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import numpy as np
import matplotlib.pyplot as plt
from scipy.stats import norm

def subplotting():
    x = np.arange(0,11,1)
    y = norm.pdf(x,5,1)
    mean = np.arange(0,11)
    plt.scatter(x,y)
    plt.title('Gaussian distribution 10 sample points',fontweight = 'bold')
    figure,axs = plt.subplots(6,2,figsize=(15,15))
    # plt.suptitle('likelihood function for mean(0-10) ',fontweight = 'bold')
    for i in range(len(mean)):
        y_hood = norm.pdf(x,mean[i],1)
        if i<6:
            axs[i,0].set_title('mean =' + str(i))
            axs[i,0].scatter(x,y)
            axs[i,0].plot(x,y_hood)
        else:
            axs[i-6,1].set_title('mean =' + str(i))
            axs[i-6,1].scatter(x,y)
            axs[i-6,1].plot(x,y_hood)
    plt.tight_layout(pad=4)
```

subplotting()





