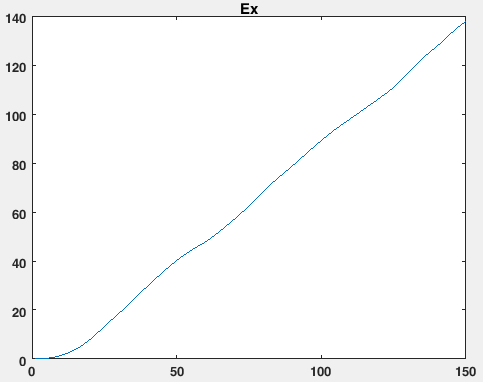
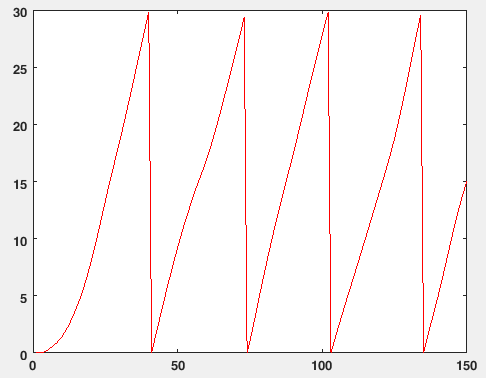
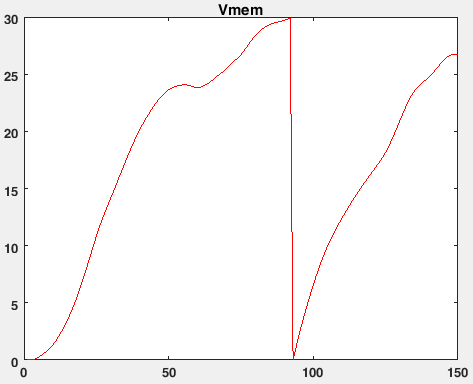
Vth = 30



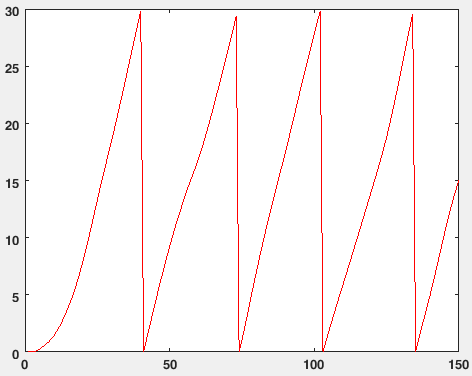
Use IF neuron, spike count = 4



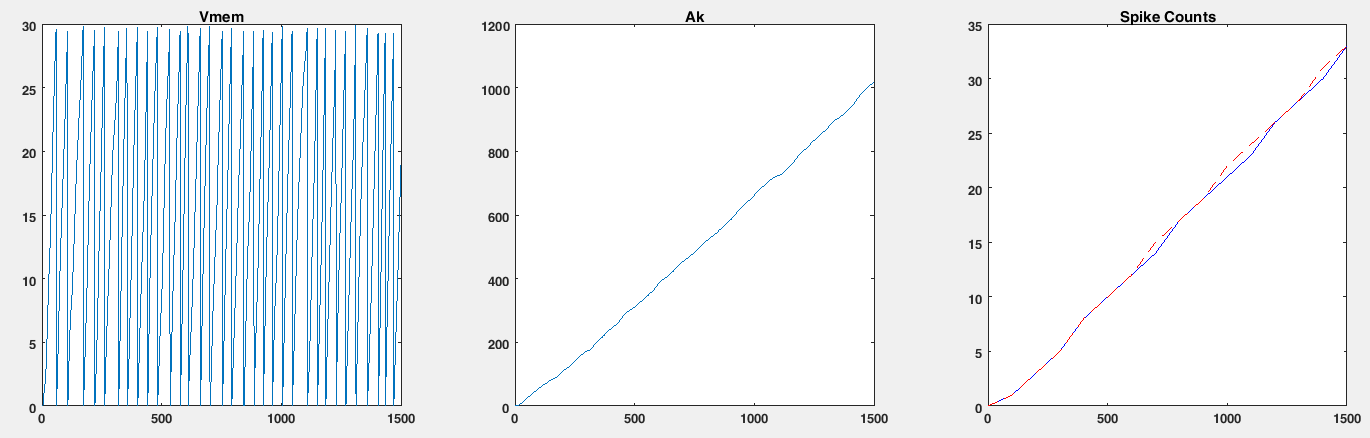
Use LIF neuron, tau = 32, Spike count = 1

