betaSandwich: Staging

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Staging...

References

R Core Team. (2022). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/

```
df <- nas1982
object <- lm(QUALITY ~ NARTIC + PCTGRT + PCTSUPP, data = df)
std_mvn <- BetaN(object)
std_adf <- BetaADF(object)
std_hc3 <- BetaHC(object, type = "hc3")
mvn <- RSqBetaSandwich(std_mvn)
adf <- RSqBetaSandwich(std_adf)
hc3 <- RSqBetaSandwich(std_hc3)
summary(mvn)

#> Multiple correlation with MVN standard errors:
#>        est     se       t p  0.05%   0.5%   2.5%  97.5%  99.5% 99.95%
#> rsq 0.8045 0.0328 24.5344 0 0.6885 0.7161 0.7383 0.8707 0.8930 0.9205
#> adj 0.7906 0.0351 22.5014 0 0.6663 0.6958 0.7197 0.8615 0.8854 0.9149

summary(adf)

#> Multiple correlation with ADF standard errors:
#>        est     se       t p  0.05%   0.5%   2.5%  97.5%  99.5% 99.95%
#> rsq 0.8045 0.0287 28.0431 0 0.7030 0.7271 0.7466 0.8624 0.8819 0.9060
#> adj 0.7906 0.0307 25.7193 0 0.6818 0.7076 0.7285 0.8526 0.8735 0.8993

summary(hc3)

#> Multiple correlation with HC3 standard errors:
#>        est     se       t p  0.05% 0.5%   2.5%  97.5%  99.5% 99.95%
#> rsq 0.8045 0.0313 25.6916 0 0.6937 0.72 0.7413 0.8677 0.8890 0.9153
#> adj 0.7906 0.0336 23.5627 0 0.6719 0.70 0.7229 0.8583 0.8811 0.9093

coef(mvn)
```

```
#>       rsq       adj
#> 0.8045263 0.7905638

coef(adf)

#>       rsq       adj
#> 0.8045263 0.7905638

coef(hc3)

#>       rsq       adj
#> 0.8045263 0.7905638

vcov(mvn)

#>              rsq         adj
#> rsq 0.001075300 0.001152107
#> adj 0.001152107 0.001234400

vcov(adf)

#>               rsq          adj
#> rsq 0.0008230557 0.0008818454
#> adj 0.0008818454 0.0009448343

vcov(hc3)

#>               rsq         adj
#> rsq 0.0009806163 0.001050660
#> adj 0.0010506603 0.001125707

confint(mvn, level = 0.95)

#>          2.5%     97.5%
#> rsq 0.7383498 0.8707027
#> adj 0.7196605 0.8614672

confint(adf, level = 0.95)

#>          2.5%     97.5%
#> rsq 0.7466296 0.8624229
#> adj 0.7285317 0.8525960

confint(hc3, level = 0.95)

#>          2.5%     97.5%
#> rsq 0.7413304 0.8677221
#> adj 0.7228540 0.8582736
```