

Indiana University-Purdue University Indianapolis

Department of Mathematical Sciences

STATISTICS SEMINAR

12:15pm—1:15pm, Tuesday, April 02, 2024

Zoom Meeting: Meeting ID: 845 0989 4694

Speaker: Wenjie Wang

Senior Research Scientist, Eli Lilly and Company

Title: Angle-Based Sparse Learning for Multicategory Classification

Abstract:

Multicategory classification is an essential topic in statistical learning with broad applications in many areas, including biology and medicine. A commonly used method is to convert the multicategory classification into sequential binary classification problems using a one-versus-rest or one-versus-one strategy, which can be inefficient and suboptimal. To overcome the drawback of the sequential procedure, angle-based large-margin classifiers have been proposed in the literature and shown to have superior prediction performance and computational efficiency. In this seminar, we will introduce regularized angle-based classifiers with groupwise penalties and efficient tuning procedure. We will also present our implementation of the proposed method through the R package `abclass`.

Bio:

Dr. Wenjie Wang is a senior research scientist working at Eli Lilly and Company. His recent works involve innovative diabetes research and drug discovery by statistical learning. He earned his Ph.D. degree in statistics from the University of Connecticut in 2019. Beyond his work at Lilly, he serves as the communication officer of the ASA Lifetime data science (LiDS) section and as an associate editor of the R Journal. Additionally, he is an R package developer, maintaining several R packages for time-to-event data analysis.