientific Conference at MIPT, Section "Data Analysis, Recognition and Prediction"
  Dolgoprudny, Russia, November 18–23, 2019
- **Poster: "Averaged Heavy Ball Method"**
  Traditional Youth School "Control, Information and Optimization"
  Voronovo, Russia, June 17–22, 2019

SKILLS

- Languages: Russian (native), English (fluent)
- Programming: Python, C, SQL Server, MATLAB (basic), R (basic)
- Python libraries: NumPy, SciPy, PyTorch, Matplotlib, SciKit-Learn, Pandas
- Software: Git, LaTeX, Microsoft Office

ACADEMIC SERVICE

Reviewer

- 43rd International Conference on Machine Learning (Gold Reviewer Award), ICML 2026
- 39th Conference on Neural Information Processing Systems (Top Reviewer Award), NeurIPS 2025
- 42nd International Conference on Machine Learning, ICML 2025
- The Thirteenth International Conference on Learning Representations (Notable Reviewer), ICLR 2025
- 38th Conference on Neural Information Processing Systems (Top Reviewer Award), NeurIPS 2024
- Transactions on Machine Learning Research
- 41st International Conference on Machine Learning (Best Reviewer Award), ICML 2024
- 12th International Conference on Learning Representations, ICLR 2024
- 27th International Conference on Artificial Intelligence and Statistics, AISTATS 2024
- IEEE Transactions on Automatic Control
- 40th International Conference on Machine Learning, ICML 2023
- 11th International Conference on Learning Representations, ICLR 2023
- 26th International Conference on Artificial Intelligence and Statistics, AISTATS 2023
- 36th Conference on Neural Information Processing Systems (Top Reviewer Award), NeurIPS 2022
- 39th International Conference on Machine Learning, ICML 2022
- 25th International Conference on Artificial Intelligence and Statistics, AISTATS 2022
- 10th International Conference on Learning Representations, ICLR 2022
- 38th International Conference on Machine Learning, ICML 2021
- 35th Conference on Neural Information Processing Systems, NeurIPS 2021

Program Committee Member

- 2nd IEEE International Conference on Federated Learning Technologies and Applications, FLTA 2024
- International Workshop on Federated Learning and Analytics in Practice: Algorithms, Systems, Applications, and Opportunities Workshop, ICML 2023
- International Workshop on Federated Learning: Recent Advances and New Challenges, NeurIPS 2022
- International Workshop on Trustworthy Federated Learning, IJCAI 2022
- International Workshop on Trustable, Verifiable and Auditable Federated Learning, AAAI 2022
- International Workshop on Federated Learning for User Privacy and Data Confidentiality, ICML 2021

SUMMER SCHOOLS

Participant of Summer School "Statistics and Learning Theory"
Aghveran, Armenia, July 12 – 19, 2026

Participant of Summer School "Statistics and Learning Theory"
Tsaghkadzor, Armenia, July 9–15, 2023

Participant of Traditional Youth School "Control, Information and Optimization"
Voronovo, Russia, June 10–17, 2021

Participant of Traditional Youth School "Control, Information and Optimization"
Voronovo, Russia, June 17–22, 2019

EXTRACURRICULAR ACTIVITIES

- Organizer of the OPT ML group Seminar *January 2022 – December 2022*
- Activist of academic department in Student Council *January 2019 – January 2020*
  Processing students' feedback on courses

HOBBIES

fitness, basketball, drums, piano