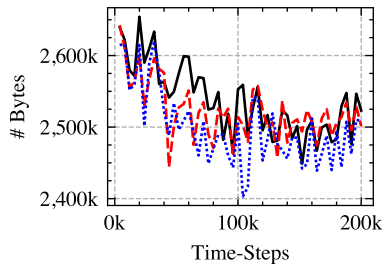


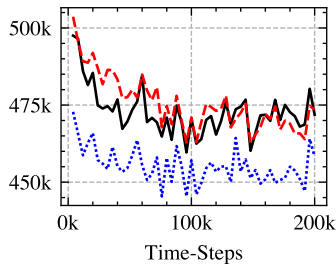
Weighted Total Communication Cost

— Federated - - - Centralized Decentralized

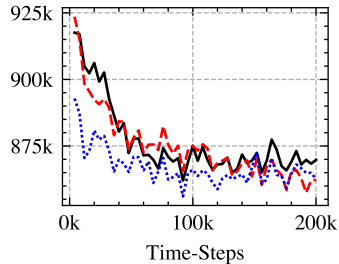
Double (Ranked)



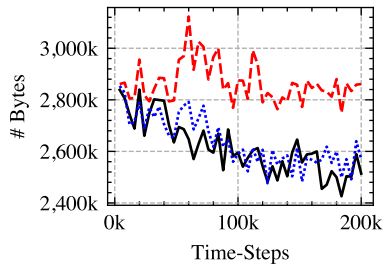
Grid-3x3 (Ranked)



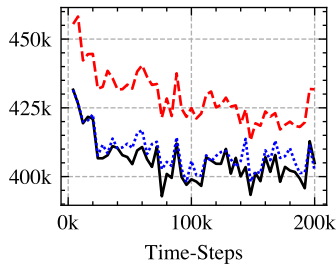
Grid-5x5 (Ranked)



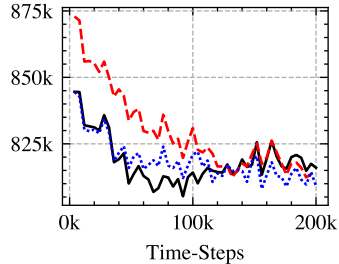
Double (Unranked)



Grid-3x3 (Unranked)



Grid-5x5 (Unranked)



(a)

(b)

(c)