

ACE_Metric for ELRETSALRES

2022-06-03

Data loading

```
library(readr); library(readxl)

output_file = paste0('All_pred_', params$name, '.xlsx')

# Getting predictions for ACE calculation
outData_All_pred <- read_excel(output_file)

# Same name for the calculations
df <- outData_All_pred
colnames(df) <- colnames(outData_All_pred)
```

Playing with the data to PICP

```
library(dplyr); library(tidyr); library(magrittr)

# Dplyr remove a column by name:
df_w_true <- df
# df_w_true <- df %>%
#   select(-c(4,8,12))

#true <- df %>% select(c(4))

# colnames(df_w_true)[dim(df_w_true)[2]] <- c("True")
#head(true)

# For alpha = 0.1

observ <- df_w_true$True
n <- (dim(df_w_true)[2]-1)
ci <- rep(0, n)
ci

## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0

for (j in 1:(dim(df_w_true)[2]-1)) {
  ci[j] <- df_w_true %>%
    mutate(ci = ifelse(.[[j]] >= observ, 0, 1)) %>%
```

```

select(ci) %>% sum()
ci
}

#ci <- df_w_true %>%
# mutate(ci = ifelse(DVQR_01 >= observ, 0, 1)) %>%
# select(ci) %>% sum()
#ci

PICP <- ci/dim(df_w_true)[1]
PICP

## [1] 0.92730496 0.88652482 0.89893617 0.79964539 0.73226950 0.74822695
## [7] 0.56914894 0.47340426 0.49822695 0.12765957 0.06382979 0.09574468

# ORDER FOR MODELS: DVQR - NPDVQR - LQR
# For 0.1 case
ACE_01 <- PICP[c(1,2,3)] - 0.1
# ACE_01

# For 0.25 case
ACE_025 <- PICP[c(4,5,6)] - 0.25
# ACE_025

# For 0.5 case
ACE_05 <- PICP[c(7,8,9)] - 0.5
# ACE_05

# For 0.9 case
ACE_09 <- PICP[c(10,11,12)] - 0.9
# ACE_09

# combine all of them
ACE_All <- cbind(ACE_01, ACE_025, ACE_05, ACE_09)

rownames(ACE_All) <- c("DVQR", "NPDVQR", "LQR")
library(pander)
pander(ACE_All)

```

	ACE_01	ACE_025	ACE_05	ACE_09
DVQR	0.8273	0.5496	0.06915	-0.7723
NPDVQR	0.7865	0.4823	-0.0266	-0.8362
LQR	0.7989	0.4982	-0.001773	-0.8043