Methods 3: Multilevel Statistical Modeling and Machine Learning

Class 0:

Setting up R and Python — and recollection of the general linear model

September 11, 2024

Why are we not on UCloud?

Going local

- Pros
  - It is valuable to be able to run things locally
  - We do not suffer from the outages of UCloud
  - You will acquire knowledge on how to set up environments
  - You will acquire knowledge on how to use GitHub
- Cons
  - You may suffer from local set-up issues
  - You may encounter problems with big datasets (we are not using any here)
  - It would be valuable to learn more about running in a cloud system

GitHub

https://github.com/Methods-3/Methods-3-F25

Go find *preamble.pdf* in *week_37* to get started

Feedback policy – reminder

- Detailed written feedback will be provided for ***Assignment 0 only***, with the aim of aligning expectations of the instructor and students regarding how assignments will generally be read and graded. This ***has to be*** handed in as a ***study group assignment*** – otherwise you do ***NOT*** get feedback. ***Oral feedback*** will be provided on subsequent portfolio assignments during in-class assignment preparation sessions, where students will have ample opportunity to ask the instructor questions on their assignments-in-progress.

Academic regulations

- It must be possible to carry out an ***individual assessment***. So if some parts of the portfolio have been produced by a group, it must be stated clearly which parts each student is responsible for, and which parts the group as a whole is responsible for.

Group vs individual assignment

- All assignments will be distributed through the study groups in *GitHub Classroom*
- You can hand in assignments as a group through *GitHub Classroom*
- For handing in assignments individually, Brightspace will be available
- Exam needs to be handed in in WISEflow

Group assignments

- Do make sure to write who wrote what
  - Indicate if the group wrote it together, two persons, one person etc. and make the persons clearly identifiable

Preamble

```
---
title: "preamble, Methods 3, 2025"
date: "2025-09-11"
output:
  pdf_document
---

REMEMBER: This preamble is **NOT** part of your portfolio, but is a prerequisite for doing the portfolio

# Preamble - *GitHub*,*Python*, *Conda*

The goals of the preamble are:

1)  create a *Conda* environment that contains the *Python* packages that we need. Note that we are not creating an R environment - I expect you to maintain your own
2)  install your R-packages
3)  connect your *GitHub* profile to the *GitHub* classroom such that you can hand in assignments and access course materials
```

Preamble test

```
---
title: "preamble_test"
date: "2024-09-11"
output: html_document
---

# Exercises and objectives

The objectives of today's exercises are:\
1) Check that your environment works by running single level ...
2) ... and multilevel models in R
3) Run a single level model in Python
```

Let’s get started!

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