

manBetaCIWald: Staging

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Staging...

```
object <- lm(QUALITY ~ NARTIC + PCTGRT + PCTSUPP, data = nas1982)
```

```
manBetaCIWald(object, type = "mvn")
```

```
#> Error in manBetaCIWald(object, type = "mvn"): could not find function "manBetaCIWald"
```

```
manBetaCIWald(object, type = "adf")
```

```
#> Error in manBetaCIWald(object, type = "adf"): could not find function "manBetaCIWald"
```

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/>

$$\beta = \left[(\sigma_Y^2)^{-1} \text{diag}(\Sigma_{X,X}) \right]^{\frac{1}{2}} \Sigma_{X,X}^{-1} \sigma_{X,Y} \quad (1)$$

$$\Gamma_{\text{ADF}} = \sigma_{ijgh} - \sigma_{ij}\sigma_{gh} \quad (2)$$

$$\tilde{\Gamma}_{\text{ADF}} = \tilde{\sigma}_{ijgh} - \tilde{\sigma}_{ij}\tilde{\sigma}_{gh} \quad (3)$$

$$\begin{aligned} \hat{\Gamma}_{\text{ADF}} = & \frac{n(n-1)}{(n-2)(n-3)} (\tilde{\sigma}_{ijgh} - \tilde{\sigma}_{ij}\tilde{\sigma}_{gh}) \\ & - \frac{n}{(n-2)(n-3)} \left(\tilde{\sigma}_{ik}\tilde{\sigma}_{jl} + \tilde{\sigma}_{il}\tilde{\sigma}_{jk} - \frac{2\tilde{\sigma}_{ij}\tilde{\sigma}_{gh}}{(n-1)} \right) \end{aligned} \quad (4)$$