<div align="center">

Einladung

zum

5. Biometrischen Seminar im WS 2008/09

am

Dienstag, den 09.12.2008 um 16.00 Uhr

im Seminarraum 04,
Erdgeschoss des Schwackhöferhauses,
Peter Jordanstraße 82, 1190 Wien.

</div>

Vortragender: Ao.Univ.Prof.Dr. Erich Neuwirth, Faculty of Computer Science, University of Vienna

Thema: R meets the Workplace -Embedding R in Excel to make it more accessible

Zusammenfassung:

One of the problems withstanding a more widespread use of R by nonspecialists (i.e. users with neither a high proficiency in software controlled by a classical programming language paradigm nor with a deeper knowledge of statistical methods) is the difficulty of starting to use R.
Most statistical data become analyzable data by being entered into Excel. Therefore, being able to transfer data from Excel to R is a key issue for wider use of R. There are technical answers like the packages RODBD or xlsReadWrite which essentially allow transfer of data frames. RExcel, an add-in for Excel, offers very similar facilities, but also brings the sequential programming paradigm of R and the dependency base automatic recalculation model of Excel closer together. It allows to use R-expressions as Excel formulas, combining the power of R's computational engine with the dependency tracking mechanisms of Excel.
An additional problem is the syntactic complexity of R formulas. A very nice tool for "guided discovery learning" how to build R expressions is the R Commander which gives the user a menu driven interface to statistical methods comparable to, say, SPSS, but at the same time displays the the R expressions needed to produce the requests results. The user then has the option of modifying these expression to adapt the result (data or graphs) to his needs.
The latest incarnation of RExcel embeds R Commander within Excel.
The R Commander becomes an Excel menu, and in this way the naive user is presented with an already well established interface to R as an extension to Excel.
R Commander allows developers to write plugins, i.e. their own extensions to the methods offered by the menu interface, and thereby becomes a hub for making any R method available through a menu driven interface. RExcel is compatible with this plugin mechanism, any extension to R Commander

also becomes an extension of Excel.
The embedding mechanism of R Commander into Excel does not directly use the autmatic recalculation engine, but R Commander can be used to support "production" of R formulas which then can be turned into Excel formulas. Combining the power of Excel's dependency tracking mechanism and spaTial paradigm for establishing relationships, R's powerful programming paradigm and computational engine, and R Commander's menu system ease the creation of R formulas seems to offer a very powerful combination of methodologies to make R more accessible to a much wider class of users than R alone. .

Wien, am 04.12.2008

Ao.Univ.Prof.DI.Dr. Karl MODER eh   Prof. Dr.Dr.h.c. Dieter Rasch eh