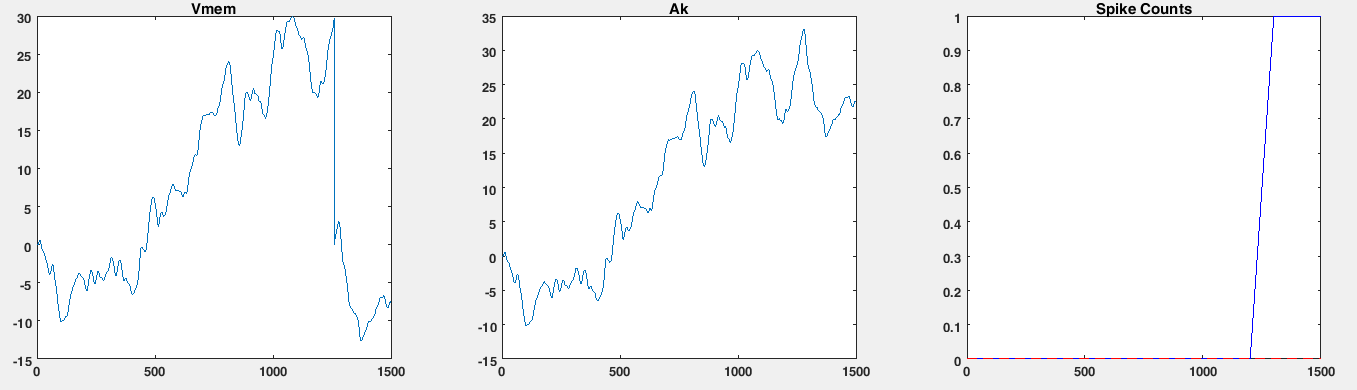


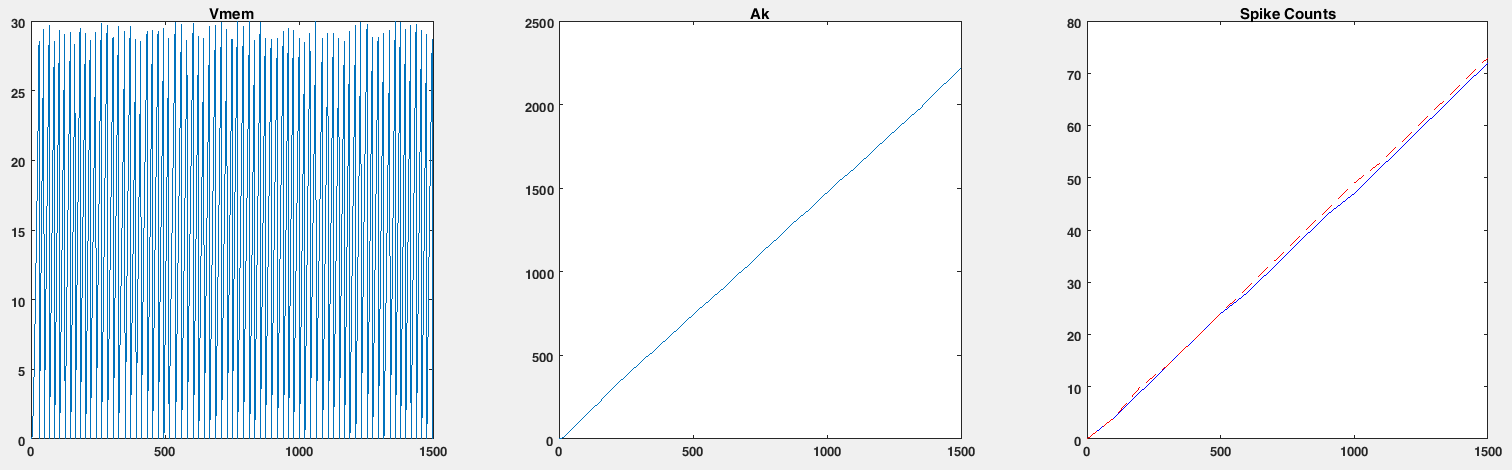
Use LIF neuron, tau = 64, Spike count = 4



