CODECHECK certificate 2024-20

Not yet published.

Item	Value
Title	Evaluating individualized treatment effect predictions: A model-based perspective on discrimination and calibration assessment
Authors	Jeroen Hoogland , Orestis Efthimiou , Tri-Long Nguyen , Thomas P A Debray
Reference	https://doi.org/10.1002/sim.10186
Codechecker	Samuel Langton
Date of check	2024-12-16 10:00:00
Summary	R to generate and analyze simulated data in order to evaluate the prediction performance of individualized treatment effects.
Repository	https://github.com/langtonhugh/iteval-sims

Table 1: CODECHECK summary

Output	Comment	Size (b)
`codecheck_outputs/figure1.png`	manuscript Figure 1	104252
`codecheck_outputs/figure2.png`	manuscript Figure 2	65322
`codecheck_outputs/F1.png`	manuscript F 1	101575
`codecheck_outputs/F2.png`	manuscript F 2	69888
`codecheck_outputs/table1.png`	manuscript table 1	194273
`codecheck_outputs/table2.png`	manuscript table 2	58913

Table 2: Summary of output files generated

Summary

The three R scripts comprising this project were fairly straightforward to execute. I had some issues getting the simulation script (`sim.R`) running. It kept throwing an error but the specifics were masked by the usage of `doParallel` – you only get the error about "cannot open connection" but the problem was actually that the `results` folder did not exist. Once this was created, the script executed fine.

The full simulation had to be run overnight (~6 hours) on a standard laptop. The figures are not saved automatically and the tabes are generated automatically but the script only generates the correspodning LaTeX syntax and prints it to the Console. To actually do the codecheck, I copied the `replicate.R` code into a `.qmd` file and displayed the tables using `flextable`.

