

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

<http://www.akh-wien.ac.at/wbs/>

Einladung zum

Biometrischen Kolloquium

am Donnerstag, dem 29. April 2004, 16:00 Uhr

in der "Alten Bibliothek", Institut für Medizinische
Computerwissenschaften, Medizinische Universität Wien, Ebene 03
(Lift),
Spitalgasse 23 (rechts erster Hof, Rampe), 1090 Wien

Zugang: Haupteingang des Rektorats der Medizinischen Universität

Es spricht Hr. Prof. K.-D. Wernecke von der Charité Universität
Berlin zum Thema:

**A Mixed Model Approach to Discriminant
Analysis
with Longitudinal Data**

Wir ersuchen um zahlreichen Besuch für diesen sehr interessanten
und aktuellen Vortrag.

Karl Moder
Brannath
Präsident

Werner
Sekretär

Abstract:

In medical diagnostics data are often characterized by repeated observations on the same subject (patient), particularly in form of time series, dose-response curves etc. If the aim is an individual allocation of patients into one of different groups (diagnoses), a discriminant analysis has to be applied. In a first attempt, Tomasko et al., 1999 modified the well-known linear discriminant analysis using the mixed model MANOVA for the estimation of fixed effects and for a determination of various structures of covariance matrices, including unstructured, compound symmetry, and autoregressive of order 1. We extended that approach by a random subject effect (Azzalani, 1995), validated error estimations, and cross-validated feature selection (Wernecke, 2002). In a next paper (Wernecke et al., 2004), we completed the investigations of the new method with a cross-validated selection of the adequate model (covariance structure) and extensive Monte-Carlo simulations. An application to contrast-enhanced breast MRI signals in a multicenter study is also given.