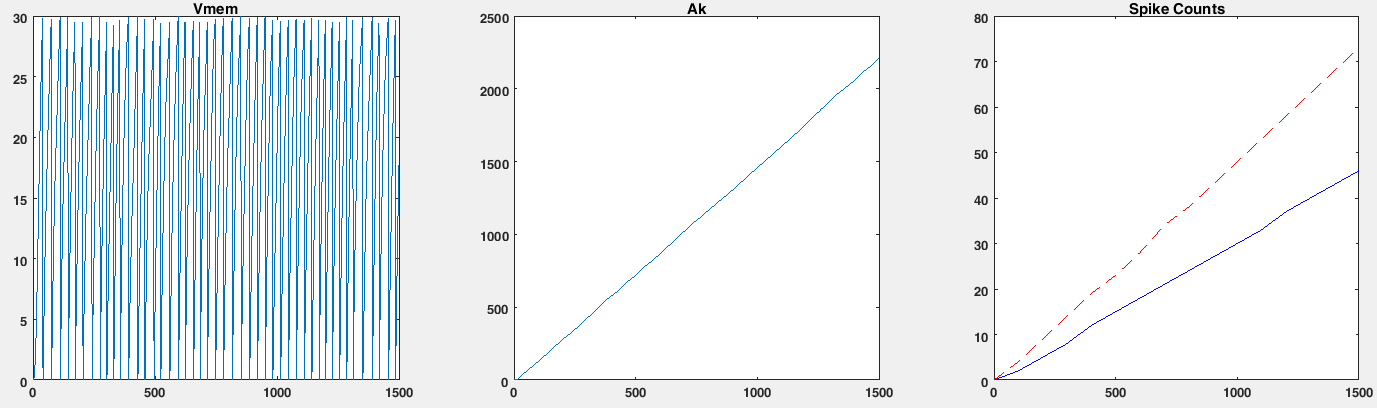
The input spike train is generated by poisson process

