## Session Info

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### Session

```
sessionInfo()
#> R version 4.5.1 (2025-06-13)
#> Platform: x86_64-pc-linux-gnu
#> Running under: Ubuntu 24.04.3 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-r0.3.26.so; LAPACK version 3.12
#>
#> 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_0.0.21
#>
#> loaded via a namespace (and not attached):
#> [1] backports_1.5.0 R6_2.6.1
                                       lubridate_1.9.4 xfun_0.53
#> [5] magrittr_2.0.4 glue_1.8.0
                                       stringr_1.5.2 knitr_1.50
#> [9] timechange_0.3.0 generics_0.1.4
                                       lifecycle_1.0.4 xml2_1.4.0
#> [13] cli_3.6.5.9000 bibtex_0.5.1
                                       compiler_4.5.1 highr_0.11
#> [17] rprojroot_2.1.1 plyr_1.8.9
                                       httr_1.4.7
                                                       tools_4.5.1
#> [21] evaluate_1.0.5 Rcpp_1.1.0
                                       RefManageR_1.4.0 rlang_1.1.6
#> [25] jsonlite_2.0.0 stringi_1.8.7
```

## **Packages**

```
unname(installed.packages()[, 1])
     [1] "betaNB"
                              "abind"
                                                   "Amelia"
#>
    [4] "arm"
                              "arrow"
                                                   "ash"
     [7] "askpass"
                              "assertthat"
                                                   "backports"
#>
    [10] "base64enc"
                                                   "betaMC"
                              "betaDelta"
    [13] "betaNB"
                              "betaSandwich"
                                                   "BH"
    [16] "bibtex"
                              "BiocManager"
                                                   "bit"
```

#>	[19]	"bit64"	"bitops"	"blob"
#>	[22]	"bootStateSpace"	"brew"	"brio"
#>	[25]	"broom"	"bslib"	"cachem"
#>	[28]	"callr"	"car"	"caracas"
#>	[31]	"carData"	"cellranger"	"cffr"
#>	[34]	"checkmate"	"cli"	"clipr"
#>	[37]	"clock"	"clusterGeneration"	"coda"
#>	[40]	"cOde"	"collections"	"colorspace"
#>	[43]	"commonmark"	"conflicted"	"corpcor"
#>	[46]	"covr"	"cowplot"	"cpp11"
#>	[49]	"crayon"	"credentials"	"crosstalk"
#>	[52]	"cTMed"	"ctsem"	"curl"
#>	[55]	"data.table"	"DBI"	"dbplyr"
#>	[58]	"Deriv"	"desc"	"deSolve"
#>	[61]	"devtools"	"diagram"	"dials"
#>	[64]	"DiceDesign"	"diffobj"	"digest"
#>	[67]	"distributional"	"distro"	"doBy"
#>	[70]	"docopt"	"downlit"	"dplyr"
#>	[73]	"DT"	"dtplyr"	"duckdb"
#>	[76]	"dynr"	"dynUtils"	"ellipse"
#>	[79]	"ellipsis"	"evaluate"	"expm"
#>	[82]	"fansi"	"farver"	"fastDummies"
#>	[85]	"fastmap"	"fclust"	"fda"
#>	[88]	"fdrtool"	"fds"	"fitDTVARMx"
#>	[91]	"FNN"	"fontawesome"	"forcats"
#>	[94]	"foreach"	"Formula"	"fs"
#>	[97]	"fst"	"fstcore"	"furrr"

#>	[100]	"future"	"future.apply"	"gargle"
#>	[103]	"generics"	"gert"	"ggplot2"
#>	[106]	"ggrepel"	"gh"	"gitcreds"
#>	[109]	"glasso"	"glmnet"	"globals"
#>	[112]	"glue"	"googledrive"	"googlesheets4"
#>	[115]	"gower"	"GPArotation"	"GPfit"
#>	[118]	"graphicalVAR"	"gridExtra"	"gsubfn"
#>	[121]	"gtable"	"gtools"	"hardhat"
#>	[124]	"haven"	"hdrcde"	"here"
#>	[127]	"highr"	"Hmisc"	"hms"
#>	[130]	"htmlTable"	"htmltools"	"htmlwidgets"
#>	[133]	"httpuv"	"httr"	"httr2"
#>	[136]	"ids"	"ifaTools"	"igraph"
#>	[139]	"infer"	"ini"	"inline"
#>	[142]	"ipred"	"isoband"	"iterators"
#>	[145]	"jomo"	"jpeg"	"jquerylib"
#>	[148]	"jsonlite"	"jsonvalidate"	"kernlab"
#>	[151]	"knitr"	"ks"	"labeling"
#>	[154]	"Lahman"	"languageserver"	"later"
#>	[157]	"latex2exp"	"lava"	"lavaan"
#>	[160]	"lazyeval"	"lhs"	"lifecycle"
#>	[163]	"lintr"	"listenv"	"litedown"
#>	[166]	"littler"	"lme4"	"locfit"
#>	[169]	"longMI"	"loo"	"lubridate"
#>	[172]	"magick"	"magrittr"	"markdown"
#>	[175]	"MatrixModels"	"matrixStats"	"mclust"
#>	[178]	"memoise"	"metaSEM"	"metaVAR"

