Dipartimento
di Statistica
"G. Parenti"

Nell'ambito delle attività del gruppo di ricerca del Dipartimento di Statistica COFIN2004
"Apprendimento in modelli grafici e inferenza causale con applicazioni in ambito economico-
sociale, genetico e forense", il prof. **Claus Dethlefsen** del Department of Mathematical
Sciences, Aalborg University, Denmark e il prof. **Jens Henrik Badsberg**, del Department of
Animal Breeding and Genetics, Danish Institute of Agricultural Sciences, Denmark, terranno i
seguenti seminari:

Deal and gRbase

e

CoCo in R

I seminari si terranno martedì **30 marzo 2004**, alle ore 9.30, presso l'aula 32 del
Dipartimento.

Tutti gli interessati sono invitati a partecipare.

Un breve abstract dei due seminari è riportato nel seguito.

Deal and gRbase

A module for R, gRbase, is being developed. The goal is to create common grounds for
implementation of graphical model software in R. We have tried to define basic structures that
are extensible to encompass at least existing models and methodology. The current version of
gRbase is a minimal version, implementing only loglinear models. Deal is an R package for
learning Bayesiannetworks with both continuous and discrete variables. We show how deal can
make use of the graphical interface provided by the package dynamicGraph.

References:

http://www.jstatsoft.org/v08/i20/

http://lib.stat.cmu.edu/R/CRAN/src/contrib/PACKAGES.html#deal

---

CoCo in R

CoCo for graphical models with discrete variables has been around for some time.

Some of the features of CoCo are efficient algorithms for large contingency tables, exact tests,
the EM algorithm, and procedures for model selection. The program has been extended to also
handle continuous variables, by Gaussian graphical models and CG distributions. CoCo can now
be used from R under Windows as well as Linux. Lately a tool for interacting with the graphs of

the models has been implemented in R. This tool, dynamicGraph, can also be used for other packages.

References:

Steffen L. Lauritzen (1996). Graphical Models. Oxford.

http://www.jbs.agrsci.dk/Biometry/Software-Datasets/CoCo/CoCo.1.6/

http://lib.stat.cmu.edu/R/CRAN/src/contrib/PACKAGES.html#dynamicGrap

http://www.jstatsoft.org/v06/i04/guide-JSS-1.pdf