IF model 

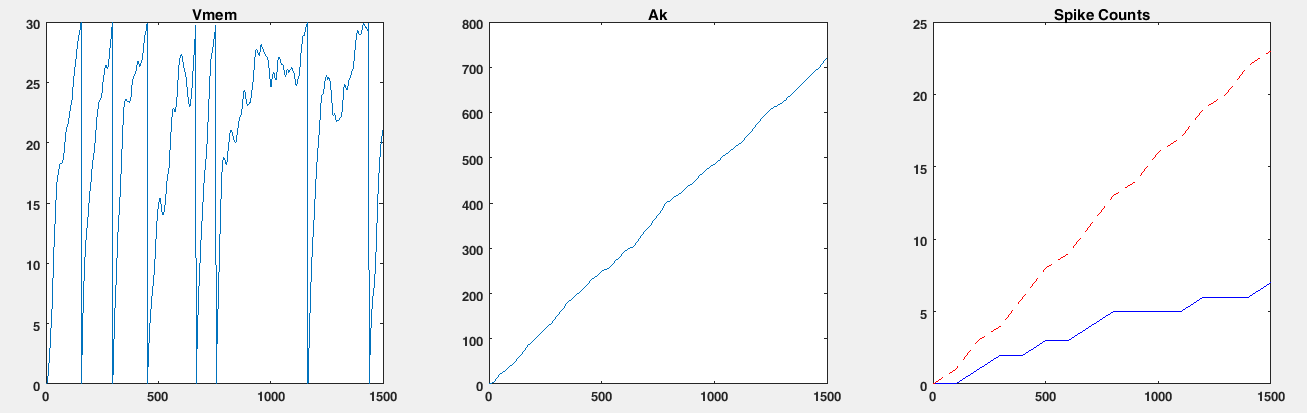


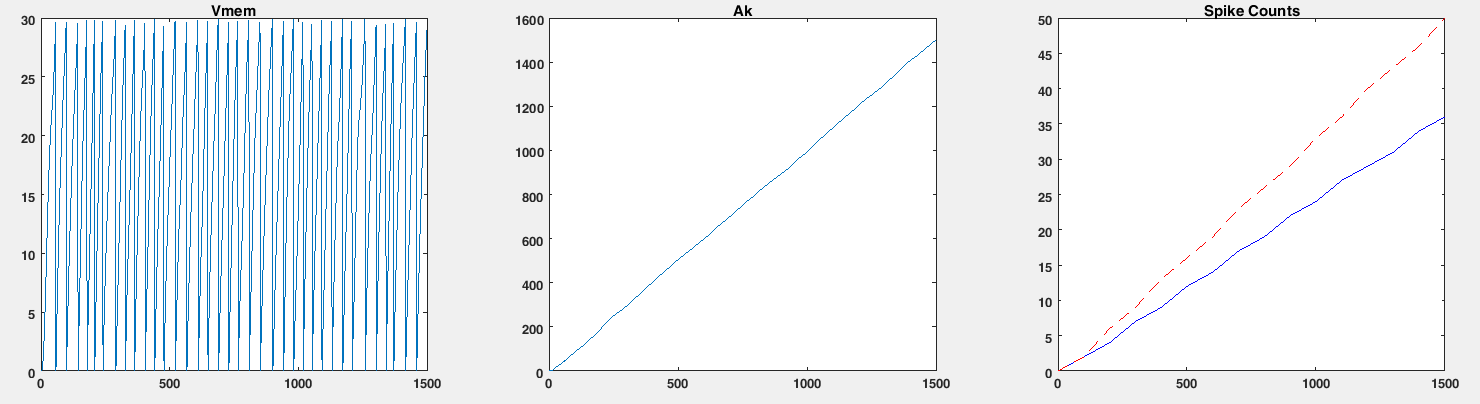


LIF model with tau = 32



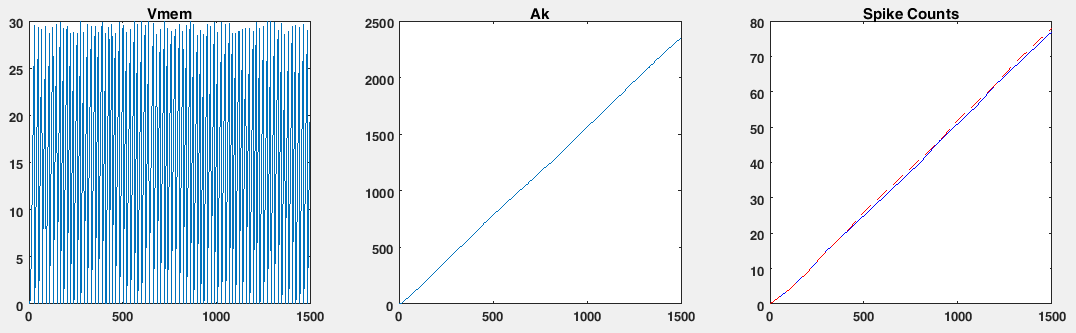
LIF model with tau = 64

