MULTIPLE COMPARISONS AND SIMULTANEOUS TEST FOR *K* BINOMIAL INDEPENDENT PARAMETERS

Nádia Giaretta BIASE[1]
Daniel Furtado FERREIRA[2]

- *ABSTRACT: A strategy used to compare several binomial proportions is the analysis of variance F test followed by tests of multiple comparisons, if the overall null hypothesis had been rejected. However, the assumptions of those tests are not satisfied in the binomial circumstance and therefore this strategy is not appropriate. Among the methods used to circumvent the problem, there are asymptotic tests proposed in the literature. This work aimed to propose an asymptotic test for multiple comparisons for binomial proportions based on quadratic forms and to evaluate their performance by means Monte Carlo simulation, and to divulge and evaluate the performance of asymptotic tests G^2 and Pearson's X^2 for the hypothesis of several binomial proportions. We simulated Monte Carlo samples for different configuration of k binomial populations with parameters π_i and n_i for the i th population, i=1, 2, …,k.*

- *KEYWORDS: Monte Carlo simulation; likelihood ratio; quadratic forms; multiple comparison procedures.*

[1] Faculdade de Ciências Integradas do Pontal - FACIP, Universidade Federal de Uberlândia-UFU, CEP: 38302-000, Ituiutaba, MG, Brasil. E-mail: *nadiabiase@yahoo.com.br*
[2] Departamento de Ciências Exatas, Universidade Federal de Lavras - UFLA, Caixa Postal 37, CEP: 37200-000, Lavras, MG, Brasil. E-mail: *danielff@dex.ufla.br*