How to measure discrepancy from structured matrices

Katarzyna Filipiak[1], **Daniel Klein**[2], **and Monika Mokrzycka**[3]

[1]*Poznań University of Technology, Poland*
[2]*P. J. Šafárik University, Košice, Slovakia*
[3]*Institute of Plant Genetics, Polish Academy of Sciences, Poznań, Poland*

Abstract

In this talk doubly-multivariate model of experiment, in which for every individual several features are measured repeatedly, is considered. Two measures of discrepancy - entropy and quadratic loss functions - are proposed and compared in the context of power comparison, when the hypothesis about separable structure of covariance is studied. The likelihood ratio test and Rao score test statistics are used for the verification of hypothesis of interest.

Keywords

Doubly-multivariate model, Separable structure, Entropy loss function, Quadratic loss function, Likelihood ratio test, Rao score test, Power.