The University of Chicago
Department of Statistics

Seminar Series

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Bayesian Networks for the Analysis of DNA Mixtures

THURSDAY, May 21, 2009, at 4:00 PM
133 Eckhart Hall, 5734 S. University Avenue
Refreshments will be served, before the talk, at 3:15 PM in Eckhart 110.

ABSTRACT

Graphical models in the form of Bayesian networks have established themselves as useful and versatile for solving a variety of problems associated with forensic identification from DNA traces. This lecture will focus on the particular issue of analysing one or more traces of DNA from more than a single individual, with the purpose of separating out the contributions of each and establishing the identity of specific individuals. Such problems occur typically in criminal cases, either involving physical violence, or robberies and it is of interest both for the conviction of perpetrators and for initiating searches for individuals and further evidence. The lecture will attempt to explain both the problems, the associated genetic facts, the Bayesian network methodology and give examples of achievable results. The lecture is based on joint work over more than a decade with A P Dawid, R G Cowell, J Mortera, and others.

For further information and about building access for persons with disabilities, please contact Kelly Macias at 773.834.5169 or send email (kmacias@galton.uchicago.edu). If you wish to subscribe to our email list, please visit the following web site: https://lists.uchicago.edu/web/info/statseminars.