## Session Info

#### Ivan Jacob Agaloos Pesigan

### Session

```
sessionInfo()
#> R version 4.4.0 (2024-04-24)
#> Platform: x86_64-pc-linux-gnu
#> Running under: Ubuntu 22.04.4 LTS
#>
#> Matrix products: default
          / usr/lib/x86\_64-linux-gnu/openblas-pthread/libblas.so.3
#> LAPACK: /usr/lib/x86_64-linux-gnu/openblas-pthread/libopenblasp-r0.3.20.so; LAPACK version 3.10
#>
#> locale:
#> [1] LC_CTYPE=en_US.UTF-8
                             LC_NUMERIC=C
   [3] LC_TIME=en_US.UTF-8
                              LC_COLLATE=en_US.UTF-8
#> [5] LC_MONETARY=en_US.UTF-8 LC_MESSAGES=en_US.UTF-8
   [7] LC_PAPER=en_US.UTF-8
                                 LC_NAME=C
#> [9] LC_ADDRESS=C
                                  LC_TELEPHONE=C
#> [11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C
#>
#> time zone: Etc/UTC
```

```
#> tzcode source: system (glibc)
#> attached base packages:
#> [1] stats
                graphics grDevices utils datasets methods
                                                               base
#> other attached packages:
#> [1] rProject_0.0.13
#>
#> loaded via a namespace (and not attached):
#> [1] backports_1.5.0 R6_2.5.1
                                       lubridate_1.9.3 xfun_0.45
#> [5] magrittr_2.0.3 glue_1.7.0
                                        stringr_1.5.1 knitr_1.47
#> [9] timechange_0.3.0 generics_0.1.3
                                       lifecycle_1.0.4 xml2_1.3.6
#> [13] cli_3.6.2.9000 bibtex_0.5.1
                                        compiler_4.4.0 highr_0.11
#> [17] rprojroot_2.0.4 plyr_1.8.9
                                        httr_1.4.7
                                                        tools_4.4.0
#> [21] evaluate_0.24.0 Rcpp_1.0.12
                                        RefManageR_1.4.0 rlang_1.1.4
#> [25] jsonlite_1.8.8 stringi_1.8.4
```

## **Packages**

```
unname(installed.packages()[, 1])
     [1] "cli"
                            "downlit"
                                               "evaluate"
                                                                  "metaVAR"
#>
     [5] "rlang"
                            "rProject"
                                               "simStateSpace"
                                                                  "tinytex"
     [9] "xfun"
                            "abind"
                                               "arrow"
                                                                  "ash"
#>
    [13] "AsioHeaders"
                            "askpass"
                                               "assertthat"
                                                                 "backports"
    [17] "base64enc"
                                               "betaMC"
                                                                  "betaNB"
                            "betaDelta"
    [21] "betaSandwich"
                            "BH"
                                               "bibtex"
                                                                  "BiocManager"
```

#>	[25]	"bit"	"bit64"	"bitops"	"blob"
#>	[29]	"brew"	"brio"	"broom"	"bslib"
#>	[33]	"cachem"	"callr"	"car"	"caracas"
#>	[37]	"carData"	"cellranger"	"cffr"	"checkmate"
#>	[41]	"cli"	"clipr"	"clock"	"coda"
#>	[45]	"cOde"	"collections"	"colorspace"	"commonmark"
#>	[49]	"conflicted"	"corpcor"	"covr"	"cowplot"
#>	[53]	"cpp11"	"crayon"	"credentials"	"crosstalk"
#>	[57]	"cTMed"	"ctsem"	"curl"	"cyclocomp"
#>	[61]	"data.table"	"DBI"	"dbplyr"	"Deriv"
#>	[65]	"desc"	"deSolve"	"devtools"	"diagram"
#>	[69]	"dials"	"DiceDesign"	"diffobj"	"digest"
#>	[73]	"distributional"	"distro"	"doBy"	"docopt"
#>	[77]	"doFuture"	"downlit"	"dplyr"	"DT"
#>	[81]	"dtplyr"	"duckdb"	"dynr"	"dynUtils"
#>	[85]	"ellipse"	"ellipsis"	"evaluate"	"expm"
#>	[89]	"fansi"	"farver"	"fastDummies"	"fastmap"
#>	[93]	"fclust"	"fda"	"fdrtool"	"fds"
#>	[97]	"FNN"	"fontawesome"	"forcats"	"foreach"
#>	[101]	"Formula"	"fs"	"fst"	"fstcore"
#>	[105]	"furrr"	"future"	"future.apply"	"gargle"
#>	[109]	"generics"	"gert"	"ggplot2"	"ggrepel"
#>	[113]	"gh"	"gitcreds"	"glasso"	"glmnet"
#>	[117]	"globals"	"glue"	"googledrive"	"googlesheets4"
#>	[121]	"gower"	"GPfit"	"gridExtra"	"gsubfn"
#>	[125]	"gtable"	"gtools"	"hardhat"	"haven"
#>	[129]	"hdrcde"	"here"	"highr"	"Hmisc"

