

**Indiana University-Purdue University
Indianapolis**
Department of Mathematical Sciences

STATISTICS SEMINAR

12:15pm—1:15pm, Tuesday, April 23, 2019
LD 265

Speaker: Dr. Jingwen Yan

Department of Bioinformatics, School of Informatics and Computing, IUPUI

Title: Machine Learning in Integrating omics for Novel
Biomarker Discovery of Complex Disease

Abstract:

Integrative omics is an emerging research field that aims to extract the knowledge from the broad multi-omic data landscape. While multiple domains included, such as brain imaging, genetics, transcriptomics and proteomics, it offers great promise to illuminate the causal pathway from genotype to phenotype and to provide optimal molecular phenotypes for early therapeutic intervention. My research has been focused on developing novel machine learning models 1) to explore the complementary information between omics data and 2) to investigate how that could benefit the biomarker discovery of Alzheimers disease (AD). In this talk, I will introduce some structured sparse learning models that I have developed and demonstrate their applications in integrating omics data and AD biomarker discovery.