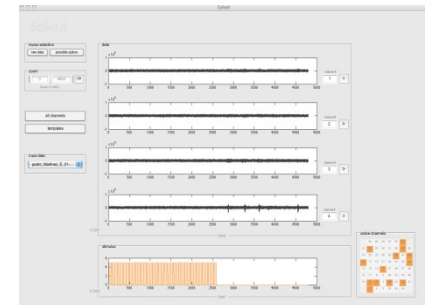
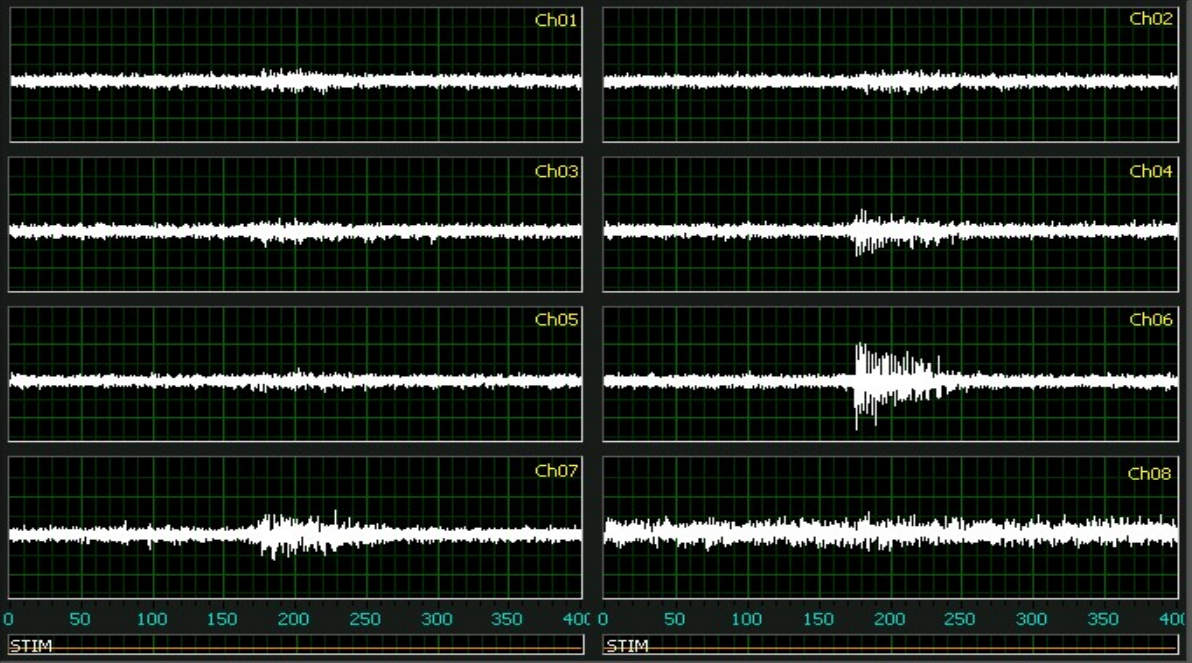


In the general the algorithm sequence for MEA recording is as follow:

- Experimental data recording are done using a Labview (in PC) home made software (i.e. SpikeHunter)
- Visualization of the recording is done using Labview (in PC) i.e. SpikePlayer. The data are exported by blocks in general with 100 or 400 ms duration long (the way that Labview recorded the data).
- The files are read by Spikelt (in Linux or Mac):

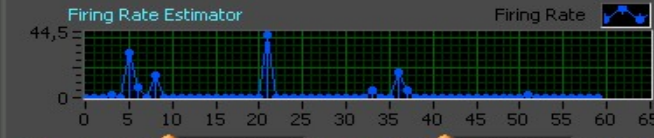
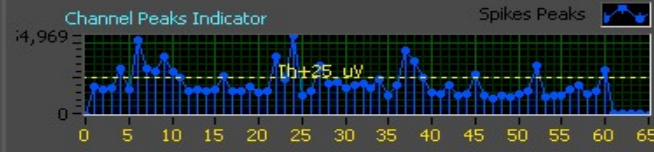


SPIKEIT by Ricardo et al. 2009



Firing Rate Intensity Graph

0	1	2	3	4	5	6	7	8	8
NaN	23	25	28	31	34	36	NaN		
20	21	24	29	30	35	38	39		
18	19	22	27	32	37	40	41		
15	16	17	26	33	42	43	44		
14	13	12	3	56	47	46	45		
11	10	7	2	57	52	49	48		
9	8	5	0	59	54	51	50		
NaN	6	4	1	58	55	53	NaN		

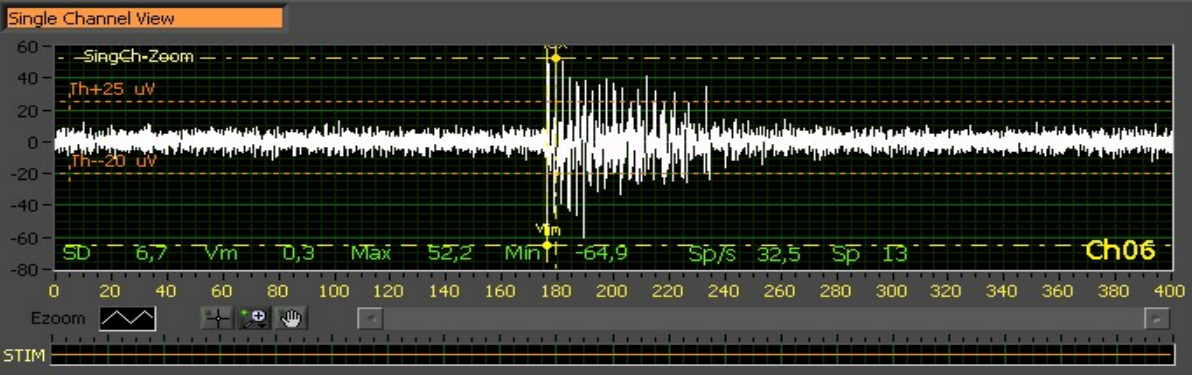


Threshold (+) 25,00 Threshold (-) -20,00 [uV]

File: pedro_Martinez_E_21-08-2009_Exp-1_14-29-37

Autoscale Max 100 Min -80 [uV] Ch Display 1-8

Speed 1x Data block 13 14:29:42 File Part part-0



Data Export

Start 0 End 0

Add

0 Data blocks to export

Export

Delete Selected

Export List

Quit Spikes Player

Spike.it

layout selection

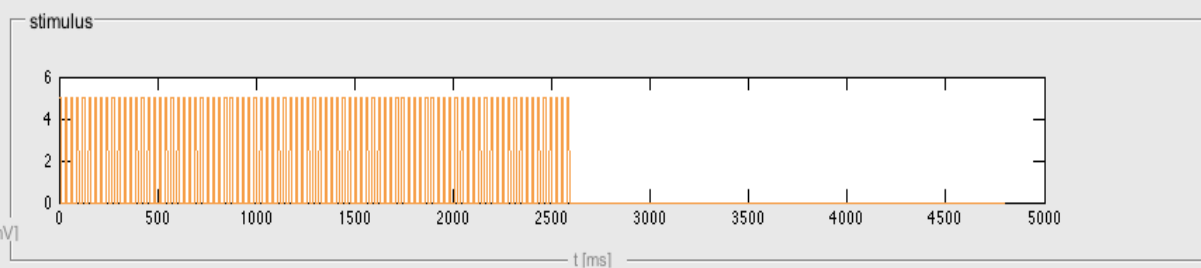
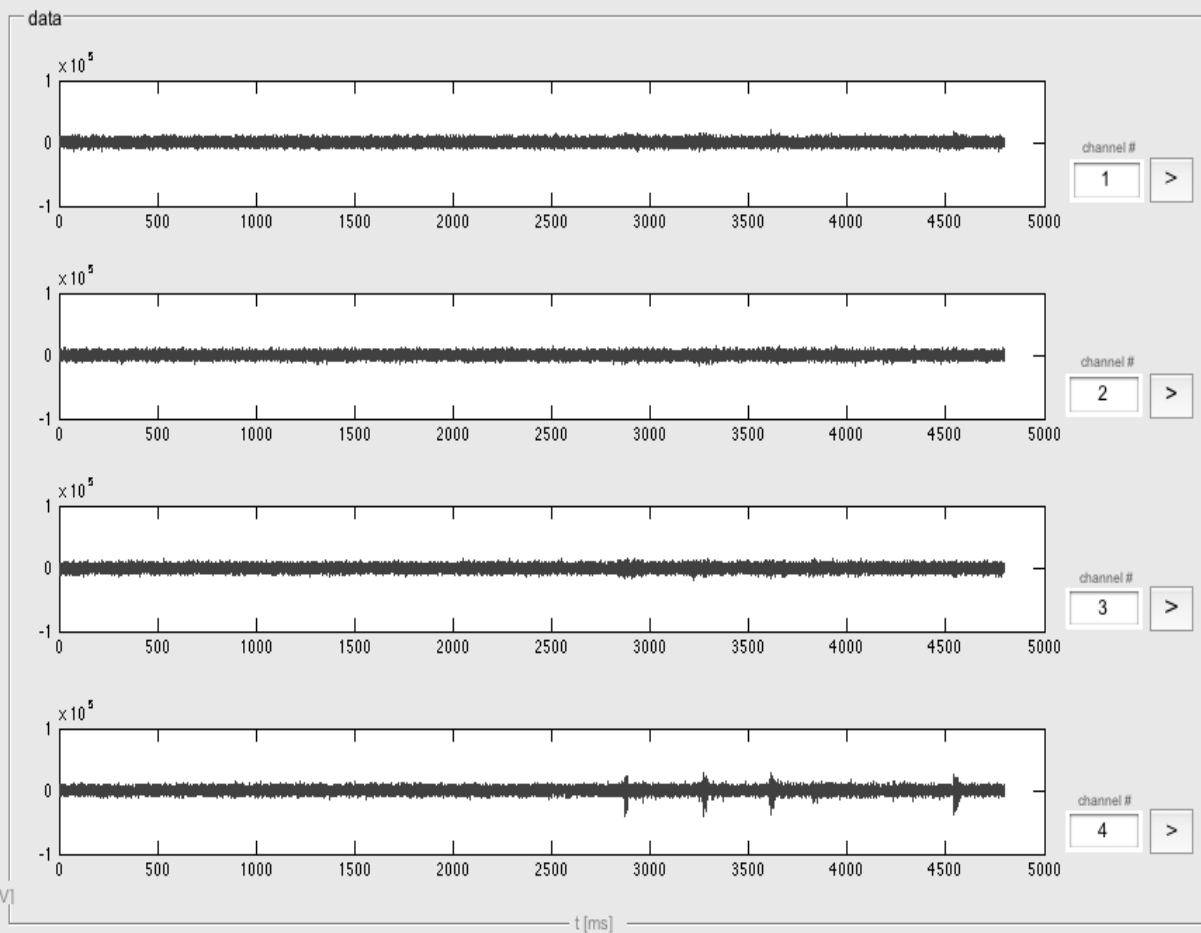
zoom

[;]

Range: [0 ; 4800]

input data

10 ms/ 10 ms



active channels

	24	26	29	32	35	37	
21	23	25	30	31	36	39	40
19	20	23	28	33	38	41	42
16	17	18	27	34	43	44	45
15	14	13	4	57	48	47	46
12	11	8	3	58	53	50	49
10	9	6	1	60	55	52	51
	7	5	2	59	56	54	

