

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

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

Einladung zum

Biometrischen Kolloquium

am **Donnerstag, 17. Jänner 2013** um **11:00 Uhr** (s.t.)

im Seminarraum (Ebene 3, Raum 88.03.513) des
Zentrums für Medizinische Statistik, Informatik und Intelligente Systeme (CeMSIIS)
der Medizinischen Universität Wien, Spitalgasse 23, 1090 Wien
(Plan siehe <http://www.muw.ac.at/cemsiis/allgemeines/anschrift/>)

Vortragender:

David Azriel

Faculty of Industrial Engineering and Management
Technion - Israel institute of technology

**Adaptive designs to maximize power
in clinical trials with multiple treatments**

Wir freuen uns auf zahlreichen Besuch.

Gerhard Svolba
Präsident

Franz König
Sekretär

Adaptive designs to maximize power in clinical trials with multiple treatments

David Azriel

Faculty of Industrial Engineering and Management
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Abstract:

We consider a clinical trial with three competing treatments and study designs that allocate subjects sequentially in order to maximize the power of relevant tests. The power converges to 1 in an exponential rate and we find the optimal allocation that maximizes this rate by large deviations theory. The optimal allocation depends on the unknown parameters and therefore in order to implement it, a sequential adaptive scheme is considered. We study the asymptotic properties of this design by large deviations theory and the small sample behavior by simulations. Our results demonstrate that, unlike the two treatments case, adaptive design can provide significant improvement in power.

Joint work with Paul Feigin