UAA College of Engineering
University of Alaska Anchorage

UAA Professional Development Seminar Series

Decoding the Music-Listening Brain using Electroencephalography

Presented by Blair Kaneshiro, Adjunct Professor of Music, Stanford University

During music listening, the human brain processes complex sequences of sounds which are often structured within temporal and harmonic frameworks. Recent techniques for analyzing electroencephalography (EEG) - a measure of electrical activity of the brain - facilitate the use of such complex, real-world stimuli in neuroscience research. In this talk I will present EEG studies in which we explore various aspects of musical processing such as representation of beat, tracking of computationally extracted audio features, and listener engagement. From there I will present related findings outside the realm of music and discuss the broader potential of these techniques to both address fundamental neuroscience questions and inform the development of real-world interventions.

Blair Kaneshiro is an Adjunct Professor (Department of Music) and Research & Development Associate (Graduate School of Education) at Stanford University. Her neuroscience research investigates auditory and visual processing, with an emphasis on multivariate EEG decoding and ecologically valid stimuli. Blair completed the PhD in Computer-Based Music Theory and Acoustics at Stanford in 2016 and holds additional undergraduate and graduate degrees in Music and Electrical Engineering from Stanford. She has held research roles both in academia and at music technology companies. As a woman in STEM, first-gen college student, and Native Hawaiian, Blair is passionate about diversity and inclusion, and is an active community organizer with the International Society for Music Information Retrieval (ISMIR), Women in Music Information Retrieval (WiMIR), and at Stanford.

Friday, October 23rd, 2020
11:45 am-12:45 pm
Online Via YouTube Live