## Correlaciones

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#Utilidad

Esta metoodlogia sirve para identificar la relación entre dos variables de tipo **cuantitativo**. Los datos se distribuyen de forma normal. Area: Estadistica Parametrica y se utiliza la matriz "penguins.xlsx" como ejemplo.

### Librerias

[37] "Adelie"

##

"Adelie"

```
library(readxl)
penguins<-read_excel("penguins.xlsx")</pre>
#Exploración de variables
1.- Dimensión
dim(penguins)
## [1] 344
2.- Tipos de variables
str(penguins)
## tibble [344 x 9] (S3: tbl df/tbl/data.frame)
                     : chr [1:344] "i1" "i2" "i3" "i4" ...
##
   $ ID
  $ especie
                      : chr [1:344] "Adelie" "Adelie" "Adelie" "Adelie" ...
                      : chr [1:344] "Torgersen" "Torgersen" "Torgersen" "Torgersen" ...
## $ isla
## $ largo_pico_mm : num [1:344] 39.1 39.5 40.3 37.8 36.7 39.3 38.9 39.2 34.1 42 ...
## $ grosor pico mm : num [1:344] 18.7 17.4 18 18.1 19.3 20.6 17.8 19.6 18.1 20.2 ...
  $ largo_aleta_mm : num [1:344] 181 186 195 190 193 190 181 195 193 190 ...
   $ masa_corporal_g: num [1:344] 3750 3800 3250 3700 3450 ...
##
##
    $ genero
                     : chr [1:344] "male" "female" "female" "female" ...
                      : num [1:344] 2007 2007 2007 2007 2007 ...
##
    $ año
3.- Identificar la especie Adelie
penguins$especie
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   [343] "Chinstrap" "Chinstrap"
```

4.- Seleccionar las observaciones de la 1 a la 152 y las variables cuantitativas.

#### 

\$ largo\_aleta\_mm : num [1:152] 181 186 195 190 193 190 181 195 193 190 ...

\$ masa\_corporal\_g: num [1:152] 3750 3800 3250 3700 3450 ...

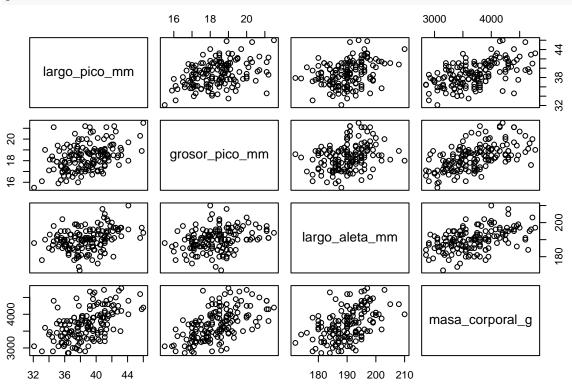
# Metodologia

1.- Cálculo de correlación

```
cor_adeli<-cor(adeli)</pre>
```

2.-Realización del plot de correlaciones

plot(adeli)



3.- Organización de la tabla de correlciones

librerias

library(knitr)

## organización

## kable(cor\_adeli)

	$largo\_pico\_mm$	$grosor\_pico\_mm$	$largo\_aleta\_mm$	$masa\_corporal\_g$
largo_pico_mm	1.0000000	0.3917580	0.3256178	0.5486177
$grosor\_pico\_mm$	0.3917580	1.0000000	0.3075689	0.5760619
$largo\_aleta\_mm$	0.3256178	0.3075689	1.0000000	0.4682015
$masa\_corporal\_g$	0.5486177	0.5760619	0.4682015	1.0000000