analyser

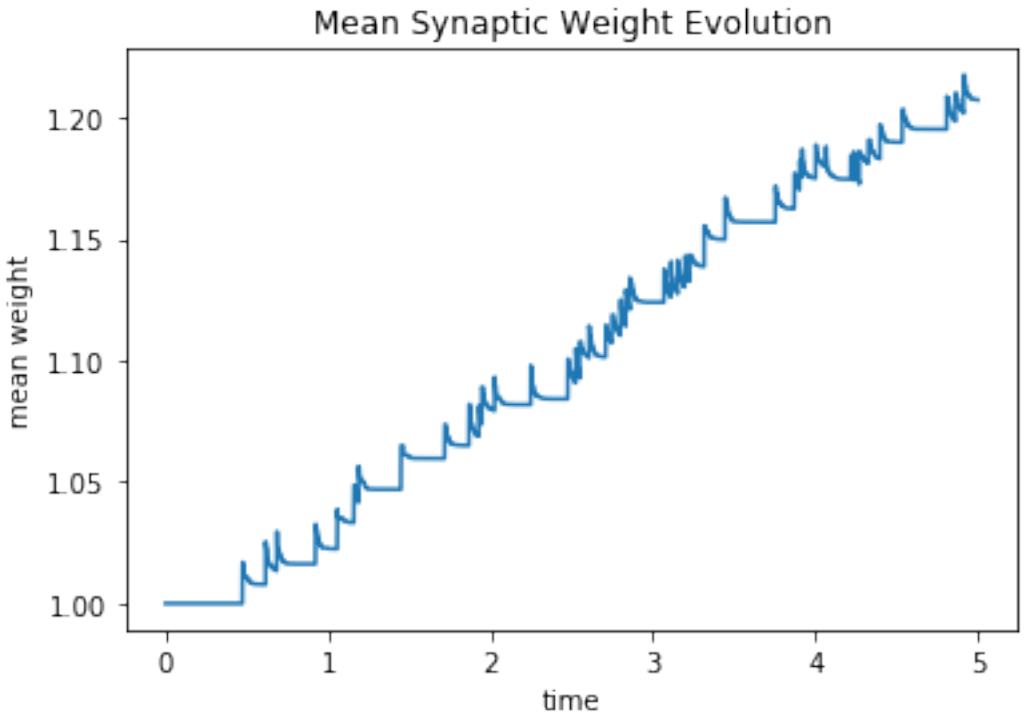
December 20, 2021

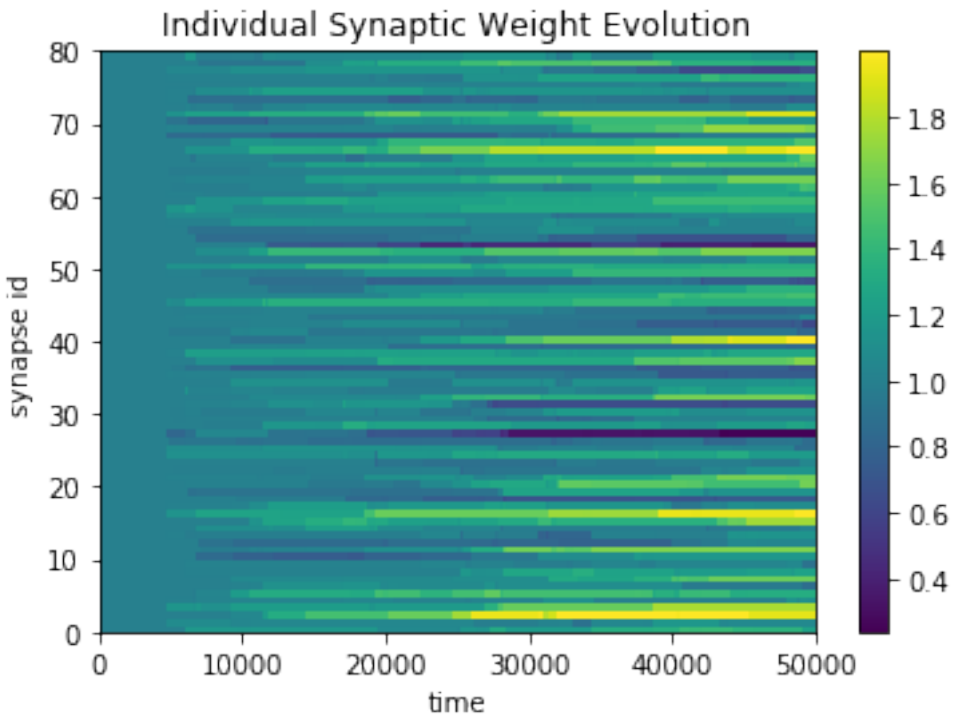
[3]:
```
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
import seaborn as sns

import os

%load_ext autoreload
%autoreload 2
```

Starting weights for synapses at 1.5

[14]:
```
from ast import literal_eval

base_dir = "./"

fold = "OutFiles/"

file_name = "/BiExpo_Toy_HeteroSynapses_01.dat"

data = pd.read_csv(base_dir + fold + file_name, delim_whitespace=True,␣
 ↪skiprows=4, header=None)

times = data.iloc[::,:1]
syn_data = data.iloc[::,1:].applymap(lambda x: x.split(',')[5]).
 ↪astype('float32')
theta_data = data.iloc[::,1:].applymap(lambda x: x.split(',')[4]).
 ↪astype('float32')


mean_wts = syn_data.mean(axis=1)

plt.plot(times, mean_wts)
plt.title("Mean Synaptic Weight Evolution")
plt.xlabel("time")
plt.ylabel("mean weight")
plt.show()
```

```
plt.pcolor(syn_data.T)
plt.colorbar()
# plt.clim(0,2)
plt.title("Individual Synaptic Weight Evolution")
plt.xlabel("time")
plt.ylabel("synapse id")
plt.show()
```




Individual Synaptic Weight Evolution
synapse id
time
0
10
20
30
40
50
60
70
80
0
10000
20000
30000
40000
50000
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8