

## Mid-Term Workday for Graphical Models Stochastic Computation Program February 13, 2003

Chair & MC -- Mike West, Duke and SAMSI

- 9:00 a.m. Arrival and introductions
- 9.15 a.m. Introductory remarks *Mike West*, Duke & SAMSI
- 9:30-10:30 a.m. "Gaussian decomposable models in statistics: Background and modelling aspects" *Chris Carter*, SAMSI-Duke University Fellow
- 10:30-11:30 a.m. "MCMC approaches and model specification" *Beatrix Jones*, SAMSI Research Fellow
- 11:30-12:00 p.m. Coffee and conversation
- 12:00-1:00 p.m. "Decoding gene expression control using generalized gamma networks" *Paola Sebastiani*, University of Massachusetts
- 1:00-2:15 p.m. Lunch and informal discussions
- 2:15-3:15 p.m. "Stochastic search and optimization approaches" *Adrian Dobra*, Duke & SAMSI Research Fellow
- 3:15-4:15 p.m. "Approaches via dependency networks" *Chris Hans*, SAMSI-Duke Graduate Research Assistant
- 4:15-5:00 p.m. Tea and informal discussions

Lunch and refreshments will be provided.



## Mid-Term Workday for Contingency Tables Stochastic Computation Program February 13, 2003

## GUEST SPEAKER ABSTRACTS

SPEAKER: *Paola Sebastiani*, University of MassachusettsTITLE: Decoding Gene Expression Control Using Generalized Gamma Networks.

## **ABSTRACT:**

This talk will describe modeling aspects of gene expression data using "Generalized Gamma Networks": directed graphical models in which the node variables follow Gamma distributions, and the associations between variables are not restricted to be linear. Modeling and inference issues will be discussed and an application to a data set of gene expression data will be described. This is joint work with Marco Ramoni, Children's Hospital Informatics Program, Harvard

Please direct any questions to Mike West at <u>mw@stat.duke.edu</u>.