MINGLI LIANG

CONTACT INFORMATION

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RESEARCH INTERESTS

Elucidating the neural architecture underlying human cognition, using virtual reality and intracranial recordings.

TRAINING AND EDUCATION

2022-Present Yale University

Postdoc in Dept. Neurosurgery. Advisors: Eyiyemisi Damisah, Alfred Kaye

2018-2022 University of Arizona

PhD in Psychology. Advisor: Arne Ekstrom

2016-2018 University of California, Davis

MA in Psychology. Advisor: Arne Ekstrom

2012-2016 Renmin University of China

Bachelors in Psychology. Advisor: Ping Hu

2013-2016 Peking University

Bachelors in Economics

PREPRINTS

2022 How can we detect and analyze navigation-related low-frequency oscillations in human invasive recordings?

Mingli Liang, Arne Ekstrom. Forthcoming in the following book: Intracranial EEG for Cognitive Neuroscience; link: https://psyarxiv.com/q4mt2

2022 Dissociable roles of frontal-midline theta and occipital alpha in subsecond and suprasecond time reproduction tasks: an investigation of their links to depression and anxiety

Mingli Liang, Sara Lomayesva, Eve Isham. resubmitted; link: https://www.biorxiv.org/content/10.1101/2022.02.14.480446

PUBLICATIONS

2022 Classification of EEG signals: An interpretable approach using functional data analysis

Yuyan Yi; Nedret Billor; Mingli Liang; Xuan Cao; Arne Ekstrom; Jingyi Zheng. (2022). Journal of Neuroscience Methods; doi: https://doi.org/10.1109/JBHI.2021.3110267

2021 Time-frequency Analysis of Scalp EEG with Hilbert-Huang Transform and Deep Learning

Jingyi Zheng, Mingli Liang, Sujata Sinha, Linqiang Ge, Wei Yu, Arne Ekstrom and Fushing Hsieh. IEEE Journal of Biomedical and Health Informatics; doi: https://doi.org/10.1016/j.jneumeth.2022.109609

2021 Common and Distinct Roles of Frontal Midline Theta and Occipital Alpha Oscillations in Coding Temporal Intervals and Spatial Distances

Mingli Liang, Jingyi Zheng, Eve Isham and Arne Ekstrom; Journal of Cognitive Neuroscience; doi: https://doi.org/10.1162/jocn_a_01765

2018 Dissociation of frontal-midline delta-theta and posterior alpha oscillations: A mobile EEG study

Mingli Liang, Michael Starrett and Arne Ekstrom. Psychophysiology; 55:e13090. https://doi.org/10.1111/psyp.13090

HONORS AND AWARDS

2021 · Galileo Circle Scholar, College of Science, University of Arizona

2019 · Herbert E. Carter Travel Award, University of Arizona

2018 · Outstanding Research in Cognitive Science Awards, University of Arizona

2017 · Dukes Travel Award, UC Davis

2016 · Psychology Department Fellowship, UC Davis

2014 · Presidential Fellowship for UC Davis Global Study Program (30000$)

MENTORSHIP

2022 · Ayman Aljishi

2022 · Neelam Shaikh

2022 · Brett Gu

2022 · Nana Adenu-Mensah

2019 · Stephanie Doner

PRESENTATIONS

2021 Introduction to the Electrophysiology of Human Spatial Navigation.

Psychology lecture series at Osher Lifelong Learning Institute at the University of Arizona

2019 Wireless scalp EEG and immersive virtual reality provide novel insight into the neural basis of human spatial navigation.

Mingli Liang and Arne Ekstrom. Society for Psychophysiological Research Conference 2019, Washington DC

2019 Low-frequency neural oscillations code distance and temporal durations as measured with scalp EEG and hippocampal intracranial recordings

Mingli Liang Sevan Harootonian, Kendra Drake, Eve Isham and Arne Ekstrom. Society for Neuroscience Conference 2019 Chicago IL

2018 Do frontal human cortical theta oscillations during free ambulation code spatial distance, temporal interval, or both?

Mingli Liang, Michael Starrett and Arne Ekstrom. Society for Neuroscience Conference 2018, San Diego CA.

2018 Behavioral correlates of human cortical theta oscillations during immersive virtual navigation and teleportation

Mingli Liang, Michael Starrett and Arne Ekstrom. 2nd Interdisciplinary Navigation Symposium 2018, Quartier Tremblant, Québec Canada

2017 Dissociation of FM Delta-theta and Posterior Alpha Oscillations: A Mobile EEG Study

Mingli Liang, Michael Starrett and Arne Ekstrom. Society for Neuroscience Conference 2017, Washington DC.

July 5, 2022