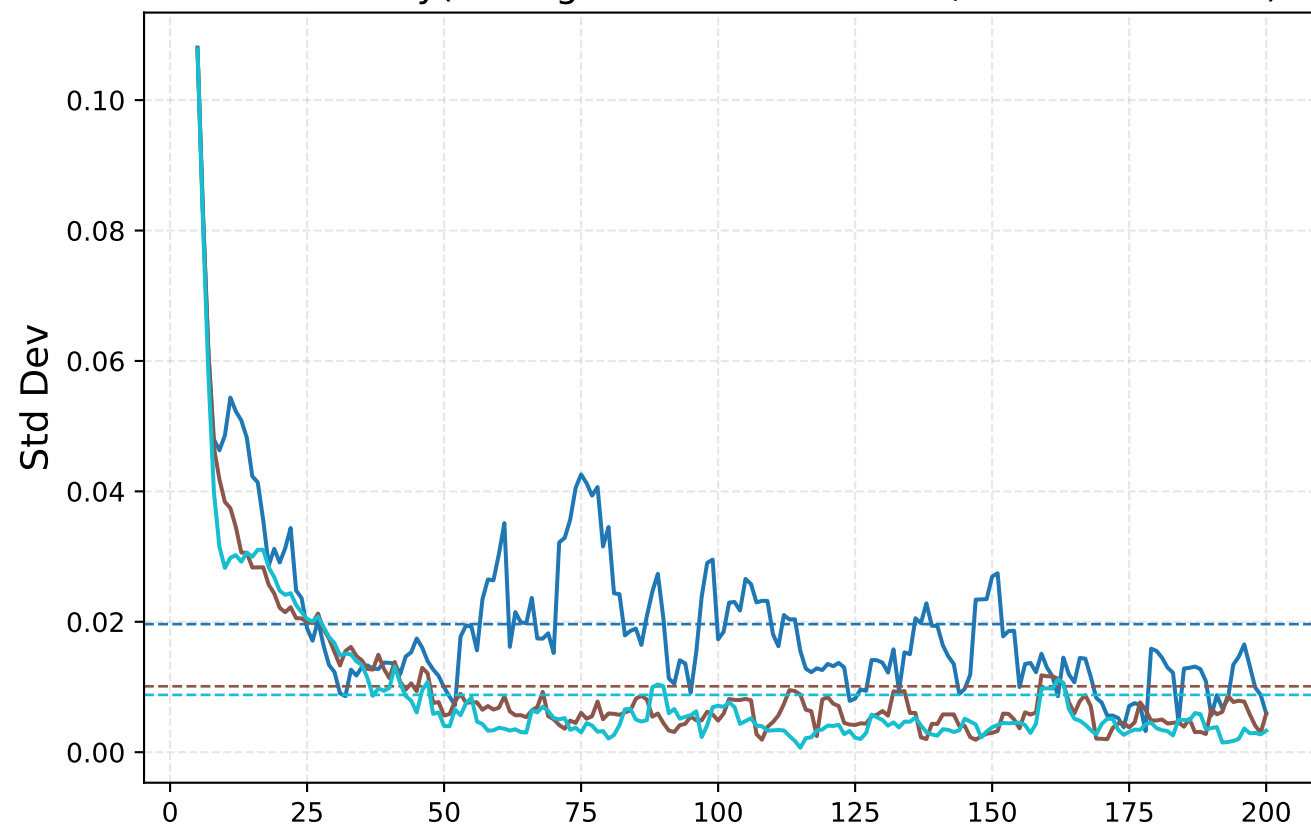
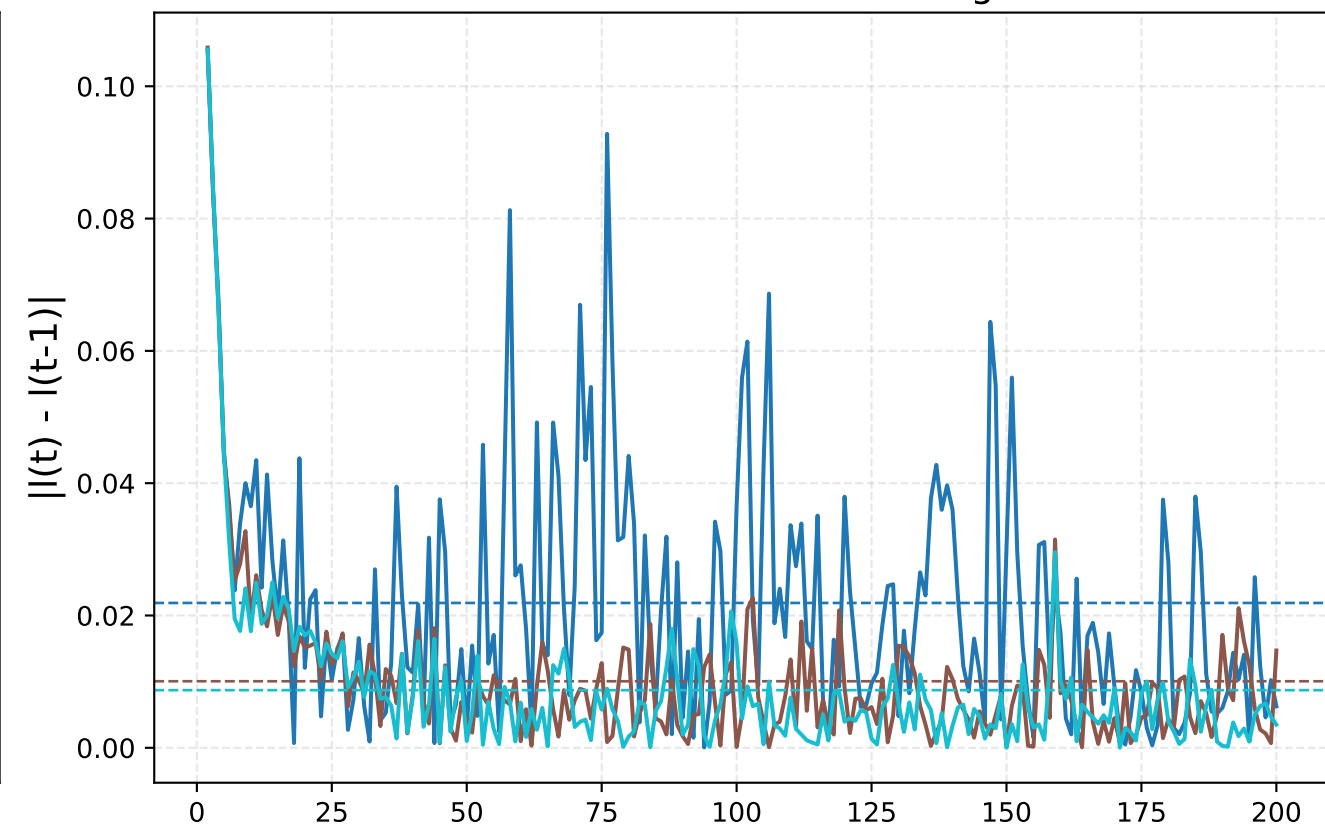


