

Decoding Auditory Attention and Musical Emotions with EarEEG

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2021

“Traditional” scalp
electroencephalography:



cEEGrid around-the-ear EEG:



Finding

We have recently built on previous attention and emotion decoding works (particularly An et al., 2021) by developing calibration tools to ensure that the loudness/spatialisation settings for various instruments are tailored to the participant. This minor part of the experiment will help to ensure consistent participant engagement, and meaningful EEG data.

Question

A practical issue that we have been struggling with is how to implement “oddballs” into an experiment. Broadly, “oddballs” are deviations from what would be expected in stimuli (e.g, a sudden but transient pitch shift in music). We are trying to implement these in polyphonic stimuli so that they can be heard, but with some effort, for attention-based tasks.

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