Statistics Seminar

Department of Mathematical Sciences

DATE:	Thursday, October 8, 2020
TIME:	1:15pm – 2:15pm
LOCATION:	Zoom meeting
SPEAKER:	Xinhai Zhang, Binghamton University
TITLE:	Outcome Weighted Learning for Optimal Treatment Regimes

Abstract

There is increasing interest in discovering individualized treatment rules for patients who have heterogeneous responses to treatment. In particular, one aims to find an optimal individualized treatment rule which is a deterministic function of patient specific characteristics maximizing expected clinical outcome. Zhao et al. (2012) shown that estimating such an optimal treatment regime is equivalent to a classification problem where each subject is weighted proportional to his or her clinical outcome. Then they propose an outcome weighted learning (OWL) approach based on the support vector machine framework. A few other development after the original OWL will also be in this talk.