Fall 2009
ST SCI 7100
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Classical nonparametrics and asymptotics

We begin with classical nonparametric statistics, of which the canonical concept is arguably the U-statistic (along with its alphabet]soup of counterparts). Distribution theory is complicated for samples of appreciable size, so we study limit theorems for such statistics. This leads to the idea of asymptotic relative efficiency, which allows us to compare the relative performance of different tests or estimators in the same situation. We then turn to further classical asymptotic theory, in particular the multivariate normal limit theorem for the multiparameter maximum likelihood estimator, along with some modern viewpoints. Prerequisite: mathematical statistics at the level of OR&IE 6700. 3 credits. MW 11:40-12:55, 1181 Comstock Hall