

SIGNAL PROCESSING IN MNE: DAY 1

2 – EPOCHED DATA THE EPOCHS CLASS

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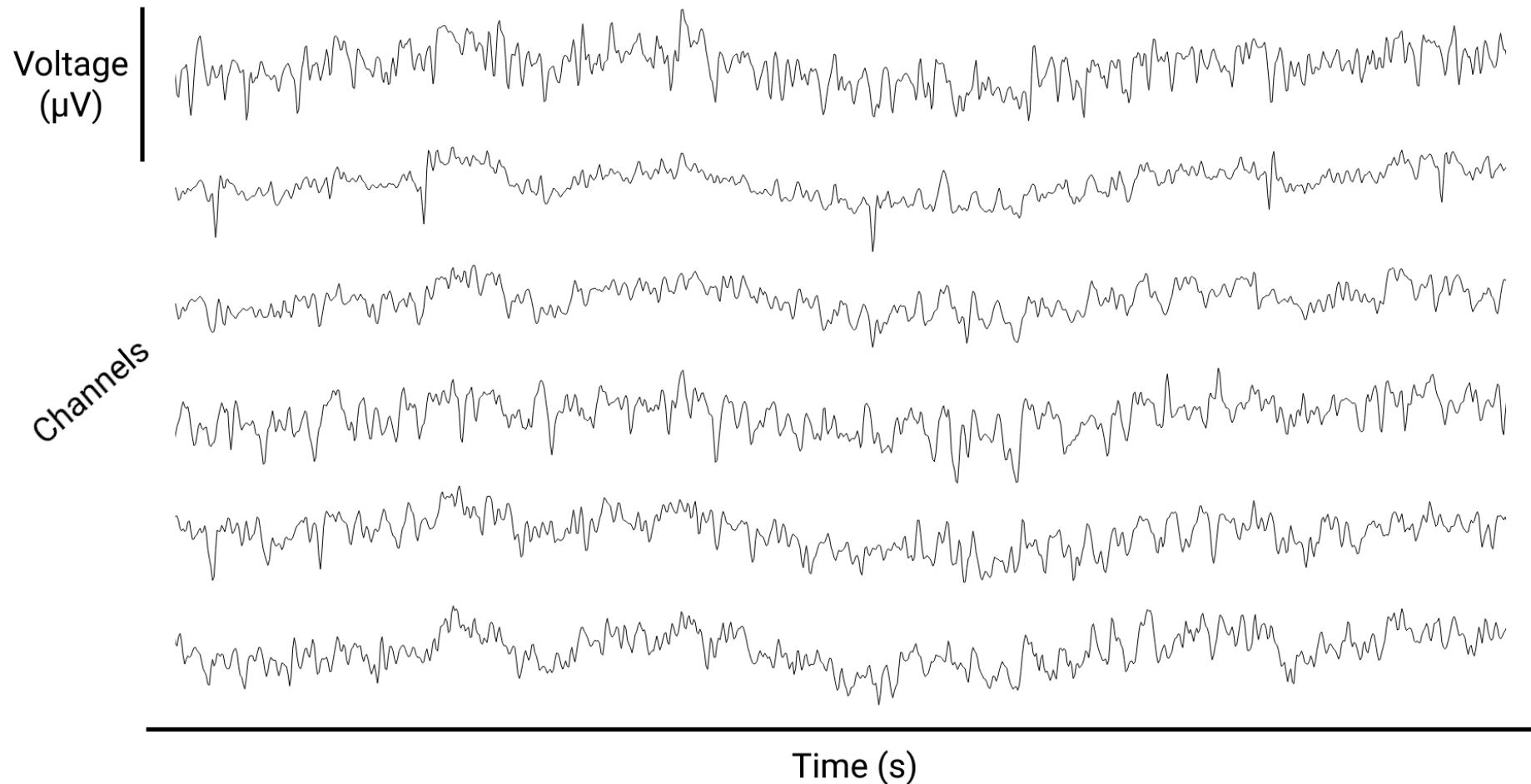
**EINSTEIN
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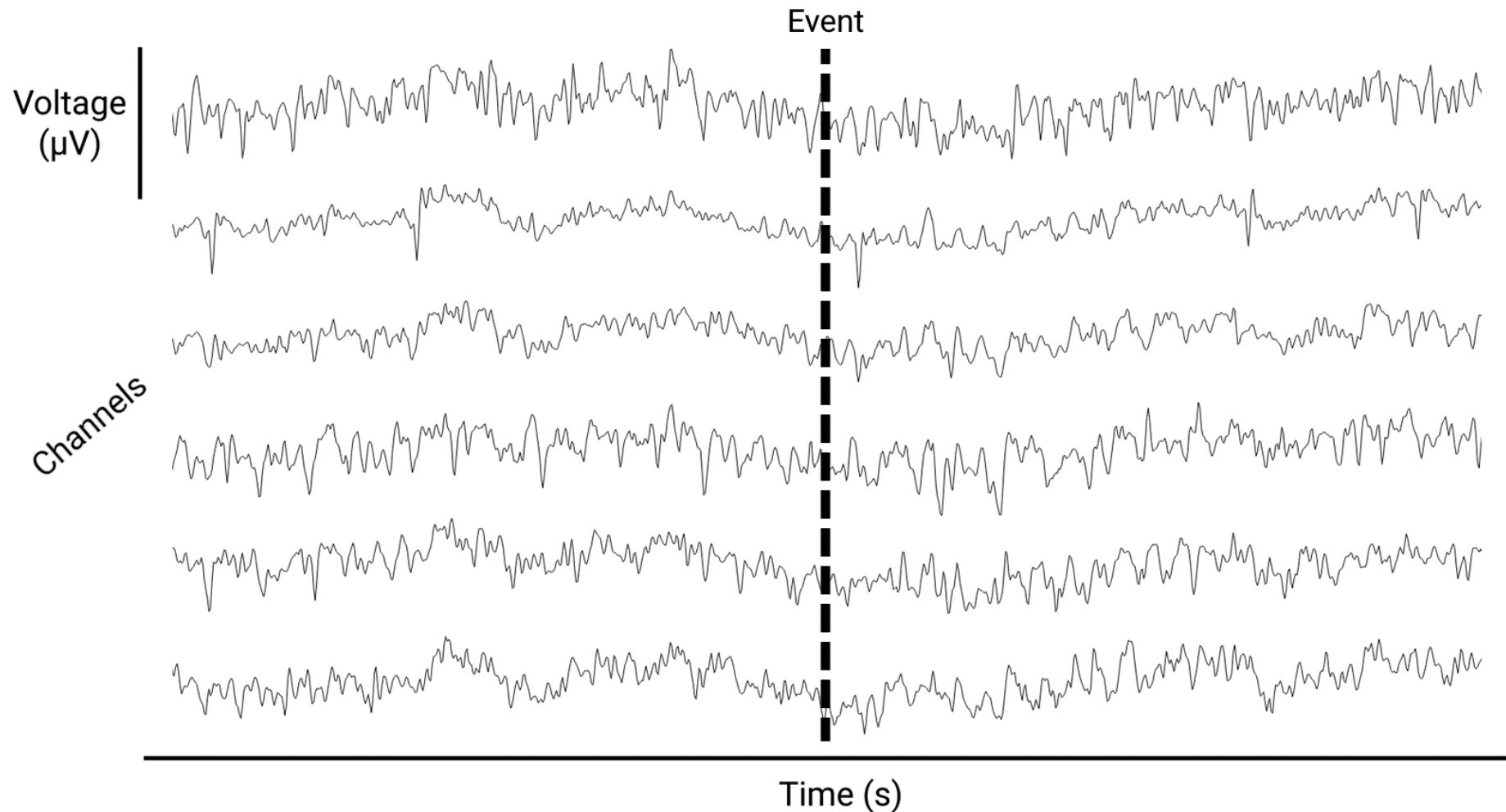
