$$f_{tun}(x) = a * exp\left(-\frac{(x-\mu)^2}{b}\right) + c \tag{1}$$

$$p(k|x) = \frac{(g_{fr} * f_{tun}(x))^k * exp(-g_{fr} * f_{tun}(x))}{k!} \tag{2}$$

$$C\frac{dV}{dt} = -g_{leak}(V(t) - V_{rmp}) - g_{epsc}(V(t) - V_{rmp})S(t) + g_{shared}\eta + g_{signed}\epsilon \tag{3}$$

$$S(t) = \sum_k \delta(t - \tau_j^k) \tag{4}$$

$$\eta \sim p(V_{shared}) = \frac{1}{\sqrt{2\pi}}exp\left(-\frac{V^2}{2\pi}\right) \tag{5}$$

$$\epsilon \sim p(V_{signed}) = sgn(p=0.5) * \frac{e^V}{V!} \tag{6}$$

$$d^2(R_{train}, R_{test}) = \sum_{i=1}^{s}(R_{train,i} - R_{test,i})^2 \tag{7}$$