#>	[181]	"mice"	"microbenchmark"	"mime"
#>	[184]	"miniUI"	"minqa"	"mitml"
#>	[187]	"mize"	"mlVAR"	"mnormt"
#>	[190]	"modeldata"	"modelenv"	"modelr"
#>	[193]	"MplusAutomation"	"multicool"	"mvtnorm"
#>	[196]	"nloptr"	"numDeriv"	"nycflights13"
#>	[199]	"OpenMx"	"openssl"	"ordinal"
#>	[202]	"pan"	"pander"	"parallelly"
#>	[205]	"parsnip"	"patchwork"	"pbapply"
#>	[208]	"pbivnorm"	"pbkrtest"	"pcaPP"
#>	[211]	"pdftools"	"pillar"	"pkgbuild"
#>	[214]	"pkgconfig"	"pkgdown"	"pkgload"
#>	[217]	"plogr"	"plyr"	"png"
#>	[220]	"posterior"	"pracma"	"praise"
#>	[223]	"prettyunits"	"printr"	"processx"
#>	[226]	"prodlim"	"profvis"	"progress"
#>	[229]	"progressr"	"promises"	"proto"
#>	[232]	"ps"	"psych"	"purrr"
#>	[235]	"qgraph"	"qpdf"	"quadprog"
#>	[238]	"quantreg"	"quarto"	"QuickJSR"
#>	[241]	"R.cache"	"R.methodsS3"	"R.oo"
#>	[244]	"R.utils"	"R2jags"	"R2WinBUGS"
#>	[247]	"R6"	"ragg"	"rainbow"
#>	[250]	"rappdirs"	"rbibutils"	"rcmdcheck"
#>	[253]	"RColorBrewer"	"Rcpp"	"RcppArmadillo"
#>	[256]	"RcppEigen"	"RcppGSL"	"RcppParallel"
#>	[259]	"RcppTOML"	"RCurl"	"Rdpack"

#> [262] "readr"	"readxl"	"recipes"
#> [265] "RefManageR"	"reformulas"	"rematch"
#> [268] "rematch2"	"remotes"	"reprex"
#> [271] "reshape2"	"reticulate"	"rex"
#> [274] "rhub"	"rjags"	"rlang"
#> [277] "RMariaDB"	"rmarkdown"	"roxygen2"
#> [280] "rpf"	"RPostgres"	"rProject"
#> [283] "rprojroot"	"rsample"	"RSQLite"
#> [286] "rstan"	"rstantools"	"rstudioapi"
#> [289] "rversions"	"rvest"	"Ryacas"
#> [292] "S7"	"sass"	"scales"
#> [295] "selectr"	"semlbci"	"semmcci"
#> [298] "sessioninfo"	"sfd"	"shape"
#> [301] "shiny"	"simStateSpace"	"slider"
#> [304] "snow"	"snowfall"	"sourcetools"
#> [307] "SparseM"	"sparsevctrs"	"SQUAREM"
<pre>#&gt; [310] "StanHeaders"</pre>	"stringi"	"stringr"
#> [313] "styler"	"symSEM"	"sys"
#> [316] "systemfonts"	"tailor"	"tensorA"
#> [319] "testthat"	"texreg"	"textshaping"
#> [322] "tibble"	"tidymodels"	"tidyr"
#> [325] "tidyselect"	"tidyverse"	"timechange"
#> [328] "timeDate"	"tinytex"	"tune"
#> [331] "tzdb"	"ucminf"	"urlchecker"
#> [334] "usethis"	"utf8"	"uuid"
#> [334] "usethis" #> [337] "V8"	"utf8" "vctrs"	"uuid" "viridisLite"

#>	[343]	"whisker"	"whoami"	"withr"
#>	[346]	"workflows"	"workflowsets"	"xfun"
#>	[349]	"xml2"	"xmlparsedata"	"xopen"
#>	[352]	"xtable"	"yaml"	"yardstick"
#>	[355]	"zip"	"base"	"boot"
#>	[358]	"class"	"cluster"	"codetools"
#>	[361]	"compiler"	"datasets"	"foreign"
#>	[364]	"graphics"	"grDevices"	"grid"
#>	[367]	"KernSmooth"	"lattice"	"MASS"
#>	[370]	"Matrix"	"methods"	"mgcv"
#>	[373]	"nlme"	"nnet"	"parallel"
#>	[376]	"rpart"	"spatial"	"splines"
#>	[379]	"stats"	"stats4"	"survival"
#>	[382]	"tcltk"	"tools"	"utils"

# References

R Core Team. (2025). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/