

Publication list of Tianyu Wang

- [1] **Tianyu Wang*** and Yasong Feng, “Convergence rates of zeroth order gradient descent for Łojasiewicz functions,” *INFORMS Journal on Computing*, 2024. DOI: [10.1287/ijoc.2023.0247](https://doi.org/10.1287/ijoc.2023.0247).
- [2] **Tianyu Wang***, Zicheng Wang, and Jiajia Yu, “Zeroth-order low-rank hessian estimation via matrix recovery,” Feb. 2024. arXiv: [2402.05385](https://arxiv.org/abs/2402.05385) [[math.OC](#)].
- [3] Yasong Feng, Zengfeng Huang*, and **Tianyu Wang***, “Lipschitz bandits with batched feedback,” *IEEE Transactions on Information Theory*, vol. 70, no. 3, pp. 2154–2176, 2024, (short version in NeurIPS2022).
- [4] Yu Liu, Yunlu Shu, and **Tianyu Wang***, “Batched stochastic bandit for nondegenerate functions,” May 2024. arXiv: [2405.05733](https://arxiv.org/abs/2405.05733) [[stat.ML](#)].
- [5] Chuying Han, Yasong Feng, and **Tianyu Wang***, “From random search to bandit learning in metric measure spaces,” May 2023. arXiv: [2305.11509](https://arxiv.org/abs/2305.11509) [[cs.LG](#)].
- [6] Yasong Feng, Weijian Luo, Yimin Huang*, and **Tianyu Wang***, “A lipschitz bandits approach for continuous HyperParameter optimization,” Feb. 2023. arXiv: [2302.01539](https://arxiv.org/abs/2302.01539) [[cs.LG](#)].
- [7] Weibin Peng and **Tianyu Wang***, “The Nesterov-Spokoiny acceleration achieves strict $o(1/k^2)$ convergence,” Aug. 2023. arXiv: [2308.14314](https://arxiv.org/abs/2308.14314) [[math.OC](#)].
- [8] Yasong Feng, Yifan Jiang, **Tianyu Wang***, and Zhiliang Ying, “The anytime convergence of stochastic gradient descent with momentum: From a continuous-time perspective,” Oct. 2023. arXiv: [2310.19598](https://arxiv.org/abs/2310.19598) [[math.OC](#)].
- [9] Yasong Feng and **Tianyu Wang***, “Stochastic zeroth-order gradient and Hessian estimators: variance reduction and refined bias bounds,” *Information and Inference: A Journal of the IMA*, vol. 12, no. 3, May 2023.
- [10] **Tianyu Wang***, “On sharp stochastic zeroth-order Hessian estimators over Riemannian manifolds,” *Information and Inference: A Journal of the IMA*, vol. 12, no. 2, pp. 787–813, Oct. 2022.
- [11] Yasong Feng, Zengfeng Huang*, and **Tianyu Wang***, “Lipschitz bandits with batched feedback,” in *Advances in Neural Information Processing Systems*, vol. 35, 2022, pp. 19 836–19 848, (Spotlight presentation, long version in IEEE Trans. Inf. Theory).
- [12] **Tianyu Wang**, Marco Morucci, M. Usaid Awan, Yameng Liu, Sudeepa Roy, Cynthia Rudin*, and Alexander Volfovsky, “FLAME: A Fast Large-scale Almost Matching Exactly Approach to Causal Inference,” *Journal of Machine Learning Research*, vol. 22, no. 31, pp. 1–41, 2021.
- [13] Sean Sinclair, **Tianyu Wang**, Gauri Jain, Siddhartha Banerjee*, and Christina Yu*, “Adaptive Discretization for Model-Based Reinforcement Learning,” in *Advances in Neural Information Processing Systems*, vol. 33, 2020, pp. 3858–3871.
- [14] **Tianyu Wang**, Weicheng Ye, Dawei Geng, and Cynthia Rudin*, “Towards Practical Lipschitz Bandits,” in *Proceedings of the 2020 ACM-IMS on Foundations of Data Science Conference*, ser. FODS ’20, Association for Computing Machinery, 2020, pp. 129–138.
- [15] **Tianyu Wang*** and Cynthia Rudin, “Bandits for BMO Functions,” in *Proceedings of the 37th International Conference on Machine Learning*, ser. Proceedings of Machine Learning Research, vol. 119, 13–18 Jul 2020, pp. 9996–10 006.