



$$\tau \frac{\partial u}{\partial t} = -u + Wx + I + \sigma \partial B$$

$$x_i(t) = \frac{1}{2} \tanh \left(\frac{u_i(t) - \theta}{\beta} \right) + \frac{1}{2}$$

$$\theta = 0.05, \beta = 0.5$$