```
1 %load_ext rpy2.ipython
```

```
The rpy2.ipython extension is already loaded. To reload it, use:
  %reload_ext rpy2.ipython
```

```
1 %%R
2 install.packages("ggplot2")
3 install.packages("dplyr")
4 install.packages("readxl")
5 install.packages("ape")
6 library(ggplot2)
7 library(dplyr)
8 library(readxl)
9 library(ape)
10
```

```
R[write to console]: =
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R[write to console]:

R[write to console]: downloaded 935 KB


R[write to console]:

R[write to console]:
R[write to console]: The downloaded source packages are in
        ‘/tmp/RtmpiOSFrD/downloaded_packages’
R[write to console]:
R[write to console]:

R[write to console]: Installing package into ‘/usr/local/lib/R/site-library’
(as ‘lib’ is unspecified)

R[write to console]: trying URL 'https://cran.rstudio.com/src/contrib/readxl_1.4.0.tar.gz'

R[write to console]: Content type 'application/x-gzip'
R[write to console]:  length 2089229 bytes (2.0 MB)

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```
%%R
datos <- read_excel('/content/drive/MyDrive/2022-1S/Computación estadística/cosechaVARIEDADxy.xlsx')
mod1=aov(cosecha ~ variedad, data=datos)
```

```
%%R
dist_matrix <- as.matrix(dist(cbind(datos$x,datos$y)))

dist_matrix_inv <- 1 / dist_matrix
diag(dist_matrix_inv) <- 0

Moran.I(mod1$residuals, dist_matrix_inv)
```

```
$observed
[1] -0.006222189

$expected
[1] -0.01886792

$sd
[1] 0.01712343

$p.value
[1] 0.4602078
```

Hay autocorrelacion espacial entre las variables, sin embargo, es minima y puede ser despreciable

✓ 0 s se ejecutó 14:50