

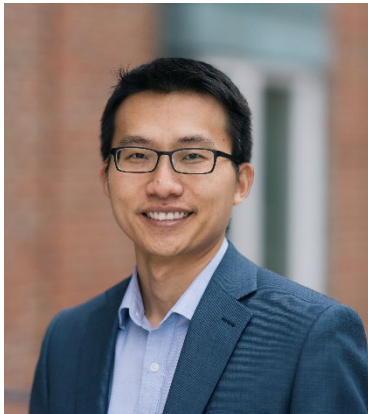
NEURAL ENGINEERING SEMINAR SERIES

Multifunctional Integrated Neuroelectronics for Next-generation Brain Interfaces

<https://psu.zoom.us/j/92405373420>

December 06, 2023

12:15 -1:15 p.m. (ET)
W306 Millennium Science
Complex



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ABSTRACT:

Reverse-engineering the brain demands complex approaches, which require dovetailed cross-disciplinary efforts and convergence research. We believe electronics can be tailored to complement many other fields and practices of studying the brain uniquely by achieving multifunctionality towards achieving convergence while keeping their electronic advantage to integrate and scale across spatial and temporal domains. In this talk, I will discuss my group's recent work along this so-called neuroelectronics+ vision, all enabled by fundamental innovations in materials and devices. We envision the development and translation of neuroelectronics+ will transform both neuroscience and medicine.

BIOGRAPHY:

Hui Fang received his B.S. degree in 2009 from Tsinghua University and his Ph.D. degree in 2014 from the University of California, Berkeley, both in Materials Science and Engineering. He was then a postdoctoral fellow at the University of Illinois, Urbana-Champaign, from 2014 to 2016. After starting his independent career in August 2016, he joined Dartmouth College in July 2021 as an Associate Professor of Engineering. Fang's research interests encompass the fields of neuroelectronics, electronic materials, and semiconductor devices. His research has been recognized by multiple awards, including an NSF CAREER Award (2019), an NIH R01 Award (2020), and an NIH U01 Award (2021).