Department of Mathematical Sciences
The University of Texas at El Paso

Colloquium

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Friday, September 5, 2014 at 3 pm in Bell Hall 143

A Multiplicity Adjustment for Chi-square Distributed Endpoints

Whenever overall conclusions are warranted, the familywise error rate of a set of inferences requires control. Many methods exist for controlling multiplicity for independent or normally distributed endpoints, but relatively few address non-normal correlated endpoints. This manuscript proposes a multiplicity adjustment that strictly controls the type I error for a family of chi-square distributed endpoints. The method is flexible and may be applied to any set of chi-square distributed endpoints with any correlation structure. Numerical and simulation results confirm that this procedure is effective at controlling familywise error in any setting and is far more efficient than utilizing a Bonferroni adjustment. An application is presented to demonstrate the flexibility and accessibility of this procedure.

For further information, please contact Dr. Emil Schwab, eschwab@utep.edu
Refreshments will be served in front of the colloquium room,
15 minutes before the start of the colloquium.