Deep Learning for EEG Time-frequency Decomposition

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Side Note: 'Changes in tonic LC activity induced by handgrip affects phasic responses to salient stimuli in the period immediately afterwards (using pupil dilation used to infer LC responses).'

1 Obtain data from files

Import Basic Libraries and EegTF module.

[1]:
```
import EegTF
import numpy as np
import matplotlib.pyplot as plt
import scipy.io
%matplotlib inline
import keras

import seaborn as sns
sns.set_palette('muted')
sns.set_style('darkgrid')
```

Save EEG file names in current directory

[2]:
```
ls /Users/isaacmenchaca/Desktop/reanalysis/EEG_DATA_HOLD_Epoch_matfiles/*.mat >␣
↪hold.txt
```

[3]:
```
ls /Users/isaacmenchaca/Desktop/reanalysis/EEG_DATA_SQUEEZE_Epoch_matfiles/*.mat␣
↪> squeeze.txt
```

Extract file names from .txt files.

[4]:
```
with open('hold.txt', 'r') as f:
    x = f.readlines()
    holdFiles = []
    for file in x:
        holdFiles.append(file.replace('\n', ''))

with open('squeeze.txt', 'r') as f:
    x = f.readlines()
    squeezeFiles = []
    for file in x:
```