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STATISTICS COLLOQUIUM

MONDAY, NOVEMBER 30, 2015

TALK: 4:15 PM — SCIENCE CENTER LECTURE HALL E

RECEPTION: 3:50 PM

“Statistical Thinking in Neuroscience”

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ABSTRACT

Experimenters are typically adept at applying standard statistical techniques, while computational neuroscientists are capable of formulating mathematically sophisticated data analytic methods to attack novel problems in data analysis. Yet, in many situations, statisticians proceed differently than those without formal training in statistics. What is different about the the way statisticians approach problems? I will give you my thoughts on this subject, and will illustrate with examples, one of which involves a new extension of Bayesian control of false discoveries, applied to neural synchrony detection across a network of interacting spiking neurons. I will conclude with some related comments on scientific reproducibility.

(Jointly hosted with Harvard Biostatistics Department.)