

Abstract

The selection of variables problem is usual problem of statistical analysis. Solving this problem via Bayesian statistic become popular in 1990s. We review classical methods for bayesian variable selection methods and set a common framework for them. Indicator model selection methods and adaptive shrinkage methods for normal linear model are covered.

Main benefit of this work is incorporating Bayesian theory and Markov Chain Monte Carlo theory (MCMC). All derivations needed for MCMC algorithms is provided. Afterward the methods are applied on simulated and real data.