Programme 1 meeting

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Outline

- A new Python feature
- A warning about a sub-optimal thing a lot of people do in R

Self-contained executable Python scripts (a.k.a. scripts with inline metadata)

Incredibly convenient way to distribute Python projects (PEP 723 resolved early 2024, in uv since July 2024)

Example repo: https://github.com/remlapmot/quarto-uv-script-example

Example: render Quarto documents using the Jupyter engine

Example script: render (needs uv, Quarto, [and Stata if using that] installed - the Python/Jupyter part is self-contained)

```
#!/usr/bin/env -S uv run --script
# /// script
# requires-python = ">=3.9"
# dependencies = [
#     "jupyterlab>=4.4.3",
#     "jupyterlab-stata-highlight2>=0.1.2",
#     "nbstata>=0.8.3",
# ]
# ///

import subprocess

print("Hello, from uv's Python virtual environment.")

cmd0 = "python -m nbstata.install --sys-prefix"
subprocess.call(cmd0, shell=True)


cmd1 = "quarto render index.qmd"
subprocess.call(cmd1, shell=True)
```

Run (after having made executable, chmod +x render) with (Windows users need to run from a Git Bash shell):
`./render`

`uv run` automatically creates the required .venv, uses it, deletes it

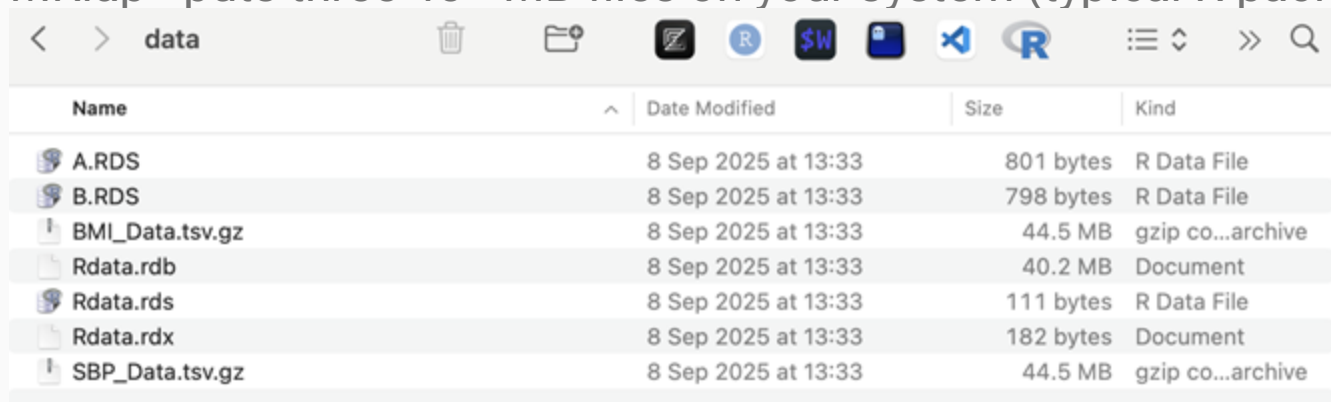# Why friends don't let friends install R packages with remotes::install_github()

Not well known that … remotes::install_github() will install an R package even if that package is **badly misconfigured**

Many GitHub only R packages are badly misconfigured 😬

… but I just want my analysis to work!

… misconfigured packages make it much less likely your analysis will work

MRlap - puts three 40+ MB files on your system (typical R package <10 MB)

Name		Date Modified	Size	Kind
A.RDS		8 Sep 2025 at 13:33	801 bytes	R Data File
B.RDS		8 Sep 2025 at 13:33	798 bytes	R Data File
BMI_Data.tsv.gz		8 Sep 2025 at 13:33	44.5 MB	gzip co...archive
Rdata.rdb		8 Sep 2025 at 13:33	40.2 MB	Document
Rdata.rds		8 Sep 2025 at 13:33	111 bytes	R Data File
Rdata.rdx		8 Sep 2025 at 13:33	182 bytes	Document
SBP_Data.tsv.gz		8 Sep 2025 at 13:33	44.5 MB	gzip co...archive

Many GitHub only packages declare dependencies they don't use and/or omit dependencies they do use

Packages in an r-universe cannot be misconfigured - always prefer installing packages from our https://mrcieu.r-universe.dev/ with

```
install.packages('TwoSampleMR',
  repos = 'https://mrcieu.r-universe.dev/')
```

instead of
```
remotes::install_github('MRCIEU/TwoSampleMR')
```
(should be your last resort)

MRC Integrative Epidemiology Unit

- r-universe/mrcieu ✓
- University of Bristol, UK
- https://www.bristol.ac.uk/ieu
- 102 packages
- 99 articles
- 169 datasets
- 139 contributors
- 224 followers