Linear Mixed Models, fall 2015

Lecturer
Juha Alho, Professor of Social Statistics

This course considers regression models that are widely used in situations in which there are both individual level and group level explanatory variables. “Individual” may refer to a family member or a pupil, and “group” correspondingly to a family or a class in school. Often, the family or the class has difficult to measure characteristics that, nevertheless, have an influence on the outcome measure of interest, such as income or test score. In this case, one may consider the group effect to be random, and the regression model then has both fixed and random explanatory variables. Depending on the context, such models go also under the names repeated measures, growth curve, multilevel, or hierarchical models. This course considers linear mixed models and assumes that the outcome measure is normally distributed. Theoretically a new new aspect is the estimation of covariance structures. We will consider the simplest mixed linear model in some detail but indicate also how more complex models are analyzed using R.

The course will be given in English. Abbreviated lecture notes will be provided in instalments for those registered. - Kurssista on olemassa myös suomenkielinen luentorunko, joka on sisällöltään kutakuinkin sama.

Register for the course
Forgot to register? Send an e-mail to: tilasto-info[at]helsinki.fi