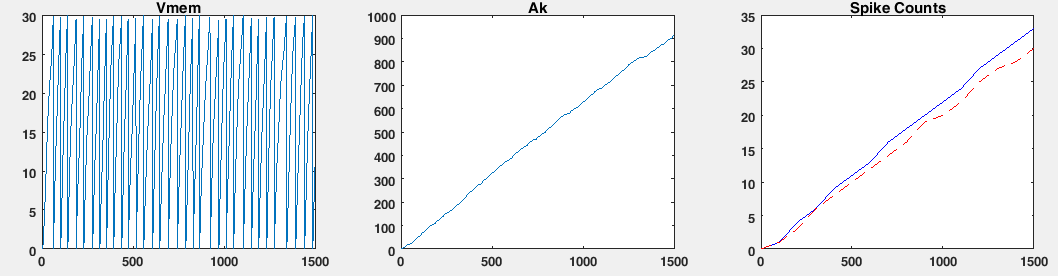




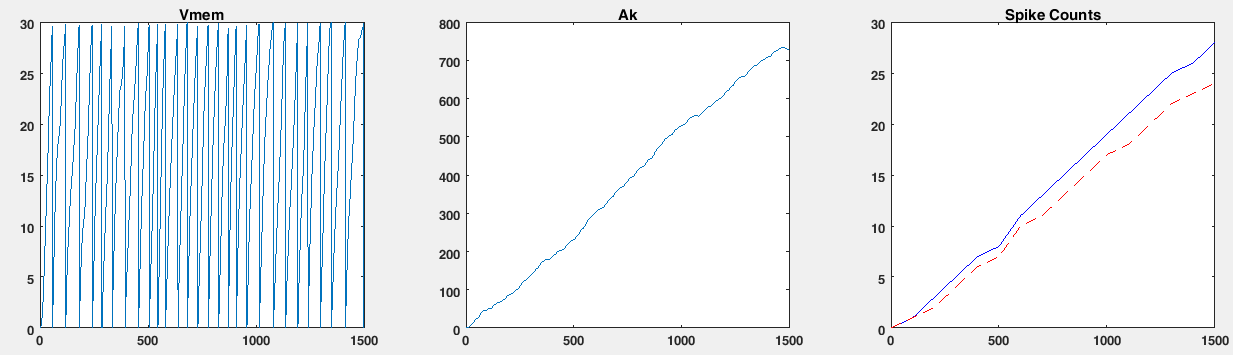
LIF model with correction

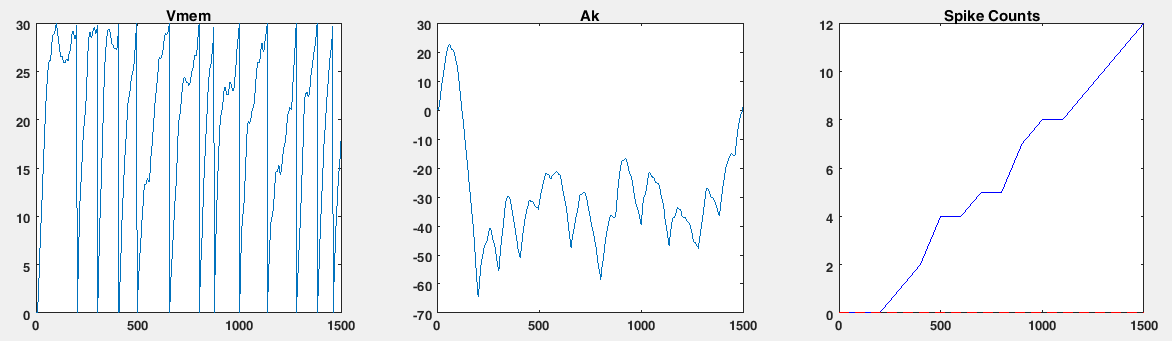
Error is small when the spike count is large:





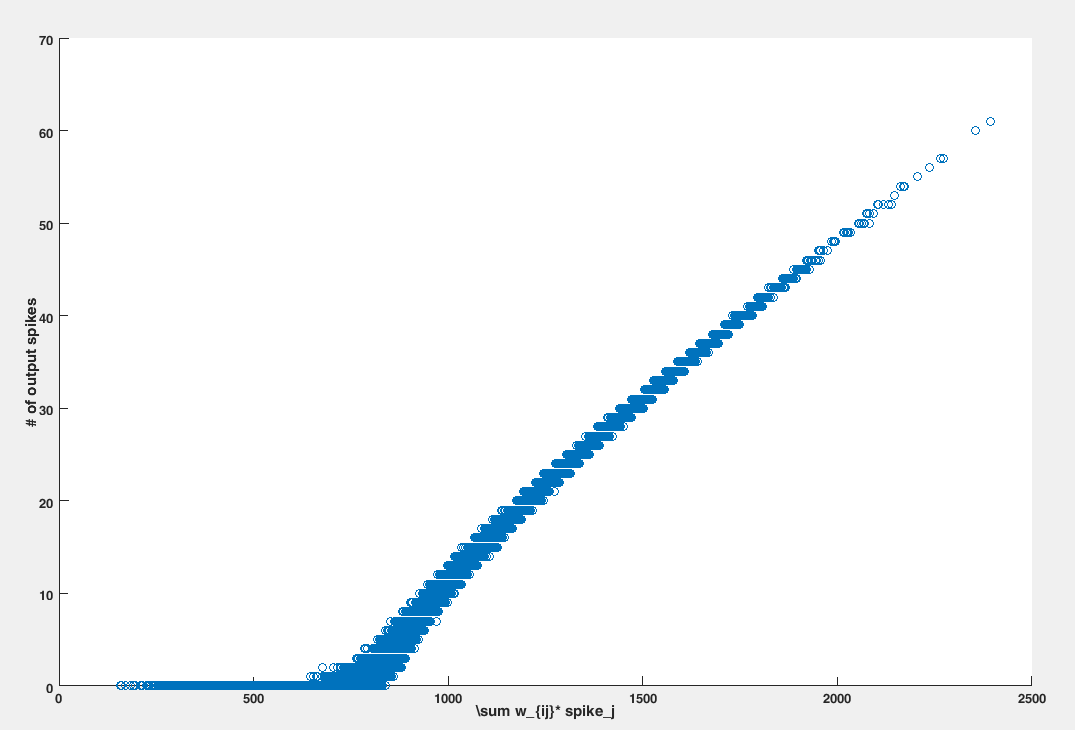
Error is large when the spike count is small



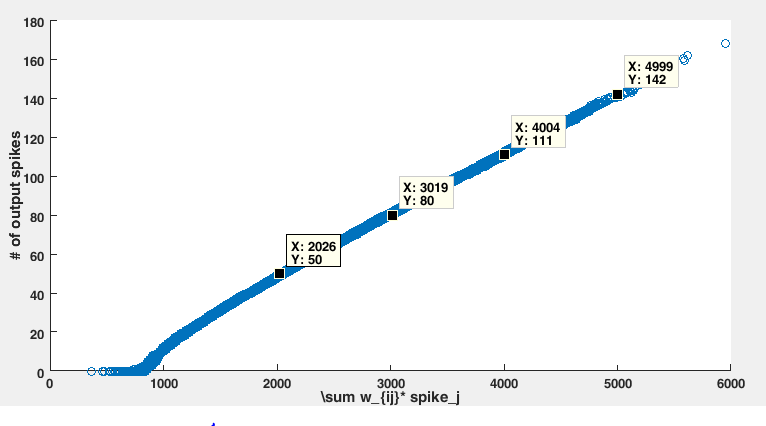


Only allow **positive weights** (0, 1)