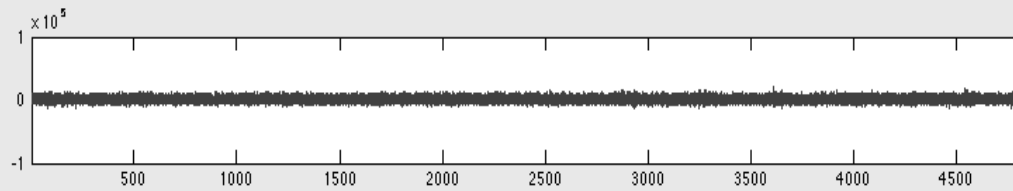
layout selection

zoom

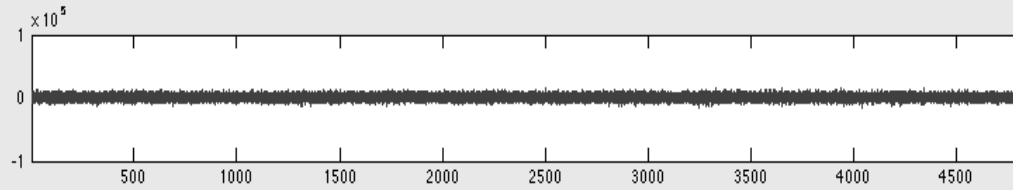
;
Range: [0, 4800]

input data

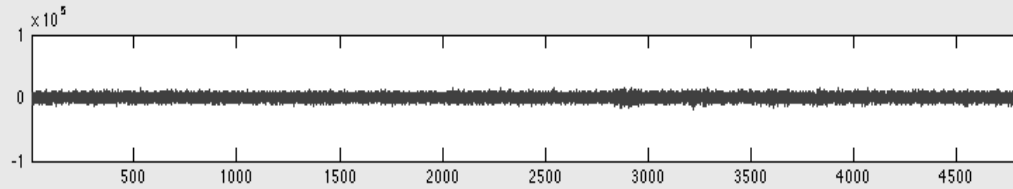
data



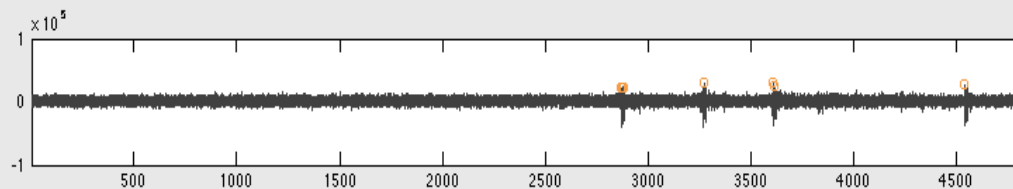
channel #



channel #



channel #

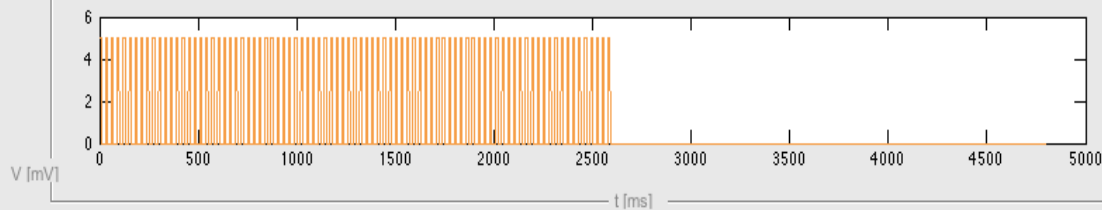


channel #

V [uV]

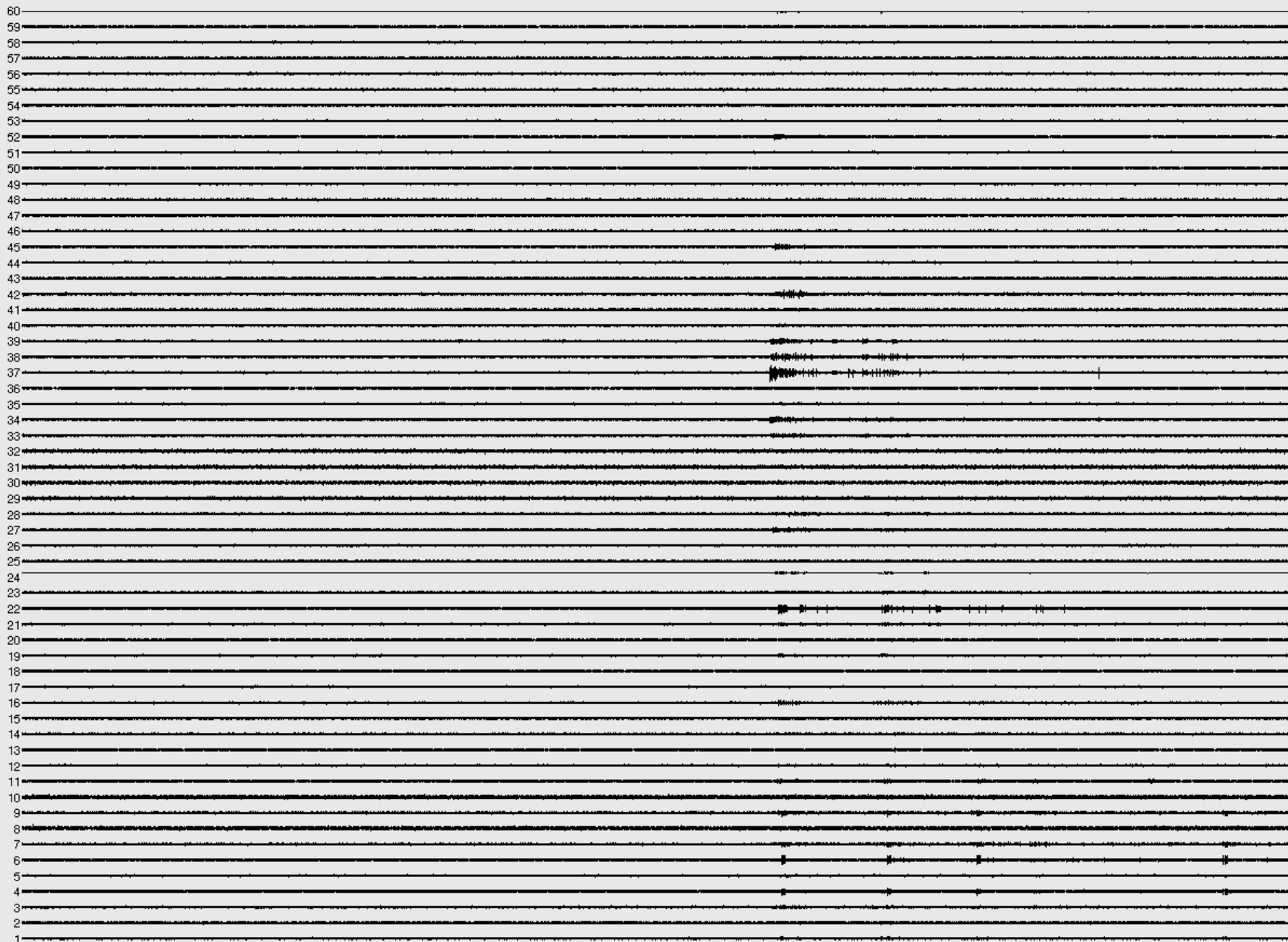
t [ms]

stimulus



active channels

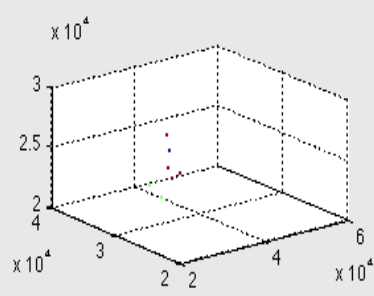
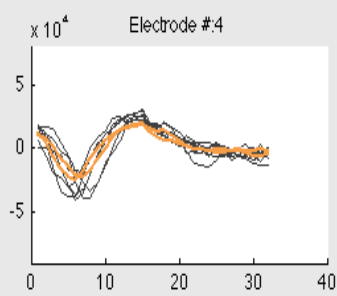
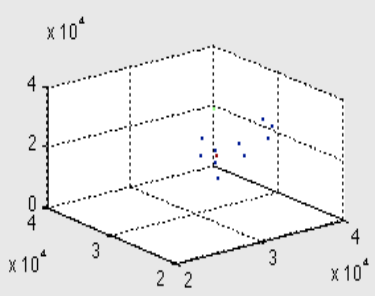
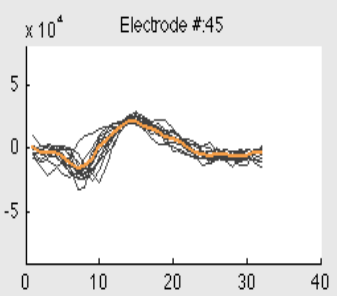
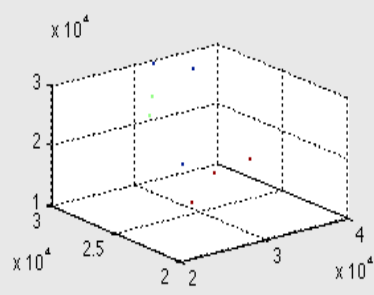
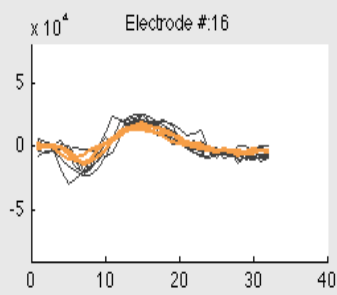
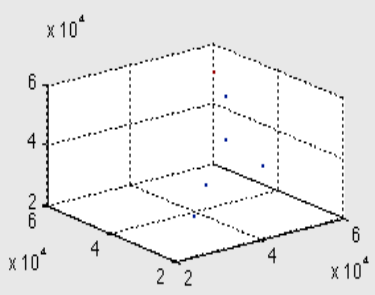
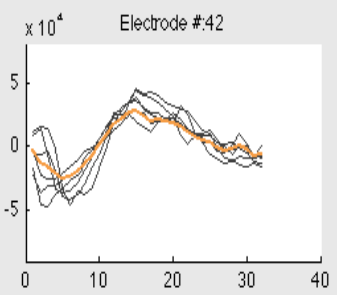
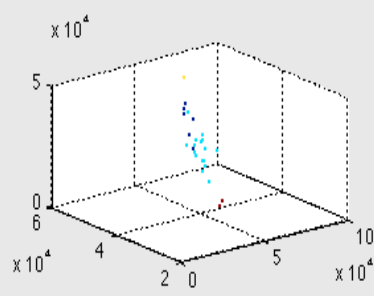
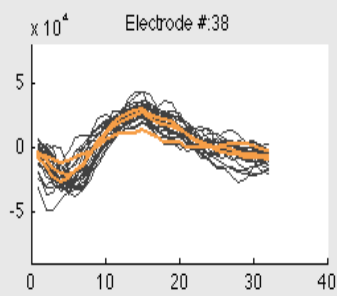
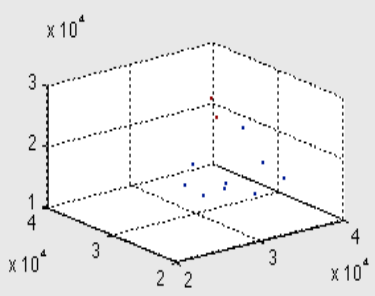
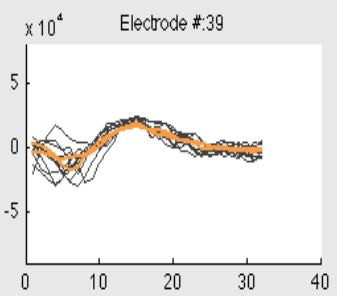
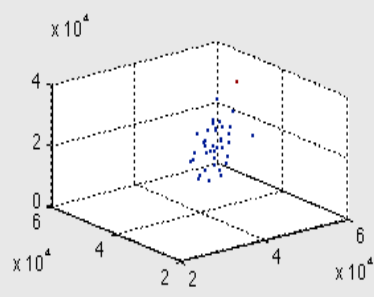
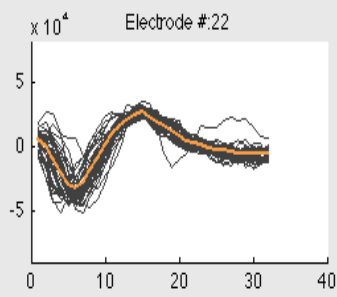
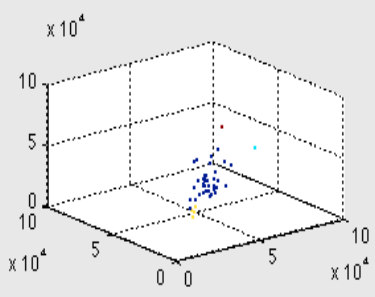
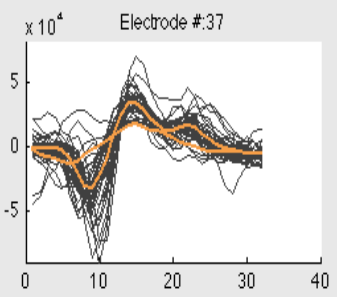
			24	26	29	32	35	37	
21	22	25	30	31	36	39	40		
19	20	23	28	33	38	41	42		
16	17	18	27	34	43	44	45		
15	14	13	4	57	48	47	46		
12	11	8	3	58	53	50	49		
10	9	6	1	60	55	52	51		
	7	5	2	59	56	54			