Manifest files

figure1.png

Comment: manuscript Figure 1

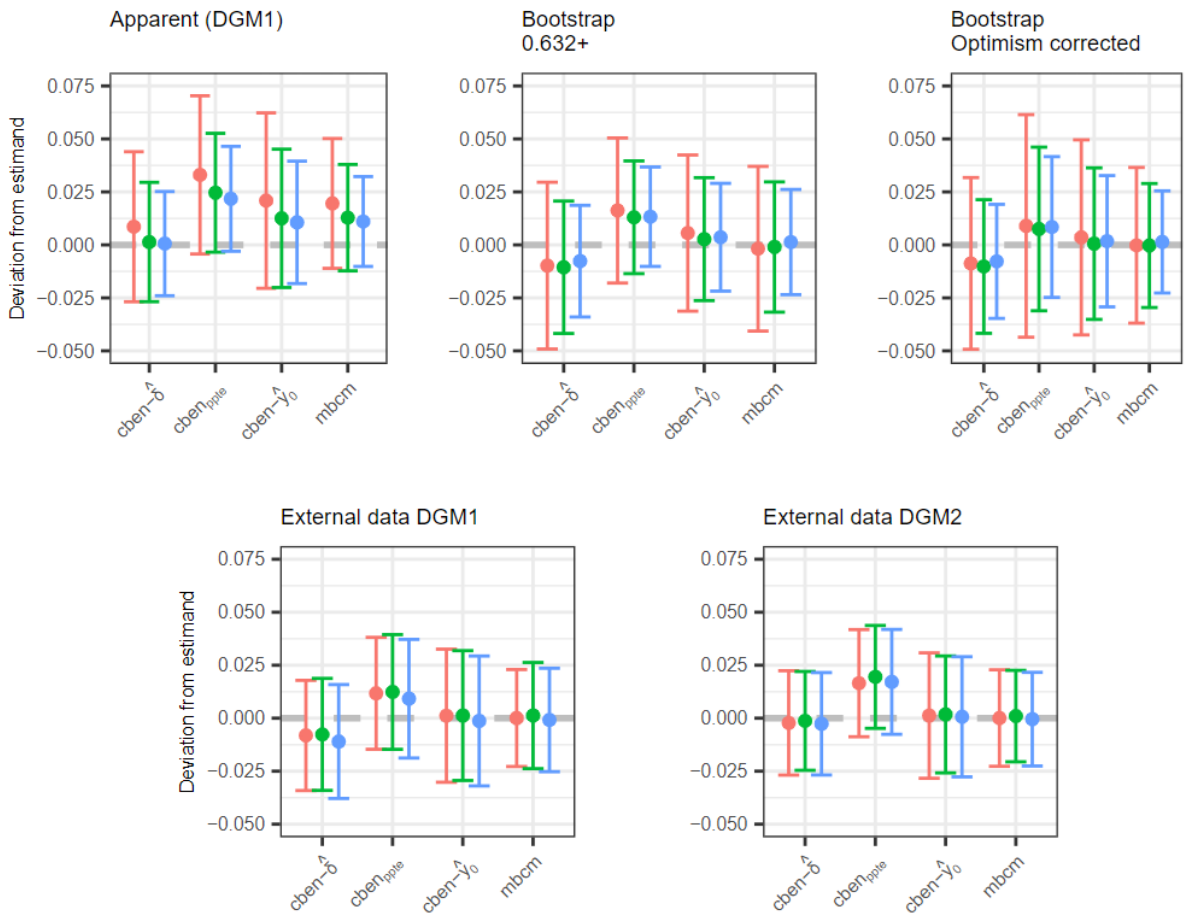
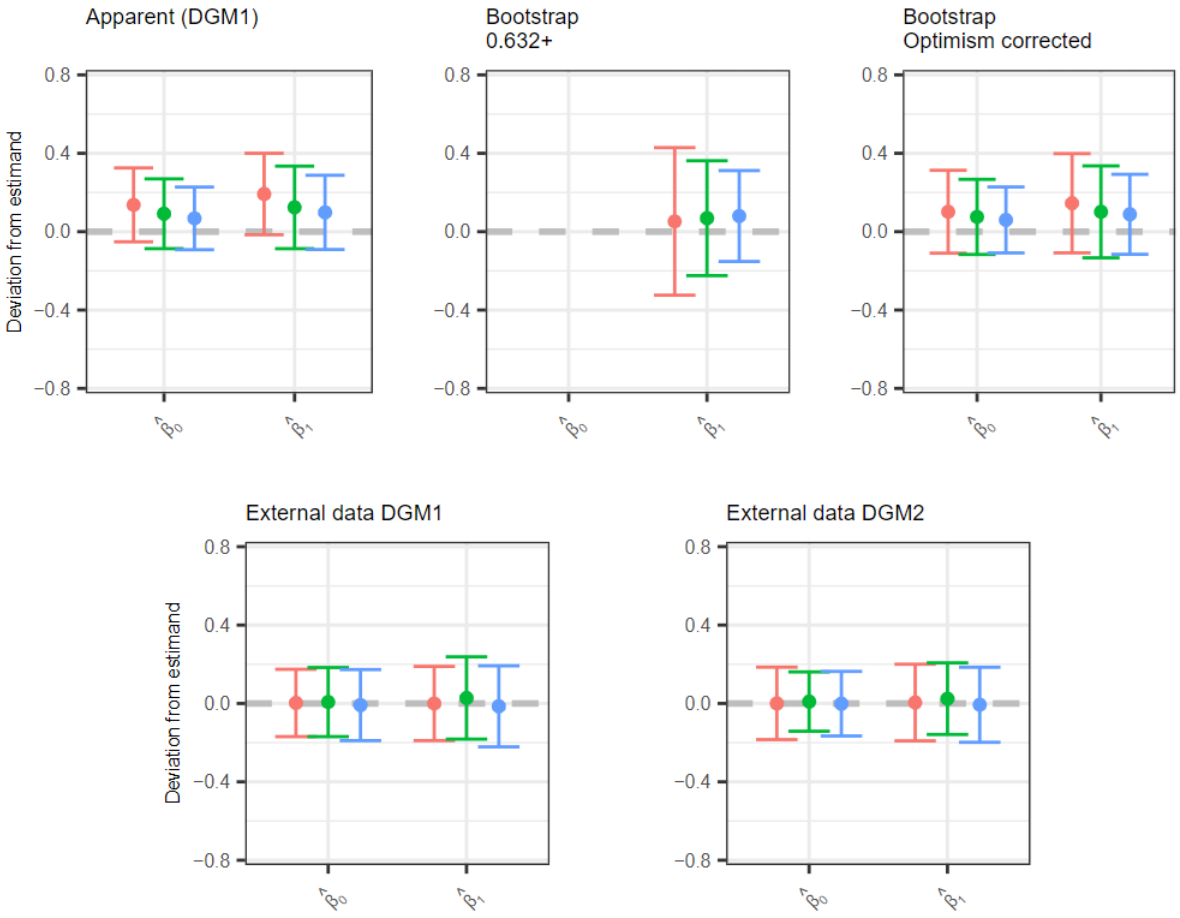


