

THE EXPONENTIAL RATES OF CONVERGENCE OF POSTERIOR DISTRIBUTIONS*

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Abstract. After the observations were observed, the posterior distribution under mild conditions becomes more concentrated in the neighbourhood of the mode of the posterior distribution as sample size n increase. In this paper, the exponential rate of convergence of posterior distribution around the mode is established by using the generalized Laplace method. An example is also given.

Key words and phrases: Bayesian, posterior probability, exponential rate, f -uniform convergence, Q -uniform convergence.