

R code for the simulation study investigating the nominal coverage for the non-parametric bootstrap confidence intervals

```
cover.basic <- 0
cover.basica <- 0
cover.perc <- 0
cover.bca <- 0
cover.t <- 0
target <- exp(muH0-(((sdH0)^2)/2)) - exp(muH0-(((sdH0)^2)/2))
f <- (sqrt((N)/(N-1)))

getM <- function(orgDV, idx) {
  bsM <- mean(orgDV[idx])          # M*
  bsS2M <- (((N-1) / N) * var(orgDV[idx])) / N # S^2*(M)
  c(bsM, bsS2M)
}

R <- matrix(cbind(1,mycorr,mycorr,1),nrow=2)
U <- t(chol(R))

for (i in (1:S)){

  if ((i/10)==floor(i/10)){print(i)}
  mydat <- t(U %%% matrix(rnorm(2*N,muH0,sdH0),nrow=2,ncol=14))
  DV <- exp(mydat[,1]) - exp(mydat[,2])
  bOut <- boot(DV, statistic=getM, R=B)
  myci <- boot.ci(bOut, conf=myc, type=c("basic", "perc", "norm", "stud", "bca"))
  mytci <- t.test(DV,conf.level=myc)
  w.basic <- myci$basic[5]-myci$basic[4]
  w.perc <- myci$percent[5]-myci$percent[4]
  w.bca <- myci$bca[5]-myci$bca[4]
  l.basic <- myci$basic[4]
  u.basic <- myci$basic[5]
  l.basica <- myci$basic[4]-(((f-1)*w.basic)/2)
  u.basica <- myci$basic[5]+(((f-1)*w.basic)/2)
  l.perc <- myci$percent[4]-(((f-1)*w.perc)/2)
  u.perc <- myci$percent[5]+(((f-1)*w.perc)/2)
  l.bca <- myci$bca[4]-(((f-1)*w.bca)/2)
  u.bca <- myci$bca[5]+(((f-1)*w.bca)/2)
  l.t <- mytci$conf.int[1]
  u.t <- mytci$conf.int[2]
  cover.basic <- cover.basic + ((target>=l.basic)&(target<=u.basic))
  cover.basica <- cover.basica + ((target>=l.basica)&(target<=u.basica))
  cover.perc <- cover.perc + ((target>=l.perc)&(target<=u.perc))
  cover.bca <- cover.bca + ((target>=l.bca)&(target<=u.bca))
  cover.t <- cover.t + ((target>=l.t)&(target<=u.t))

}
```