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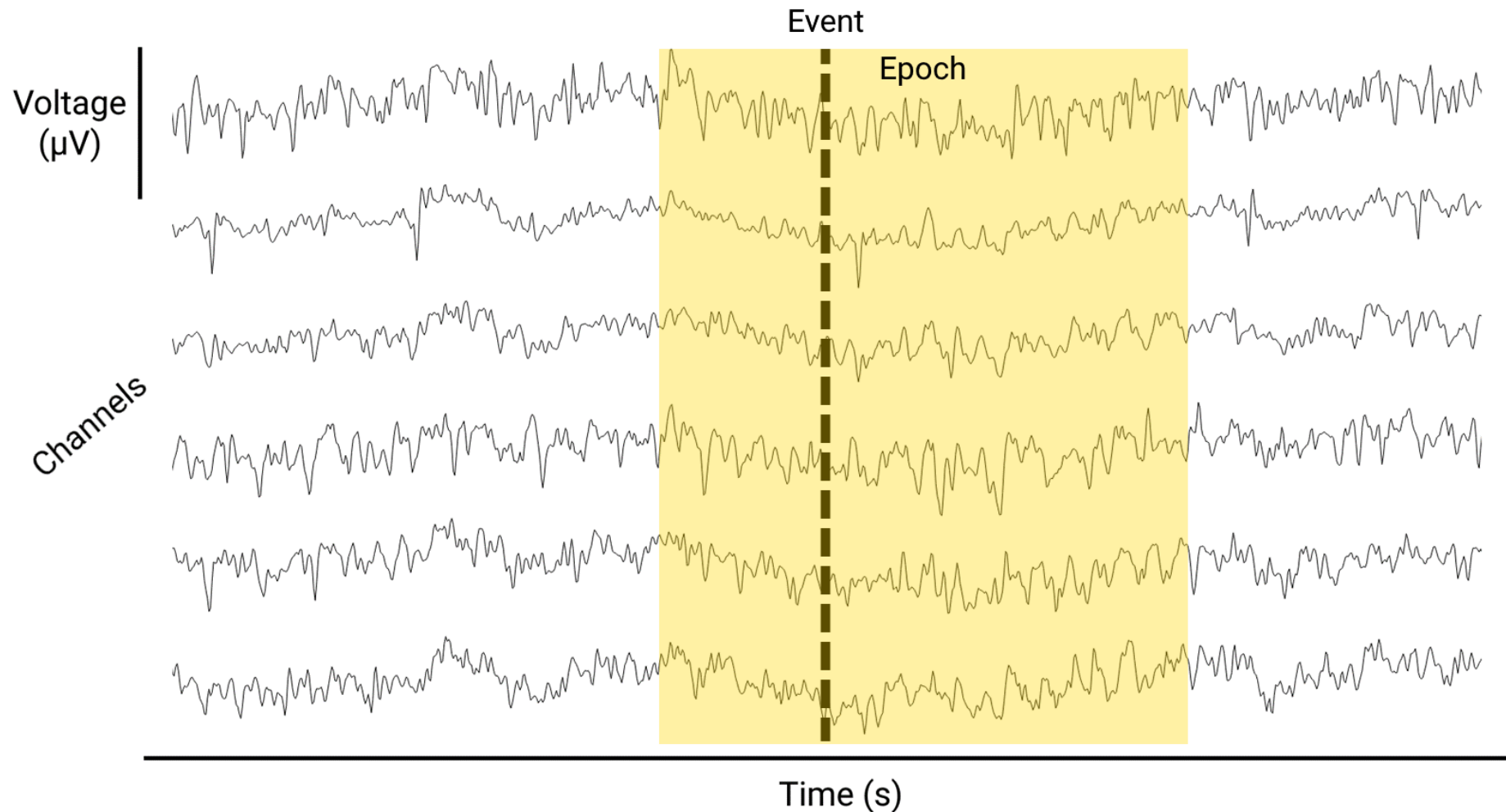
Timeseries data



