Weekly Report KARIMI-2021-12-03

My work this week has mainly been towards

1. Fed-LAMB Arxiv v2

2. AISTATS and ALT Rebuttal

3. FeaBox paper

1 Fed-LAMB (more experiments)

We included the Adaptive Federated Optimization of [1] to our several experiments. Done for single GPU and currently implementing the new baseline in the distributed settings.
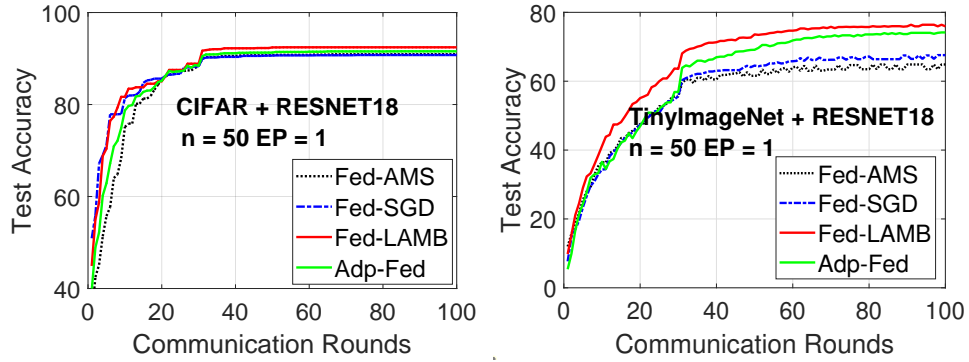

Figure 1: **non-i.i.d. data setting.** Test accuracy on CIFAR-10 + ResNet-18 and TinyImagenet + ResNet-18 with 50 clients.

Table 1: Test Accuracy on ResNet-18 Network.

	Fed-SGD	Fed-AMS	Adp-Fed	**eff-EBM**
CIFAR-10	90.75 ± 0.48	90.93 ± 0.22	91.57 ± 0.38	92.44 ± 0.53
TinyImageNet	67.58 ± 0.21	64.86 ± 0.83	74.17 ± 0.43	76.00 ± 0.26

2 AISTATS and ALT Rebuttal

Please refer to the Overleaf projects for the rebuttal

References

[1] Sashank Reddi, Zachary Charles, Manzil Zaheer, Zachary Garrett, Keith Rush, Jakub Konečný, Sanjiv Kumar, and H Brendan McMahan. Adaptive federated optimization. *arXiv preprint arXiv:2003.00295*, 2020.