

Computational Statistics

MCMC methods for Bayesian estimation of Logit and Probit models

We consider again the file `program.effectiveness.txt`. We wish to predict the binary variable `GRADE` using the independent variables `PSI`, `TUCE` and `GPA`.

1. Program a Gibbs sampler to approximate the posterior distribution of β in the Logit model, assuming a normal prior. (Include the latent variable in the sampler).
2. Program an independence chain MH algorithm to approximate the posterior distribution of β in the Probit model, assuming a normal prior. (Take the LS estimates as prior expectations).