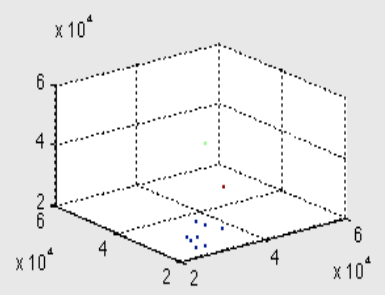
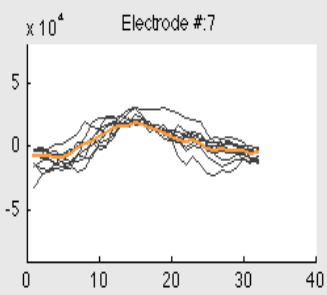
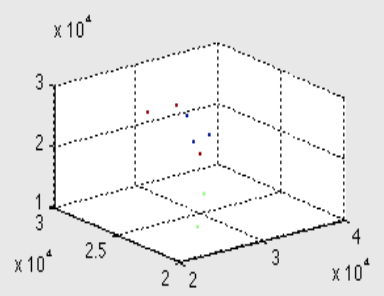
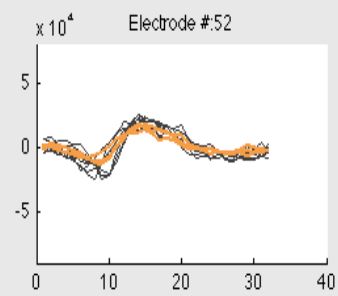
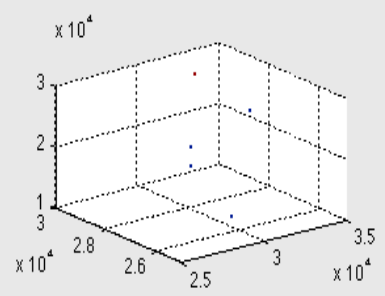
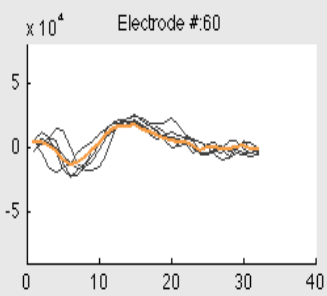
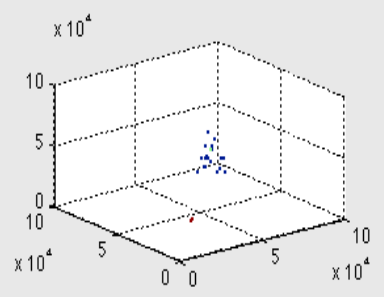
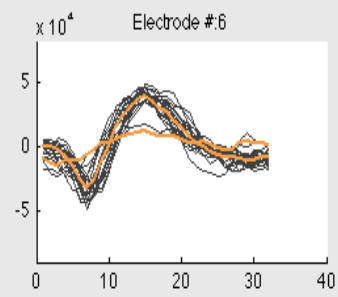
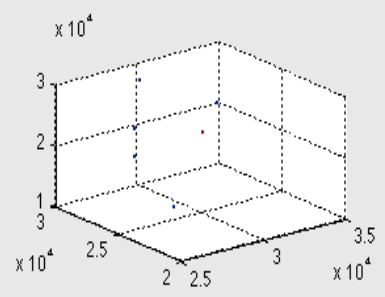
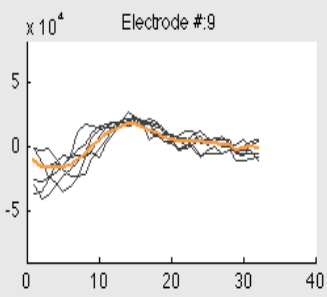
Clusters

- clusters
- templates
- raster plot
- save raster



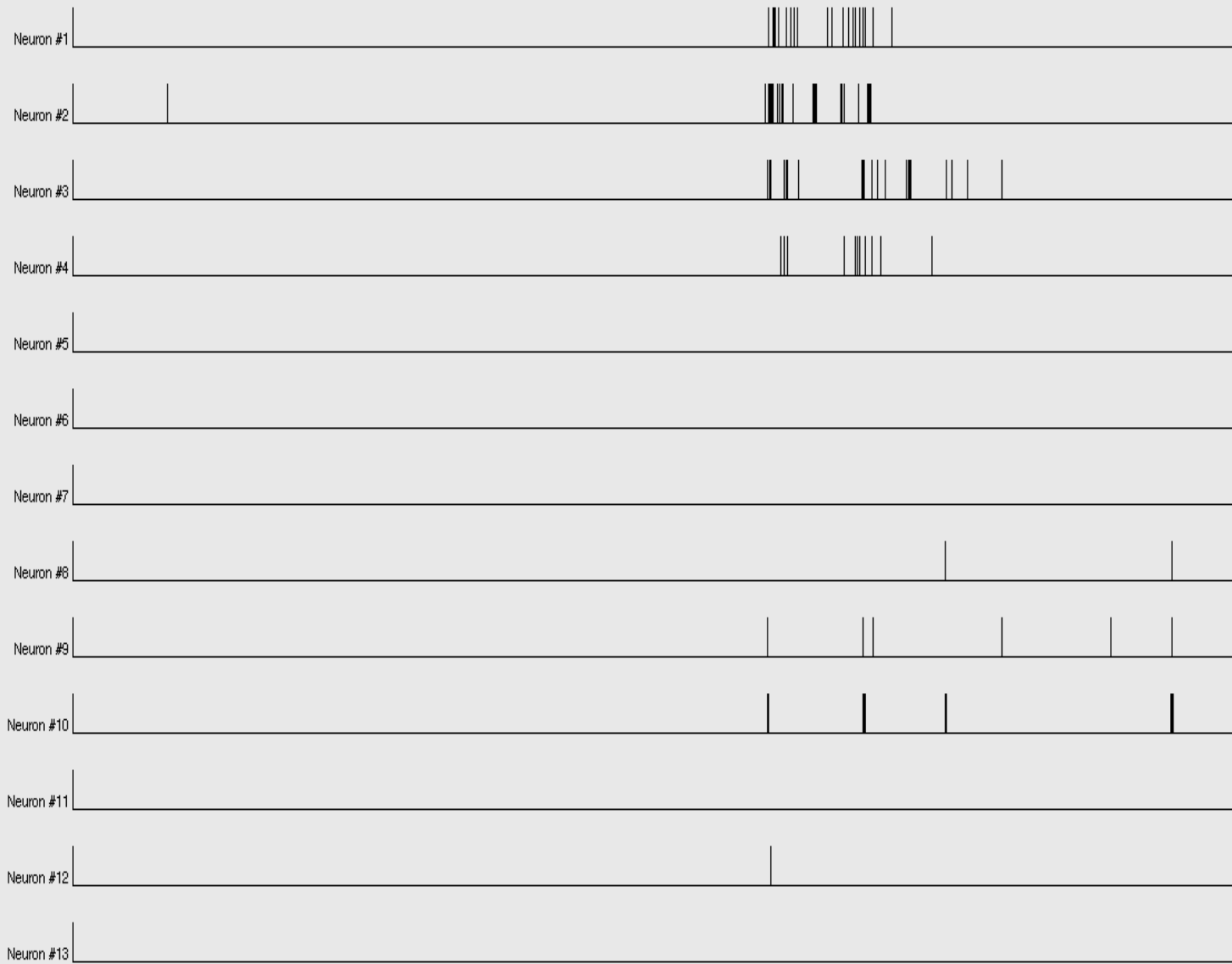
Clusters

- clusters
- templates
- raster plot
- save raster



Raster

- clusters
- templates
- raster plot
- save raster



Spike.it

layout selection

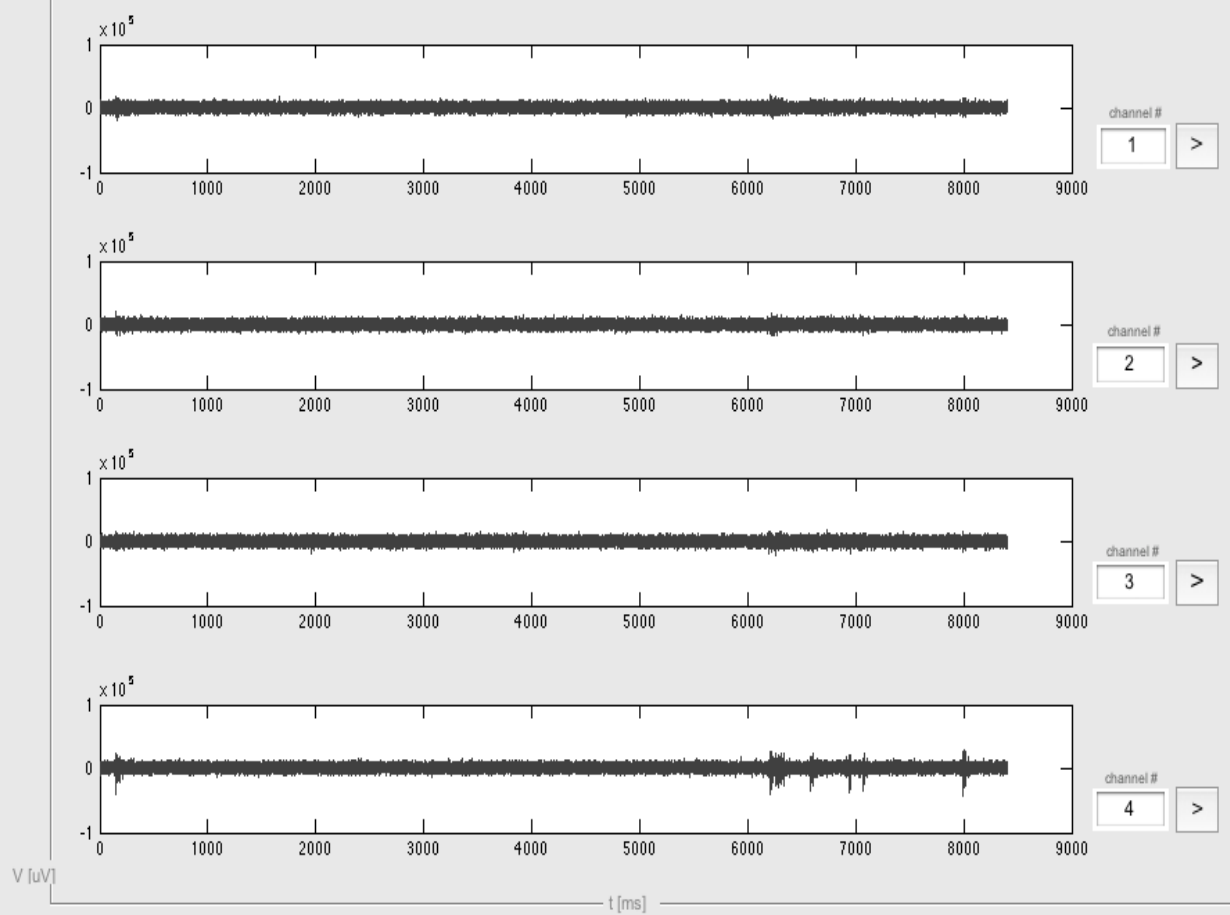
zoom

[,]
Range: [0 ;8400]

input data

10/20ms

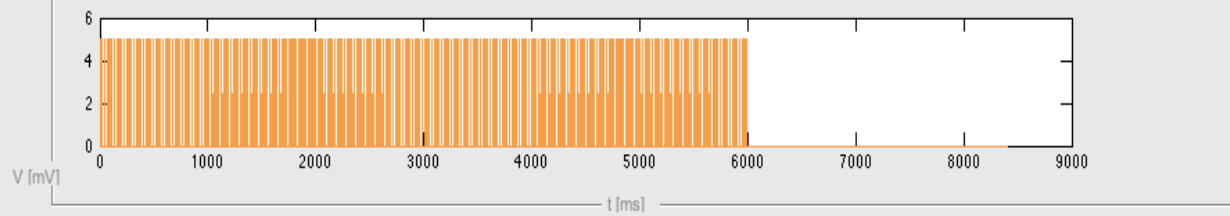
data



V [uV]

t [ms]