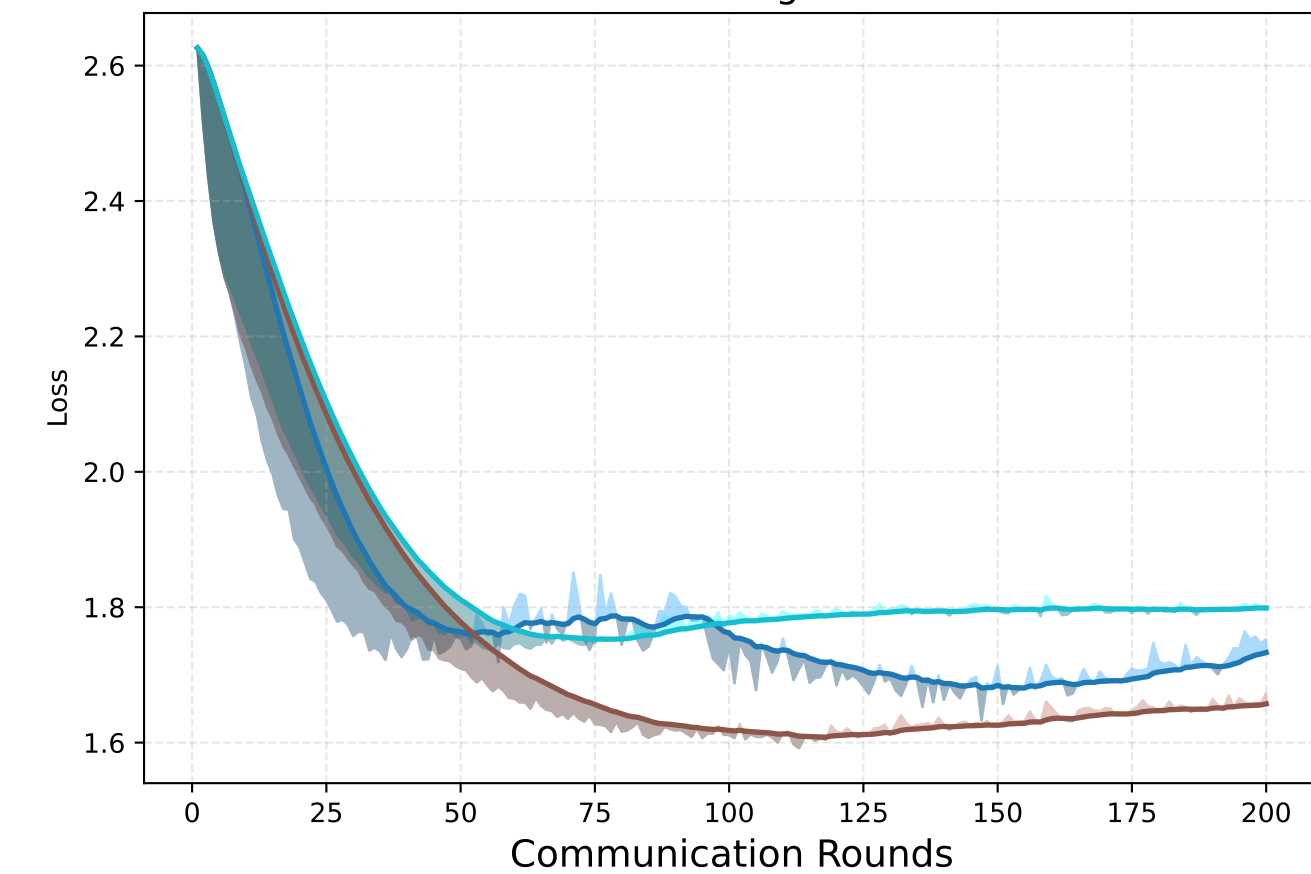
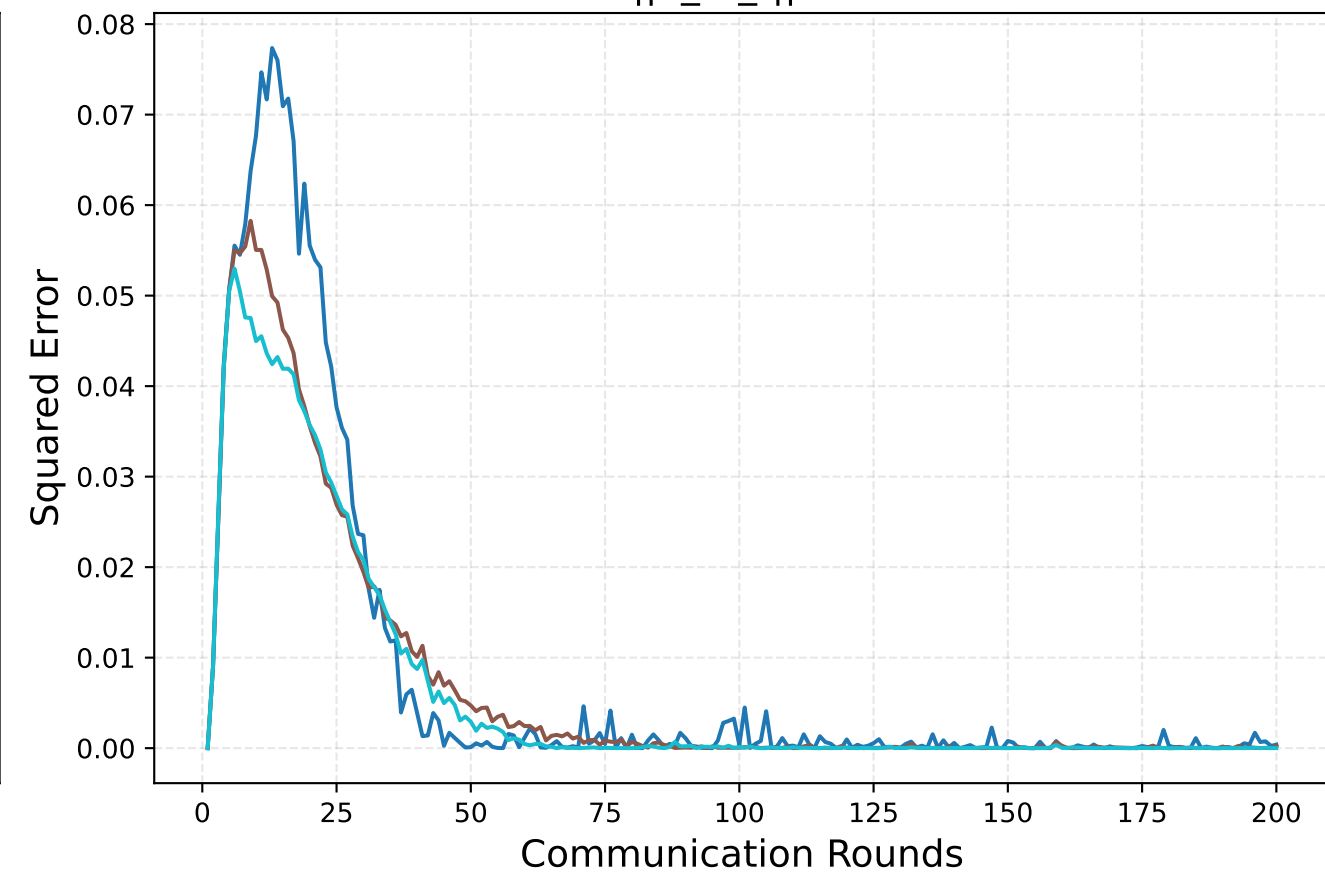
Loss Volatility(Rolling Standard Deviation, Window Size=5)



Round-to-Round Loss Change



Smoothed Convergence Trends

 $||S_t - l_t||^2$ 

FedMR
CV=0.085

FedKDMR
CV=0.109

FedCodi
CV=0.079