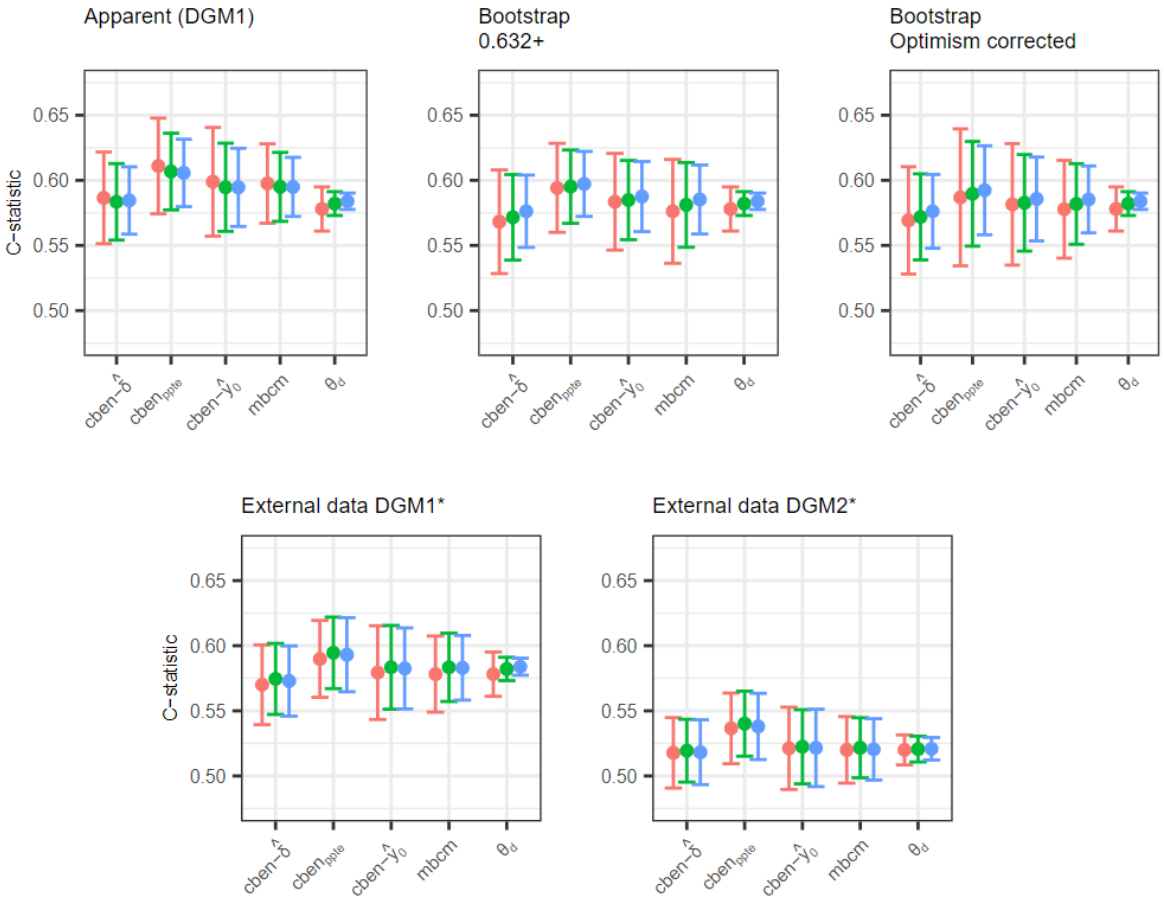
figure2.png

Comment: manuscript Figure 2



F1.png

Comment: manuscript F 1



F2.png

Comment: manuscript F 2

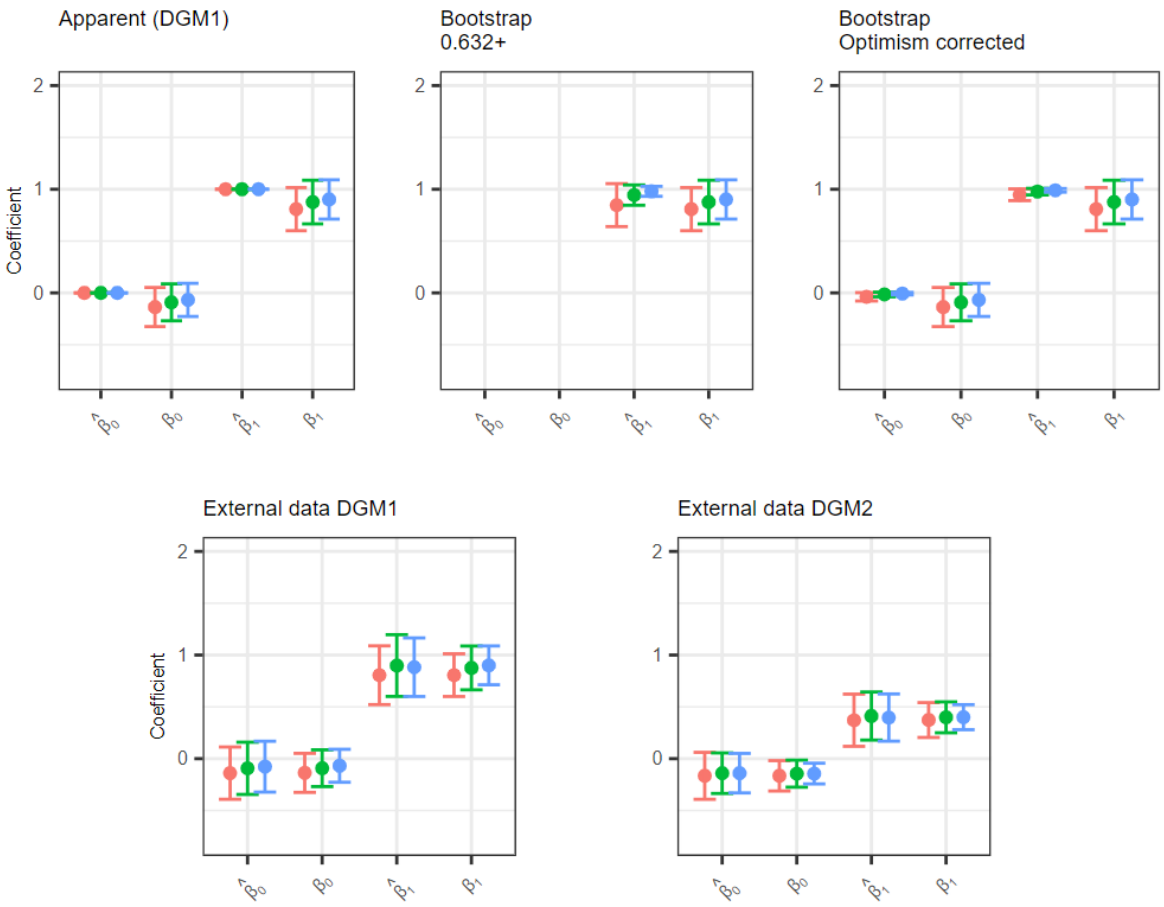


table1.png

Comment: manuscript table 1

Table 1

Statistic	V1	V2	V3	V4
apparent.discr	0.036,0.028,0.025	0.05,0.037,0.033	0.046,0.035,0.031	0.036,0.028,0.024
ext1.app.discr	0.027,0.027,0.029	0.029,0.03,0.029	0.033,0.032,0.029	0.037,0.028,0.024
ext2.app.discr	0.025,0.023,0.024	0.03,0.031,0.03	0.042,0.042,0.042	0.085,0.08,0.078
boot0.632.discr	0.041,0.033,0.027	0.038,0.03,0.027	0.037,0.029,0.026	0.039,0.031,0.025
boot.opt.discr	0.041,0.033,0.028	0.053,0.039,0.034	0.046,0.036,0.031	0.037,0.029,0.024
ext1.total.discr	0.027,0.027,0.029	0.029,0.03,0.029	0.031,0.031,0.031	0.023,0.025,0.024
ext2.total.discr	0.025,0.023,0.024	0.03,0.031,0.03	0.03,0.028,0.028	0.023,0.022,0.022

table2.png

Comment: manuscript table 2

Table 2

Statistic	V1	V2	V3	V4	V5	V6
apparent.cal	0.23	0.20	0.17	0.28	0.24	0.21
boot0.632.cal				0.38	0.30	0.24
boot.opt.cal	0.23	0.21	0.18	0.29	0.26	0.22
ext1.total.cal	0.17	0.18	0.18	0.19	0.21	0.21
ext2.total.cal	0.18	0.15	0.16	0.20	0.18	0.19

Citing this document

Samuel Langton (2024). CODECHECK Certificate 2024-20. Zenodo. Not yet published.