Firing rate of the pre-synaptic neuron is from (0, 0.4)

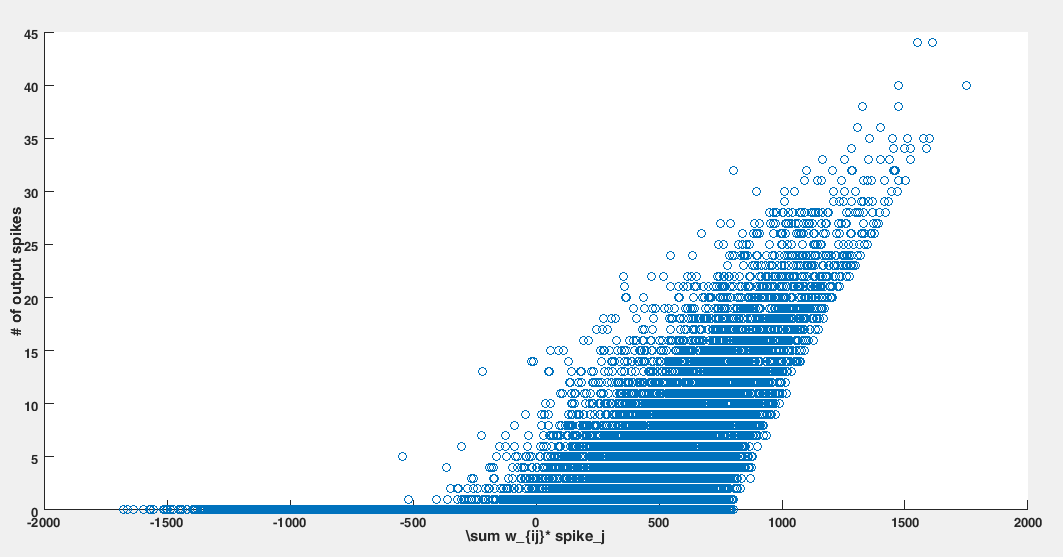


Firing rate of the pre-synaptic neuron is from (0, 1)

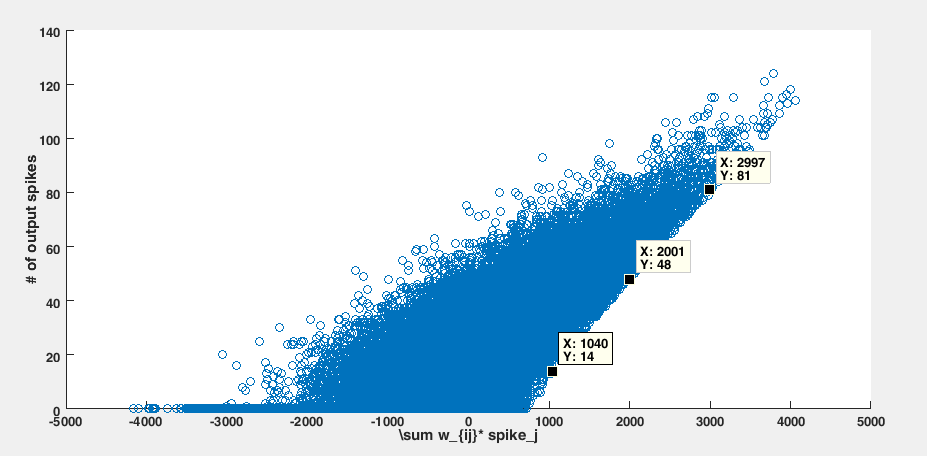


Allow both **positive and negative** weight (-1, 1):

Firing rate of the pre-synaptic neuron is from (0, 0.4):



Firing rate of the pre-synaptic neuron is from (0, 1)



When the weight increases, we can observe a weird trend.

