## Wiener Biometrische Sektion der Internationalen Biometrischen Gesellschaft Region Österreich – Schweiz

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

#### Einladung zum

### **Biometrischen Kolloquium**

am Dienstag, den 22. Juni 2010 um 10:30 Uhr (s.t.)

in der Informatikbibliothek (Ebene 3, Raum 88.03.806) der Besonderen Einrichtung für Medizinische Statistik und Informatik (MSI) der Medizinischen Universität Wien Spitalgasse 23, 1090 Wien

Vortragender:

# **Bernhard Klingenberg**

Department of Mathematics and Statistics, Williams College, MA, USA

# Simultaneous confidence bounds in multiple comparisons to control

Wir freuen uns auf zahlreichen Besuch.

Georg Heinze Präsident Martin Posch Sekretär

#### Simultaneous confidence bounds in multiple comparisons to control

Bernhard Klingenberg
Department of Mathematics and Statistics
Williams College, MA, USA
http://lanfiles.williams.edu/~bklingen/

We discuss the construction of asymptotic simultaneous one-sided confidence bounds for risk differences or risk ratios arising from comparing several treatments to a common control by inverting the maximum (minimum) of score statistics. With a few exceptions, these bounds perform better in terms of simultaneous coverage probability than procedures based on adjusted Wald methods (e.g., the add 4 rule), especially over relevant parts of the parameter space in superiority or inferiority studies. A further improvement is realized by using an appropriate multiplicity adjusted critical value that takes advantage of the correlation information in the score statistics estimated under the null. R implementations of all procedures are presented using data from clinical trials and vaccine studies.