

Parameter	Interpretation	Value
N	Number of neurons	1000
T	Simulation duration (frames)	3200
–	Imaging rate (Hz)	2.5
τ_r	Calcium rise time constant (frames)	2.2
τ_d	Calcium decay time constant (frames)	4.6
K	Number of stimuli	100
–	Stimulus repetitions	6
–	Interstimulus interval (frames)	5
L	Number of latent factors	5
ξ	Probability of latent factor event (per frame)	0.1
π	Probability of private spontaneous event (per frame)	0.05 (0.0 - 0.3)
γ_x	Mean intensity of latent event	0.1
γ_z	Mean intensity of private spontaneous event	0.1
σ^2	Imaging noise variance	0.16 (0.04 - 0.4)