About CODECHECK

This certificate confirms that the codechecker could independently reproduce the results of a computational analysis given the data and code from a third party. A CODECHECK does not check whether the original computation analysis is correct. However, as all materials required for the reproduction are freely available by following the links in this document, the reader can then study for themselves the code and data.

About this document

This document was created using R Markdown using the `codecheck` R package. `make codecheck.pdf` will regenerate the report file.

Session info

replicate.R

```
load("../replicate_script_info.RData")
rep_info
```

```
## R version 4.4.2 (2024-10-31 ucrt)
## Platform: x86_64-w64-mingw32/x64
## Running under: Windows 11 x64 (build 22621)
##
## Matrix products: default
##
##
## locale:
## [1] LC_COLLATE=English_United States.utf8
## [2] LC_CTYPE=English_United States.utf8
## [3] LC_MONETARY=English_United States.utf8
## [4] LC_NUMERIC=C
## [5] LC_TIME=English_United States.utf8
##
## time zone: Europe/Amsterdam
## tzcode source: internal
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets
## [6] methods   base
##
## other attached packages:
## [1] DescTools_0.99.58 xtable_1.8-4      stringr_1.5.1
## [4] patchwork_1.3.0   ggplot2_3.5.1
##
```

```
## loaded via a namespace (and not attached):
##  [1] gld_2.6.6               gtable_0.3.6
##  [3] xfun_0.49               lattice_0.22-6
##  [5] vctrs_0.6.5             tools_4.4.2
##  [7] generics_0.1.3          tibble_3.2.1
##  [9] proxy_0.4-27            fansi_1.0.6
## [11] pkgconfig_2.0.3         Matrix_1.7-1
## [13] data.table_1.16.4       uuid_1.2-1
## [15] readxl_1.4.3            lifecycle_1.0.4
## [17] rootSolve_1.8.2.4       flextable_0.9.7
## [19] compiler_4.4.2          farver_2.1.2
## [21] textshaping_0.4.1       Exact_3.3
## [23] munsell_0.5.1           fontquiver_0.2.1
## [25] fontLiberation_0.1.0    htmltools_0.5.8.1
## [27] class_7.3-22            yaml_2.3.10
## [29] pillar_1.9.0            MASS_7.3-61
## [31] openssl_2.2.2           boot_1.3-31
## [33] fontBitstreamVera_0.1.1 zip_2.3.1
## [35] tidyselect_1.2.1        digest_0.6.37
## [37] mvtnorm_1.3-2           stringi_1.8.4
## [39] dplyr_1.1.4             labeling_0.4.3
## [41] forcats_1.0.0           fastmap_1.2.0
## [43] grid_4.4.2              colorspace_2.1-1
## [45] lmom_3.2                expm_1.0-0
## [47] cli_3.6.3               magrittr_2.0.3
## [49] utf8_1.2.4              e1071_1.7-16
## [51] withr_3.0.2             gdtools_0.4.1
## [53] scales_1.3.0            rmarkdown_2.29
## [55] officer_0.6.7           httr_1.4.7
## [57] cellranger_1.1.0        askpass_1.2.1
## [59] ragg_1.3.3              hms_1.1.3
## [61] evaluate_1.0.1          knitr_1.49
## [63] haven_2.5.4             rlang_1.1.4
## [65] Rcpp_1.0.13-1           glue_1.8.0
## [67] xml2_1.3.6              rstudioapi_0.17.1
## [69] jsonlite_1.8.9          R6_2.5.1
## [71] plyr_1.8.9              systemfonts_1.1.0
```

sim.R

```
load("../results/info.RData")
info
```

```
## R version 4.4.2 (2024-10-31 ucrt)
## Platform: x86_64-w64-mingw32/x64
## Running under: Windows 11 x64 (build 22621)
##
## Matrix products: default
##
##
## locale:
## [1] LC_COLLATE=English_United States.utf8
```

```
## [2] LC_CTYPE=English_United States.utf8
## [3] LC_MONETARY=English_United States.utf8
## [4] LC_NUMERIC=C
## [5] LC_TIME=English_United States.utf8
##
## time zone: Europe/Amsterdam
## tzcode source: internal
##
## attached base packages:
## [1] parallel  stats     graphics  grDevices utils
## [6] datasets  methods   base
##
## other attached packages:
## [1] pbapply_1.7-2     doParallel_1.0.17 iterators_1.0.14
## [4] foreach_1.5.2
##
## loaded via a namespace (and not attached):
## [1] compiler_4.4.2    tools_4.4.2       rstudioapi_0.17.1
## [4] codetools_0.2-20
```