Outline

- Introduction
- Centralized Learning and Communication Compression
 - Compression Operators
 - Centralized Learning with Compression
- Decentralized Optimization
 - Decentralization
 - Consensus Problem
 - Decentralized Algorithms
 - A Unified Framework for Decentralized Problem
- Decentralized Learning with Compression
 - DGD-type Algorithms with Compression
 - Primal-Dual Algorithms with Compression
 - Gradient-Tracking Algorithms with Compression
- Summary and Future Direction

