

Guy Wilson

ghwilson@stanford.edu

guyhwilson.com

Education

Stanford University

Ph.D. Student, *Neuroscience*.

University of California, Berkeley

B.A. *Mathematics, Molecular & Cell Biology*, 2018.

Awards and Honors

Mind, Brain, Computation & Technology Student Membership, Stanford, 2020.

NSF Graduate Research Fellowship, Stanford, 2018.

Regina Casper Stanford Graduate Fellowship, Stanford, 2018.

Phi Beta Kappa (offered), UC Berkeley, 2018.

Departmental Honors (MCB), UC Berkeley, 2018.

Publications

GH Wilson*, SD Stavisky*, FR Willett, DT Avansino, LR Hochberg, JM Henderson**, S Druckmann**, KV Shenoy**. Decoding spoken English from intracortical electrode arrays in dorsal precentral gyrus. *Journal of Neural Engineering*, 2020.

SD Stavisky, FR Willett, **GH Wilson**, B Murphy, P Rezaii, DT Avansino, WD Memberg, JP Miller, RF Kirsch, LR Hochberg, AB Ajiboye, S Druckmann, KV Shenoy, JM Henderson. Neural ensemble dynamics in dorsal motor cortex during speech in people with paralysis, *eLife*, 2019.

RF Helfrich, M Huang, **GH Wilson**, RT Knight. Prefrontal cortex modulates posterior alpha oscillations during top-down guided visual perception, *Proceedings of the National Academy of Sciences*, 2017.

Talks

GH Wilson. Decoding spoken English from intracortical recordings in dorsal motor cortex. *GRC Workshop: Current advances in neurolinguistics — oscillations, language and the brain*, 2020.

B Sheffer and **GH Wilson**. Linear Dynamical Systems for Time-Series Data Analysis. *Stanford Computational Neuroscience Journal club*, 2019.

Posters

Wilson G, Stavisky SD, Avansino D, Hochberg LR, Henderson JM, Shenoy KV, Druckmann S. Decoding spoken English phonemes from dorsal motor cortex. *BCI Society International Meeting*, 2021.

Wilson G, Stavisky SD, Avansino D, Hochberg LR, Henderson JM, Shenoy KV, Druckmann S. Neural state space geometry in human motor cortex underlying speaking different phonemes. *Computational and Systems Neuroscience (COSYNE)*, 2020.

Stavisky SD, **Wilson G**, Willett, F, Rezaii P, Avansino D, Hochberg L, Druckmann S, Shenoy* K, Henderson* J. Neural population dynamics in dorsal motor cortex during human speech. *Center for Neural Engineering Prostheses, University of California, Berkeley / San Francisco Annual Retreat*, 2019.

SD Stavisky, FR Willett, **GH Wilson**, P Rezaii, DT Avansino, LR Hochberg, KV Shenoy, JM Henderson. Similar low dimensional neural population dynamics in dorsal motor cortex during human speech and hand movements, *Society for Neuroscience Annual Meeting*, 2019.

GH Wilson, RF Helfrich, RT Knight. Spatiotemporal Dynamics of Contextual Processing in Human Intracranial Recordings, *MCB Honors Research Symposium*, 2018.

M Huang, RF Helfrich, **GH Wilson**, RT Knight. Sequential and Temporal Predictions in the Human Brain Employ Neuronal Alpha Oscillations, *MCB Honors Research Symposium*, 2017.

Projects

AR Hu, **GH Wilson**, *Persistent Homology of Global Functional Connectivity for Depression Classification*, 2017.

W Wang, L Huang, **GH Wilson**, J Price. Recurrent Neural Networks for Neoantigen Prediction, *SVAI Genomics Hackathon*, San Francisco 2017.

Teaching

Instructor, *Neurotechnology Research Review Decal*, UC Berkeley, Fall 2017.

Outreach

Volunteer, *Brain & Body NightLife*, California Academy of Sciences, November 2019.