

STANFORD UNIVERSITY  
DEPARTMENT OF STATISTICS  
DEPARTMENTAL SEMINAR

4:15 p.m., Tuesday, April 18, 2000  
Sequoia Hall Rm. 200  
(Cookies at 3:45 in 1st Floor Lounge)

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**A nonparametric Bayes approach to infer the mixing distribution**

Routinely in statistical applications, hierarchical models arise in which unobserved random effects contribute to heterogeneity amongst sampling units. An easily computable, smooth nonparametric estimate of the underlying mixing distribution can be derived as an approximate nonparametric Bayes estimate under a Dirichlet process prior. I will discuss the recursive estimation algorithm, its consistency properties, and its application in several examples, including its use as a model diagnostic in the analysis of microarray gene expression data.