stimulus

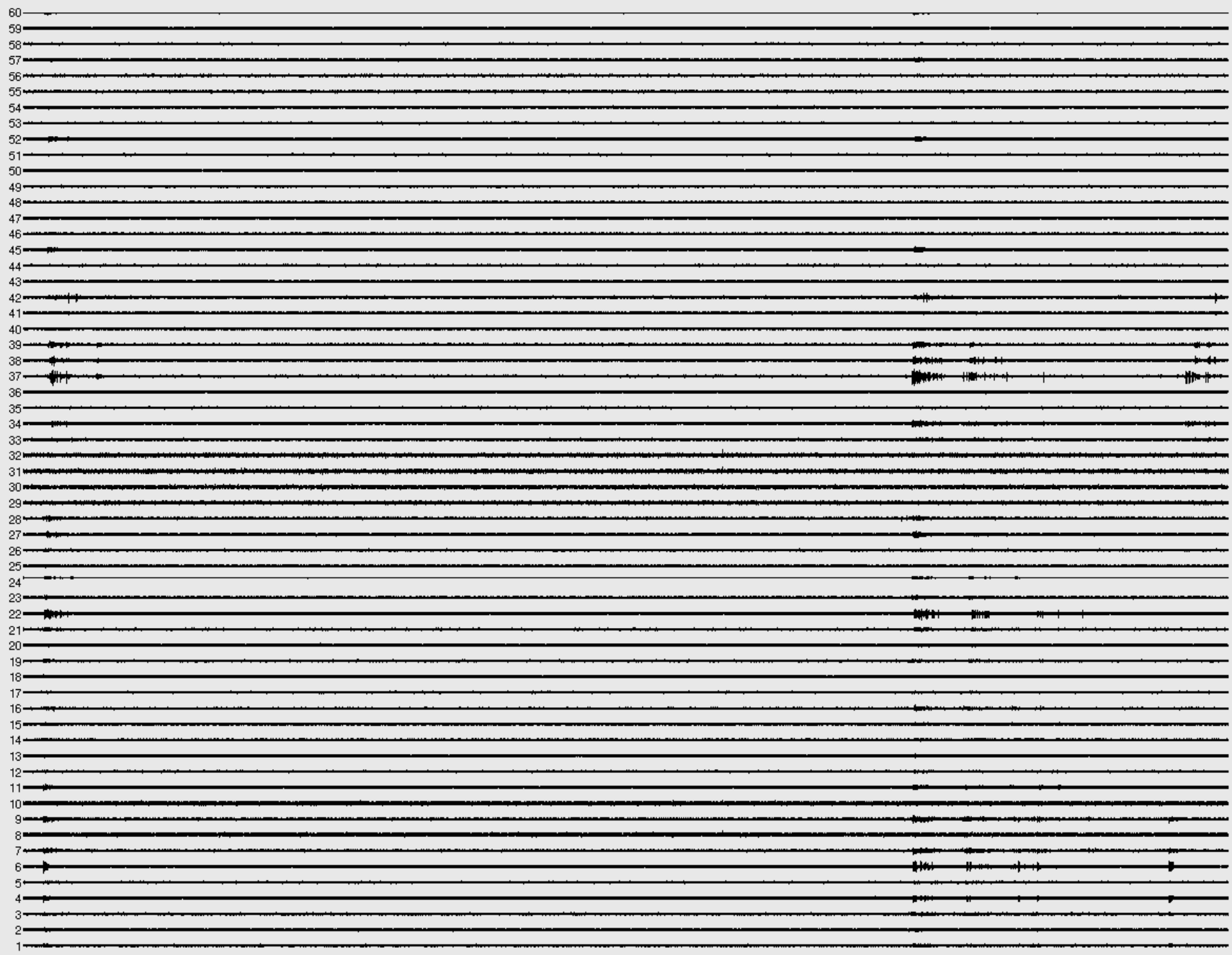


V [mV]

t [ms]

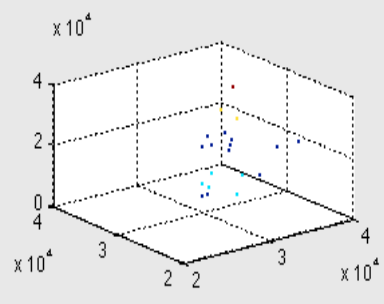
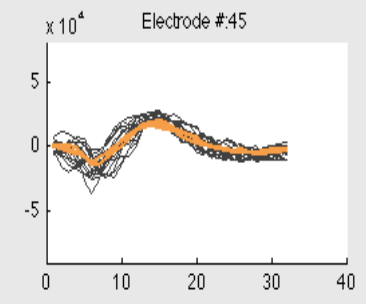
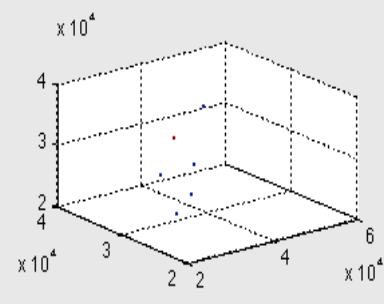
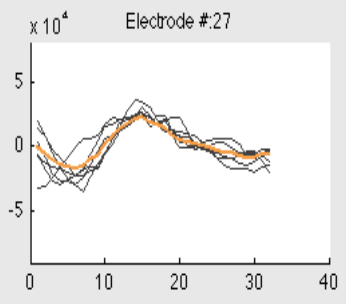
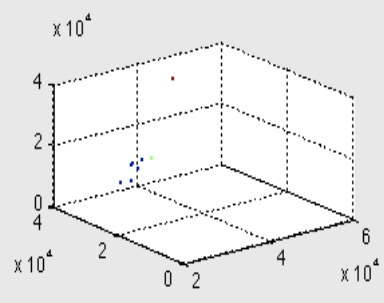
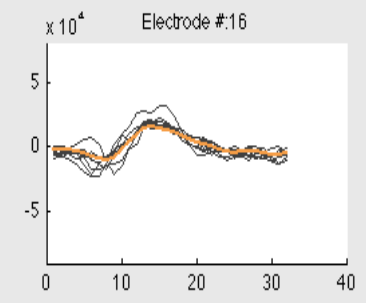
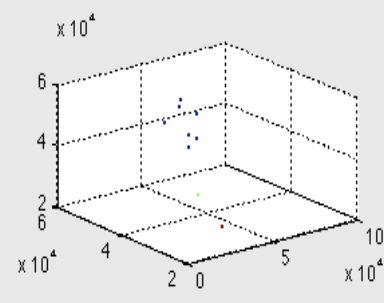
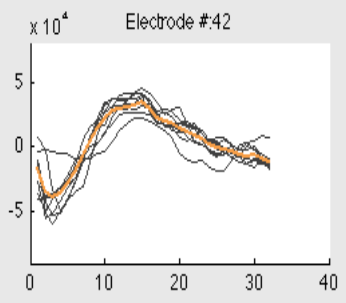
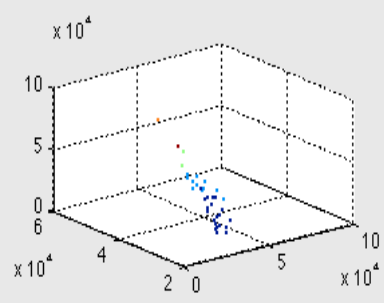
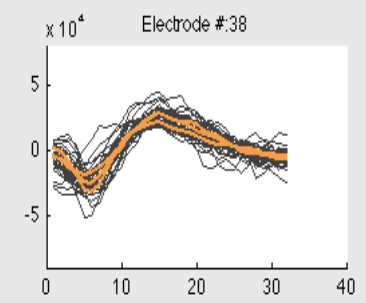
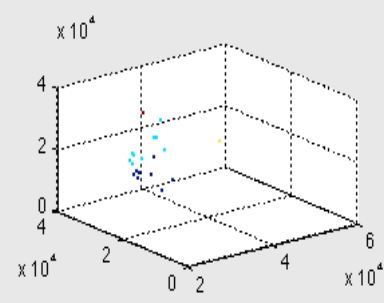
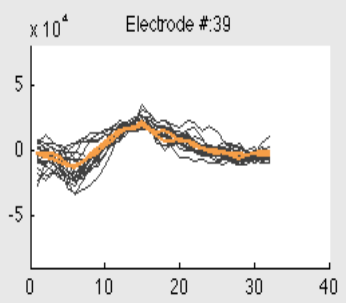
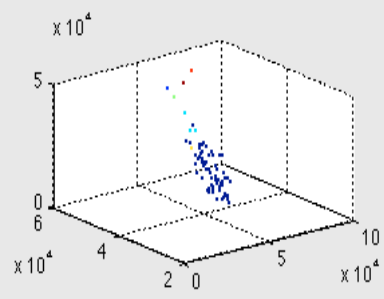
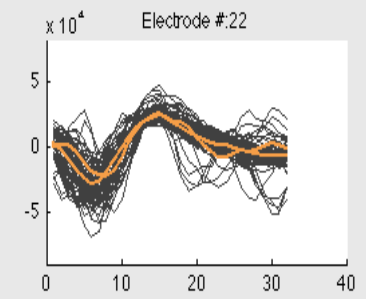
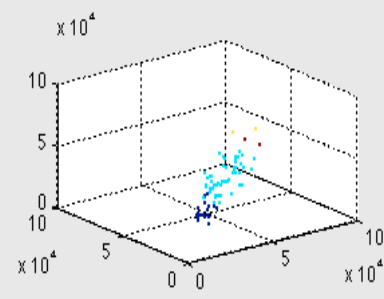
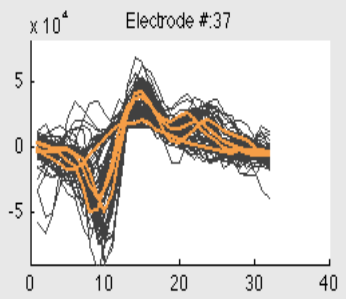
active channels

	24	26	29	32	35	37	
21	22	25	30	31	36	39	40
19	20	23	28	33	38	41	42
16	17	18	27	34	43	44	45
15	14	13	4	57	48	47	46
12	11	8	3	58	53	50	49
10	9	6	1	60	55	52	51
	7	5	2	59	56	54	



Clusters

- clusters
- templates
- raster plot
- save raster



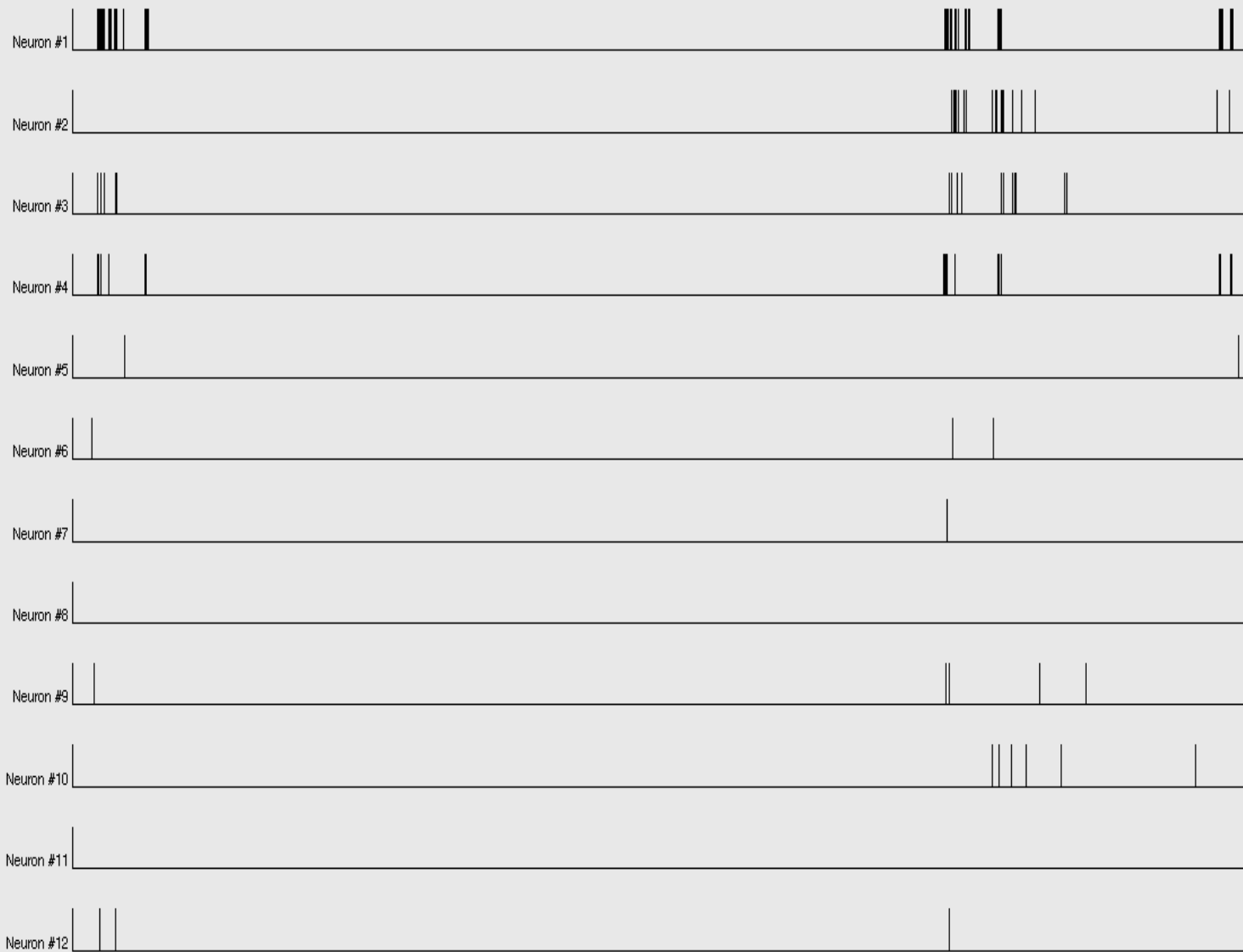
Raster

clusters

templates

raster plot

save raster



layout selection

raw data

possible spikes

zoom

0

16400

OK

Range: [0 :16400]

