

Macro-Level Soleus Simulation

Onder Gurcan

May 9, 2012

1 Experimental Frame

- Start / End: 2012-05-09 16:55:55 / 2012-05-09 17:22:14
- Duration: 26 minutes 19 seconds / 000122600000.0ticks

1.1 Simulation Parameters

- Annoyance levels (reorganization/evolution): 20 - 40
- Resting AHP Level (mV): 0.1
- Pathway beginning/end (ms): 39.5 - 200.0
- Smoothing count: 8
- Average frequency fault tolerance (Hz): 0.6

1.2 Agents

- Number of Existing Neuron Agents: 664
- Number of Removed Neuron Agents: 0
- Number of Existing Synapses: 1085
- Number of Removed Synapses: 239

2 Results

Reference PSF

- Peristimulus mean: 7.701737775375868
- ErrorBox LowerB: -23.737677024926487
- ErrorBox UpperB: 42.59999985390896

Simulated PSF

- Peristimulus mean: 7.870872910678429
- ErrorBox LowerB: -45.33974914540815
- ErrorBox UpperB: 57.06956595106689

Simulated Results vs. Reference Data

- Peristimulus mean diff: 0.16913513530256097
- Pearson correlation [39.5, 200.0]: 0.9757970595544598
- r2: 0.95217990143513

