Mathematics, Statistics, and Computer Science   **@ UIC**

Statistics and Data Science Seminar

Statistical methods for compositional data analysis with application in metagenomics

Hongmei Jiang (Northwestern University)

Abstract: Metagenomics is a powerful tool to study the microbial organisms living in various environments. The abundance of a microorganism or a taxon is usually estimated using relative proportion or percentage in sequencing-based metagenomics studies. Due to the constraint of the sum of the relative abundances being 1 or 100%, standard conventional statistical methods may not be suitable for metagenomics data analysis. In this talk we will discuss characterization of the association between microbiome and disease status and variable selection in regression analysis with compositional covariates. Current statistical and computational methods that are being developed to analyze the metagnoimcs data and the challenges will also be highlighted.

Wednesday, December 6 at 4:15 PM in SEO 636