Dear Students,

This is some additional information about the data for the competition. The timeseries are stored in .fif format. You can read them like this:

```
import mne

# Define the path to the file

file_path = "/your_directory_path/3_meg_flipped/sub-CC320687_sflip_parc-raw.fif"

# Load the raw data

raw = mne.io.read_raw_fif(file_path, preload=True)

# Display information about the raw object

print(raw.info)
```

This is the output:

```
bads: []

 ch_names: parcel_0, parcel_1, parcel_2, parcel_3, parcel_4, parcel_5, ...

 chs: 52 misc, 17 Stimulus

 custom_ref_applied: False

 description: Anonymized using a time shift to preserve age at acquisition OSL ...

 dig: 0 items

 file_id: 4 items (dict)

 highpass: 0.0 Hz

 lowpass: 125.0 Hz

 meas_date: 1915-09-23 16:43:49 UTC

 meas_id: 4 items (dict)

 nchan: 69

 projs: []

 sfreq: 250.0 Hz
```

You only need to use the 52 “misc” channels. These correspond to the brain activity of one part (parcel) of the brain. You can extract them with:

```
# Extract only MISC channels

misc_channels = raw.copy().pick_types(misc=True)

# Display information about the extracted channels

print(misc_channels.info)
```

Sampling rate is 250 Hz, so this is how you can check the total recording time for the file you loaded:

```
# Get the total recording time in seconds

total_duration = raw.times[-1]

# Alternatively, using the raw.info dictionary

total_duration_alt = raw.n_times / raw.info['sfreq']

# Print the total duration

print(f"Total recording time: {total_duration:.2f} seconds")
```

This is how you can get hold of the values in the file, for instance the first ten seconds of the timeseries recorded from parcel_1:

```
# Define the channel name for parcel1 (make sure it matches the exact name in the data)

channel_name = 'parcel_1'


# Extract the data for the first 10 seconds (sampling rate is in raw.info['sfreq'])

sfreq = raw.info['sfreq']

start_sample = 0

end_sample = int(sfreq * 10)  # First 10 seconds
```

```
# Get the data for the specific channel and time range

data, times = raw[channel_name, start_sample:end_sample]
```

Kind regards,

Guy Nagels