MCMC

MCMCで平均値の分布範囲を示します。注釈文が文字化けしています。折を見て修正します。

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| install.packages('MCMCpack')#繝｢繝ｳ繝?繧ｫ繝ｫ繝ｭ繧ｷ繝溘Η繝ｬ繝ｼ繧ｷ繝ｧ繝ｳ縺ｫ繧医▲縺ｦ縲∵耳螳壹＆繧後ｋ蟷ｳ蝮?蛟､縺ｮ蛻?蟶?遽?蝗ｲlibrary(MCMCpack)LogPoisFun <- function(lambda, x) { + ## Poisson distribution: p(x) = lambda^x exp(-lambda)/x! + ifelse(lambda < 0, -Inf, # lambda must be non-negative + # prior: dunif(0, 10^4) + log(ifelse(lambda >= 0 & lambda < 10^4, 10^-4, 0)) + + # likelihood + sum(log(lambda^x \* exp(-lambda) / factorial(x))))}x <-Forcastpost21 <- MCMCmetrop1R(fun = LogPoisFun, theta.init = 1, burnin = 2000, mcmc = 8000, thin = 20, tune = 1.9, seed = 1117, verbose = 1000, logfun = TRUE, x = x)post22 <- MCMCmetrop1R(fun = LogPoisFun, theta.init = 4, burnin = 2000, mcmc = 8000, thin = 20, tune = 1.9, seed = 1123, verbose = 1000, logfun = TRUE, x = x)post23 <- MCMCmetrop1R(fun = LogPoisFun, theta.init = 8, burnin = 2000, mcmc = 8000, thin = 20, tune = 1.9, seed = 1129, verbose = 1000, logfun = TRUE, x = x)post2 <- mcmc.list(post21, post22, post23)summary(post2)plot(post2, trace = TRUE, density = TRUE)#蜿取據遒ｺ隱搾ｼ托ｼ趣ｼ台ｻ･荳九↑繧我ｸ闊ｬ逧?縺ｫ蜿取據縺ｨ蛻､譁ｭgelman.diag(post2)#繝｢繝ｳ繝?繧ｫ繝ｫ繝ｭ繧ｷ繝溘Η繝ｬ繝ｼ繧ｷ繝ｧ繝ｳ縺ｫ繧医▲縺ｦ縲∝腰蝗槫ｸｰ縺ｮ蛻?迚?縺ｨ蛯ｾ縺阪?ｮ蛻?蟶?遽?蝗ｲ繧定ｨ育ｮ励☆繧九?library(MCMCpack)mdata<-Q247#莉ｮ繝?繝ｼ繧ｿ縺ｮ菴懈?舌√％縺薙?ｮ繝?繝ｼ繧ｿ縺ｮ邨?縺ｿ遶九※繧呈悽蠖薙?ｮ繝?繝ｼ繧ｿ縺ｫ譖ｿ縺医※蛻?譫舌＆繧後※縺上□縺輔＞y <-mdata[,1]x1<-mdata[,2]x2<-mdata[,3]x3<-mdata[,4]x4<-mdata[,5]x5<-mdata[,6]x <- matrix(c(x1,x2,x3,x4),ncol=4,nrow=945)result3.sim <- MCMCregress(y~x, data = parent.frame(), burnin = 10000, mcmc = 100000) plot(result3.sim)raftery.diag(result3.sim)summary(result3.sim) |