

Non-Linearity

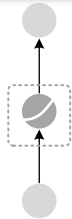
ANN with **UGO**

SNN with **Spiking UGO**

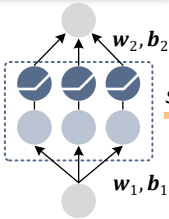
$$y = f(x)$$

$$y = \hat{f}_{\text{RELU}}(x)$$

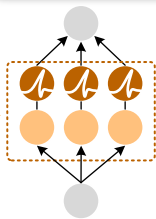
$$y_s = \hat{f}_{\text{IF}}(x_s)$$



N neurons



T -step simulation



$x \in \mathcal{D}$ *M samples*

$x_i \in \hat{\mathcal{D}}, i = 1, \dots, M$