

# Preliminary Work

## MAML (Model-Agnostic Meta-learning)

- Proposed at ICML'17
- MAML is a representative algorithm of **gradient-based** meta-learning approaches.

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## MAML

### MAML

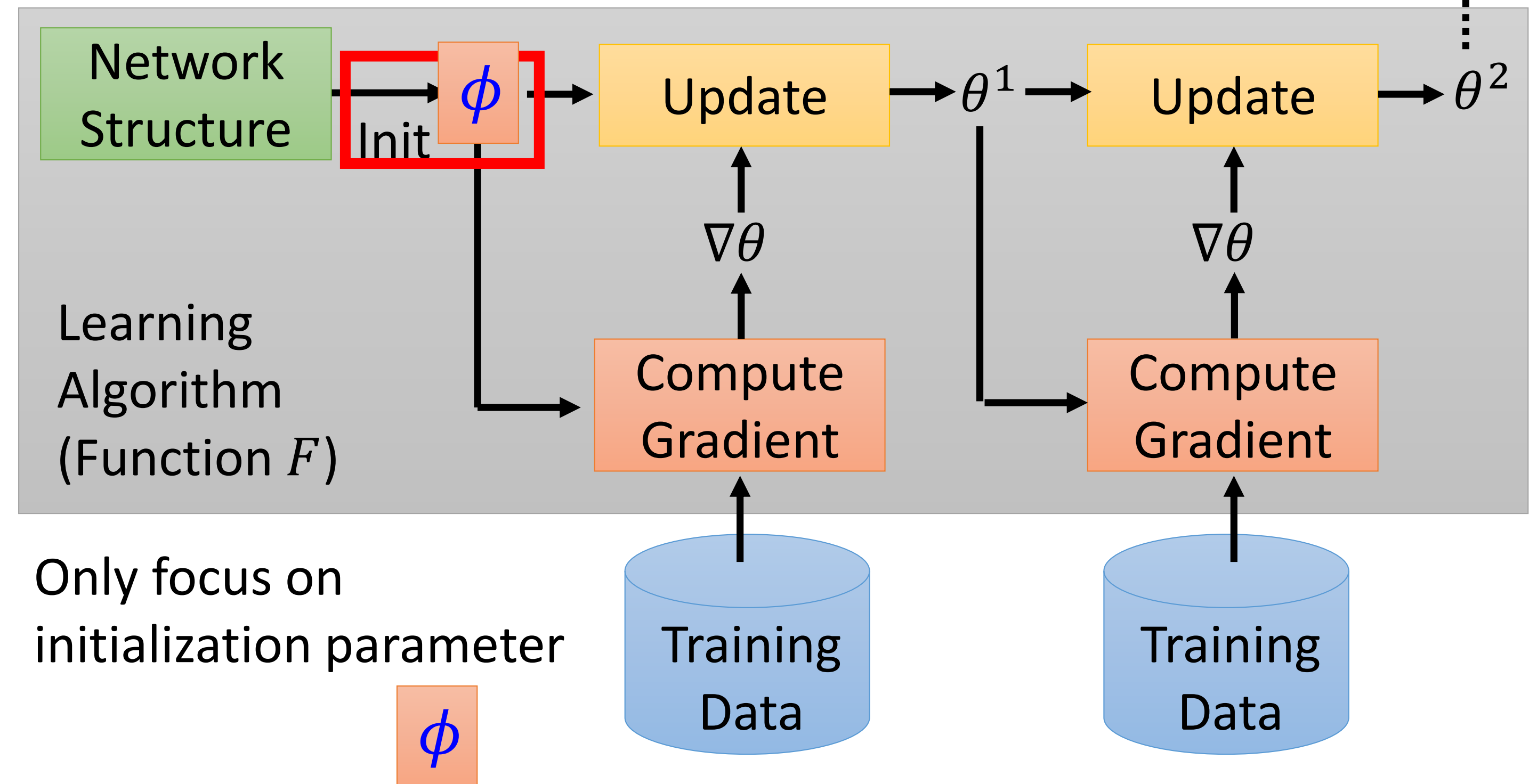
Loss Function:

$$L(\phi) = \sum_{n=1}^N l^n(\hat{\theta}^n)$$

$\hat{\theta}^n$ : model learned from task  $n$

$\hat{\theta}^n$  depends on  $\phi$

$l^n(\hat{\theta}^n)$ : loss of task  $n$  on the testing set of task  $n$



Only focus on  
initialization parameter

$\phi$

