

From HEP to BCI & The Future of Brain-Computer Interfaces at Paradromics

**Speaker: Dr. Kurtis Nishimura (UHawaii):
March 5th, 4-5 pm, Science Hall Room 121
Pre-Colloquium at 3:30 p.m. / SH 108**

Abstract:

Brain-computer interfaces (BCIs) have been explored in academic settings for decades, enabling restoration of abilities via direct neural communication. This talk will introduce the fundamentals of neural recordings and BCIs, followed by an inside look at the Paradromics Connexus BCI—a fully implantable device designed to restore communication for patients with ALS and severe spinal cord injuries. I will highlight some of the unique challenges and considerations of neural engineering and implantable medical devices, share updates on the Connexus system, and reflect on my unconventional journey from high-energy physics to the world of BCIs.