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**Tucker3 method in biometrical research: Analysis of experiments with three factors, using R**

AIP Conf. Proc. 1479, pp. 1728-1731; doi:[http://dx.doi.org/10.1063/1.4756506](http://link.aip.org/link/doi/10.1063/1.4756506) (4 pages)

NUMERICAL ANALYSIS AND APPLIED MATHEMATICS ICNAAM 2012: International Conference of Numerical Analysis and Applied Mathematics

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The present work aims to propose a systematic study and interpretation of a variable response in relation to three factors, using a model of Joint Table Analysis, the Tucker3 model, as well as the joint biplot graph. The proposed method seems efficient and suitable for separating standard technical response, and the pattern of noise contained in a three inputs table, as well as allows its interpretation. The joint plot graph facilitates the study and interpretation of the data structure and provides additional information on these. In our application the aim is to identify the combinations of genotypes, locations and years that contribute or not to a high yield of bean cultivars.

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