

Parameter	Symbol	Value
<b>Rate model</b>		
Excitatory time constant	$\tau_E$	0.1 s
Inhibitory time constant	$\tau_I$	0.8 s
Connectivity matrix		
	$J_{EE}$	5.0 s <sup>-1</sup>
	$J_{IE}$	2.0 s <sup>-1</sup>
	$J_{II}$	-0.8 s <sup>-1</sup>
	$J_{EI}^{\text{weak}}$	-0.0 s <sup>-1</sup>
	$J_{EI}^{\text{strong}}$	-1.6 s <sup>-1</sup>
Noise amplitude	$\eta$	0.25 s <sup>-1/2</sup>
External input		
	$H_E$	3.5 s <sup>-2</sup>
	$H_I$	0.4 s <sup>-2</sup>
External drive increase	$\alpha$	3.0
Twitch amplitude		
	$J_E$	50.0 s <sup>-2</sup>
	$J_I$	100.0 s <sup>-2</sup>
<b>LIF model</b>		
Exc. synapse time constant	$\tau_E$	100.0 ms
Inh. synapse time constant	$\tau_I$	800.0 ms
Membrane time constant	$\tau_m$	20.0 ms
Threshold potential	$V_{\text{thr}}$	20.0 mV
Reset potential	$V_{\text{reset}}$	0.0 mV
Connectivity		
Nb. of excitatory neurons	$N_E$	1024
Nb. of inhibitory neurons	$N_I$	256
Connections from exc. neurons	$K_E$	64
Connections from inh. neurons	$K_I$	32
Connectivity matrix		
	$J_{EE}$	0.025 mV
	$J_{IE}$	0.1 mV
	$J_{II}$	-0.0 mV
	$J_{EI}^{\text{weak}}$	-0.0005 mV
	$J_{EI}^{\text{strong}}$	-0.005 mV
Noise amplitude	$\eta$	1.8 ms <sup>-1/2</sup>
External input (weak inhibition)		
	$H_E$	-0.07 mV ms <sup>-1</sup>
	$H_I$	0.015 mV ms <sup>-1</sup>
External input (strong inhibition)		
	$H_E$	0.04 mV ms <sup>-1</sup>
	$H_I$	0.06 mV ms <sup>-1</sup>
Twitch amplitude		
	$J_E$	0.2 mV ms <sup>-1</sup>
	$J_I$	0.2 mV ms <sup>-1</sup>
Twitch duration (lognormal)		
Mean parameter	$\mu$	-0.2
Std parameter	$\sigma$	0.8