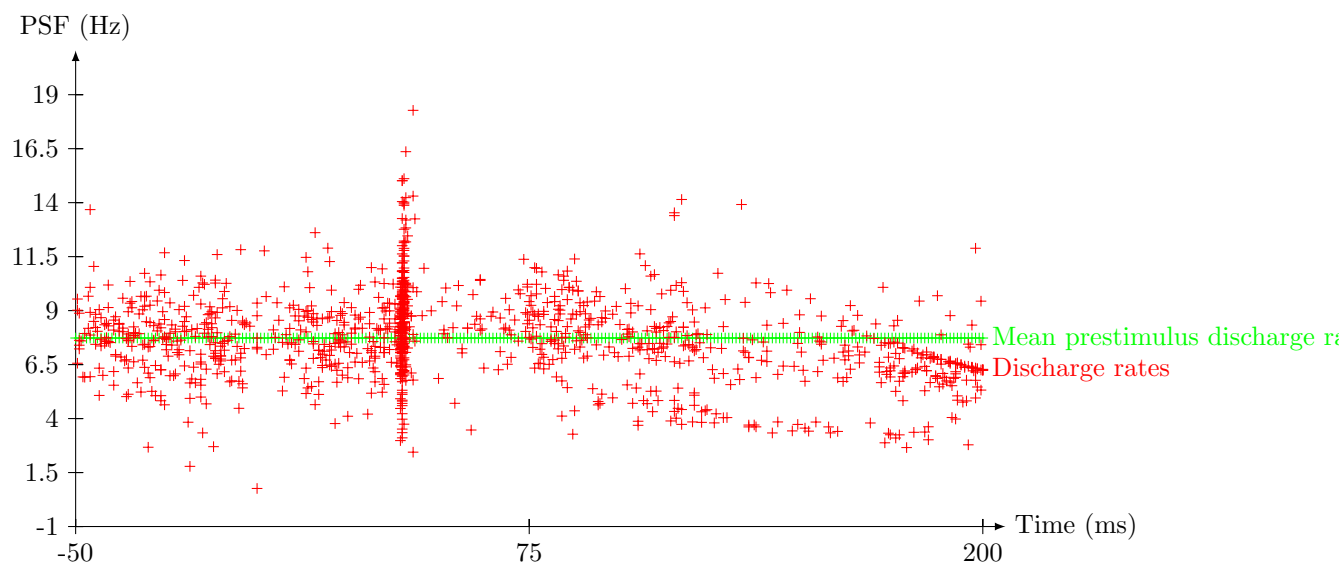


Figure 1: Raw Reference PSF

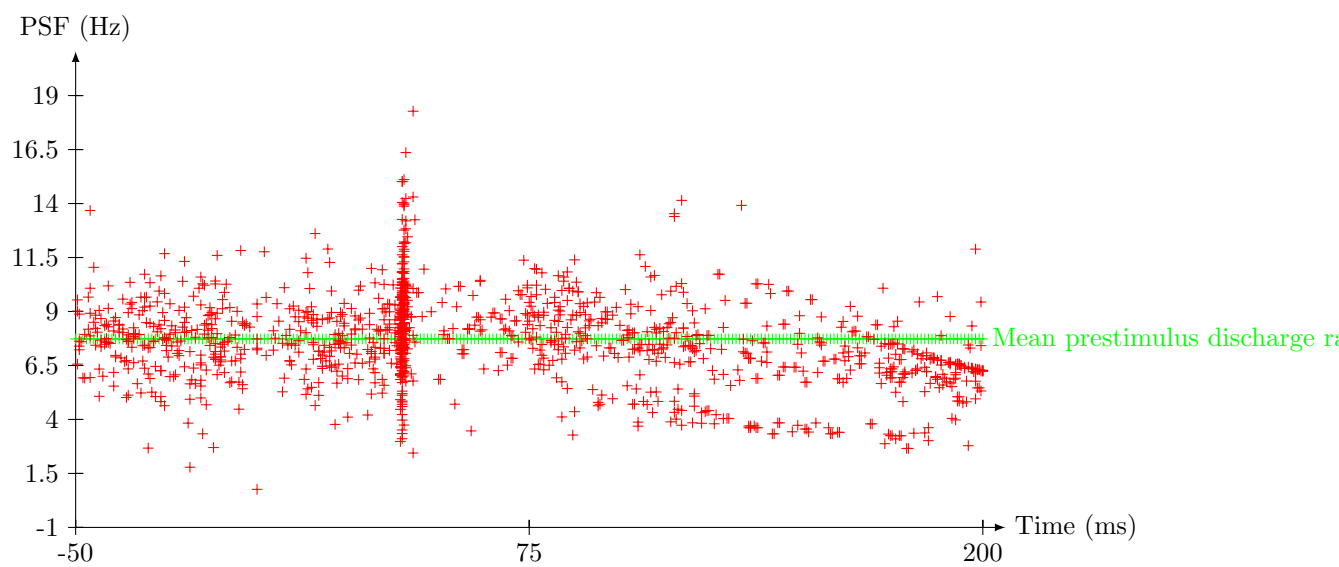


