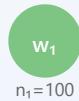


# FedAvg & FedProx

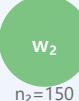


## FedAvg

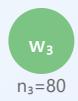
$$w = \sum(n_k/n \times w_k)$$



+



+



→



- Simple weighted average
- Fast convergence
- Works well with IID data



## FedProx

$$\min F(w) + \mu/2\|w-w_t\|^2$$

Standard  
Loss  $F(w)$

+

Proximal Term  
 $\mu/2\|w-w_t\|^2$



- Adds proximal term
- Handles heterogeneity
- More robust