# Einladung zum Biometrischen Kolloquium

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# ADAPTIVE MULTI-ARM MULTI-STAGE GROUP SEQUENTIAL DESIGNS

## 13. Mai 2019, 11:00h s.t.

Seminarraum 88.03.513

Medizinischen Universität Wien, Spitalgasse 23, 1090 Wien

### ABSTRACT:

Multi-arm Multi-stage (MAMS) Group Sequential designs are generalizations of Two-arm Multi-stage Group Sequential designs for comparing more than one treatment arm to a common control arm with possible early stopping for efficacy or futility. Adaptive MAMS group sequential designs permit, in addition to early stopping, treatment selection and sample size re-estimation at one or more interim analysis time points. In this presentation I will describe how the multi-arm group sequential stopping boundaries may be constructed initially, how they may be modified in the presence of adaptive changes, and how the family wise type-1 error rate is controlled. For the special case of adaptive two-stage designs comparisons will be made to an alternative approach in which the independent p-values from the two stages are combined with pre-specified weights.

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