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from numpy import sqrt, pi, exp, linspace, load
def gaussian(x, amp, cen, wid,amp1, cen1, wid1,a,b):
    return amp * exp(-(x-cen)**2 /wid)+ amp1 * exp(-(x-cen1)**2 /wid1)+a-b*x
x=load("x_spectra.npy")
y=load("y_spectra.npy")
from scipy.optimize import curve_fit
init_vals = [125, 17, 10,130,35,10,100,0.06]
best_vals, covar = curve_fit(gaussian, x, y, p0=init_vals)
print (best_vals)
import matplotlib.pyplot as plt
plt.scatter(x, y)
plt.plot(linspace(-10,100,100),gaussian(linspace(-10,100,100),best_vals[0],best_vals[1],best
_vals[2],best_vals[3],best_vals[4],best_vals[5],best_vals[6],best_vals[7]),"r-")
plt.show()

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