

Stanford University
Department of Statistics

DEPARTMENTAL SEMINAR

*** Special Event ***

3pm, Friday, January 11, 2019
Sloan Mathematics Center Room 380Y

Speaker: Larry Wasserman, *Carnegie Mellon University*

Title: **Model-Free Predictive Inference**

Abstract:

Most work on high-dimensional inference uses strong assumptions such as linearity, incoherence, sparsity and homoskedacity. We consider inference, from a predictive point of view, without any assumptions except exchangeability. We start with high-dimensional regression. First we show that the bootstrap is very inaccurate, which motivates moving away from the usual focus on regression parameters. Instead we focus on predictive quantities. In particular, we show that a class of methods called “conformal prediction” are very accurate under essentially no assumptions. Time permitting, we also discuss clustering and random effects from a predictive, assumption-free point of view.

This is joint work with many collaborators.