

13-Densidades y funciones de distribucion

Adrian

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Campana de Gauss

Es la densidad mas famosa. Se corresponde con una variable que sigue una distribucion normal

Histogramas de Fr relativas

```
histRel = function(x, L) {  
  h = hist(x, breaks = L, right = F, plot = F)  
  t = round(1.1*max(max(density(x)[[2]]), h$density), 2)  
  plot(h, freq = F, col = "lightgray",  
        main = "Histograma de Frec, rel.\n y curva de densidad estimada",  
        xaxt = "n", ylim=c(0,t), xlab="Intervalos", ylab="Densidades")  
  axis(1, at=L)  
  text(h$mids, h$density/2, labels = round(h$counts/length(x), 2), col="blue")  
  lines(density(x), col="purple", lwd = 2)  
}
```

Histogramas de Fr relativas acumuladas

```
histRelCum = function(x, L) {  
  h = hist(x, breaks = L, right = F, plot = F)  
  h$density = cumsum(h$counts)/length(x)  
  plot(h, freq = F,  
        main = "Histograma de Frec, rel. acumuladas \n y curva de distribucion estimada",  
        xaxt = "n", col = "lightgray", xlab="Intervalos", ylab="Frec. rel. acumuladas")  
  axis(1, at=L)  
  text(h$mids, h$density/2, labels = round(h$density, 2), col="blue")  
  dens.x = density(x)  
  dens.x$y = cumsum(dens.x$y) * (dens.x$x[2]~dens.x$x[1])  
  lines(dens.x, col="purple", lwd = 2)  
}
```