Upcoming course (final details yet to be determined)

**Nonparametric Statistical Methods (for Comparative Studies)**

The course is accessible for all statisticians. The course is at an intermediate level, many examples, focus on interpretation, but theory is provided when necessary.

**Presenter: Professor Olivier Thas (Ghent University, Belgium)**

January/February 2014

Expected course content could include:

- rank and permutation tests: general principles (permutation null distribution, asymptotic distributions, efficiency, …)
- some classical rank tests: Wilcoxon-Mann-Whitney, Kruskal-Wallis, Friedman, Mantel-Haenszel, …
- interpretation of the hypotheses and the effect sizes: location-shift model, probabilistic index
- how nonparametric are nonparametric methods? assumptions and pitfalls, semiparametric interpretation
- nonparametric estimators for effect sizes: Hodges-Lehman, rank regression, probabilistic index models
- multiple comparisons of means: family wise error rate (FWER), false discovery rate (FDR), permutation methods
- nonparametric methods for categorical data: Mantel-Haenszel and exact logistic regression
- correcting for continuous covariates: rank tests for stratified designs, rank regression, probabilistic index models
- on the relation between the design and the (nonparametric) statistical analysis: Friedman (randomized complete blocks), Mack-Skillings (randomized complete block met herhalingen), Skillings-Mack (balanced incomplete block designs), …
- rank tests for clustered data
- sample size calculation

Duration: 8 to 12 lecture hours and 4 hours of hands on PC tutorials

Software: SAS or R