Criar Gaussiana

Create the image of a gaussian.

In [1]:

```
#Imports
import numpy as np
import time
import matplotlib.pyplot as plt
%matplotlib inline
```

In [2]:

```
#Image configs
height = 100
width = 100
n = 100
x = np.linspace(-height//2, height//2, n)
y = np.linspace(-width//2, width//2,n)
X, Y = np.meshgrid(x,y)
```

In [3]:

```
#Gaussian curve arguments
A = 20 #Amplitude
x0= mx = 0 # X's mean
y0 = my = 0 # Y's mean
sx= 10 # X's Standard Deviation
sy = 10 # # X's Standard Deviation
```

In [4]:

```
#Image
Z = A * np.exp(-(((X-x0)**2/(2*(sx**2)))+((Y-y0)**2/(2*(sy**2)))))
plt.imshow(Z, cmap = "gray")
plt.show()
```