## 中央研究院統計科學研究所學 術 演 講

講題: Progress report of the Complex Dynamic Systems Lab (CDSL)

演 講 人:Dr. Junho Yang ( 梁埈豪 助研究員)

Institute of Statistical Science, Academia Sinica

時間: 2024-11-4(Mon.) 11:00-11:30

地點: Auditorium, B1F, Institute of Statistical Science; The tea

reception will be held at 10:10.

備註: Online live streaming through Cisco Webex will be available.

## Abstract

In this presentation, we will introduce a collaborative project focusing on EEG studies. Specifically, we compare the Eyes-Closed (EC) and Eyes-Open (EO) states, which is classic but have not been fully understood due to the complex dynamics of the brain. A group of healthy subjects in Taiwan participated in an EEG study where each subject alternated between the EC and EO states, while EEG signals were recorded to investigate the brain's response. For preprocessing, we used ICC analysis to transform the high-frequency EEG time series into p-values, where a larger p-value indicates voxel activation. We then applied spatial point process techniques to analyze the pattern of activated voxels, offering new insights into EEG data analysis.



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