#>	[133]	"hms"	"htmlTable"	"htmltools"	"htmlwidgets"
#>	[137]	"httpgd"	"httpuv"	"httr"	"httr2"
#>	[141]	"ids"	"ifaTools"	"igraph"	"infer"
#>	[145]	"ini"	"inline"	"ipred"	"isoband"
#>	[149]	"iterators"	"jomo"	"jpeg"	"jquerylib"
#>	[153]	"jsonlite"	"jsonvalidate"	"kernlab"	"knitr"
#>	[157]	"ks"	"labeling"	"Lahman"	"languageserver"
#>	[161]	"later"	"latex2exp"	"lava"	"lavaan"
#>	[165]	"lazyeval"	"lhs"	"lifecycle"	"lintr"
#>	[169]	"listenv"	"littler"	"lme4"	"locfit"
#>	[173]	"longMI"	"loo"	"lubridate"	"magick"
#>	[177]	"magrittr"	"markdown"	"MatrixModels"	"matrixStats"
#>	[181]	"mclust"	"memoise"	"metaSEM"	"mice"
#>	[185]	"microbenchmark"	"mime"	"miniUI"	"minqa"
#>	[189]	"mitml"	"mize"	"mnormt"	"modeldata"
#>	[193]	"modelenv"	"modelr"	"MplusAutomation"	"multicool"
#>	[197]	"munsell"	"mvtnorm"	"nloptr"	"numDeriv"
#>	[201]	"nycflights13"	"OpenMx"	"openssl"	"ordinal"
#>	[205]	"pan"	"pander"	"parallelly"	"parsnip"
#>	[209]	"patchwork"	"pbapply"	"pbivnorm"	"pbkrtest"
#>	[213]	"pcaPP"	"pdftools"	"pillar"	"pkgbuild"
#>	[217]	"pkgconfig"	"pkgdown"	"pkgload"	"plogr"
#>	[221]	"plyr"	"png"	"posterior"	"pracma"
#>	[225]	"praise"	"prettyunits"	"printr"	"processx"
#>	[229]	"prodlim"	"profvis"	"progress"	"progressr"
#>	[233]	"promises"	"proto"	"ps"	"psych"
#>	[237]	"purrr"	"qgraph"	"qpdf"	"quadprog"

