

## A BAYESIAN APPROACH TO SHRINKAGE ESTIMATORS

Filipe das Neves RIZZO<sup>1</sup>  
Cristiane Alvarenga GAJO<sup>1</sup>  
Devanil Jaques de SOUZA<sup>1</sup>  
Lucas Monteiro CHAVES<sup>1</sup>

- *ABSTRACT: Estimators obtained by shrinking the least squares estimator are becoming widely used since the work of Stein, in the early 60's, where it is presented an estimator for the mean of multivariate normal that dominates the sample mean, and the work of Hoerl and Kennard, in the early 70's, on ridge estimators. In this work we present an approach using Bayesian and empirical Bayesian procedures to obtain some important shrinkage estimators.*
- *KEYWORDS: shrinkage estimators, empirical Bayes, minimum mean square estimator.*

---

<sup>1</sup> University Federal of Lavras – UFLA , Department of Exact Sciences, CP 37 , CEP: 37200 - 000, Lavras, MG, Brazil.: [rizzo.filipe@gmail.com](mailto:rizzo.filipe@gmail.com); [cristianegajo@yahoo.com.br](mailto:cristianegajo@yahoo.com.br); [devaniljaques@dex.ufla.br](mailto:devaniljaques@dex.ufla.br); [lucas@dex.ufla.br](mailto:lucas@dex.ufla.br)