

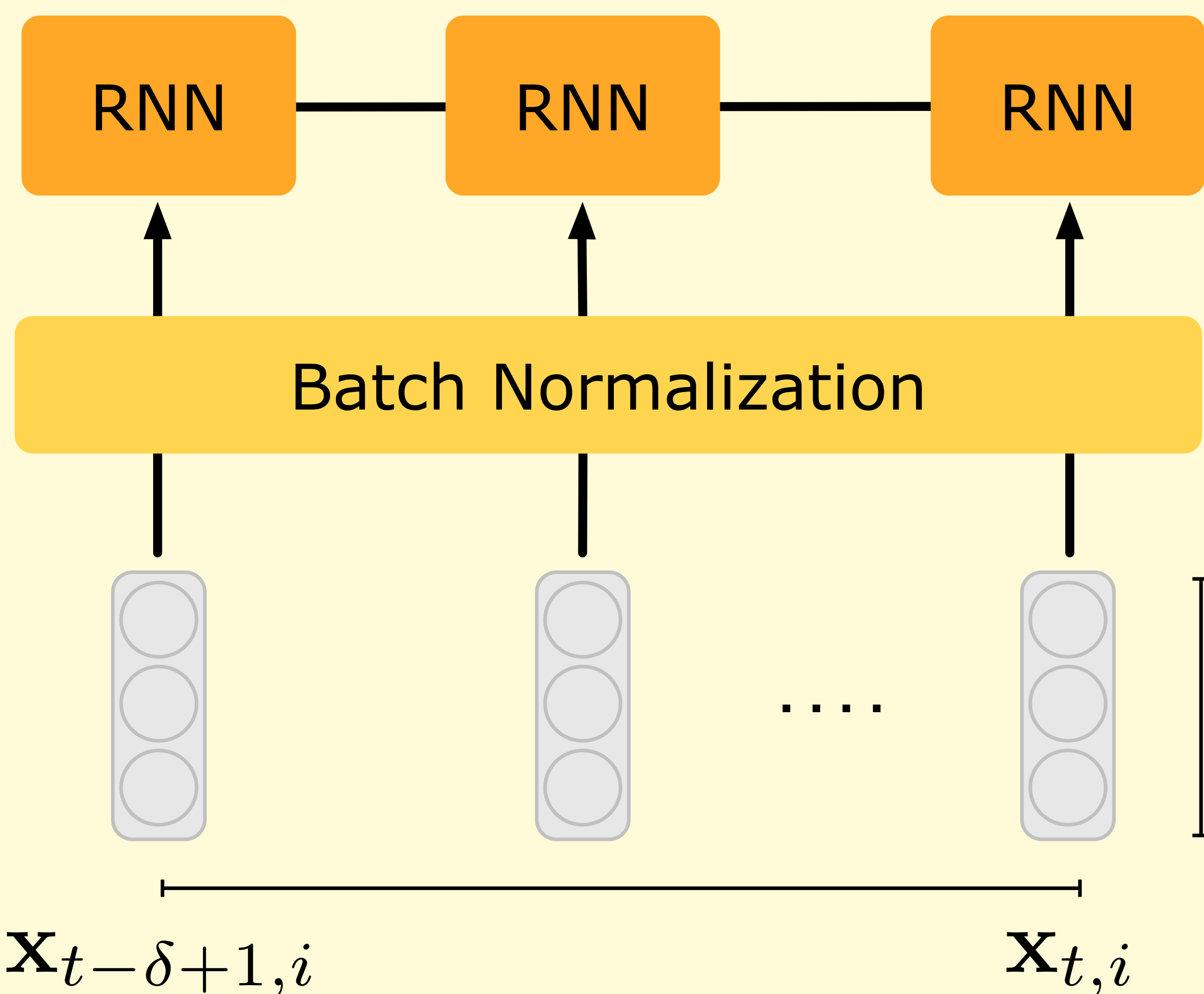
Parametric Family Parameter Generation (\mathcal{N}_Θ)

$$\mathbf{X}_{t,i} = [\mathbf{x}_{t-\delta+1,i}, \dots, \mathbf{x}_{t,i}] \in \mathbb{R}^{d \times \delta}$$

$$\theta_{t,i} \in \mathbb{R}^p$$

Input Covariate Matrix
(δ Lag Observations)

