

Doctoral Workshop: 31.01.2024 - 02.02.2024

Organisers: Gerda Wyssen & Rahel Steuri

Data Simulation with Lisa DeBruine

About the workshop

Data simulation enables the careful planning of the research process, from calculating power and sensitivity for analyses, constructing reproducible examples, to preparing analysis scripts for your data. Especially with the increasing importance of pre-registering studies, data simulation has become an essential tool. This workshop will cover the basics of data simulation in R.

Day 0: R Refresher

Those who wish to have a refresher in R basics can join this first introductory day. We will not simulate data on this day but learn how to install and load packages, work with R projects and RMarkdown (Quarto), how to perform data wrangling within the tidyverse package (e.g., filter data, create new variables, summarise data, plot data (with {ggplot2})). This introductory day will be very basic and held by the organisers. It can be skipped if you already have sufficient knowledge in R basics.

Day 1 & 2: Hands-on Data Simulation

On these two days, we learn data simulation from Prof. Lisa DeBruine. She will cover the basics of how and why to simulate research data. We will use simulated or pilot data to plan experiments, preregister analyses, and work on our statistical inference skills. It's best if you bring your own data.

If you're interested...

...in participating in this workshop, please send an email to jeannette.gatschet@unibe.ch. Please indicate whether you wish to participate for the whole three days (incl. day 0) or if you will partake in the day 1 & 2 only. This course is organised for PhD students. If others are interested in joining the course, please contact jeannette.gatschet@unibe.ch.

About Lisa DeBruine

Lisa DeBruine is a professor of psychology at the University of Glasgow School of Psychology and Neuroscience. She created the R package {faux} to facilitate simulating data for multilevel modelling.

For more information, visit:

<https://debruine.github.io>

<https://debruine.github.io/project/faux>

<https://rstudio-connect.psy.gla.ac.uk/debruine>

Prerequisites for this course

- Newest version of R and RStudio installed on a laptop.
- Basics knowledge of R, RMarkdown (or Quarto), and data wrangling in R.
- Installed packages {tidyverse}, {faux}, {broom}, {afex}, {lme4}.

