Example 4-6

September 12, 2020

[ ]:
```
# install the following package and library
install.packages("plm")
library("plm")

# import the data and create the following data frame and formula
data("RiceFarms", package="plm")
Rice <- pdata.frame(RiceFarms, index = "id")
fm <- log(goutput) ~ log(seed) + log(totlabor) + log(size)
```

[5]:
```
##---------------------------------Block 1---------------------------------

#### Example 4-6 ####

## ------------------------------------------------------------------------
rice.re <- plm(fm, Rice, model='random')

# pbgtest() is the Breusch-Godfrey test
pbgtest(rice.re, order = 2)
```

```
Breusch-Godfrey/Wooldridge test for serial correlation in panel models

data:  fm
chisq = 35.773, df = 2, p-value = 1.706e-08
alternative hypothesis: serial correlation in idiosyncratic errors
```

[6]:
```
##---------------------------------Block 2---------------------------------

# pdwtest() is the Durbin-Watson test
pdwtest(rice.re, order = 2)
```

```
Durbin-Watson test for serial correlation in panel models

data:  fm
DW = 1.6958, p-value = 4.798e-07
alternative hypothesis: serial correlation in idiosyncratic errors
```