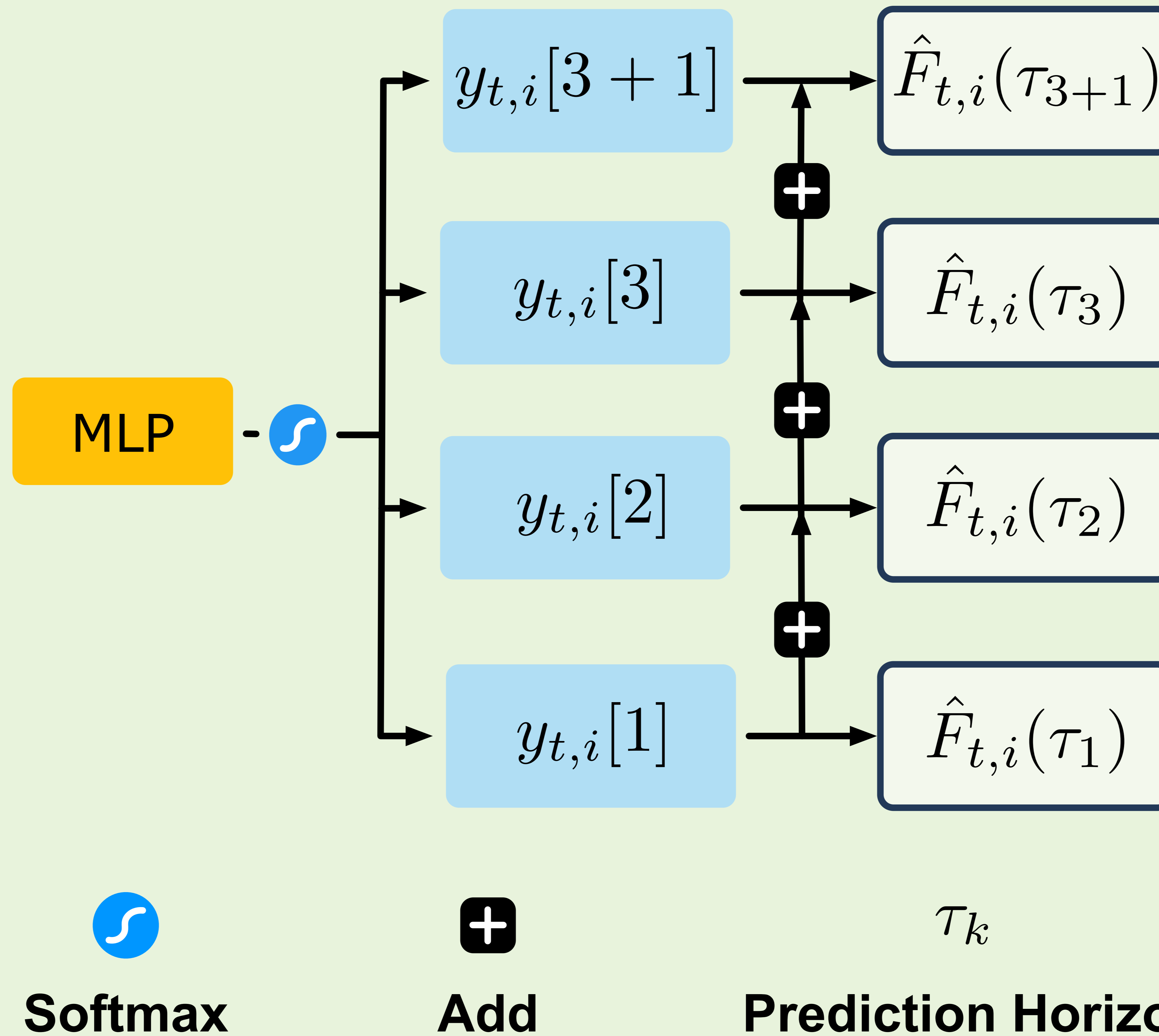
Parameter



Consider time-dynamics
of covariates by time-
lagged observations

Covariate
Vector

Parametric Family Determination ($\mathcal{N}_{\mathcal{F}}$)



Softmax

Add

Prediction Horizon

Cumulative
Default Probability

Objective Function

$$\mathcal{L} = \sum_{t \in \mathcal{T}} \sum_{i=1}^{n_t} \sum_{k=1}^{m+1} \text{CrossEntropy}(\hat{F}_{t,i}(\tau_k), H_{t,i}(\tau_k))$$

Ground Truth
Function

