Purdue Statistics Seminars

Seminar Series: JK Ghosh Lecture

Date: Friday, October 18, 2019 Time: 10:30 –11:20 a.m.* Location: BRNG 2290 *There will be a reception for Prof. Wasserman in HAAS 111 at 10:00 a.m.

Speaker: Larry Wasserman Affiliation/Organization: Carnegie Mellon University

Local Minimax Testing

Abstract: I will discuss a fundamental problem in Statistics: testing if a sample was drawn from a given distribution. Despite the long history of this problem, much is still not known especially when we allow for high dimensions and low smoothness. In this setting, we find the local minimax testing rates and we give some tests that are optimal. We show that these tests have much higher power than standard tests. These results give interesting insights about the intrinsic difficulty of various statistical problems. This is joint work with Sivaraman Balakrishnan.

Bio: Larry Wasserman is UPMC Professor in the Department of Statistics and Data Science and in the Machine Learning Department at Carnegie Mellon. He received his Ph.D. in 1988 at the University of Toronto. He is a fellow of the ASA and the IMS and is a member of the National Academy of Science.