Matplotlip Simplified

December 22, 2017

1 Matplotlib

1.0.1 2D Graphs

1. fig =plt.figure(num=None, figsize=None, dpi=None, facecolor=None, edgecolor=None, frameon=True, FigureClass=, clear=False, kwargs)**

2. ax1 = plt.add_subplot(211, krgs)

type: 'matplotlib.axes._subplots.AxesSubplot'

attributes: attributes

```
e.g
    ax1.axis([-2,10,-1.5,1.5])
    ax1.set_xlabel("xaxis", fontsize = 20)
    ax1.set_ylabel("yaxis", fontsize = 20)
    ax1.set_title("sin", fontsize = 20
    ax1.grid(True, which = "both")
    ax1.set_xticks(np.arr(14))
```

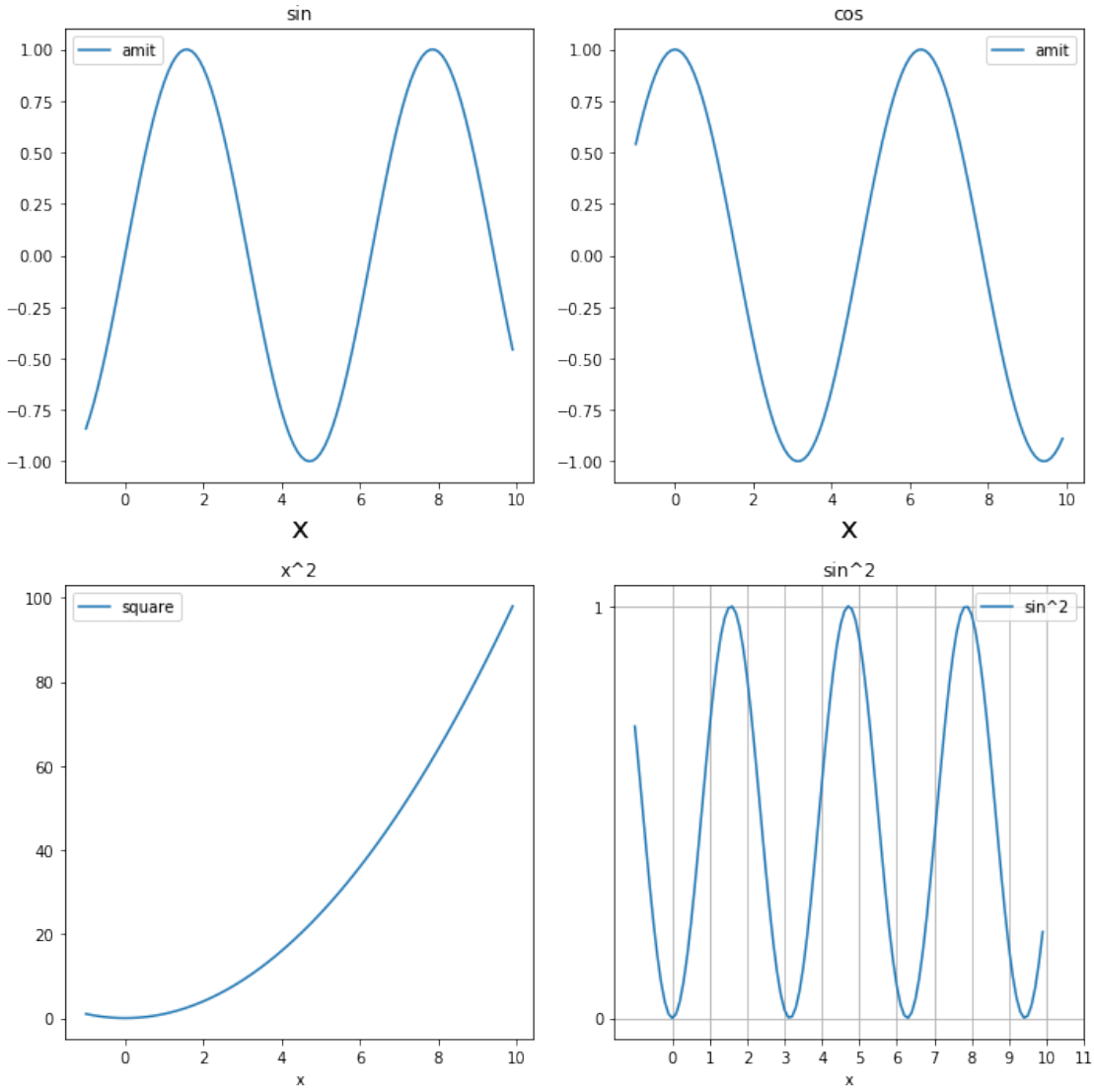
krgs: - projection - axisbg - title - xlabel - ylabel - xscale - yscale

*ax1.plot(xdata, ydata, linewidth=None, linestyle=None, color=None, marker=None, markersize=None, markeredgewidth=None, markeredgecolor=None, markerfacecolor=None, markerfacecoloralt='none', fillstyle=None, antialiased=None, dash_capstyle=None, solid_capstyle=None, dash_joinstyle=None, solid_joinstyle=None, pickradius=5, drawstyle=None, markevery=None, **kwargs)*

attributes

```
In [73]: # PLOT sin cos x^2 sin^2x
         %matplotlib inline
         import numpy as np
         import matplotlib.pyplot as plt
         from mpl_toolkits.mplot3d import Axes3D

         fig = plt.figure(figsize=(10,10))
         arr= np.arange(-1, 10, 0.1)

         ax1 = fig.add_subplot(221,xlabel = "x", title = 'sin')
         ax1.set_xlabel('x',fontsize = 20)
         ax1.plot(arr, np.sin(arr),label= "amit")
```

```
ax1.legend()

ax2 = fig.add_subplot(222, xlabel = 'x', title = 'cos')
ax2.plot(arr, np.cos(arr),label= "amit")
ax2.set_xlabel('x',fontsize = 20)
ax2.legend()

ax3 = fig.add_subplot(223, xlabel = 'x',title = 'x^2')
ax3.plot(arr,np.square(arr), label = "square")
ax3.legend()

ax4 = fig.add_subplot(224, xlabel = 'x', title = 'sin^2')
ax4.plot(arr, np.square(np.sin(arr)), label = "sin^2")
ax4.legend()
# ax4.*?
ax4.grid(True, which = "both")
plt.tight_layout()
ax4.set_xticks(np.arange(12))
ax4.set_yticks(np.arange(2))
plt.show()
```


sin
amit
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0
2
4
6
8
10
x
cos
amit
x
x^2
square
100
80
60
40
20
0
x
sin^2
sin^2
1
0
1
2
3
4
5
6
7
8
9
10
11
x