Figure 2: Filtered Reference PSF

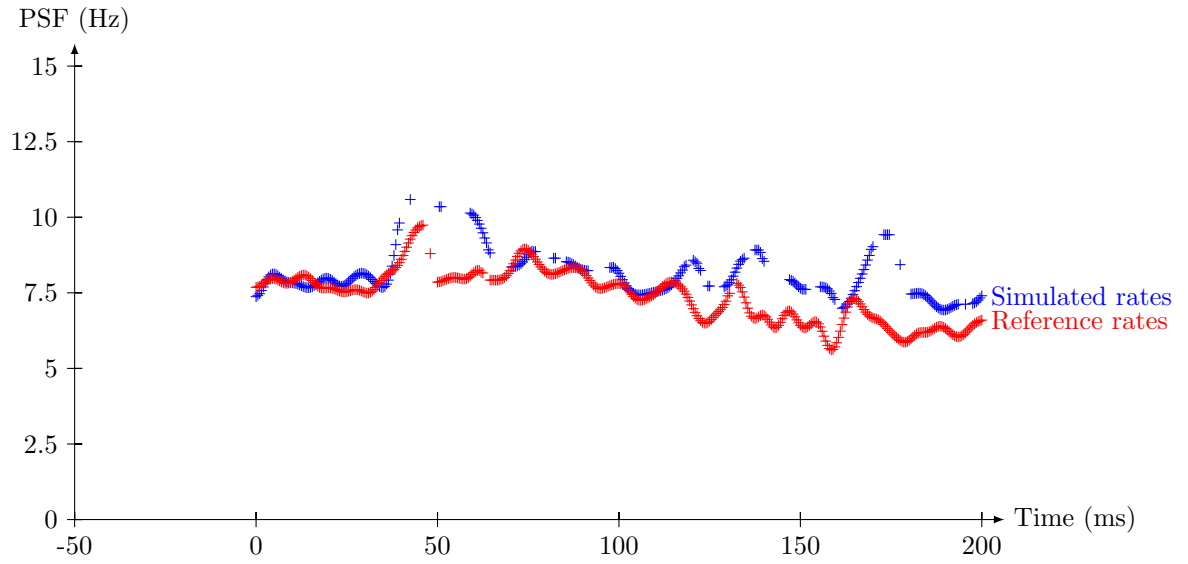


Figure 3: PSF - Average Discharge Rates

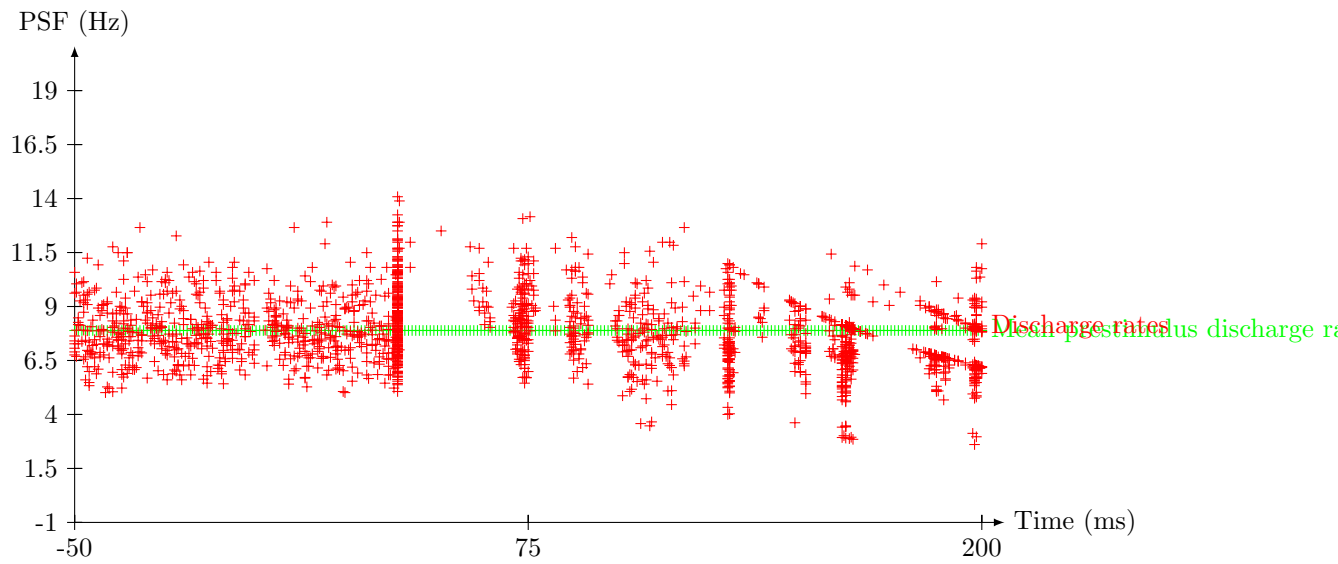


