# **APPLIED MATHEMATICS COLLOQUIUM**

## WEAKLY INFORMATIVE PRIORS AND SOME OTHER OPEN PROBLEMS IN STATISTICAL METHODS

## **ANDREW GELMAN**

Columbia University

#### **ABSTRACT:**

A challenge in statistics is to construct models that are structured enough to be able to learn from data but not be so strong as to overwhelm the data. We introduce the concept of "weakly informative priors" which contain important information but less than may be available for the given problem at hand. If there is time, we also will consider some related problems in developing general models for taxonomies and deep interactions. We consider how these ideas apply to problems in social science and public health.

#### MONDAY, April 14, 2008 4:30 PM Building 2, Room 105

Reception at 4:00 PM in Building 4, Room 174 (Math Majors Lounge)

Applied Math Colloquium: http://www-math.mit.edu/amc/spring08 Math Department: http://www-math.mit.edu



Massachusetts Institute of Technology Department of Mathematics Cambridge, MA 02139