

Bootstrap

Rob Hayward

June 30, 2013

There are a couple of files that provide an overview of bootstrap. The first is [Daniel Marcelino](#)

Marcelino creates a function to do the bootstrap.

```
myboot <- function(data, stat, nreps, hist = TRUE) {
  estimates <- get(stat)(data)
  len <- length(estimates)
  container <- matrix(NA, ncol = len, nrow = nreps)
  nobs <- nrow(data)
  for (i in 1:nreps) {
    posdraws <- ceiling(runif(nobs) * nobs)
    resample <- data[posdraws, ]
    container[i, ] <- get(stat)(resample)
  }
  sds <- apply(container, 2, sd)
  if (hist == T) {
    mfrow = c(1, 1)
    frame()
    if (len <= 3)
      par(mfrow = c(len, 1))
    if ((len > 3) & (len <= 6))
      par(mfrow = c(3, 2))
    for (j in 1:len) hist(container[, j], main = paste("Estimates for ",
      names(estimates)[j]), xlab = "")
  }
  print(rbind(estimates, sds))
  return(list(estimation = container, sds = sds))
}
```