Artavazd Maranjyan —
List of Publications and Awards

✉ arto.maranjyan@gmail.com • 🌐 artomaranjyan.github.io

Publications

11. **Ringleader ASGD: The First Asynchronous SGD with Optimal Time Complexity under Data Heterogeneity**
Artavazd Maranjyan, Peter Richtárik
arXiv:2509.22860, 2025
Submitted to ICLR 2026

10. **BiCoLoR: Communication-Efficient Optimization with Bidirectional Compression and Local Training**
Laurent Condat, Artavazd Maranjyan, Peter Richtárik
Submitted to ICLR 2026

9. **ATA: Adaptive Task Allocation for Efficient Resource Management in Distributed Machine Learning**
Artavazd Maranjyan, El Mehdi Saad, Peter Richtárik, Francesco Orabona
ICML 2025: Forty-Second International Conference on Machine Learning

8. **Ringmaster ASGD: The First Asynchronous SGD with Optimal Time Complexity**
Artavazd Maranjyan, Alexander Tyurin, Peter Richtárik
ICML 2025: Forty-Second International Conference on Machine Learning

7. **MindFlayer SGD: Efficient Parallel SGD in the Presence of Heterogeneous and Random Worker Compute Times**
Artavazd Maranjyan, Omar Shaikh Omar, Peter Richtárik
UAI 2025: The 41st Conference on Uncertainty in Artificial Intelligence
OPT 2024: Optimization for Machine Learning (NeurIPS workshop)
Oral presentation (top 5% of 107 submissions)

6. **GradSkip: Communication-Accelerated Local Gradient Methods with Better Computational Complexity**
Artavazd Maranjyan, Mher Safaryan, Peter Richtárik
TMLR 2025: Transactions on Machine Learning Research

5. **LoCoDL: Communication-Efficient Distributed Learning with Local Training and Compression**
Laurent Condat, Artavazd Maranjyan, Peter Richtárik
ICLR 2025: The Thirteenth International Conference on Learning Representations
Spotlight presentation (top 5.1% of the submitted papers)

4. **Differentially Private Random Block Coordinate Descent**
Artavazd Maranjyan, Abdurakhmon Sadiev, Peter Richtárik
OPT 2024: Optimization for Machine Learning (NeurIPS workshop)

3. **Menshov-type theorem for divergence sets of sequences of localized operators**
Martin Grigoryan, Anna Kamont, Artavazd Maranjyan
Journal of Contemporary Mathematical Analysis, vol. 58, no. 2, pp. 81-92, 2023

2. **On the divergence of Fourier series in the general Haar system**
Martin Grigoryan, Artavazd Maranjyan
Armenian Journal of Mathematics, vol. 13, pp. 1-10, 2021

1. **On the unconditional convergence of Faber-Schauder series in L^1**
Tigran Grigoryan, Artavazd Maranjyan
Proceedings of the YSU A: Physical and Mathematical Sciences, vol. 55, no. 1 (254), pp. 12-19, 2021

Awards

CEMSE Dean's List Award
King Abdullah University of Science and Technology (KAUST) *May 2025*
Awarded for excellent academic and research performance ($2,500 prize)

Dean's Award
King Abdullah University of Science and Technology (KAUST) *September 2023*
Awarded to a few top students accepted to KAUST ($6,000 annually for 3 years)

Outstanding Final Project Award
Yerevan State University *May 2021*
Recognized for the Bachelor's thesis (awarded to 6 students among 250+ students)