Indiana University-Purdue University Indianapolis

Department of Mathematical Sciences

STATISTICS SEMINAR

12:15pm—1:15pm, Tuesday, March 05, 2019
LD 265

Speaker: **Ruohong Li**
Department of Biostatistics, School of Medicine, Indian University

Title: **Estimation and Inference of Heterogeneous Treatment Effects using Random Forests**

Abstract:

Many scientific and engineering challenges-ranging from personalized medicine to customized marketing recommendations-require an understanding of treatment effect heterogeneity. In this paper, a non-parametric causal forest for estimating heterogeneous treatment effects that extends Breiman's widely used random forest algorithm. In the potential outcomes framework with unconfoundedness, causal forests are pointwise consistent for the true treatment effect, and have an asymptotically Gaussian and centered sampling distribution.