

```
# -----path to the matlab file with data-----
data_file = r"C:\Users\agorlewicz\Desktop\Pattern separation python\example data\rat.mat" -specyfie the .mat file containing recorded data

# -----output folder-----
output_folder = r"C:\Users\agorlewicz\Desktop\Pattern separation python\result" -specyfie the folder where all the results will be saved

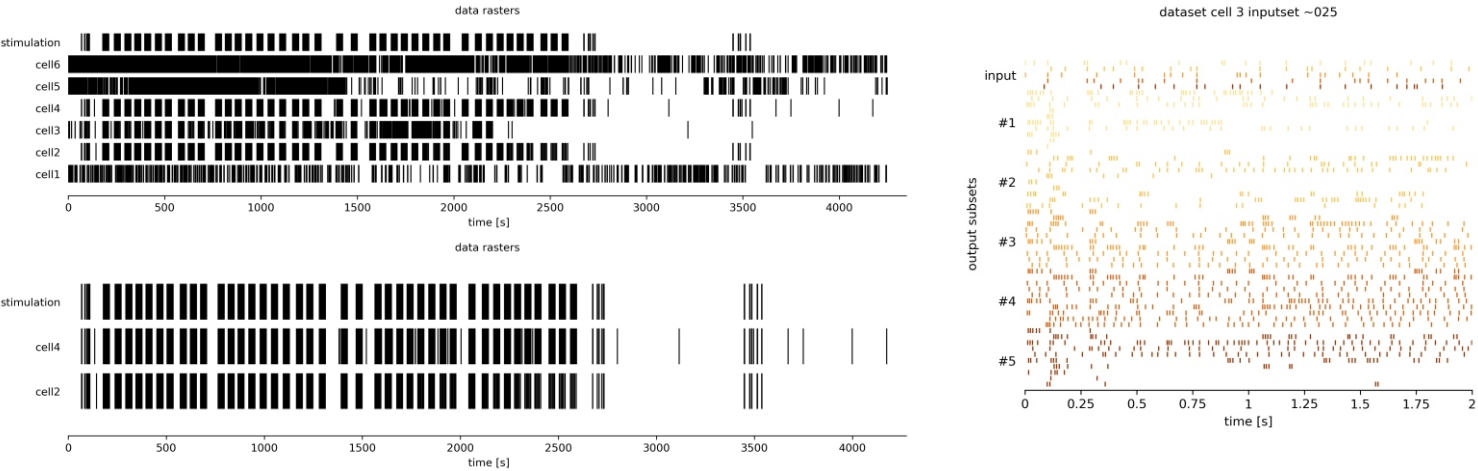
# -----stimulation-----
stim = "V2024_05_15T15_21_14vDG_horizontal_2_sorted_Ch59" -specyfie variable containing stimulation protocol

# -----cells-----
cell1 = "V2024_05_15T15_21_14vDG_horizontal_2_sorted_Ch201" -specyfie variable containing recorded response of cell1...cell2...cell3...
cell2 = "V2024_05_15T15_21_14vDG_horizontal_2_sorted_Ch209"
cell3 = "V2024_05_15T15_21_14vDG_horizontal_2_sorted_Ch210"
cell4 = "V2024_05_15T15_21_14vDG_horizontal_2_sorted_Ch214"
cell5 = "V2024_05_15T15_21_14vDG_horizontal_2_sorted_Ch215"
cell6 = "V2024_05_15T15_21_14vDG_horizontal_2_sorted_Ch234"

# -----include cells for analysis-----

cells = [cell1, cell2, cell3, cell4, cell5, cell6] -decide which recorded responses you want to include to the analysis (for instance cells = [cell2, cell4])
names = ['cell1', 'cell2', 'cell3', 'cell4', 'cell5', 'cell6'] -specyfie the name for each of the included responses (for insatnce names = ['cell2', 'cell4'])

This way you may exclude from the analysis some cells that do not fit to the expected activity standard. Names will be placed in the graph upon analysis.
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# -----inputsets names-----

inputsets_names = ['inputset ~025', 'inputset ~045', 'inputset ~075', 'inputset ~095'] -specyfie the name for each of the four inputsets that you use

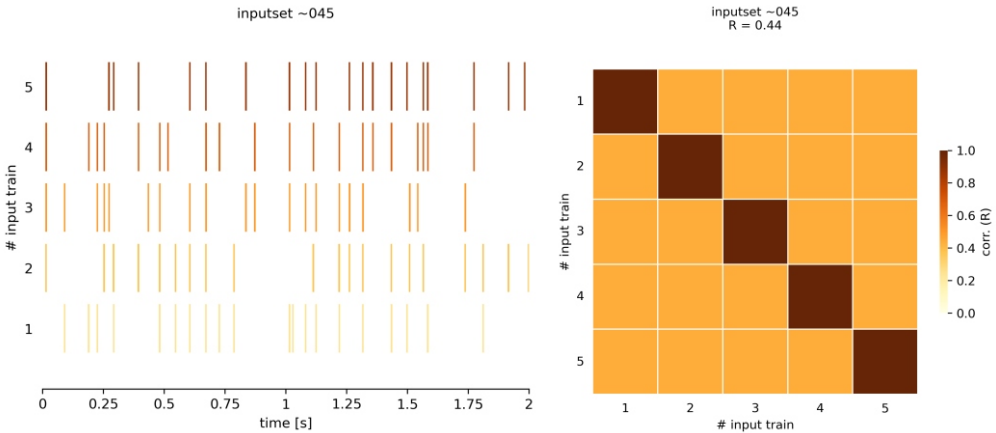
Order matters -the first inputset name refers to the one with the lowest correlation. Names will appear in the graphs upon analysis.

# repetition 1 -for each repetition specyfie the timepoint in seconds when each inputset starts. Do not change anything but numbers.

inputset_095_start.append(764.883)
inputset_075_start.append(2044.234)
inputset_045_start.append(179.553)
inputset_025_start.append(1392.920)
```

repetition 2

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inputset_095_start.append(815.836)
inputset_045_start.append(239.481)
inputset_075_start.append(2044.236)
inputset_025_start.append(1469.001)
```



Run the script

Upon many files in the 'output folder' you will find an excell file named 'input output correlation'. This excell file contains the calculated correlation factors for all the processed cellular responses.

	inputset ~025	inputset ~045	inputset ~075	inputset ~095
cell2	0.21	0.2	0.35	0.32
cell3	0.06	0.15	0.09	0.2
cell4	0.23	0.48	0.54	0.85