Course schedule "Applied multivariate statistics"

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Date	Topic	Research context	Misc.
04/12/17	Introduction; Statistical modelling, simulation and the linear model	Data analysis cycle	
11/12/17	Multiple regression analysis: Modelling strategies and methods	Prediction, estimation and explanation of one response variable by a set of variables	
18/12/17	Generalized linear models		
08/01/18	Introduction to multivariate analysis; Ordination and Principal Component Analysis (PCA)	Explore main gradients of variation and reveal patterns of object similarity	Theor. Exam I
15/01/18	Multivariate multiple Regression (Redundancy Analysis – RDA)	Identify gradients of variation in a set of measured variables explained by another set of variables	
	Similarity and distance metrics; Non-metric multidimensional scaling (NMDS)	Explore main gradients of variation and reveal patterns of object similarity	
22/01/18	Multivariate comparison of groups (Hotelling T^2, MANOVA, PERMANOVA)	Estimate and test for differences in multiple variables or objects across groups	Theor. Exam II
29/01/18	Unsupervised classification (Cluster analysis)	Define groups of similar variables or objects	
05/02/18	Supervised classification (Classification and regression trees), Open issues and exercises	Discriminate objects based on values of measured variables	Theor. Exam III
07/02/18 14:00	Deadline for completing datacamp assignment		
12/02/18	Practical exam from 10:00-11:00 Students without own computer → PC room 1 Students with own computer → TBA		Pract. Exam