

# Untitled.R

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```
library(Momocs)
```

```
##
## Attaching package: 'Momocs'
##
## The following object is masked from 'package:stats':
##
##   filter
##
## The following object is masked from 'package:base':
##
##   table
```

```
load("~/Desktop/allF.rda")
```

```
allP <- PCA(allF)
MANOVA_PW(filter(allP, !Island %in% c("New_Zealand", "Pitcairn")), "Island")
```

```
## * 'Chatham' has 8 rows, and 'retain' is set accordingly.
## * PC axes 1 to 8 were retained
```

```
## Warning in is.na(e1) | is.na(e2): longer object length is not a multiple
## of shorter object length
```

```
## Warning in `==.default`(fac, pws[i, ]): longer object length is not a
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## $stars.tab
##           Chatham New_Britain Rapa_Nui
## Chatham           -           -
## New_Britain        -           -
##
## $summary (see also $manovas)
##           Df Pillai approx F num Df den Df Pr(>F)
## Chatham - New_Britain  1 0.60145  0.1886      8      1 0.9497
## Chatham - Rapa_Nui    1 0.04067  1.0918      8     206 0.3702
## New_Britain - Rapa_Nui  1 0.05319  1.4607      8     208 0.1734

New_Zealand_scores <- filter(allP, Island=="New_Zealand")$x[, 1]
New_Britain_scores <- filter(allP, Island=="New_Britain")$x[, 1]
Chatham_scores <- filter(allP, Island=="Chatham")$x[, 1]
Pitcairn_scores <- filter(allP, Island=="Pitcairn")$x[, 1]
Rapa_Nui_scores <- filter(allP, Island=="Rapa_Nui")$x[, 1]

wilcox.test(New_Zealand_scores, New_Britain_scores)

## Warning in wilcox.test.default(New_Zealand_scores, New_Britain_scores):
## cannot compute exact p-value with ties

##
## Wilcoxon rank sum test with continuity correction
##
## data: New_Zealand_scores and New_Britain_scores
## W = 17, p-value = 0.4108
## alternative hypothesis: true location shift is not equal to 0

wilcox.test(New_Zealand_scores, Chatham_scores)

## Warning in wilcox.test.default(New_Zealand_scores, Chatham_scores): cannot
## compute exact p-value with ties

##
## Wilcoxon rank sum test with continuity correction
##
## data: New_Zealand_scores and Chatham_scores
## W = 14, p-value = 0.1497
## alternative hypothesis: true location shift is not equal to 0
```

```
wilcox.test(New_Zealand_scores, Pitcairn_scores)
```

```
##  
## Wilcoxon rank sum test  
##  
## data: New_Zealand_scores and Pitcairn_scores  
## W = 4, p-value = 0.3333  
## alternative hypothesis: true location shift is not equal to 0
```

```
wilcox.test(New_Zealand_scores, Rapa_Nui_scores)
```

```
##  
## Wilcoxon rank sum test with continuity correction  
##  
## data: New_Zealand_scores and Rapa_Nui_scores  
## W = 725, p-value = 0.0819  
## alternative hypothesis: true location shift is not equal to 0
```

```
wilcox.test(Chatham_scores, New_Britain_scores)
```

```
## Warning in wilcox.test.default(Chatham_scores, New_Britain_scores): cannot  
## compute exact p-value with ties
```

```
##  
## Wilcoxon rank sum test with continuity correction  
##  
## data: Chatham_scores and New_Britain_scores  
## W = 39, p-value = 0.5116  
## alternative hypothesis: true location shift is not equal to 0
```

```
wilcox.test(Chatham_scores, New_Zealand_scores)
```

```
## Warning in wilcox.test.default(Chatham_scores, New_Zealand_scores): cannot  
## compute exact p-value with ties
```

```
##  
## Wilcoxon rank sum test with continuity correction  
##  
## data: Chatham_scores and New_Zealand_scores  
## W = 2, p-value = 0.1497  
## alternative hypothesis: true location shift is not equal to 0
```

```
wilcox.test(Chatham_scores, Pitcairn_scores)
```

```
## Warning in wilcox.test.default(Chatham_scores, Pitcairn_scores): cannot  
## compute exact p-value with ties
```

```
##  
## Wilcoxon rank sum test with continuity correction  
##  
## data: Chatham_scores and Pitcairn_scores  
## W = 16, p-value = 0.04949  
## alternative hypothesis: true location shift is not equal to 0
```

```
wilcox.test(Chatham_scores, Rapa_Nui_scores)
```

```
##  
## Wilcoxon rank sum test with continuity correction  
##  
## data: Chatham_scores and Rapa_Nui_scores  
## W = 1606, p-value = 0.8065  
## alternative hypothesis: true location shift is not equal to 0
```