## 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_1.4.1
                        R6_2.5.1
                                         lubridate_1.9.3 xfun_0.44
#> [5] magrittr_2.0.3
                        glue_1.7.0
                                          stringr_1.5.1
                                                           knitr_1.46
#> [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_0.10
#> [17] rprojroot_2.0.4
                        plyr_1.8.9
                                          httr_1.4.7
                                                           rstudioapi_0.16.0
#> [21] tools_4.4.0
                        evaluate_0.23
                                          Rcpp_1.0.12
                                                           RefManageR_1.4.0
#> [25] rlang_1.1.3
                        jsonlite_1.8.8
                                          stringi_1.8.4
```

## **Packages**

```
unname(installed.packages()[, 1])
     [1] "cachem"
                            "cTMed"
                                               "dynUtils"
                                                                  "fastmap"
#>
     [5] "openssl"
                            "ragg"
                                               "rProject"
                                                                  "simStateSpace"
     [9] "systemfonts"
                            "tinytex"
                                               "xfun"
                                                                  "abind"
    [13] "arrow"
                            "ash"
                                               "AsioHeaders"
                                                                  "askpass"
    [17] "assertthat"
                                               "base64enc"
                                                                  "betaDelta"
                            "backports"
    [21] "betaMC"
                            "betaNB"
                                               "betaSandwich"
                                                                  "BH"
```

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

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

#>	[241]	"purrr"	"qgraph"	"qpdf"	"quadprog"
#>	[245]	"quantreg"	"quarto"	"QuickJSR"	"R.cache"
#>	[249]	"R.methodsS3"	"R.00"	"R.utils"	"R6"
#>	[253]	"ragg"	"rainbow"	"rappdirs"	"rbibutils"
#>	[257]	"rcmdcheck"	"RColorBrewer"	"Rcpp"	"RcppArmadillo"
#>	[261]	"RcppEigen"	"RcppGSL"	"RcppParallel"	"RcppTOML"
#>	[265]	"RCurl"	"Rdpack"	"readr"	"readxl"
#>	[269]	"recipes"	"RefManageR"	"rematch"	"rematch2"
#>	[273]	"remotes"	"reprex"	"reshape2"	"reticulate"
#>	[277]	"rex"	"rhub"	"rlang"	"RMariaDB"
#>	[281]	"rmarkdown"	"roxygen2"	"rpf"	"RPostgres"
#>	[285]	"rProject"	"rprojroot"	"rsample"	"RSQLite"
#>	[289]	"rstan"	"rstantools"	"rstudioapi"	"rversions"
#>	[293]	"rvest"	"Ryacas"	"sass"	"scales"
#>	[297]	"selectr"	"semlbci"	"semmcci"	"sessioninfo"
#>	[301]	"shape"	"shiny"	"simStateSpace"	"slider"
#>	[305]	"snow"	"snowfall"	"sourcetools"	"SparseM"
#>	[309]	"SQUAREM"	"StanHeaders"	"statmod"	"stringi"
#>	[313]	"stringr"	"styler"	"symSEM"	"sys"
#>	[317]	"systemfonts"	"tensorA"	"testthat"	"texreg"
#>	[321]	"textshaping"	"tibble"	"tidymodels"	"tidyr"
#>	[325]	"tidyselect"	"tidyverse"	"timechange"	"timeDate"
#>	[329]	"tinytex"	"tune"	"tzdb"	"ucminf"
#>	[333]	"unigd"	"urlchecker"	"usethis"	"utf8"
#>	[337]	"uuid"	"V8"	"vctrs"	"viridis"
#>	[341]	"viridisLite"	"vroom"	"waldo"	"warp"
#>	[345]	"whisker"	"whoami"	"withr"	"workflows"

#> [349	] "workflowsets"	"xfun"	"xm12"	"xmlparsedata"
#> [353	] "xopen"	"xtable"	"yaml"	"yardstick"
#> [357	] "zip"	"base"	"boot"	"class"
#> [361	] "cluster"	"codetools"	"compiler"	"datasets"
#> [365	] "foreign"	"graphics"	"grDevices"	"grid"
#> [369	] "KernSmooth"	"lattice"	"MASS"	"Matrix"
#> [373	] "methods"	"mgcv"	"nlme"	"nnet"
#> [377	] "parallel"	"rpart"	"spatial"	"splines"
#> [381	] "stats"	"stats4"	"survival"	"tcltk"
#> [385	] "tools"	"utils"		

# References

Pesigan, I. J. A., & Cheung, S. F. (2023). Monte Carlo confidence intervals for the indirect effect with missing data. *Behavior Research Methods*. https://doi.org/10.3758/s13428-023-02114-4

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