

BAYESIAN METHODS

Lab notes

Details of the laboratory schedule will be given for each week in advance to the lesson.

The lab program is mainly carried out in R (*R 1.4.0*, 2001). However, some lectures will briefly introduce BUGS as well as scattered data analyses will be carried out in BUGS (*WinBUGS 1.3* for Windows, *Classic BUGS 0.603* for Sparc stations).

Lab 1 INTRODUCTION TO R AND BAYESIAN ANALYSIS OF BINOMIAL DATA

Examples (a) Estimating the probability in a binomial model and a first sensitivity analysis
(b) *idem* but with probability close to 0 and comparing a large sample size to a small one

Reference (a) *Gelman* book: sec. 2.5, 39–42
(b) *Congdon* book: ex. 2.11, 31

Language R

Subject (a) *Is the proportion of female births in the placenta previa births population less than 0.485, the proportion of female births in the general population?*
(b) *Which is the probability that a randomly sampled adult would respond that the President's actions were immoral?*