all channels

templates

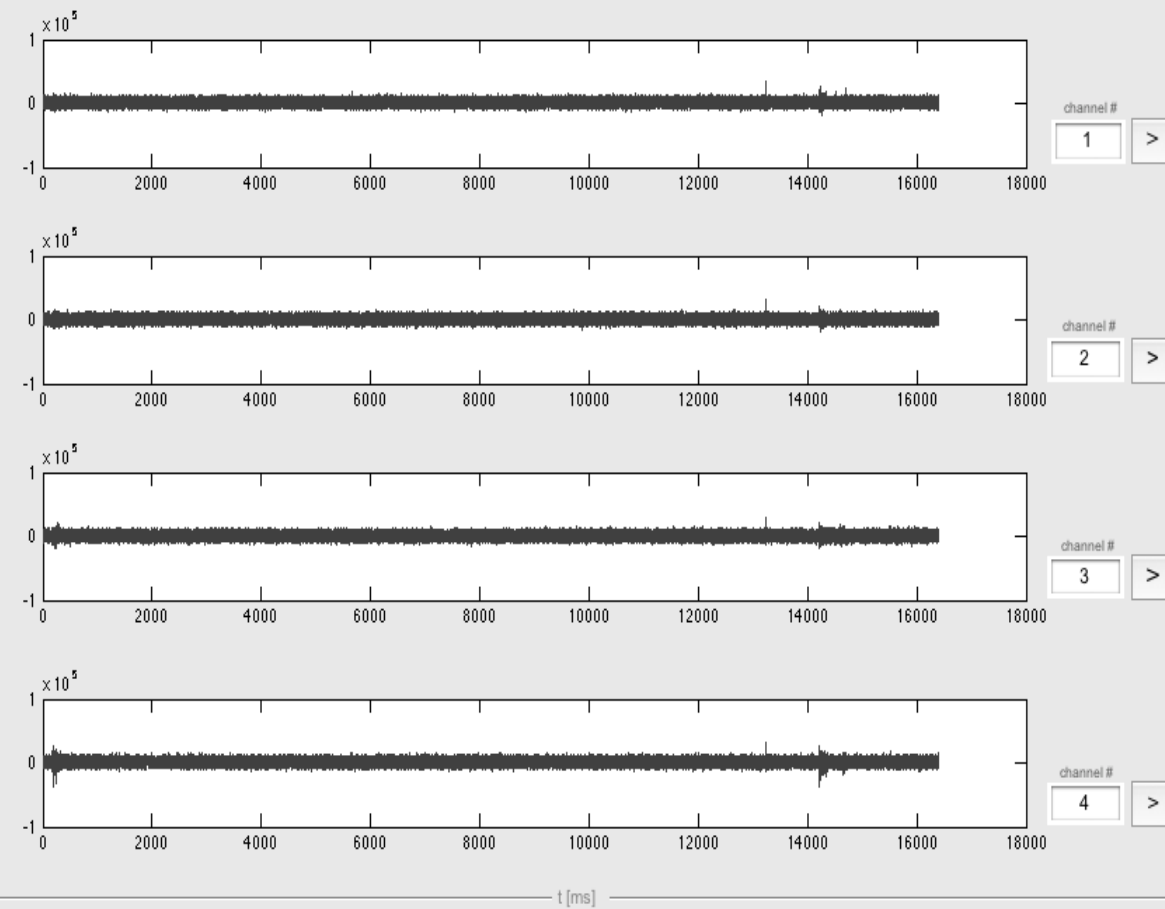
input data

pedro_Martinez_E_21-...

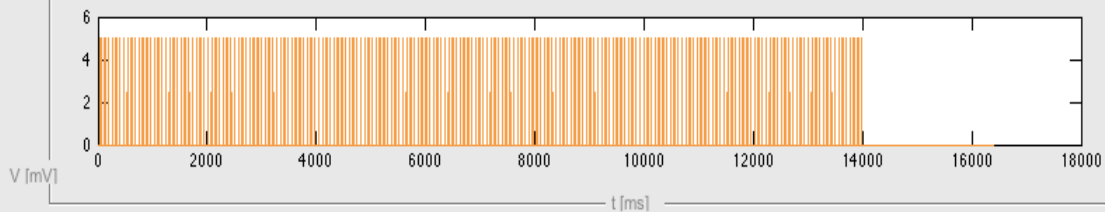
10/60ms

V [uV]

