$$\bullet \; \frac{dV}{dt} = -u + I_K + I_{Ca} + I_L \quad [+ \boldsymbol{I_{aut}}]$$

$$\bullet \; \frac{dw}{dt} = \gamma(V) * (w_\infty(V) - w)$$

$$\bullet \; \frac{du}{dt} = \mu(V_u + V)$$

## Modified Morris-Lecar Model

$$\bullet \; I_{aut} = -g_{aut} * \frac{V_{pos} - V_{syn}}{1 + e^{(-\lambda(V_{pre} - \Theta_S))}}$$

V: Membrane potential

w: gating variable

u: feedback current

$V_u$: reversal potential of the feedback current

$g_{aut}$: maximum conductance of the autapses