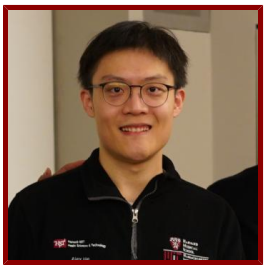
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LINKS

- Github Profile: https://github.com/mh105
- Purdon Lab: https://purdonlab.stanford.edu
- Stanford Memory Laboratory: https://memorylab.stanford.edu

Teaching

COURSES

2023-24

- Time Series Analysis for Neuroscience Data Using State Space Models: BIOS 404 (Sum)

Publications

PUBLICATIONS

- **EEG Artifact Removal Using Switching State Space Models 2025** *2025 59th Asilomar Conference on Signals, Systems, and Computers*
  Stone, T. A., Tou, S., He, M., Beck, A., Purdon, P. L.
  2025: 6

- **A dynamic generative model can extract interpretable oscillatory components from multichannel neurophysiological recordings.** *eLife*
  Das, P., He, M., Purdon, P. L.
  2024; 13

- **Age-Dependent Electroencephalogram Features in Infants Under Spinal Anesthesia Appear to Mirror Physiologic Sleep in the Developing Brain: A Prospective Observational Study** *ANESTHESIA AND ANALGESIA*
  Santa Cruz Mercado, L. A., Lee, J. M., Liu, R., Deng, H., Johnson, J. J., Chen, A. L., He, M., Chung, E. R., Bharadwaj, K. M., Houle, T. T., Purdon, P. L., Liu, C. A.
  2023; 137 (6): 1241-1249

- **Effects of Aging on Externally Cued and Internally Driven Uncertainty Representations** *NEUROPSYCHOLOGY*
  Korthauer, L. E., Festa, E. K., Gemelli, Z. T., He, M., Heindel, W. C.
  2024; 38 (3): 249-258

- **Pupil size tracks cue-trace interactions during episodic memory retrieval** *PSYCHOPHYSIOLOGY*
  Siefert, E. M., He, M., Festa, E. K., Heindel, W. C.
  2024; 61 (1): e14409

- **Switching state-space modeling of neural signal dynamics.** *PLoS computational biology*
  He, M., Das, P., Hotan, G., Purdon, P. L.
  2023; 19 (8): e1011395

- **Age-related differences in prefrontal glutamate are associated with increased working memory decay that gives the appearance of learning deficits.** *eLife*
  Rmus, M., He, M., Baribault, B., Walsh, E. G., Festa, E. K., Collins, A. G., Nassar, M. R.
  2023; 12

- **Transient oscillation dynamics during sleep provide a robust basis for electroencephalographic phenotyping and biomarker identification** *SLEEP*
  Stokes, P. A., Rath, P., Possidente, T., He, M., Purcell, S., Manoach, D. S., Stickgold, R., Prerau, M. J.
  2023; 46 (1)

- **Time perception in film is modulated by sensory modality and arousal** *ATTENTION PERCEPTION & PSYCHOPHYSICS*
  Appelqvist-Dalton, M., Wilmott, J. P., He, M., Simmons, A.
  2022; 84 (3): 926-942

- **Automatic segmentation of sleep spindles: A variational switching state-space approach**
  He, M., Das, P., Hotan, G., Purdon, P. L.
  edited by Matthews, M. B.
  IEEE.2022: 1301-1305

- **Age-Related EEG Power Reductions Cannot Be Explained by Changes of the Conductivity Distribution in the Head Due to Brain Atrophy** *FRONTIERS IN AGING NEUROSCIENCE*
  He, M., Liu, F., Nummenmaa, A., Hamalainen, M., Dickerson, B. C., Purdon, P. L.
  2021; 13: 632310

- **Age-related changes in the functional integrity of the phasic alerting system: a pupillometric investigation** *NEUROBIOLOGY OF AGING*
  He, M., Heindel, W. C., Nassar, M. R., Siefert, E. M., Festa, E. K.
  2020; 91: 136-147