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Decoding Auditory Attention and Musical Emotions with EarEEG

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.

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.