1. Lin, Shiyun, et al. "Personalized Federated Learning towards Communication Efficiency, Robustness and Fairness." *Advances in Neural Information Processing Systems* (2022).
2. Li, Xiao, and Andre Milzarek. "A Unified Convergence Theorem for Stochastic Optimization Methods." *Advances in Neural Information Processing Systems* (2022).
3. Jiang, Jiawei, et al. "VF-PS: How to Select Important Participants in Vertical Federated Learning, Efficiently and Securely?." *Advances in Neural Information Processing Systems*. 2022.
4. Liang, Jiadong, et al. "Asymptotic Behaviors of Projected Stochastic Approximation: A Jump Diffusion Perspective." *Advances in Neural Information Processing Systems* (2022).
5. Zhang, Xu, Zhenyuan Yuan, and Minghui Zhu. "Byzantine-tolerant federated Gaussian process regression for streaming data." *Advances in Neural Information Processing Systems* (2022).
6. Murata, Tomoya, and Taiji Suzuki. "Escaping Saddle Points with Bias-Variance Reduced Local Perturbed SGD for Communication Efficient Nonconvex Distributed Learning." *Advances in Neural Information Processing Systems* (2022).
7. Ding, Yucheng, et al. "Federated Submodel Optimization for Hot and Cold Data Features." *Advances in Neural Information Processing Systems* (2022).
8. Chen, Chen, et al. "CalFAT: Calibrated Federated Adversarial Training with Label Skewness." *Advances in Neural Information Processing Systems* (2022).
9. Kotelevskii, Nikita, et al. "FedPop: A Bayesian Approach for Personalised Federated Learning."  *Advances in Neural Information Processing Systems* (2022).
10. Diao, Enmao, Jie Ding, and Vahid Tarokh. "SemiFL: Semi-supervised federated learning for unlabeled clients with alternate training." *Advances in Neural Information Processing Systems*. 2022.
11. Mei, Yiqun, et al. "Resource-Adaptive Federated Learning with All-In-One Neural Composition." *Advances in Neural Information Processing Systems*. 2022.
12. Even, Mathieu, Laurent Massoulié, and Kevin Scaman. "On Sample Optimality in Personalized Collaborative and Federated Learning." *NeurIPS 2022-36th Conference on Neural Information Processing System*. 2022.
13. Marchand, Tanguy, et al. "SecureFedYJ: a safe feature Gaussianization protocol for Federated Learning." *Advances in Neural Information Processing Systems*. 2022.
14. Li, Zhize, et al. "SoteriaFL: A unified framework for private federated learning with communication compression." *Advances in Neural Information Processing Systems*. 2022.
15. Beznosikov, Aleksandr, et al. "Distributed methods with compressed communication for solving variational inequalities, with theoretical guarantees." *Advances in Neural Information Processing Systems*. 2022.
16. Duchi, John, et al. "Subspace Recovery from Heterogeneous Data with Non-isotropic Noise." *Advances in Neural Information Processing Systems*. 2022.
17. Su, Lili, Jiaming Xu, and Pengkun Yang. "Global convergence of federated learning for mixed regression." *Advances in Neural Information Processing Systems*. 2022.
18. Yang, Haibo, et al. "SAGDA: Achieving $\mathcal {O}(\epsilon^{-2}) $ Communication Complexity in Federated Min-Max Learning." *Advances in Neural Information Processing Systems*. 2022.
19. Yang, Haibo, Peiwen Qiu, and Jia Liu. "Taming Fat-Tailed (" Heavier-Tailed''with Potentially Infinite Variance) Noise in Federated Learning."  *Advances in Neural Information Processing Systems*. 2022.
20. Li, Chuanhao, and Hongning Wang. "Communication Efficient Federated Learning for Generalized Linear Bandits." *Advances in Neural Information Processing Systems*. 2022.
21. Chen, Daoyuan, et al. "pFL-Bench: A Comprehensive Benchmark for Personalized Federated Learning." *Advances in Neural Information Processing Systems*. 2022.
22. Yu, Yaodong, et al. "TCT: Convexifying federated learning using bootstrapped neural tangent kernels." *Advances in Neural Information Processing Systems*. 2022.
23. Lee, Gihun, et al. "Preservation of the Global Knowledge by Not-True Distillation in Federated Learning." *Advances in Neural Information Processing Systems*. 2022.
24. Wu, Zhaomin, Qinbin Li, and Bingsheng He. "A Coupled Design of Exploiting Record Similarity for Practical Vertical Federated Learning." *Advances in Neural Information Processing Systems*. 2022.
25. Zhang, Jie, et al. "DENSE: Data-Free One-Shot Federated Learning." *Advances in Neural Information Processing Systems*. 2022.
26. Shao, Jiawei, et al. "Dres-fl: Dropout-resilient secure federated learning for non-iid clients via secret data sharing." *Advances in Neural Information Processing Systems*. 2022.
27. Yang, Shuoguang, Xuezhou Zhang, and Mengdi Wang. "Decentralized gossip-based stochastic bilevel optimization over communication networks."  *Advances in Neural Information Processing Systems*. 2022.
