

MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

Owen Carmichael
Pennington Biomedical Research Center

Advanced Statistical Analysis of Neuroimaging Data: Why It Matters

Tuesday, September 18, 2018

10:20 AM - 11:10 AM

Refreshments 10:00 AM

C405 Wells Hall

Abstract

The development of novel methods for analyzing brain imaging data is now a significant topic of interest in many statistics departments worldwide. This activity has been driven by the relatively unique structure and complexity of scientifically-important brain imaging data, together with its widespread availability. This talk will briefly describe some exemplar research problems in this domain. Additionally, I will describe why rigorous statistical methods in neuroimaging are important for public health, using aging-related cognitive decline as a case in point. Specifically, I will discuss what we know and don't know about the negative effects of type 2 diabetes and other chronic health conditions on the aging brain, and how novel neuroimaging methods may help to improve our knowledge.

This talk will include discussion of joint work with Luda Sakhanenko, Jie Peng, Debashis Paul, Hans Mueller, and Jane-Ling Wang.

*To request an interpreter or other accommodations for people with disabilities, please call the
Department of Statistics and Probability at 517-355-9589.*