# DistExponencial

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```
import os
os.environ['QT_QPA_PLATFORM_PLUGIN_PATH'] = 'C:/Users/jxsje/anaconda3/Library/plugins/platforms'
```

## En Python

```
from scipy.stats import expon
import numpy as np
import matplotlib.pyplot as plt

fig, ax = plt.subplots(1,1)

lam = 3
rv = expon(scale = 1/lam)

mean, var, skew, kurt = expon.stats(moments = 'mvsk')
print("Media %f"%mean)
```

```
## Media 1.000000
```

```
print("Varianza %f"%var)
```

```
## Varianza 1.000000
```

```
print("Sesgo %f"%skew)
```

```
## Sesgo 2.000000
```

```
print("Curtosis %f"%kurt)
```

```
## Curtosis 6.000000
```

```
x = np.linspace(0, 3, 1000)
ax.plot(x, rv.pdf(x), 'r-', lw = 5, alpha = 0.6, label = "Exp(10)")

r = rv.rvs(size = 100000)
ax.hist(r, density = True, histtype = "stepfilled", alpha = 0.2)
```

```
## (array([1.80391706e+00, 5.87611077e-01, 1.93810818e-01, 5.99674102e-02,
##         2.03011884e-02, 6.17862255e-03, 2.08628813e-03, 5.08198391e-04,
##         2.13978270e-04, 1.33736419e-04]), array([5.66327193e-06, 3.73875403e-01, 7.47745142e-01, 1.12
##         1.49548462e+00, 1.86935436e+00, 2.24322410e+00, 2.61709384e+00,
##         2.99096358e+00, 3.36483332e+00, 3.73870306e+00]), <a list of 1 Patch objects>)
```

```
ax.legend(loc = "best", frameon = False)
```

```
plt.show()
```