Package **CompSign**

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```r
## knitr preferences
## no chache
```

```r
## install latest version
library(devtools)
devtools::install_github("lm687/CompSign")

## Downloading GitHub repo lm687/CompSign@master
## from URL https://api.github.com/repos/lm687/CompSign/zipball/master
## Installing CompSign
## '/Library/Frameworks/R.framework/Resources/bin/R' --no-site-file
\
##   --no-environ --no-save --no-restore --quiet CMD INSTALL   \
##   '/private/var/folders/22/nzk7280n61jd5qrjhqm5cwph0000gn/T/Rtmpm3zOPT/devtools144b2e6933l
\
##   --library='/Library/Frameworks/R.framework/Versions/3.4/Resources/library'
\
##   --install-tests
##
## Installation failed:  Command failed (1)

library(CompSign)
```

```r
#########################
####### Dummy data #######
#########################

### Example of matrix transformed into sign object
input_dummy <- matrix(runif(100), 4)
colnames(input_dummy) <- paste0('s', 1:25); rownames(input_dummy) <- paste0('sam', 1:4)
sign_dummy <- to_sign(input_dummy)
```

1 Summarise the signature matrix

```
add_together_matrix(sign_dummy)

## An object of class "sign"
## Slot "id":
## [1] "input_dummy"
##
## Slot "id_samples":
## [1] "sam1" "sam2" "sam3" "sam4"
##
## Slot "id_signatures":
##  [1] "s1"  "s2"  "s3"  "s4"  "s5"  "s6"  "s7"  "s8"  "s9"  "s10" "s11"
## [12] "s12" "s13" "s14" "s15" "s16" "s17" "s18" "s19" "s20" "s21" "s22"
## [23] "s23" "s24" "s25"
##
## Slot "count_matrix":
##             s1        s2        s3         s4        s5         s6
## sam1 0.9989070 0.6780435 0.9642735 0.27679891 0.8451609 0.80128362
## sam2 0.5818993 0.2866310 0.8811252 0.92407212 0.2526637 0.41428237
## sam3 0.6964223 0.2336847 0.9702461 0.15291656 0.6665017 0.17144670
## sam4 0.7074331 0.9299346 0.8202413 0.07801415 0.8432951 0.03596127
##             s7        s8        s9        s10        s11        s12
## sam1 0.1157357 0.5503260 0.4171848 0.5855613 0.15898833 0.10022372
## sam2 0.6490668 0.8080777 0.1626118 0.8886556 0.94494755 0.30171912
## sam3 0.9125643 0.5558216 0.6913623 0.2130048 0.57018579 0.13654879
## sam4 0.3482734 0.5684628 0.1577535 0.8039394 0.06696142 0.01064154
##            s13        s14        s15       s16       s17       s18
## sam1 0.8747459 0.42900827 0.86056524 0.2424218 0.3474472 0.7684812
## sam2 0.7191679 0.16525808 0.03961624 0.6326946 0.9855419 0.9253712
## sam3 0.4001653 0.64404703 0.12031552 0.5926643 0.7590127 0.9021550
## sam4 0.7954733 0.03106378 0.64054500 0.2677764 0.9721015 0.6112881
##            s19       s20       s21       s22         s23       s24
## sam1 0.6951967 0.3389226 0.2394993 0.5642627 0.570945820 0.8283415
## sam2 0.2154251 0.6391963 0.8846649 0.3523742 0.683536871 0.8356626
## sam3 0.5147384 0.7241484 0.2211961 0.5913720 0.002440379 0.4885067
## sam4 0.4971432 0.3017991 0.2454734 0.6666516 0.044341394 0.7527045
##            s25
## sam1 0.52051845
## sam2 0.07097888
## sam3 0.69745093
## sam4 0.01383484
##
## Slot "modified":
## [1] TRUE
```

```r
results_sumarise <- summarise(add_together_matrix(sign_dummy))
```

```
## Error in switch(robust, pearson = {:  EXPR must be a length 1 vector
```

```r
results_sumarise$General
```

```
## Error in eval(expr, envir, enclos):  object 'results_sumarise' not
found
```

2   Linear model for numerical predictors

```r
tmp_merged_compositional <- new("merged_compositional",
                                id='adas',
                                id_samples=c("sam1", "sam2", "sam3"),
                                id_signatures= c('s1', 's2', 's3', 's4'), ## signature names
                                count_matrix=MCMCpack::rdirichlet(3, c(1,1,1,1)),
                                df=data.frame(a=c(3,4,1), b=c(10, 10, 10)))
comp_lm(tmp_merged_compositional)
```

```
## Error:  'lm' is not an exported object from 'namespace:compositions'
```