The University of Chicago
Department of Statistics

Seminar Series

JUN LIU
Department of Statistics
Harvard University

Bayesian Inference of Genetic Epistasis in Case-control Studies

MONDAY, October 1, 2007 at 4:00 PM
133 Eckhart Hall, 5734 S. University Avenue
Refreshments following the seminar in Eckhart 110.

ABSTRACT

I will discuss a Bayesian approach to detect multi-locus interactions (Epistasis) for both case-control association studies and an un-supervised scenario. Existing methods are either of low power or computationally infeasible when facing a large number of genetic markers, and sometimes also many quantitative traits. Aided with MCMC sampling techniques, our Bayesian method can efficiently detect interactions among many thousands of markers. This method can be generalized to deal with classification problems. I will also discuss the issue of statistical significance in this situation

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Please send email to Mathias Drton (drton@galton.uchicago.edu) for further information. Information about building access for persons with disabilities may be obtained in advance by calling Karen Gonzalez (Department Administrator and Assistant to Chair) at 773.702.8335 or by email (karen@galton.uchicago.edu).