Wiener Biometrische Sektion
der Internationalen Biometrischen
Gesellschaft
Region Österreich – Schweiz

http://www.meduniwien.ac.at/wbs/

Einladung zum

Biometrischen Kolloquium

am Montag, den 31.8.09, um 16:00 Uhr (s.t.):

Prof. Hirotsu (Meisei University)

Row-wise multiple comparison approach to the analysis of two-way interaction with particular interest in the ordered rows and/or columns

in der Bibliothek der BE für Medizinische Statistik und Informatik (Ebene 3, gegenüber Lift) der Medizinischen Universität Wien, Spitalgasse 23, 1090 Wien.

Thomas Lang   Georg Heinze
Präsident   Sekretär

Row-wise multiple comparison approach to the analysis of two-way interaction with particular interest in the ordered rows and/or columns

Chihiro Hirotsu

Meisei University

It seems that there have been a very few literature on the multiple comparison procedure (mcp) for interaction effects as compared with the large and detailed literature for a one-way layout. There are several specific features in the analysis of two-way data. First the characteristics of the rows and columns, such as controllable, indicative, variational and responsive, should be taken into consideration. Then the degrees of freedom (df) for interaction are often so large that the mcp for 1 df contrasts is too less powerful and also the interpretation of testing result is usually unclear. We have therefore introduced the row-wise multiple comparison approach to those two-way data (Biometrika 1983, 1991; Biometrics 2003; CSDA 2009). Essentially the same procedure is applicable to the contingency table as well as the ANOVA model so that it includes many interesting problems. If it is a one-way layout with categorical responses instead of normal variables it is nothing but the mcp for treatment effects. An interesting application includes in particular the case where there is a natural ordering in the rows and/or columns. We give a systematic approach to those problems as well as some real examples.