28. Condat, Laurent, Kai Yi, and Peter Richtárik. "EF-BV: A Unified Theory of Error Feedback and Variance Reduction Mechanisms for Biased and Unbiased Compression in Distributed Optimization." *Advances in Neural Information Processing Systems*. 2022.
29. Huang, Lingxiao, et al. "Coresets for Vertical Federated Learning: Regularized Linear Regression and $ K $-Means Clustering."  *Advances in Neural Information Processing Systems*. 2022.
30. Nguyen, A. Tuan, Philip Torr, and Ser-Nam Lim. "FedSR: A Simple and Effective Domain Generalization Method for Federated Learning." *Advances in Neural Information Processing Systems*. 2022.
31. Collins, Liam, et al. "FedAvg with Fine Tuning: Local Updates Lead to Representation Learning." *Advances in Neural Information Processing Systems*. 2022.
32. Tan, Yue, et al. "Federated learning from pre-trained models: A contrastive learning approach." *Advances in Neural Information Processing Systems*. 2022.
33. Ghari, Pouya M., and Yanning Shen. "Personalized Online Federated Learning with Multiple Kernels." *Advances in Neural Information Processing Systems*. 2022.
34. Dimitrov, Dimitar I., et al. "LAMP: Extracting Text from Gradients with Language Model Priors."  *Advances in Neural Information Processing Systems*. 2022.
35. Sun, Zhenyu, and Ermin Wei. "A Communication-efficient Algorithm with Linear Convergence for Federated Minimax Learning." *Advances in Neural Information Processing Systems*. 2022.
36. Jeong, Wonyong, and Sung Ju Hwang. "Factorized-FL: Personalized Federated Learning with Parameter Factorization & Similarity Matching." *Advances in Neural Information Processing Systems*. 2022.
37. Li, Henger, Xiaolin Sun, and Zizhan Zheng. "Learning to Attack Federated Learning: A Model-based Reinforcement Learning Attack Framework." *Advances in Neural Information Processing Systems*. 2022.
38. Qi, Tao, et al. "FairVFL: A Fair Vertical Federated Learning Framework with Contrastive Adversarial Learning."  *Advances in Neural Information Processing Systems*. 2022.
39. Wang, Shiqiang, and Mingyue Ji. "A Unified Analysis of Federated Learning with Arbitrary Client Participation." *Advances in Neural Information Processing Systems*. 2022.
40. Vo, Thanh Vinh, et al. "An Adaptive Kernel Approach to Federated Learning of Heterogeneous Causal Effects." *Advances in Neural Information Processing Systems*. 2022.
41. He, Jiafan, et al. "A Simple and Provably Efficient Algorithm for Asynchronous Federated Contextual Linear Bandits." *Advances in Neural Information Processing Systems*. 2022.
42. Terrail, Jean Ogier du, et al. "FLamby: Datasets and Benchmarks for Cross-Silo Federated Learning in Realistic Healthcare Settings."  *Advances in Neural Information Processing Systems*. 2022.
43. Song, Congzheng, Filip Granqvist, and Kunal Talwar. "FLAIR: Federated Learning Annotated Image Repository." *Advances in Neural Information Processing Systems*. 2022.
44. Alam, Samiul, et al. "FedRolex: Model-Heterogeneous Federated Learning with Rolling Sub-Model Extraction."  *Advances in Neural Information Processing Systems*. 2022.
45. Sadiev, Abdurakhmon, Dmitry Kovalev, and Peter Richtárik. "Communication acceleration of local gradient methods via an accelerated primal-dual algorithm with inexact prox."  *Advances in Neural Information Processing Systems*. 2022.
46. Denissov, Sergey, et al. "Improved differential privacy for sgd via optimal private linear operators on adaptive streams." *Advances in neural information processing systems* (2022).
47. Liu, Ziyu, et al. "On privacy and personalization in cross-silo federated learning."  *Advances in neural information processing systems* (2022).
48. Chaudhury, Bhaskar Ray, et al. "Fairness in Federated Learning via Core-Stability."  *Advances in neural information processing systems* (2022).
49. Chen, Huili, et al. "Self-Aware Personalized Federated Learning." *Advances in neural information processing systems* (2022).
50. Gupta, Samyak, et al. "Recovering Private Text in Federated Learning of Language Models." *Advances in neural information processing systems* (2022).
51. Yuan, Xiao-Tong, and Ping Li. "On convergence of FedProx: Local dissimilarity invariant bounds, non-smoothness and beyond." *Advances in neural information processing systems* (2022).
52. Koloskova, Anastasia, Sebastian U. Stich, and Martin Jaggi. "Sharper convergence guarantees for asynchronous sgd for distributed and federated learning." *Advances in neural information processing systems* (2022).
53. Malinovsky, Grigory, Kai Yi, and Peter Richtárik. "Variance reduced proxskip: Algorithm, theory and application to federated learning." *Advances in neural information processing systems* (2022).
54. Zhao, Haoyu, et al. "BEER: Fast $ O (1/T) $ Rate for Decentralized Nonconvex Optimization with Communication Compression." *Advances in neural information processing systems* (2022).