data

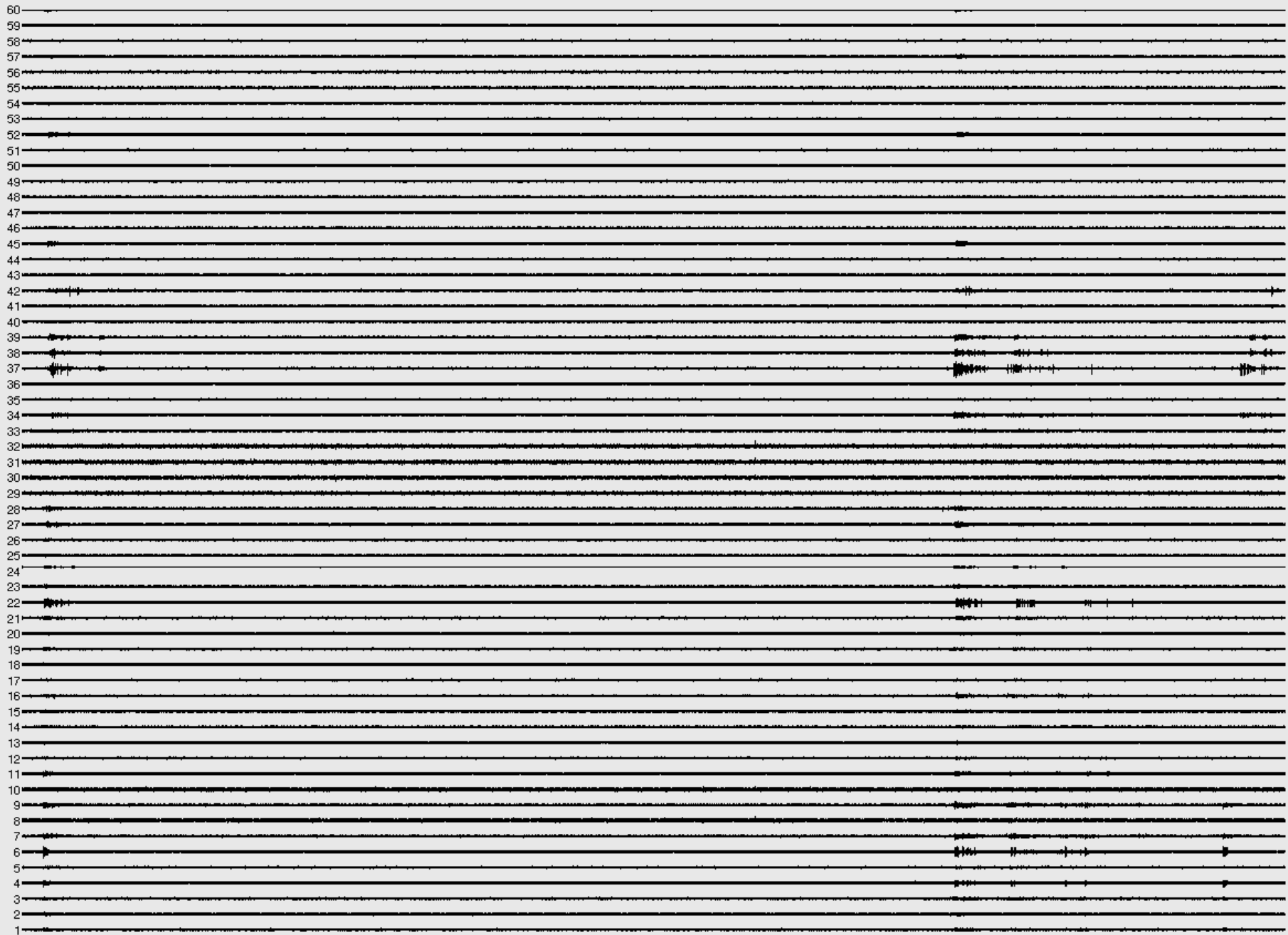


stimulus



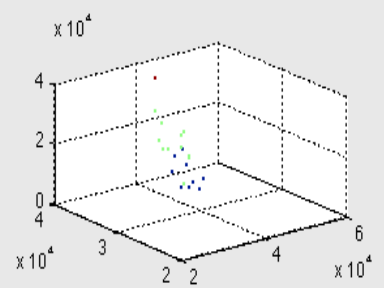
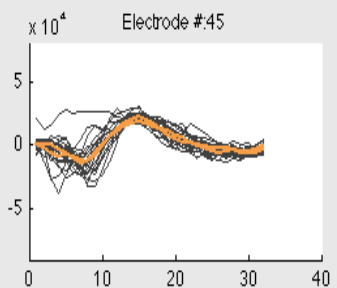
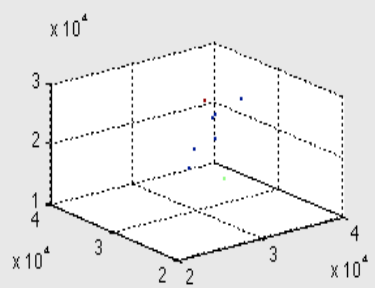
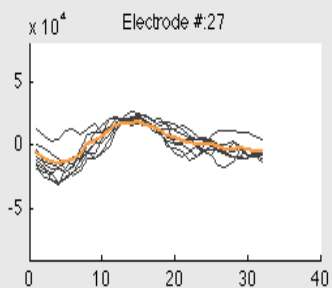
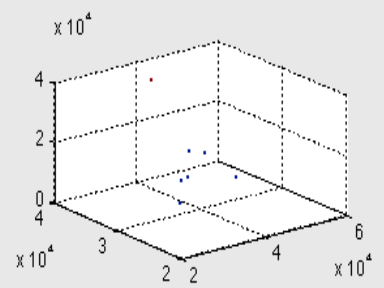
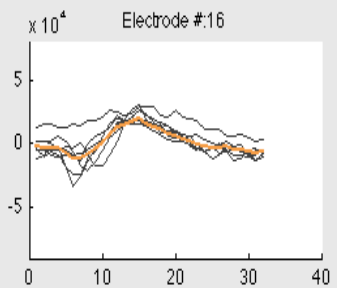
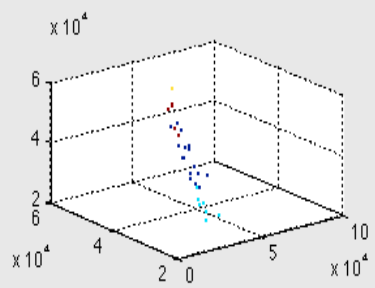
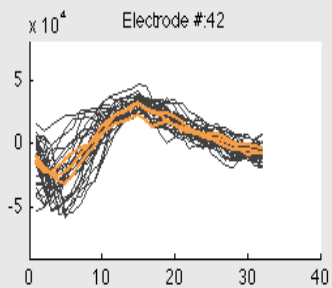
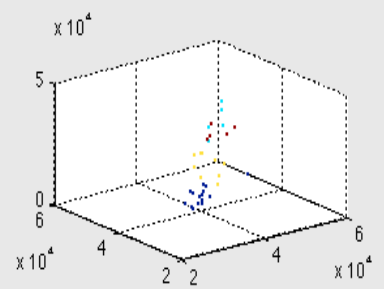
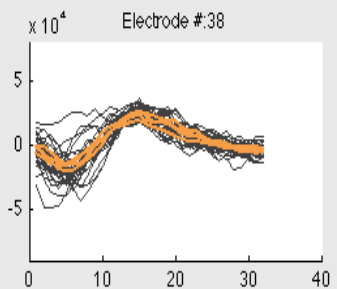
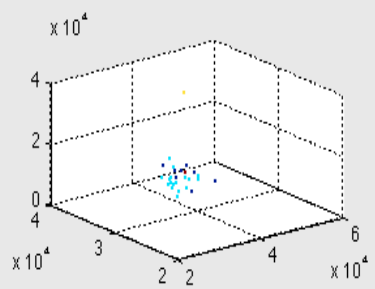
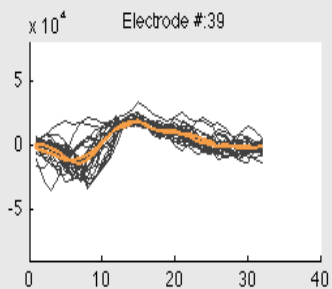
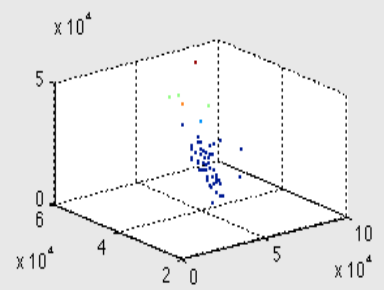
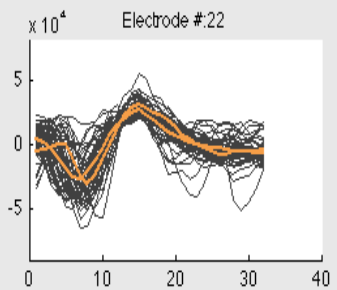
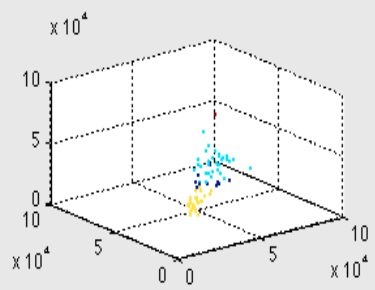
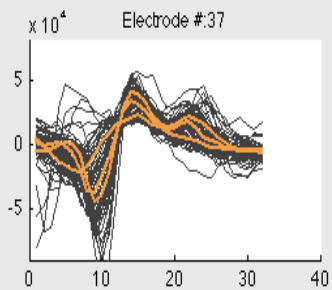
active channels

	24	26	29	32	35	37	
21	22	25	30	31	36	38	40
19	20	23	28	33	38	41	42
16	17	18	27	34	43	44	45
15	14	13	4	57	48	47	46
12	11	8	3	58	53	50	49
10	9	6	1	60	55	52	51
	7	5	2	59	56	54	



Clusters

-
-
-
-



Raster

clusters

templates

raster plot

save raster



layout selection

raw data possible spikes

zoom

;

Range: [0 ; 8400]

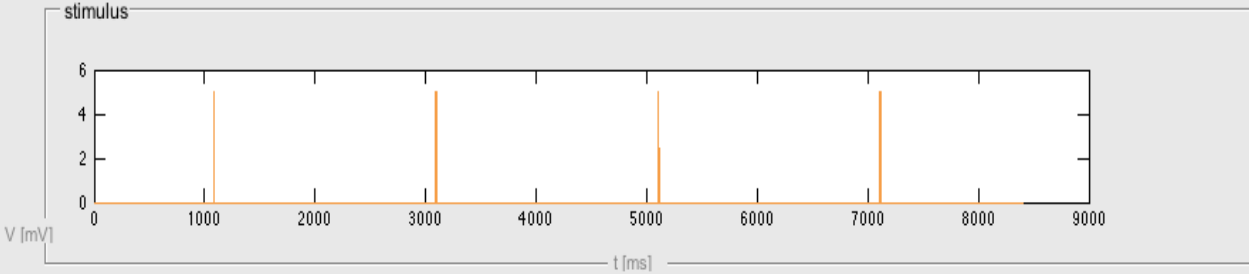
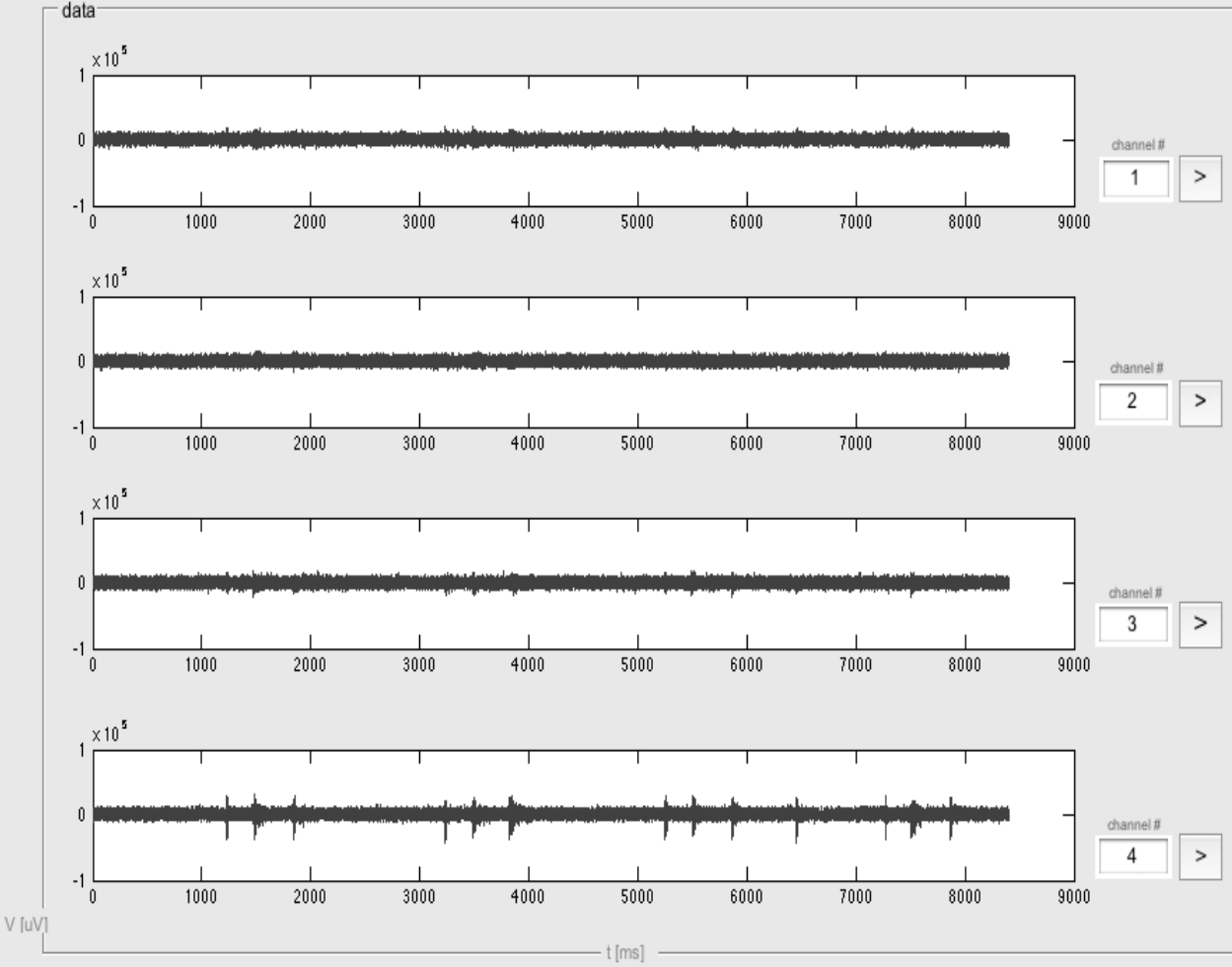
all channels

templates

input data

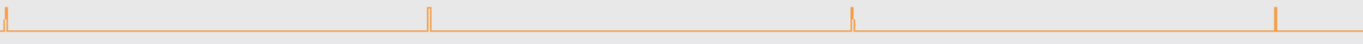
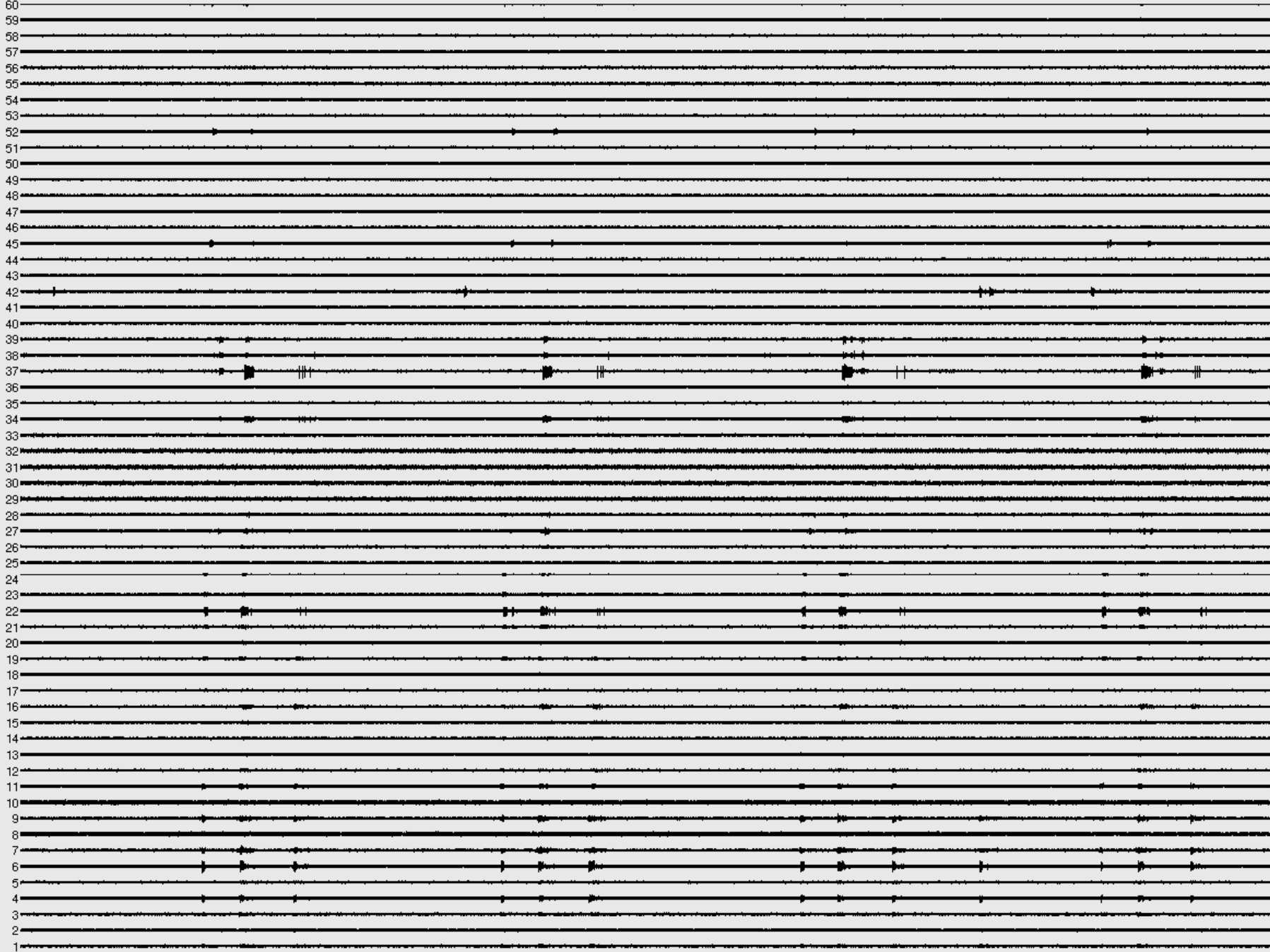
pedro_Martinez_E_21-...