#>	[241]	"quantreg"	"quarto"	"QuickJSR"	"R.cache"
#>	[245]	"R.methodsS3"	"R.00"	"R.utils"	"R6"
#>	[249]	"ragg"	"rainbow"	"rappdirs"	"rbibutils"
#>	[253]	"rcmdcheck"	"RColorBrewer"	"Rcpp"	"RcppArmadillo"
#>	[257]	"RcppEigen"	"RcppGSL"	"RcppParallel"	"RcppTOML"
#>	[261]	"RCurl"	"Rdpack"	"readr"	"readxl"
#>	[265]	"recipes"	"RefManageR"	"rematch"	"rematch2"
#>	[269]	"remotes"	"reprex"	"reshape2"	"reticulate"
#>	[273]	"rex"	"rhub"	"rlang"	"RMariaDB"
#>	[277]	"rmarkdown"	"roxygen2"	"rpf"	"RPostgres"
#>	[281]	"rProject"	"rprojroot"	"rsample"	"RSQLite"
#>	[285]	"rstan"	"rstantools"	"rstudioapi"	"rversions"
#>	[289]	"rvest"	"Ryacas"	"sass"	"scales"
#>	[293]	"selectr"	"semlbci"	"semmcci"	"sessioninfo"
#>	[297]	"shape"	"shiny"	"simStateSpace"	"slider"
		"shape" "snow"	"shiny" "snowfall"	"simStateSpace" "sourcetools"	"slider" "SparseM"
#>	[301]			_	
#> #>	[301] [305]	"snow"	"snowfall"	"sourcetools"	"SparseM"
#> #> #>	[301] [305] [309]	"snow" "SQUAREM"	"snowfall" "StanHeaders"	"sourcetools"	"SparseM" "stringi"
#> #> #>	[301] [305] [309] [313]	"snow" "SQUAREM" "stringr"	"snowfall" "StanHeaders" "styler"	"sourcetools" "statmod" "symSEM"	"SparseM" "stringi" "sys"
#> #> #> #>	[301] [305] [309] [313] [317]	"snow" "SQUAREM" "stringr" "systemfonts"	"snowfall" "StanHeaders" "styler" "tensorA"	"sourcetools" "statmod" "symSEM" "testthat"	"SparseM" "stringi" "sys" "texreg"
#> #> #> #> #>	[301] [305] [309] [313] [317] [321]	"snow" "SQUAREM" "stringr" "systemfonts" "textshaping"	"snowfall" "StanHeaders" "styler" "tensorA" "tibble"	"sourcetools"  "statmod"  "symSEM"  "testthat"  "tidymodels"	"SparseM" "stringi" "sys" "texreg" "tidyr"
#> #> #> #> #>	[301] [305] [309] [313] [317] [321] [325]	"snow"  "SQUAREM"  "stringr"  "systemfonts"  "textshaping"  "tidyselect"	"snowfall"  "StanHeaders"  "styler"  "tensorA"  "tibble"  "tidyverse"	"sourcetools"  "statmod"  "symSEM"  "testthat"  "tidymodels"  "timechange"	"SparseM"  "stringi"  "sys"  "texreg"  "tidyr"  "timeDate"
#> #> #> #> #> #>	[301] [305] [309] [313] [317] [321] [325] [329]	"snow"  "SQUAREM"  "stringr"  "systemfonts"  "textshaping"  "tidyselect"  "tinytex"	"snowfall"  "StanHeaders"  "styler"  "tensorA"  "tibble"  "tidyverse"  "tune"	"sourcetools"  "statmod"  "symSEM"  "testthat"  "tidymodels"  "timechange"  "tzdb"	"SparseM"  "stringi"  "sys"  "texreg"  "tidyr"  "timeDate"  "ucminf"
#> #> #> #> #> #> #>	[301] [305] [309] [313] [317] [321] [325] [329] [333]	"snow"  "SQUAREM"  "stringr"  "systemfonts"  "textshaping"  "tidyselect"  "tinytex"  "unigd"	"snowfall"  "StanHeaders"  "styler"  "tensorA"  "tibble"  "tidyverse"  "tune"  "urlchecker"	"sourcetools"  "statmod"  "symSEM"  "testthat"  "tidymodels"  "timechange"  "tzdb"  "usethis"	"SparseM"  "stringi"  "sys"  "texreg"  "tidyr"  "timeDate"  "ucminf"  "utf8"
#> #> #> #> #> #> #>	[301] [305] [309] [313] [317] [321] [325] [329] [333] [337]	"snow"  "SQUAREM"  "stringr"  "systemfonts"  "textshaping"  "tidyselect"  "tinytex"  "unigd"  "uuid"	"snowfall"  "StanHeaders"  "styler"  "tensorA"  "tibble"  "tidyverse"  "tune"  "urlchecker"	"sourcetools"  "statmod"  "symSEM"  "testthat"  "tidymodels"  "timechange"  "tzdb"  "usethis"	"SparseM"  "stringi"  "sys"  "texreg"  "tidyr"  "timeDate"  "ucminf"  "utf8"  "viridis"
#> #> #> #> #> #> #> #> #> #> #>	[301] [305] [309] [313] [317] [321] [325] [329] [333] [337] [341]	"snow"  "SQUAREM"  "stringr"  "systemfonts"  "textshaping"  "tidyselect"  "tinytex"  "unigd"  "uuid"  "viridisLite"	"snowfall"  "StanHeaders"  "styler"  "tensorA"  "tibble"  "tidyverse"  "tune"  "urlchecker"  "V8"  "vroom"	"sourcetools"  "statmod"  "symSEM"  "testthat"  "tidymodels"  "timechange"  "tzdb"  "usethis"  "vctrs"  "waldo"	"SparseM"  "stringi"  "sys"  "texreg"  "tidyr"  "timeDate"  "ucminf"  "utf8"  "viridis"  "warp"

#>	[349] ":	xopen"	"xtable"	"yaml"	"yardstick"
#>	[353] ":	zip"	"base"	"boot"	"class"
#>	[357] "	cluster"	"codetools"	"compiler"	"datasets"
#>	[361] ":	foreign"	"graphics"	"grDevices"	"grid"
#>	[365] "1	KernSmooth"	"lattice"	"MASS"	"Matrix"
#>	[369] "1	methods"	"mgcv"	"nlme"	"nnet"
#>	[373] "]	parallel"	"rpart"	"spatial"	"splines"
#>	[377] ":	stats"	"stats4"	"survival"	"tcltk"
#>	[381] "-	tools"	"utils"		

# References

R Core Team. (2023). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/