

STANFORD UNIVERSITY
DEPARTMENT OF STATISTICS
DEPARTMENTAL SEMINAR

4:15 p.m., Tuesday, October 5, 2004
Sequoia Hall Room 200
(Cookies at 3:45 in 1st Floor Lounge)

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Multivariate Statistics on Graphs and Networks in Biology

Abstract:

I will present a talk I gave in Cairns at the IBC meeting on doing multivariate statistics when the objects are non standard: ie graphs and trees.

We often need to summarize sets of graphs, average graphs or explain graphs by underlying node variables. We survey some existing methods for simplifying graphs such as motif decomposition and eigendecomposition and explain how these methods can be used to do statistical analyses of such graphs.

We will show some examples of genetic networks where these methods apply.