

STANFORD UNIVERSITY  
DEPARTMENT OF STATISTICS  
DEPARTMENTAL SEMINAR

4:15 p.m., Tuesday, May 13, 2003  
Sequoia Hall Room 200  
(Cookies at 3:45 in 1st Floor Lounge)

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**Large-Scale Simultaneous Hypothesis Testing**

Abstract:

"Multiple comparisons" used to mean doing 2 or 3 or 10 hypothesis tests at the same time. Now statisticians need to consider 500 or 5000 testing situations simultaneously, in microarray or fMRI analyses for example. New problems and new opportunities arise in these contexts. I will discuss an empirical Bayes approach, related to false discovery rates, focusing on the choice of an appropriate null hypothesis for large-scale hypothesis testing. Two genomics examples will be used to motivate the methodology.

This is joint work with Rob Tibshirani.