10/2000 ms
(b)

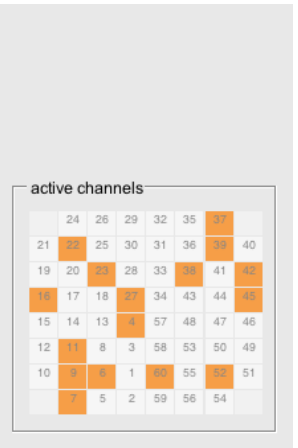
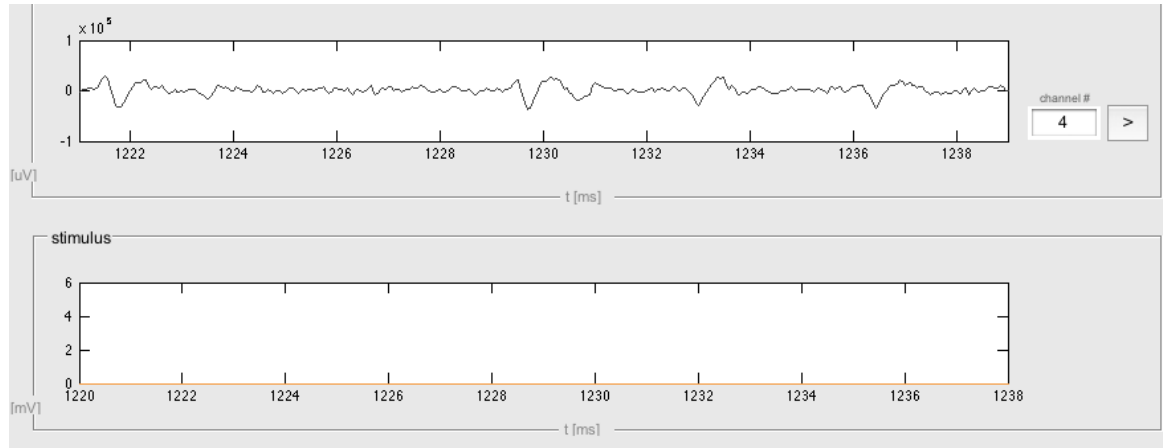
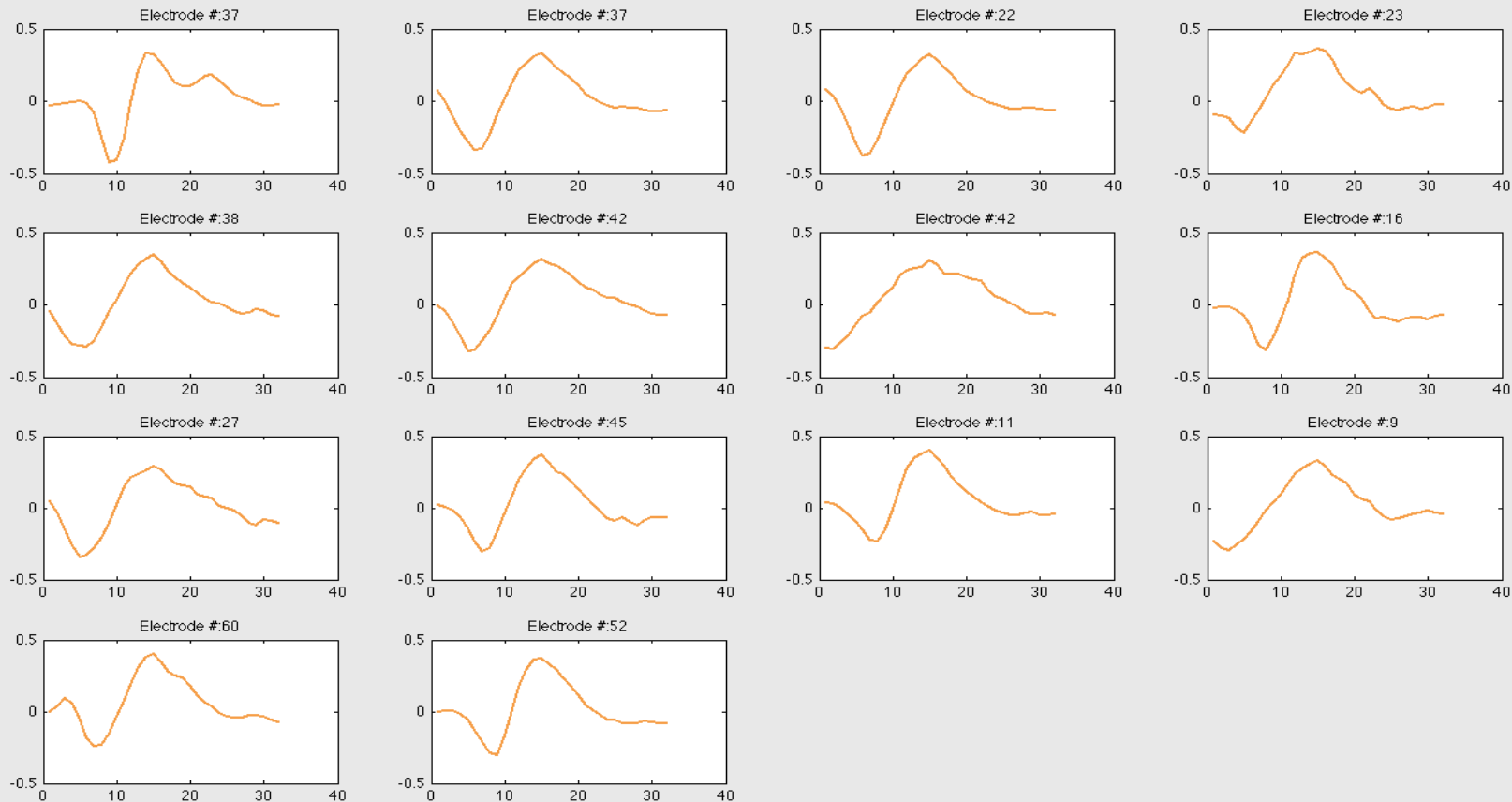


active channels

	24	26	29	32	35	37	
21	23	25	30	31	36	39	40
19	20	23	28	33	38	41	42
18	17	18	27	34	43	44	45
15	14	13	4	57	48	47	46
12	11	8	3	58	53	50	49
10	9	6	1	60	55	52	51
	7	5	2	59	56	54	

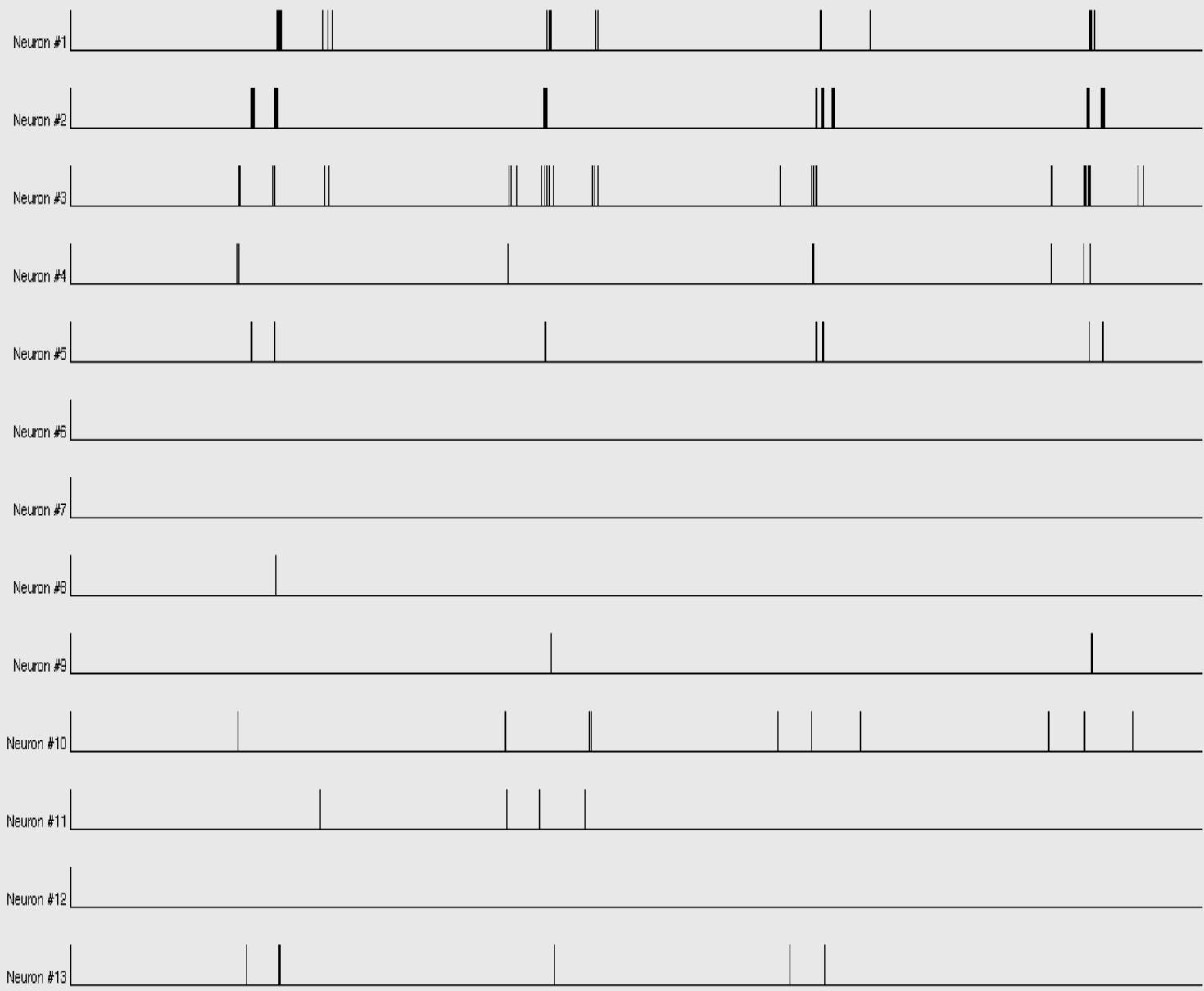


- clusters
- templates
- raster plot
- save raster



Raster

- clusters
- templates
- raster plot
- save raster



layout selection

raw data possible spikes

zoom

0 ; 10500 OK

Range: [0 ; 10500]

