

# Coursework2

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## Question 1

Table 1: Fano Factor

Window Width	no refractory period	5ms refractory period
10ms	1.004830592459605	0.7495329181494661
50ms	1.0129321364452424	0.6911521352313167
100ms	1.0072938061041292	0.690688612099644

Coefficient of variation with no refractory period:1.008257526709267

Coefficient of variation with 50ms refractory period:0.824144815535471

## Question 2

The calculation uses data of rho.dat

Table 2: Fano Factor and CoV

Window Width/Cov	Results
10ms	1.117680142627936
50ms	2.9297562848640877
100ms	4.102959520344769
Coefficient of variation	2.0085154091296

## Question 3

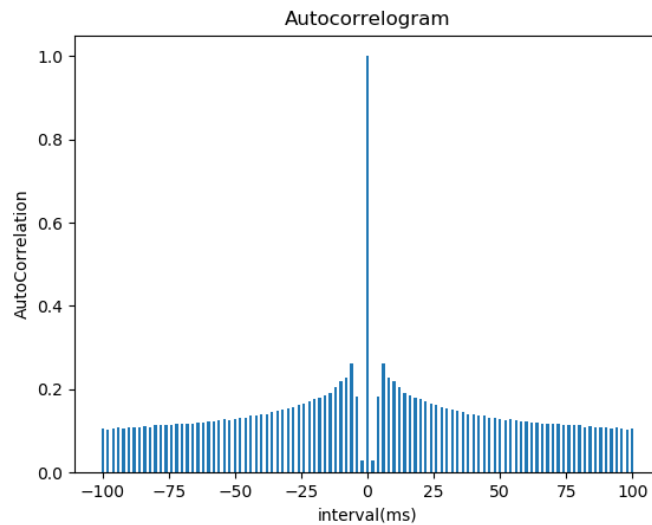


Figure 1: Autocorrelogram at [-100,100]ms

## Question 4

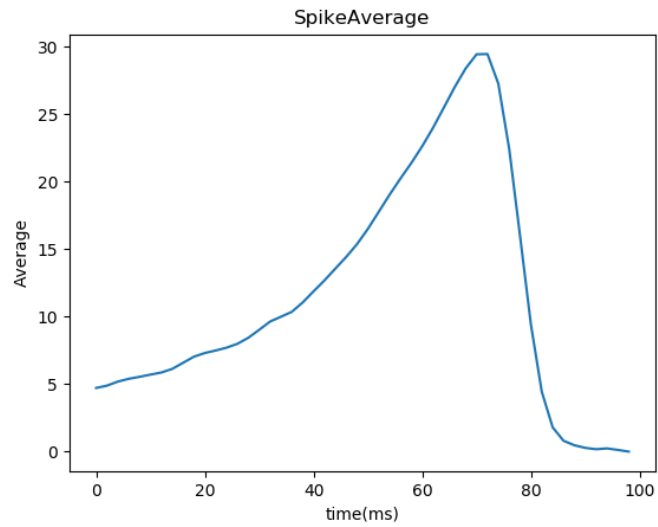


Figure 2: SpikeAverage over 100ms windows

## Question COMSM2127

Multiple-Spike-Triggered average. The plot shows the average stimulus before two spikes with a interval of 2ms, 10ms, 20ms, 50ms, and both the case where the spikes are not necessarily adjacent and the case where they are.

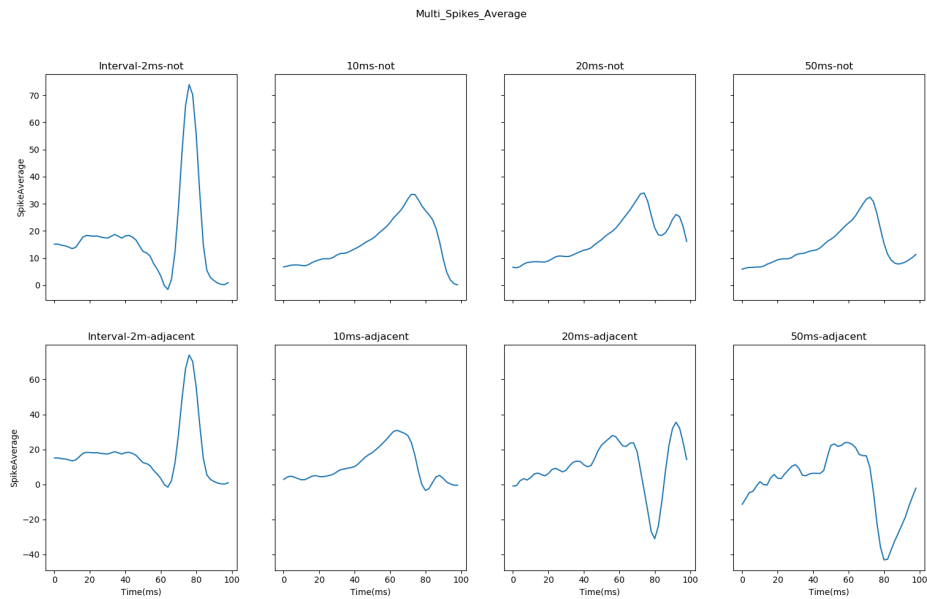


Figure 3: MultiAverage: Interval: 2ms,10ms,20ms,50ms