# README

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### Overview

- functions/functions.R: The functions that do the estimation with the EM algorithm.
- simulation\_code/simulation.R: The file that runs the simulation. This takes a loong time. The results of the simulation is saved in the file intermediate\_results/simresults.rds.
- simulation\_code/table1.R: This file generates Table1 from the paper using the results from the simulation, i.e. the intermediate\_results/simresults.rds data. The file is exported to results/table1.tex.
- results/table1.tex: The results as they are in the paper.
- renv/: Folder with renv files that should make it possible to get all the packages in the same versions as used in the paper.
- em.Rproj: R project file that is needed for the renv package to work.

#### **Environment**

#### sessionInfo()

```
## R version 4.1.2 (2021-11-01)
## Platform: x86 64-pc-linux-gnu (64-bit)
## Running under: Ubuntu 22.04.3 LTS
##
## Matrix products: default
           /usr/lib/x86 64-linux-gnu/blas/libblas.so.3.10.0
## LAPACK: /usr/lib/x86_64-linux-gnu/lapack/liblapack.so.3.10.0
##
## locale:
   [1] LC_CTYPE=en_US.UTF-8
                                   LC_NUMERIC=C
##
   [3] LC_TIME=da_DK.UTF-8
                                   LC_COLLATE=en_US.UTF-8
   [5] LC_MONETARY=da_DK.UTF-8
                                   LC_MESSAGES=en_US.UTF-8
    [7] LC_PAPER=da_DK.UTF-8
                                   LC_NAME=C
##
    [9] LC_ADDRESS=C
                                   LC_TELEPHONE=C
##
   [11] LC_MEASUREMENT=da_DK.UTF-8 LC_IDENTIFICATION=C
##
##
## attached base packages:
                           graphics grDevices datasets utils
## [1] parallel stats
                                                                    methods
## [8] base
## other attached packages:
##
   [1] doParallel_1.0.17 iterators_1.0.14 doRNG_1.8.6
                                                               rngtools_1.5.2
   [5] foreach 1.5.2
                          lubridate 1.9.2
                                            forcats 1.0.0
                                                               stringr 1.5.0
  [9] dplyr_1.1.3
                          purrr_1.0.2
                                            readr_2.1.4
                                                               tidyr_1.3.0
##
## [13] tibble 3.2.1
                          ggplot2_3.4.3
                                            tidyverse 2.0.0
                                                               mets 1.3.2
## [17] timereg_2.0.5
                          survival_3.5-7
                                             data.table_1.14.8 renv_1.0.3
##
```

```
## loaded via a namespace (and not attached):
                            xfun_0.40
                                                listenv_0.9.0
  [1] tidyselect_1.2.0
   [4] splines_4.1.2
                            lattice_0.21-8
                                                 colorspace_2.1-0
## [7] vctrs_0.6.3
                            generics_0.1.3
                                                htmltools_0.5.6
## [10] yaml_2.3.7
                            utf8_1.2.3
                                                 rlang_1.1.1
## [13] pillar_1.9.0
                            glue_1.6.2
                                                withr_2.5.1
## [16] lifecycle_1.0.3
                            lava_1.7.2.1
                                                munsell_0.5.0
## [19] gtable_0.3.4
                            future_1.33.0
                                                mvtnorm_1.2-3
## [22] codetools_0.2-19
                            evaluate_0.22
                                                knitr_1.44
## [25] tzdb_0.4.0
                            fastmap_1.1.1
                                                 fansi_1.0.4
## [28] Rcpp_1.0.11
                            scales_1.2.1
                                                parallelly_1.36.0
## [31] hms_1.1.3
                            digest_0.6.33
                                                 stringi_1.7.12
## [34] numDeriv_2016.8-1.1 grid_4.1.2
                                                 cli_3.6.1
                                                 future.apply_1.11.0
## [37] tools_4.1.2
                            magrittr_2.0.3
## [40] pkgconfig_2.0.3
                            Matrix_1.6-1.1
                                                 timechange_0.2.0
                                                R6_2.5.1
## [43] rmarkdown_2.25
                            rstudioapi_0.15.0
## [46] globals_0.16.2
                            compiler_4.1.2
```