

Simulacion de una caminata aleatoria

Enrique

3/3/2022

Caminata aleatoria

Simularemos una caminata aleatoria de n pasos y graficaremos su recorrido desde el origen

```
pos=0
pos[1] <- 0
runif(1)
```

```
## [1] 0.9627274
```

```
dur <- 50
for (t in 2:dur) {
  if (runif(1) < 0.5) {
    pos[t] <- pos[t-1] + 1
  } else {
    pos[t] <- pos[t-1] - 1
  }
  print(pos[t])
}
```

```
## [1] 1
## [1] 2
## [1] 3
## [1] 2
## [1] 1
## [1] 0
## [1] 1
## [1] 0
## [1] 1
## [1] 2
## [1] 3
## [1] 4
## [1] 3
## [1] 2
## [1] 3
## [1] 2
## [1] 1
## [1] 0
## [1] -1
## [1] 0
## [1] -1
## [1] -2
## [1] -1
## [1] -2
## [1] -1
## [1] -2
## [1] -3
## [1] -4
## [1] -3
## [1] -4
## [1] -5
## [1] -6
## [1] -7
## [1] -6
## [1] -7
## [1] -6
## [1] -7
## [1] -8
## [1] -7
## [1] -6
## [1] -7
## [1] -6
## [1] -7
## [1] -6
## [1] -7
## [1] -6
## [1] -7
## [1] -8
## [1] -7
```

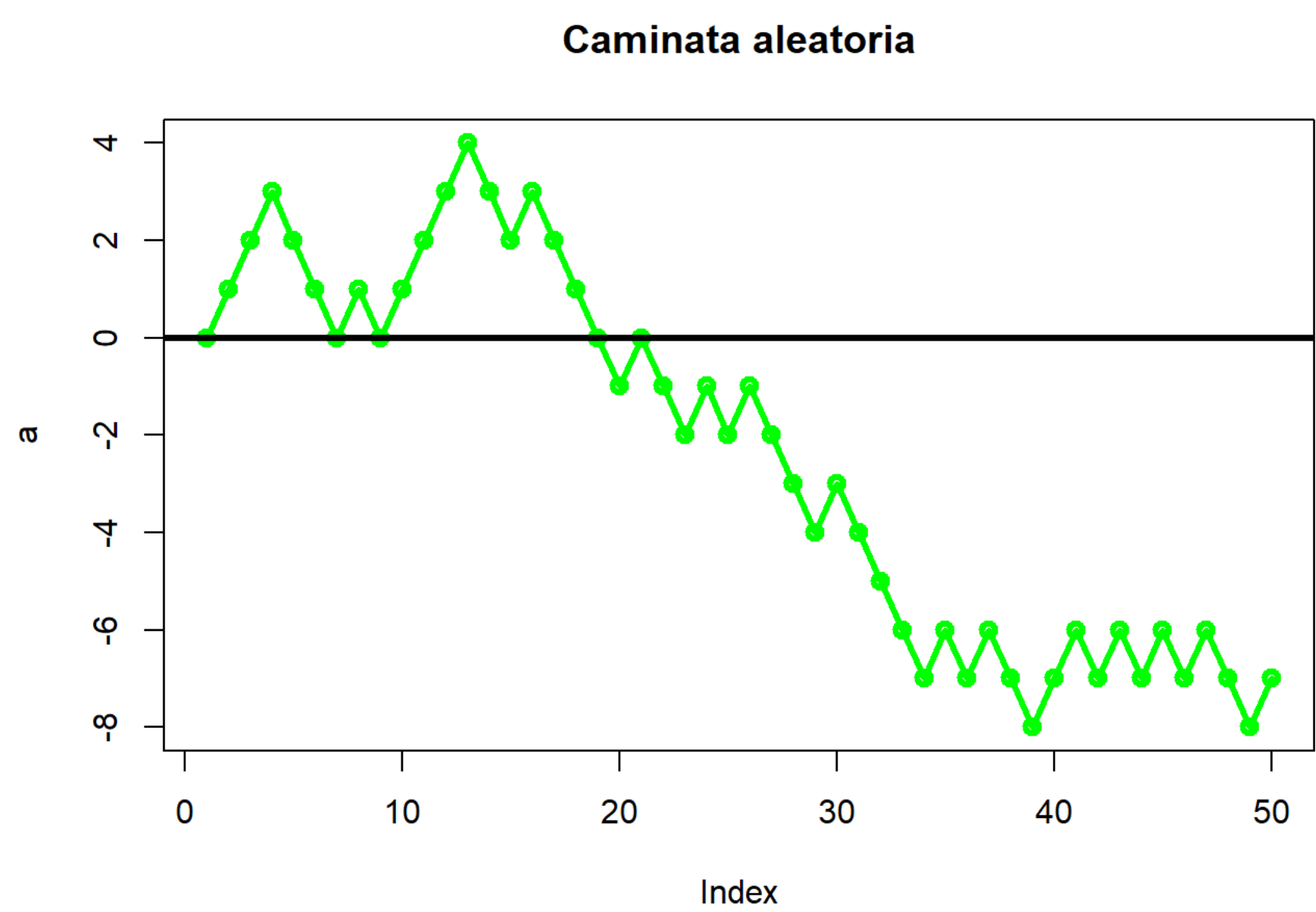
```
a=(pos)
print('Posicion en la iteracion n')
```

```
## [1] "Posicion en la iteracion n"
```

```
print(a)
```

```
## [1] 0 1 2 3 2 1 0 1 0 1 2 3 4 3 2 3 2 1 0 -1 0 -1 -2 -1 -2
## [26] -1 -2 -3 -4 -3 -4 -5 -6 -7 -6 -7 -6 -7 -8 -7 -6 -7 -6 -7 -6 -7 -6 -7 -8 -7
```

```
plot(a, type='o', col='green', lwd='3',main = 'Caminata aleatoria')
abline(h=0,col='black',lwd='3')
```



```
#fin
```