

Test_linear_Fit

November 29, 2022

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[1]: import numpy as np
import matplotlib.pyplot as plt
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[2]: X = np.random.rand(10000)*400
Y = 0.1*X+10.1
Y_p = Y + np.random.randn(10000)*1.5
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[3]: p = np.polyfit(X,Y_p,deg=1)
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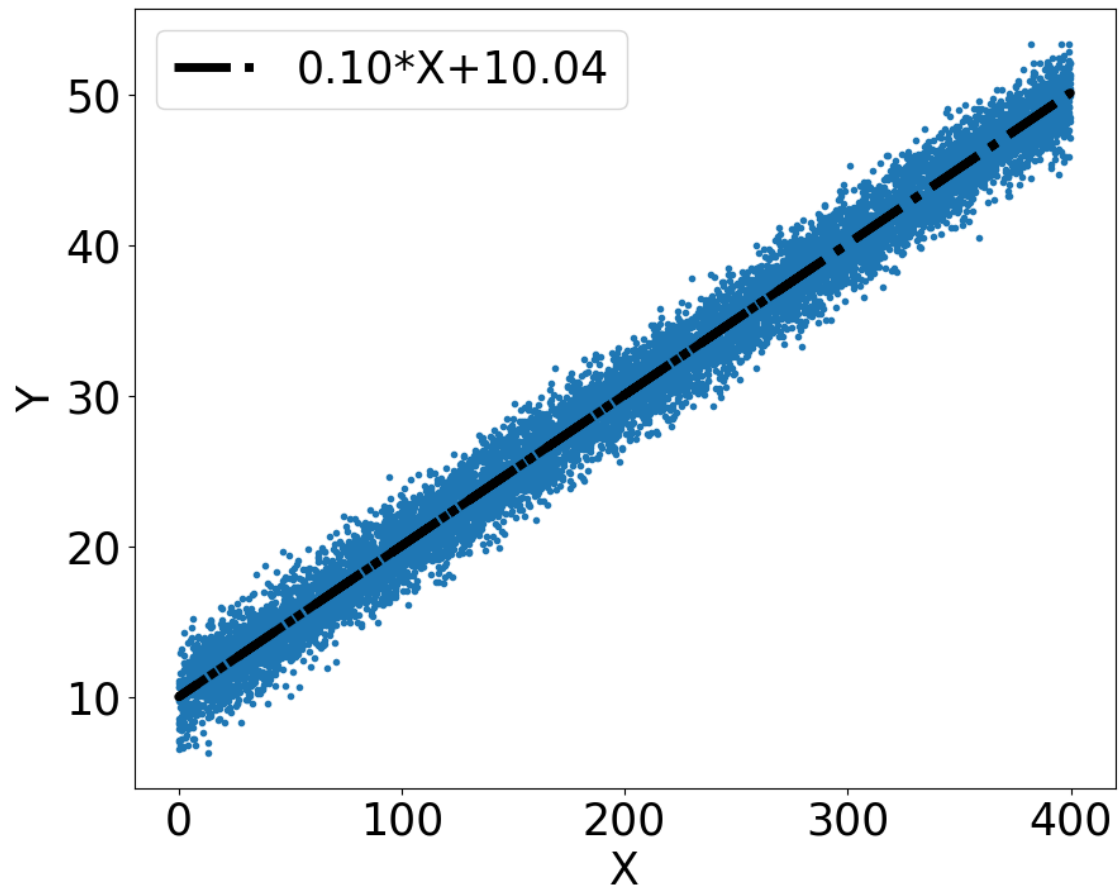
```
[4]: p
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[4]: array([ 0.10023813, 10.03680425])
```

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[5]: %matplotlib inline
plt.rcParams.update({'font.size': 25})
fig , ax =plt.subplots(1,figsize=(10,8))
ax.set_ylabel('Y')
ax.set_xlabel('X')

ax.plot(X,Y_p, '. ')
ax.plot(X,p[0]*X+p[1],lw=5,ls='-.',c='black',label='{0:3.2f}*X+{1:3.2f}'.
    format(p[0],p[1]))
ax.legend()
```

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[5]: <matplotlib.legend.Legend at 0x163a37ac0>
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