Repeated measures (M)ANOVA remains the most popular approach in social sciences for the analysis of repeated measures data. This method is limited in a number of important ways. It cannot handle well (a) data arising from partial within-designs, (b) continuous within-variables, (c) longitudinal data, and (d) data with a hierarchical structure of non-independence (e.g., trials nested in subjects nested in dyads). A general framework for analyzing all such data is multilevel linear regression (a.k.a, linear mixed models, random effects regression). Multilevel models are an extension of the standard linear model that take into account multiple sources of random variation simultaneously (e.g., error, subjects), while testing the effects of various fixed variables (e.g., manipulations, covariates) in the ordinary manner. This workshop offers an accessible introduction to multilevel linear models, with an emphasis on how to run and interpret the models in R. Practical case studies are presented to illustrate different applications (e.g., longitudinal data). R scripts for all examples are provided and can be used to follow along with the presentation. Working knowledge of R is recommended but not essential.

CONTENTS
- Repeated measures (M)ANOVA and limitations
- Random intercept model
- Random slope model
- Model selection and inference
- Hierarchical, trial-level, and longitudinal data