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1.   Question 1:

With no refractory period,the spike train is:

the fano factor over wondows of width 10ms : 1.0088901355759137

the fano factor over wondows of width 50ms : 1.0143289999149105

the fano factor over wondows of width 100ms : 1.0310972317553961

the coefficient of variation of the inter-spike interval : 1.0024320425056725

With 5ms refractory period,the spike train is:

the fano factor over wondows of width 10ms : 0.7512364188706216

the fano factor over wondows of width 50ms : 0.6890770192994996

the fano factor over wondows of width 100ms : 0.6801411722659042

the coefficient of variation of the inter-spike interval : 0.8221230152289828
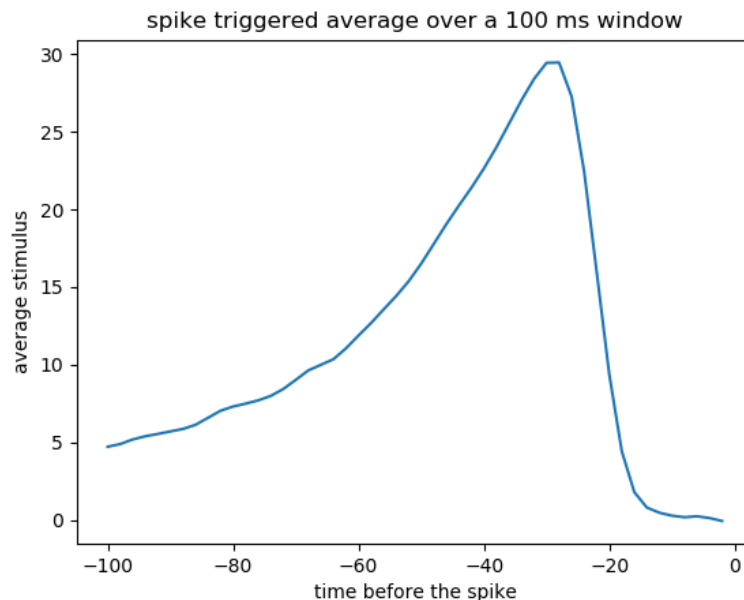
2.   Question 2:

the fano factor over wondows of width 10ms : 1.1198442813566911

the fano factor over wondows of width 50ms : 2.9333009948508413

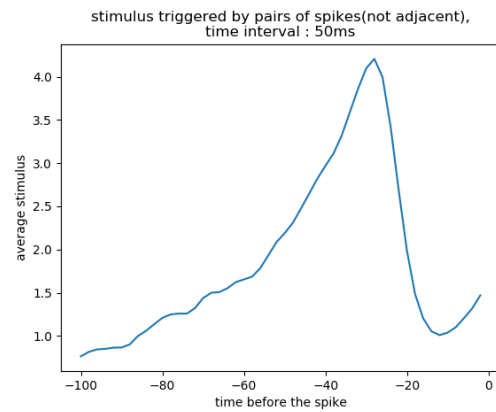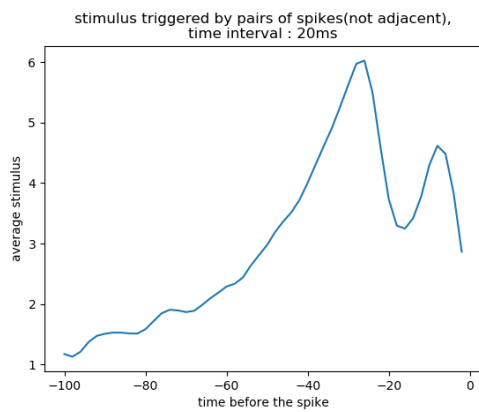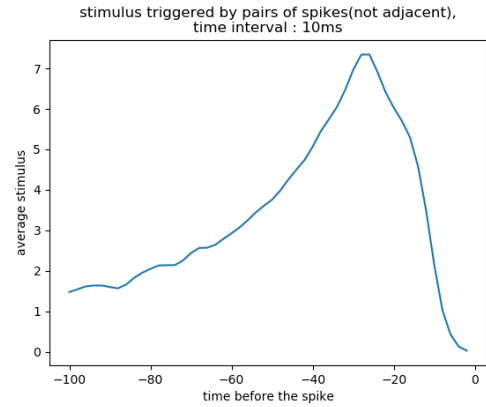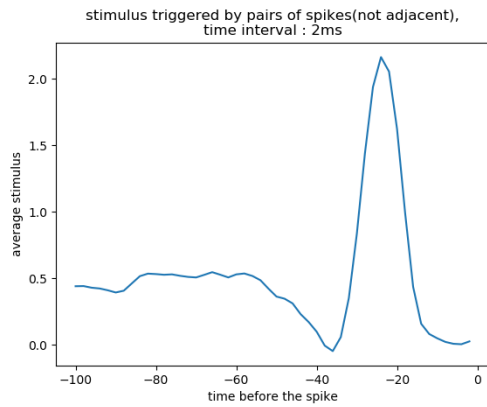the fano factor over wondows of width 100ms : 4.107101234118765

the coefficient of variation of the inter-spike interval : 2.0085523370640965

3.   Question 3:

4.   Question COMSM2127:

Below are plots when the spikes are not neccesarily adjacent:

stimulus triggered by pairs of spikes(not adjacent),
time interval : 2ms

stimulus triggered by pairs of spikes(not adjacent),
time interval : 10ms

stimulus triggered by pairs of spikes(not adjacent),
time interval : 20ms

stimulus triggered by pairs of spikes(not adjacent),
time interval : 50ms

Below are plots when the spikes are adjacent:

stimulus triggered by pairs of spikes(adjacent),
time interval : 2ms

stimulus triggered by pairs of spikes(adjacent),
time interval : 10ms

stimulus triggered by pairs of spikes(adjacent),
time interval : 20ms

stimulus triggered by pairs of spikes(adjacent),
time interval : 50ms