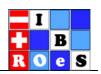
#### Wiener Biometrische Sektion der Internationalen Biometrischen Gesellschaft Region Österreich – Schweiz



## Einladung zum Biometrischen Kolloquium

# SEBASTIAN DÖHLER,

Hochschule Darmstadt, Deutschland

# CONTROLLING THE FALSE DISCOVERY RATE FOR DISCRETE TEST STATISTICS: SOME RESULTS AND COMPUTATIONAL TOOLS

## 21. Mai 2019, 13:30h s.t.

Informatikbibliothek der MUW, Spitalgasse 23, Raum 88.03.806 Medizinischen Universität Wien, Spitalgasse 23, 1090 Wien

**Host:** Florian Frommelt

### **ABSTRACT:**

The Benjamini-Hochberg procedure and related methods are classical methods for controlling the false discovery rate for large scale multiple testing problems. These procedures were originally designed for continuous test statistics. In many applications, e.g. when data represent frequencies or counts, the test statistics are however discretely distributed. While it is known that e.g. the Benjamini-Hochberg procedure still controls the false discovery rate in the discrete paradigm, it may be unnecessarily conservative. Thus, there is interest in developing more powerful FDR procedures for discrete data. In this talk we review improved procedures that incorporate the discreteness of the p-value distributions. We also give an introduction to 'DiscreteFDR', a new R package which implements these approaches.

Joint work with Etienne Roquain, Guillermo Durand and Florian Junge.