

Ref	Region	Bounds	Fit
Deperrois 2020 (STD)	Cortex	Hard	

Equation

$$\begin{aligned}
 [Ca] < \theta_d \quad \tau_w^0 \frac{dw}{dt} &= \Omega^0 \\
 [Ca] \in [\theta_d, \theta_p] \quad \tau_w^d \frac{dw}{dt} &= \Omega^d \\
 [Ca] > \theta_p \quad \tau_w^p \frac{dw}{dt} &= \Omega^p
 \end{aligned}$$

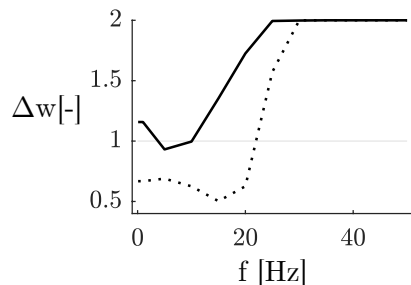
Parameters

$\tau_{Ca} = 38.3492083$	$\theta_p = 1.63069609$
$C_{pre} = 3.99132241$	$\theta_d = 1$
$C_{post} = 1.12940834$	$\gamma_p = 564.392975$
$D = 9.23545841$	$\gamma_d = 111.320539$
$\tau_w = 299877.8$	$\tau_{rec} = 148.9192$
	$U = 0.3838$
$\tau_w^p = \tau_w$	$\Omega^p = 0.5(\gamma_p - \gamma_d)$
$\tau_w^d = \tau_w$	$\Omega^d = -0.5\gamma_d$
$\tau_w^0 = 0$	$\Omega^0 = 0$

Supplementary information

$$\frac{dx}{dt} = \frac{1-x}{\tau_{rec}} - Ux \sum_{pre,i} \delta(t - t_i - D)$$

$$\frac{dc_{pre}}{dt} = -\frac{c_{pre}}{\tau_{Ca}} + wC_{pre}Ux \sum_{pre,i} \delta(t - t_{pre,i} - D)$$



Reset