Figure 4: Simulated PSF

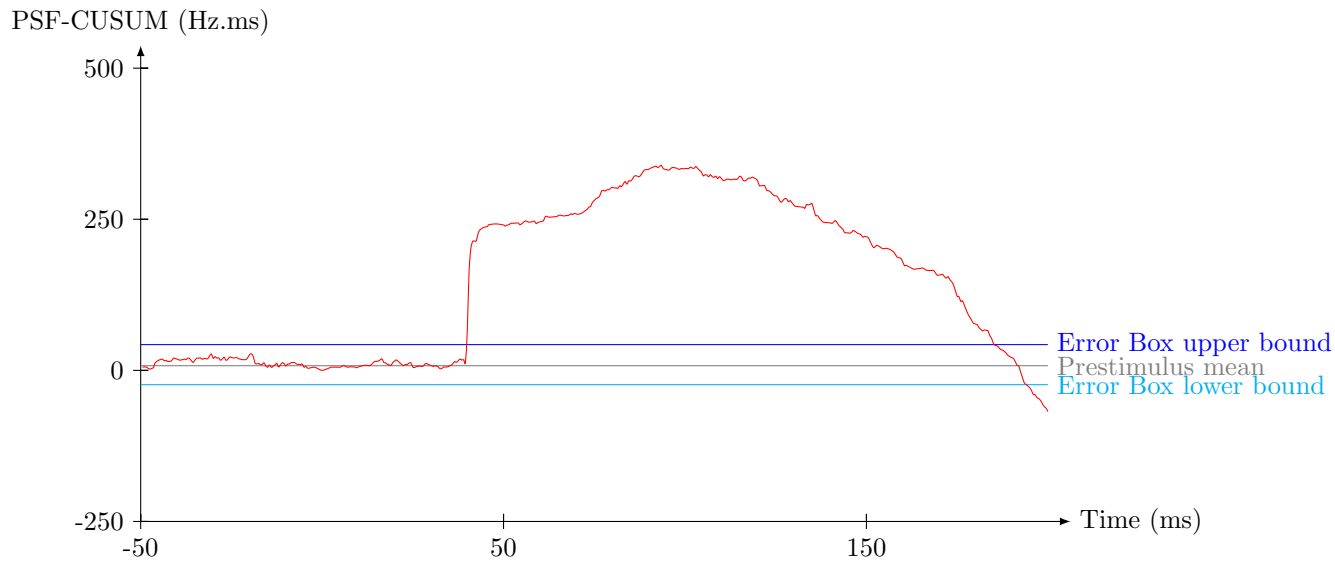


Figure 5: Reference PSF-CUSUM

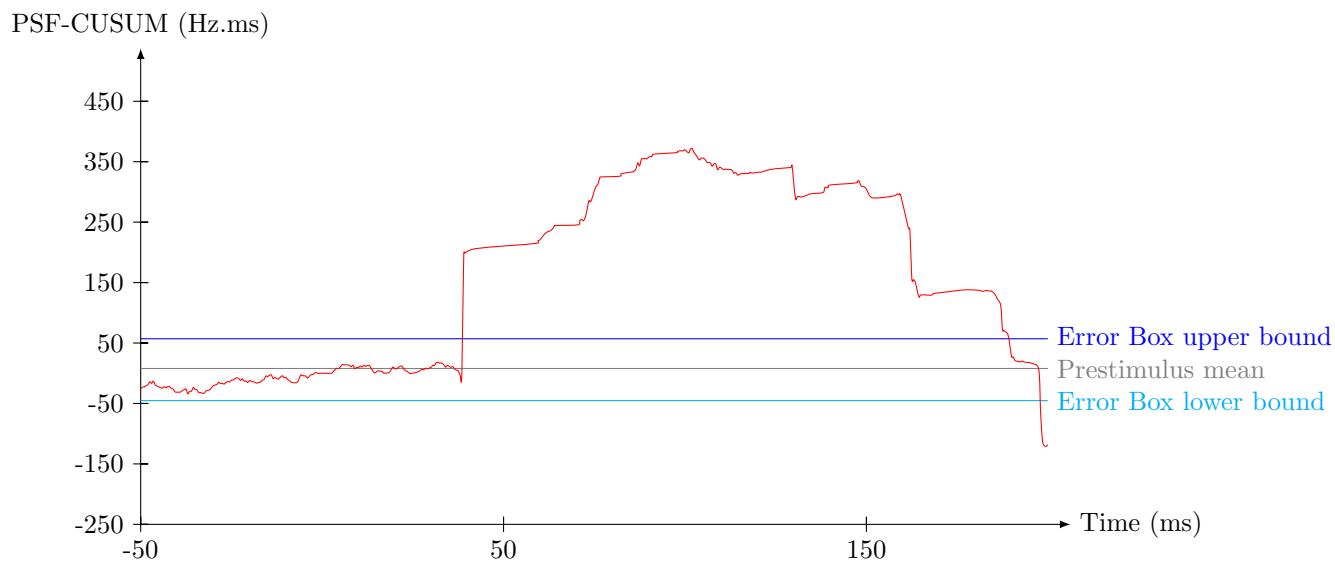


