

BIOENGINEERING

Fall 2020 Seminar

Date: Thursday, September 17

Time: 12:00 pm - 1:00pm

Location: Virtual

Join Zoom Meeting—<https://gmu.zoom.us/j/92554249038?pwd=V2p1ZUdqM1Y2RnBCcWhDU0V0T2FZZz09>

Meeting ID: 925 5424 9038 Passcode: 640851



Konrad Kording, Ph.D.

Biography: Dr. Kording's (He/Him) is trying to understand how the world and in particular the brain works using data. Early research in the lab focused on computational neuroscience and in particular movement. But as the approaches matured, the focus has more been on discovering ways in which new data sources as well as emerging data analysis can enable awesome possibilities. The current focus is on Causality in Data science applications - how do we know how things work if we cannot randomize? But we are also very much excited about understanding how the brain does credit assignment. Our style of working is transdisciplinary, we collaborate on virtually every project.

Title: Computational morphologies

Abstract: Since we learned how to visualize them in the late 19th century, neuroscientists have been obsessed about the shapes of neurons. I will discuss new approaches in the lab to makes sense of the shapes of neurons. This will include ways of classifying neurons, ways of quantifying bias in imaging methods, ways of generating morphologies. This will also include the implications their morphologies have on the kinds of functions that neurons may implement.