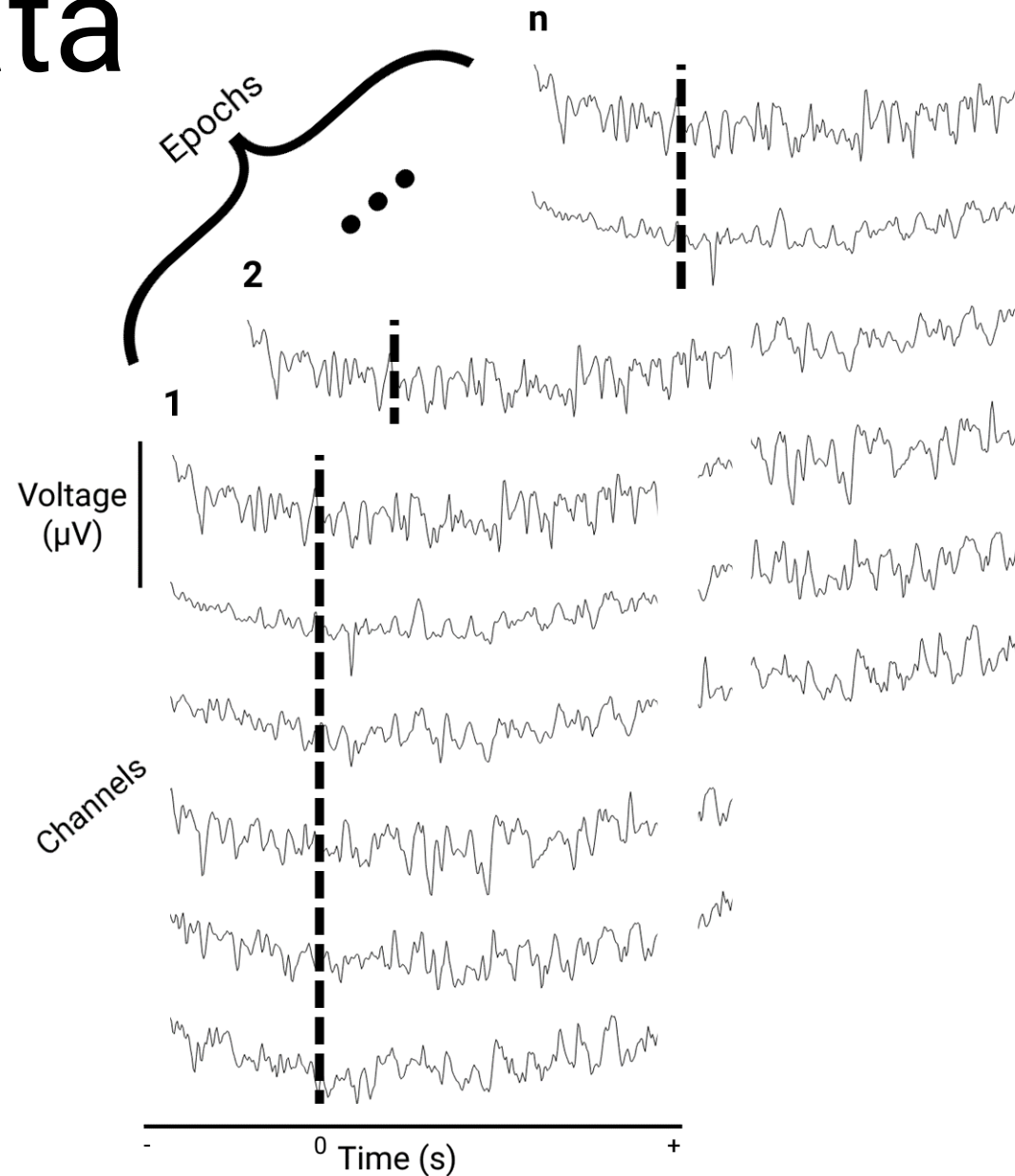
Timeseries data



Epoching around events



Epoched data



Epoched data

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Section Navigation

Most-used classes

[mne.io.Raw](#)[mne.Epochs](#)[mne.Evoked](#)[mne.Info](#)[Reading raw data](#)[File I/O](#)[Creating data objects from arrays](#)[Exporting](#)[Datasets](#)[Visualization](#)[Preprocessing](#)[Events](#)[Sensor Space Data](#)[Covariance computation](#)[MRI Processing](#)

mne.Epochs

```
class mne.Epochs(raw, events, event_id=None, tmin=-0.2, tmax=0.5, baseline=(None, 0), picks=None, preload=False, reject=None, flat=None, proj=True, decim=1, reject_tmin=None, reject_tmax=None, detrend=None, on_missing='raise', reject_by_annotation=True, metadata=None, event_repeated='error', verbose=None)
```

Epochs extracted from a Raw instance.

[\[source\]](#)

Parameters:

raw : [Raw](#) object

An instance of [Raw](#).

events : array of [int](#), shape (n_events, 3)

The array of [events](#). The first column contains the event time in samples, with [first_samp](#) included. The third column contains the event id. If some events don't match the events of interest as specified by [event_id](#), they will be marked as [IGNORED](#) in the drop log.

event_id : [int](#) | List of [int](#) | [dict](#) | [None](#)

The id of the [events](#) to consider. If dict, the keys can later be used to access associated [events](#). Example: dict(auditory=1, visual=3). If int, a dict will be created with the id as string. If a list, all [events](#) with the IDs specified in the list are used. If None, all [events](#) will be used and a dict is created with string integer names corresponding to the event id integers.

Onto the notebook...

Conclusion

- Epoched data stored in Epochs & EpochsArray objects
- Can be created from Raw/RawArray objects
`Raw/RawArray → Epochs`
- Can be created from data arrays
`array (epochs, channels, times) → EpochsArray`
- Various methods for manipulating and visualising data stored in Epochs objects