

Bayesian prediction based on a class of shrinkage priors for location-scale models

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Abstract A class of shrinkage priors for multivariate location-scale models is introduced. We consider Bayesian predictive densities for location-scale models and evaluate performance of them using the Kullback–Leibler divergence. We show that Bayesian predictive densities based on priors in the introduced class asymptotically dominate the best invariant predictive density.

Keywords Asymptotic theory · Jeffreys prior · Neyman–Scott model · Right invariant prior · Kullback–Leibler divergence