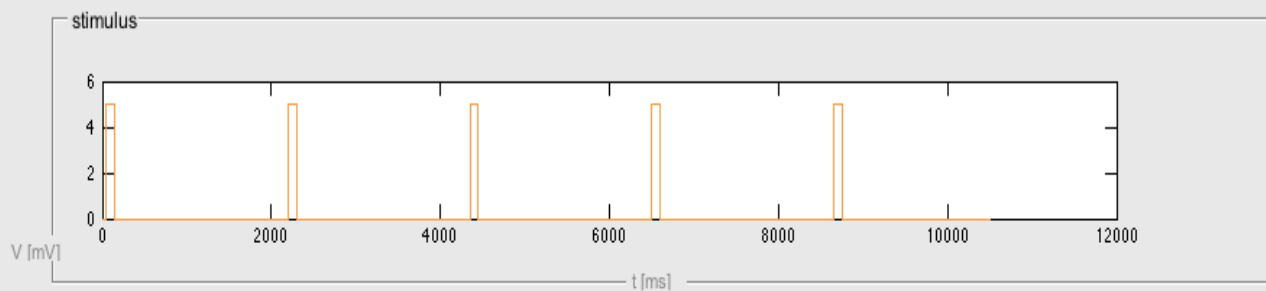
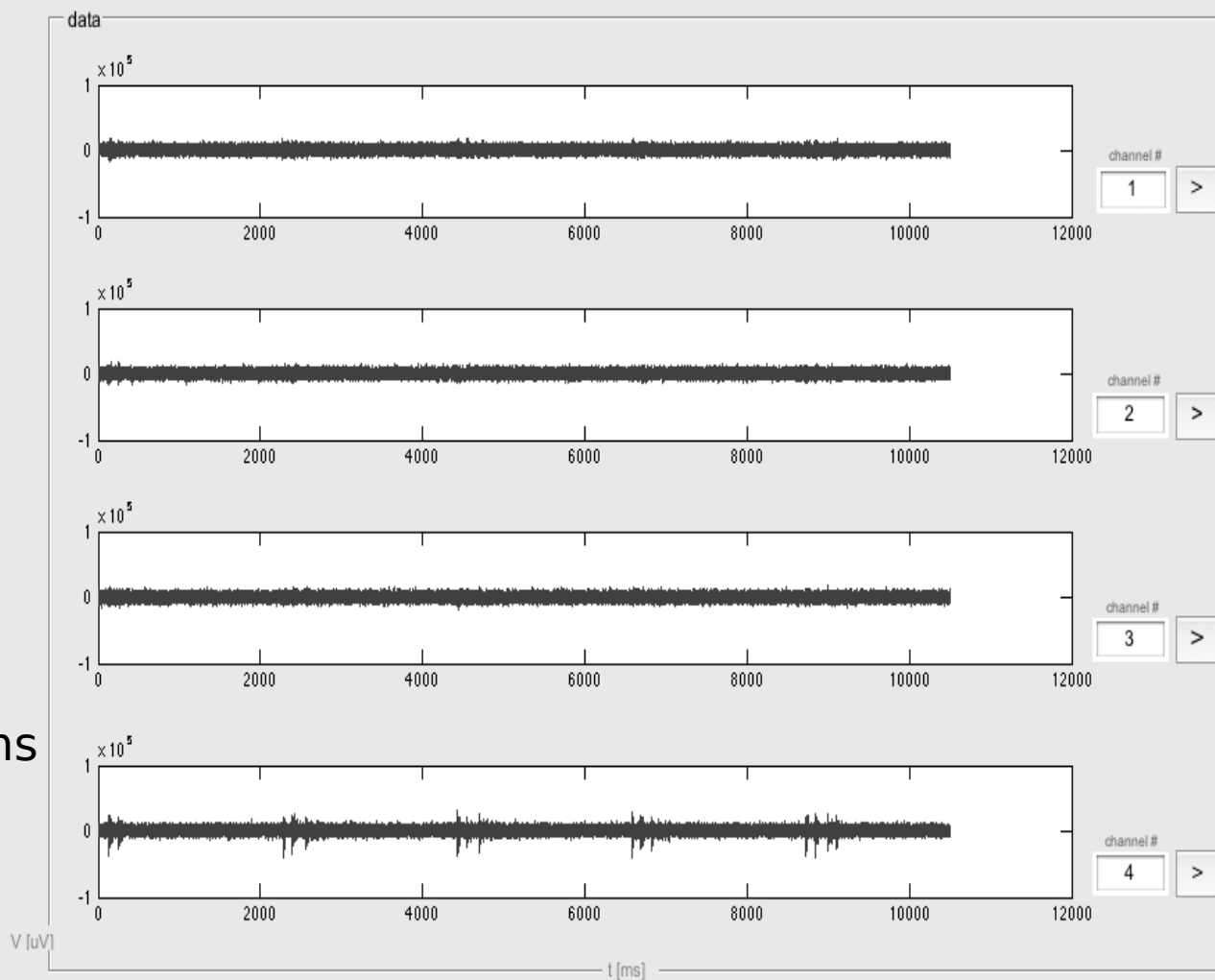
all channels

templates

input data

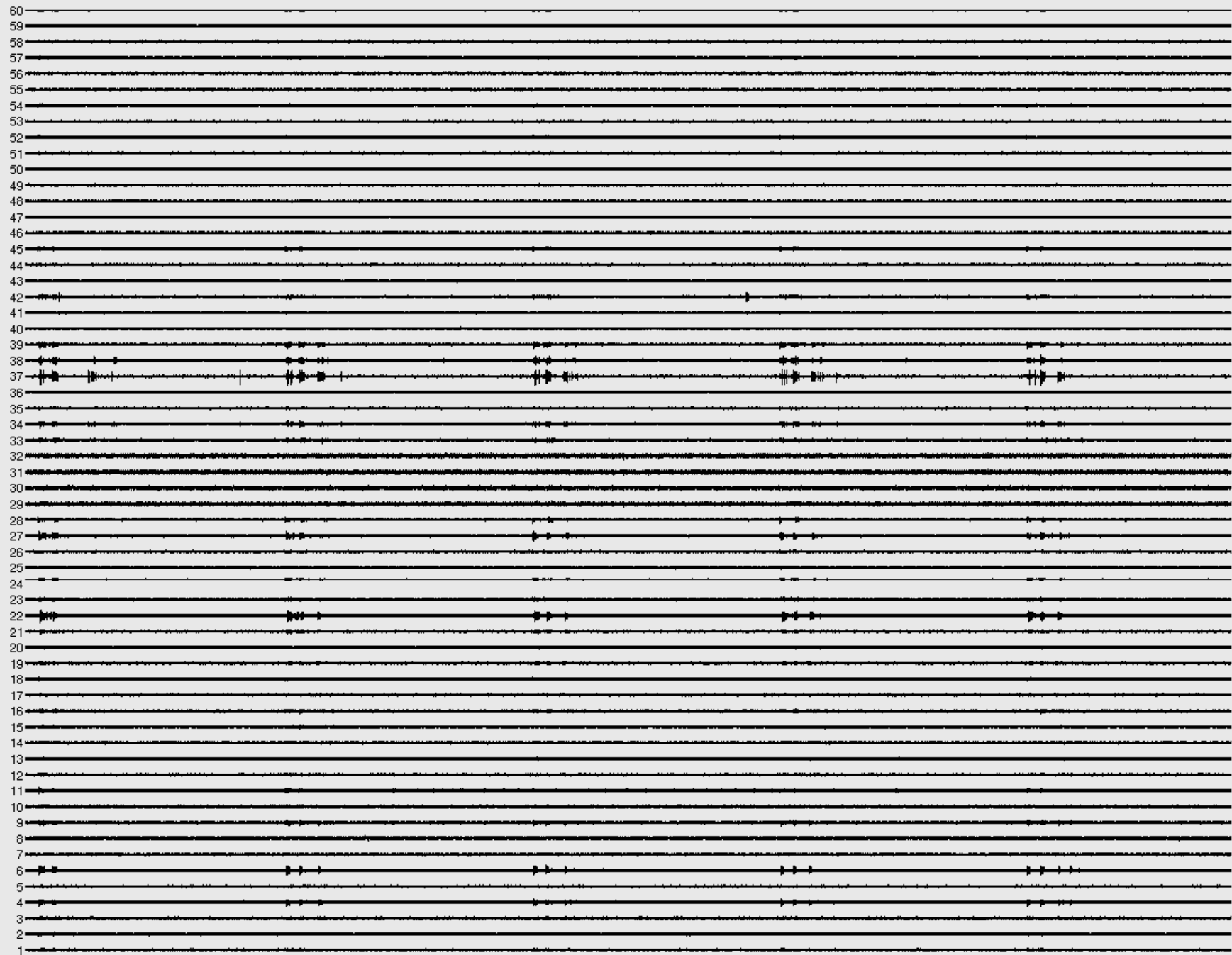
pedro_Martinez_E_21-...

100/2050 ms



active channels

	24	26	29	32	35	37	
21	22	25	30	31	36	39	40
19	20	23	28	33	38	41	42
16	17	18	27	34	43	44	45
15	14	13	4	57	48	47	46
12	11	8	3	58	53	50	49
10	9	6	1	60	55	52	51
	7	5	2	59	56	54	

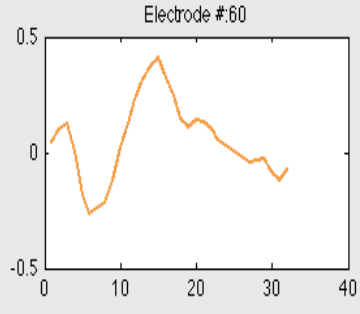
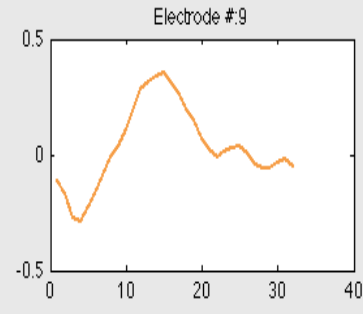
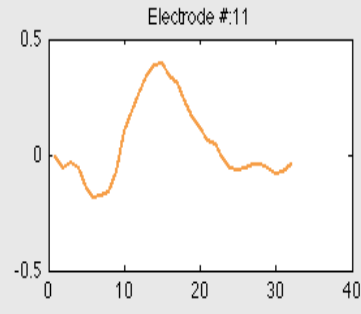
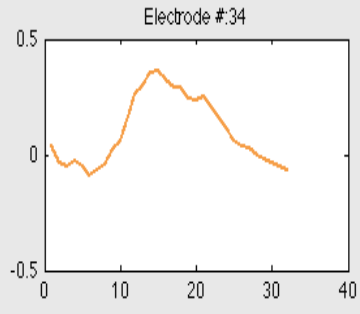
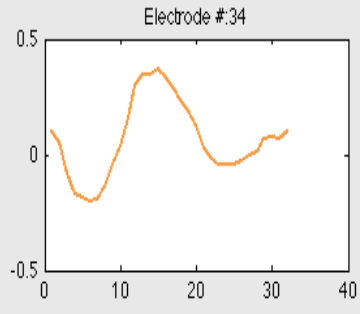
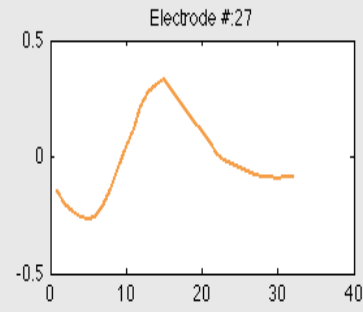
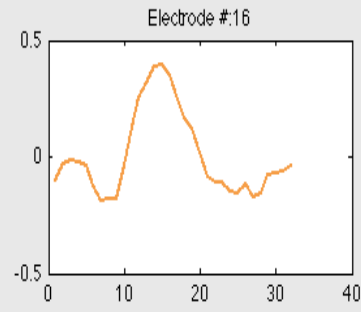
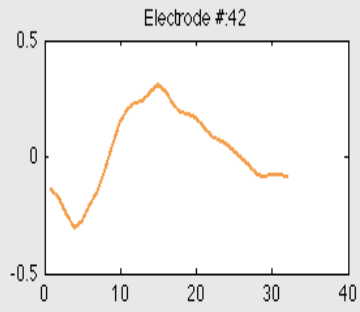
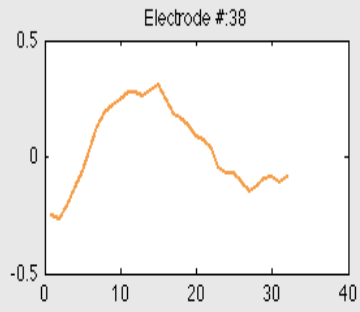
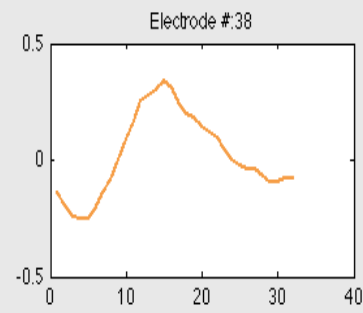
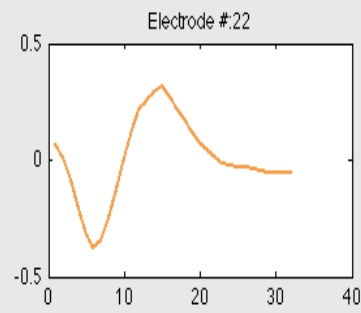
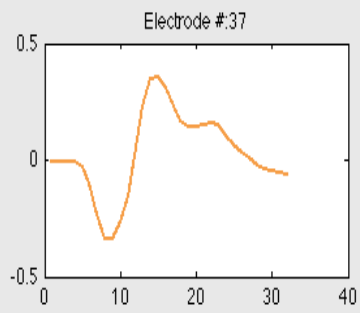
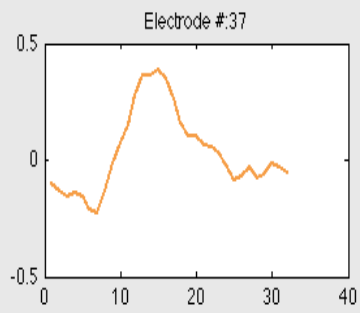


clusters

templates

raster plot

save raster



Raster

clusters

templates

raster plot

save raster