Figure 6: Simulated PSF-CUSUM

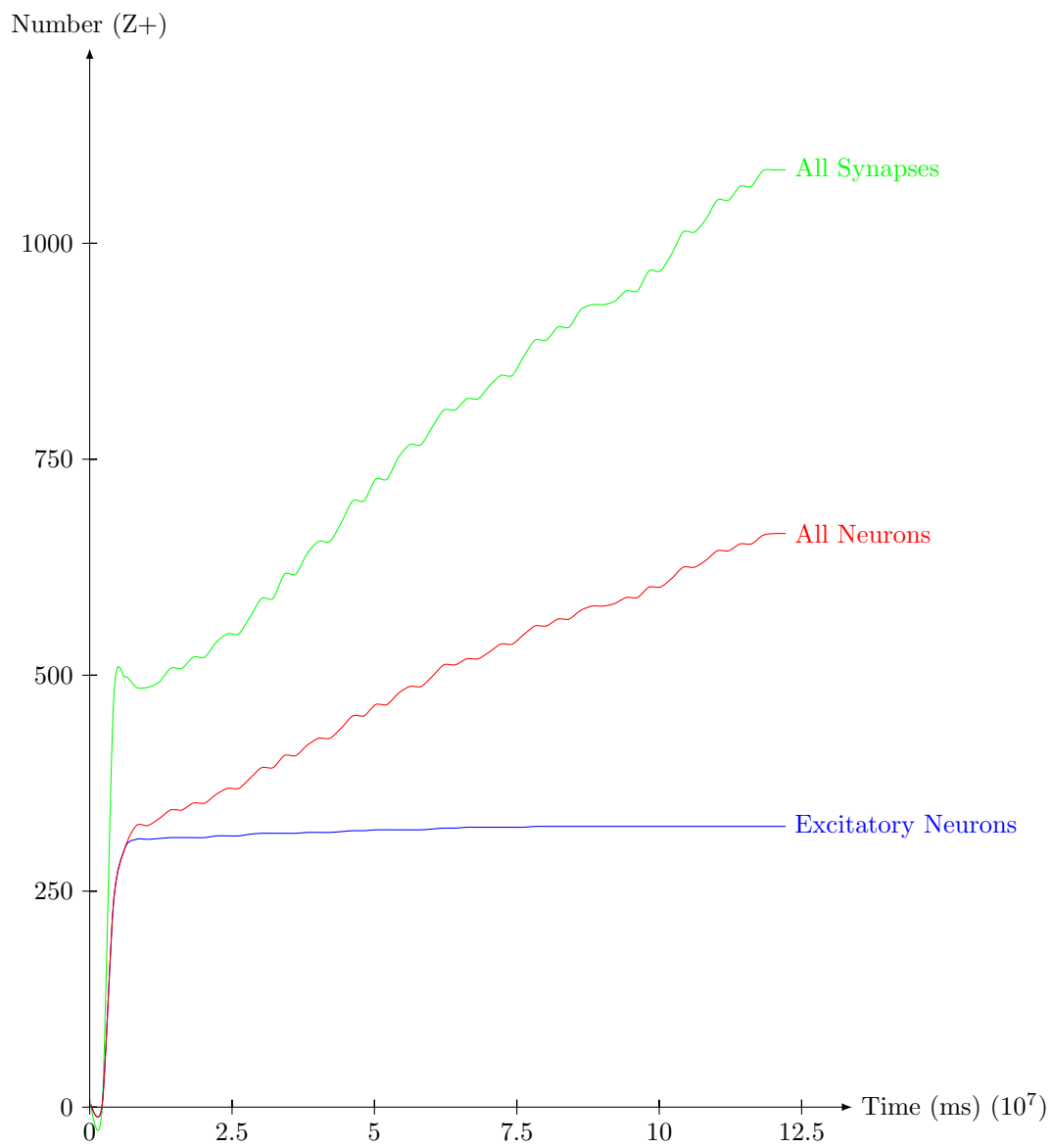


Figure 7: Number of Entities by time