



— SignSGD Lévy noise  
 — SignSGD normal noise  
 — SignSGD no noise

—  $(10, n^{-1.1})$ -DP-SignSGD no noise  
 —  $(10, n^{-1.1})$ -DP-SignSGD normal noise  
 —  $(10, n^{-1.1})$ -DP-SignSGD Lévy noise

—  $(10, n^{-1.1})$ -DP-SGD no noise  
 —  $(10, n^{-1.1})$ -DP-SGD normal noise  
 —  $(10, n^{-1.1})$ -DP-SGD Lévy noise