

Neural correlates of temporal variability in human perception and cognitive performance.

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Abstract:

The lab on cognitive and neuro sciences uses state-of-the-art methods to analyze human behavior through psychophysics and computational modeling, as well as neural imaging methods based on electroencephalography (EEG) and brain decoding techniques.

The main focus of the lab is on the mechanisms behind human visual cognition, in both healthy and clinical populations, with the aim of developing tools to predict perceptual and cognitive abilities based on individual EEG neural dynamics.

Currently, the lab proposes the following research topics:

1. Neural correlates of performance fluctuations in human perception and cognition.
2. How the visual system represents spatial and temporal statistics.
3. The role of EEG alpha activity in human perception.