

Analyses of prior selections for Gumbel distribution

ABSTRACT

In this paper, we acquaint some selections of priors for Gumbel's parameters model. Simulation studies of Gumbel Distribution for eighteen pairs of priors based on the parameters' characteristics and existing literatures were carried out. The usage of Markov Chain Monte Carlo via Metropolis-Hasting algorithm is implemented. Our findings show that the combination of Gumbel and Rayleigh are the most compromise pair of priors for Gumbel model. We successfully employed the recommendation of the best pair priors to model the Malaysia Gold prices from 2001 to 2011.

Keyword: Gumbel model; Bayesian approach; Simulation; MCMC; Malaysia gold prices.