



Bayesian matrix variate elliptical model analysis

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Abstract

The matrix variate elliptical model is considered, where under a subjective Bayes viewpoint, estimators for the location matrix and the determinant of the characteristic matrix are exactly derived assuming two loss functions, with the normal-inverse Wishart and normal-Wishart, respectively, as priors. In addition, the newly developed results will be applied to the matrix variate normal distribution and the matrix variate t-distribution as particular subfamilies of the matrix variate elliptical model. A simulation study as well as a real data set are used to illustrate these new results and the usefulness of the normal-Wishart prior.

Keywords: Normal-inverse Wishart; normal-Wishart; squared error loss; maximum posterior mode.