

## Ejercicio 5

Retome los datos del archivo MAIZ.csv. Realice un análisis STATIS y obtenga la matriz de distancias euclídeas entre individuos en el plano principal. Compare dicha matriz con las obtenidas a partir de AFM y APG.

```
# Datos
datos_m1 <- read.csv2(
  here::here("data", "raw", "MAIZ1.csv"),
  row.names = 1,
  stringsAsFactors = FALSE
)

datos_m2 <- read.csv2(
  here::here("data", "raw", "MAIZ2.csv"),
  row.names = 1,
  stringsAsFactors = FALSE
)

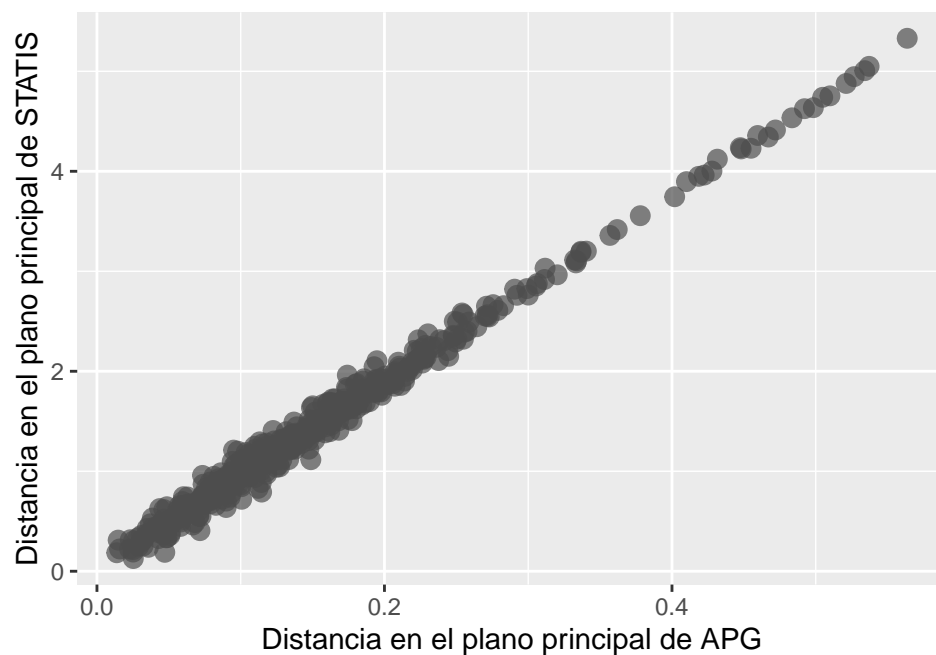
datos <- cbind(datos_m1, datos_m2)

# STATIS
bloques <- as.integer(c(10,10))
nombres <- c("Amb1", "Amb2")
names(bloques) <- nombres
k <- ktab.data.frame(data.frame(scale(datos, center = T, scale = T)),bloques)
s <- statisc(k, scannf = F, nf=2, tol=1e-07)
dist_statisc <- dist(s$C.li,method = "euclidean")

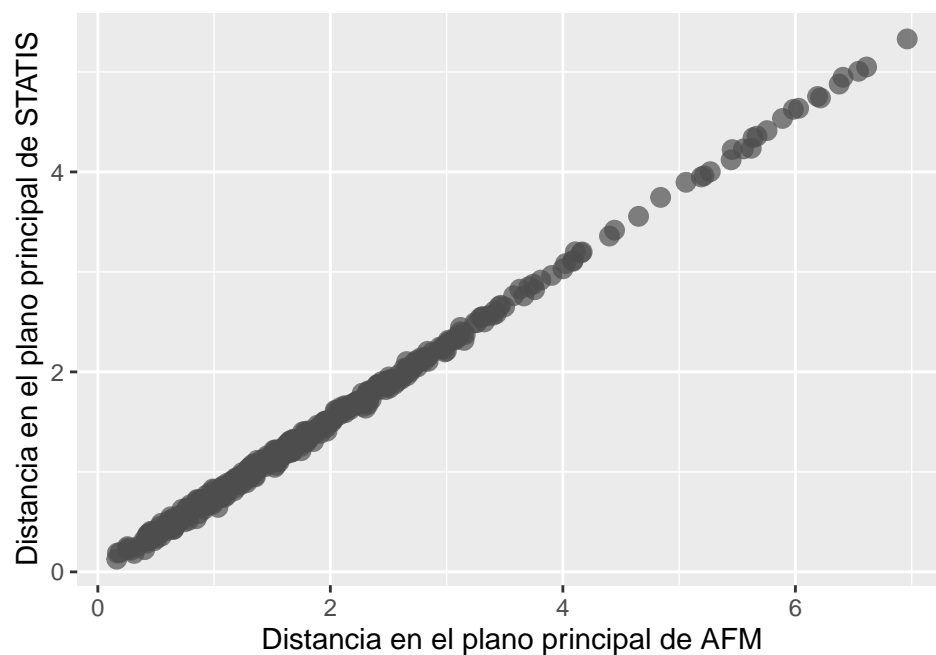
# AFM
mfa <- MFA(
  base = datos,
  group = c(10, 10),
  type = c("s", "s"),
  name.group = c("Pergamino", "Ferre"),
  graph = FALSE
)
dist_mfa <- dist(mfa$ind$coord[, 1:2])

# APG.
acp_m1 <- PCA(datos_m1, ncp = 10, graph = FALSE)
acp_m2 <- PCA(datos_m2, ncp = 10, graph = FALSE)
df <- data.frame(cbind(acp_m1$ind$coord, acp_m2$ind$coord))
gpa <- GPA(df, group = c(10, 10), name.group = c("Pergamino", "Ferre"), graph = FALSE)
dist_gpa <- dist(gpa$consensus[, 1:2])

## [1] 0.9950468
```



## [1] 0.9950468



## [1] 0.9991104