

Joint Master Theses in Biostatistics/Bioinformatics

The SA Biostatistics/Bioinformatics offers Joint Master Theses for ELLS students. Below are brief profiles of main research areas at the different ELLS universities. M.Sc. students may identify suitable topics for their master thesis and then contact co-ordinator of SA, Prof. Dr. Hans-Peter Piepho (piepho@uni-hohenheim.de), who will establish contact with the partner university. The partner university, in turn, will identify scientist willing to supervise an M.Sc. thesis. In the process, the thesis subject will be specified and elaborated.

Brief research profiles

Profile for UHOH: Mixed modelling, genotype-by-environment interaction in plants, phenotypic stability, QTL-mapping in plants with complex designs for assessing the phenotypic data, missing data mechanisms in series of plant variety trials, optimization of trialling systems for plant breeding, graphical representation of multiple comparisons, biometrical methods for cDNA microarrays.

Profile for WUR: Bayesian statistics for model calibration; Genetic map construction in polyploid species; genetical genomics; statistical genetics; modelling of QTLxE interactions; spectral image analysis.

Profile for KVL: Applied statistics/bioinformatics for the KVL areas: agriculture/horticulture/forestry/food/veterinary/human nutrition. In particular linear mixed models, non-linear and stochastic process modelling, censored/survival data modelling, bioinformatics, sensometrics (analysis of sensory data), chemometrics and multivariate data analysis.

Profile for BOKU: Statistical data analyses and modeling related to animal production, economics and optimisation (e.g. logistics), statistical methods for GIS applications as well as forest growth.. Specific methods covered are time series analysis, interpolation routines, simultaneous regression techniques, logistic regressions, and sampling designs.

Profile for SLU: Biometry at SLU conducts research, as well as education on graduate- and undergraduate levels, within the disciplines of Statistics/Mathematical Statistics, Applied Mathematics, Theoretical Biology and Biophysics, and Environmetrics and Geoinformatics. In Statistics/Mathematical Statistics the research profile is experimental design, multivariate analysis, high dimensional analysis and linear models. In Bioinformatics we are working with QTL-analysis and mathematics for studying phylogenetic trees.