

Quick start

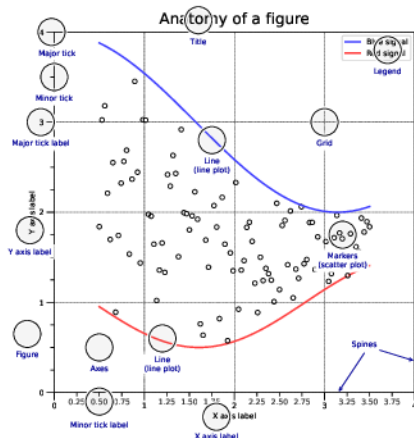
```
import numpy as np
import matplotlib as mpl
import matplotlib.pyplot as plt
```

```
X = np.linspace(0, 2*np.pi, 100)
Y = np.cos(X)
```

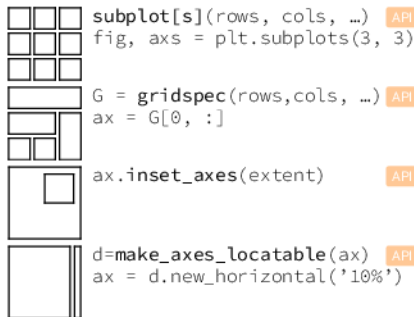
```
fig, ax = plt.subplots()
ax.plot(X, Y, color='green')
```

```
fig.savefig("figure.pdf")
plt.show()
```

Anatomy of a figure



Subplots layout



Getting help

matplotlib.org
github.com/matplotlib/matplotlib/issues
discourse.matplotlib.org
stackoverflow.com/questions/tagged/matplotlib
<https://gitter.im/matplotlib/matplotlib>
twitter.com/matplotlib
[Matplotlib users mailing list](#)

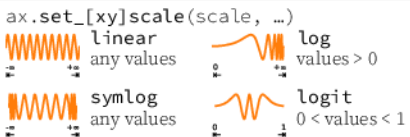
Basic plots



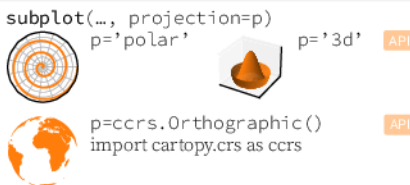
Advanced plots



Scales



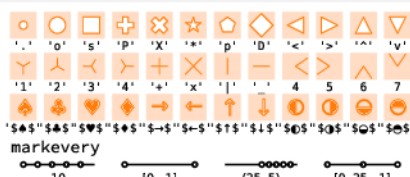
Projections



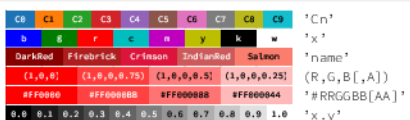
Lines



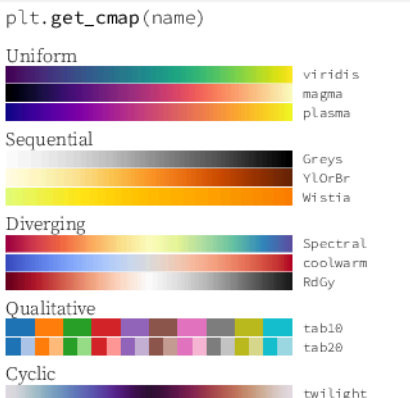
Markers



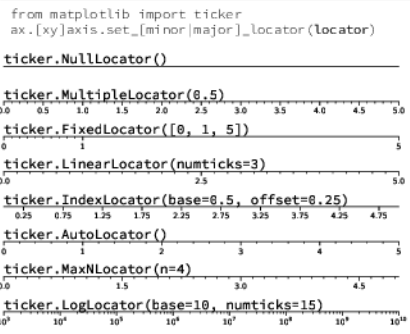
Colors



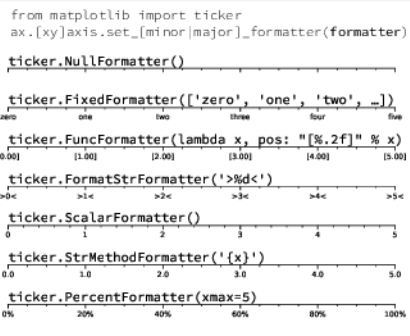
Colormaps



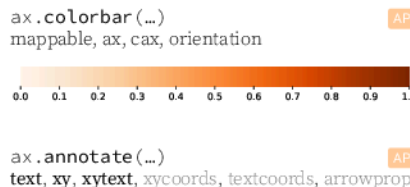
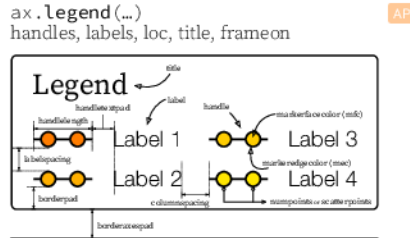
Tick locators



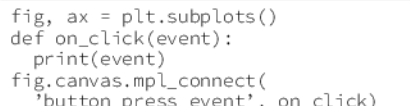
Tick formatters



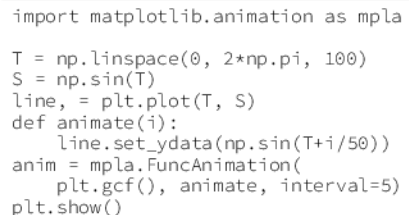
Ornaments



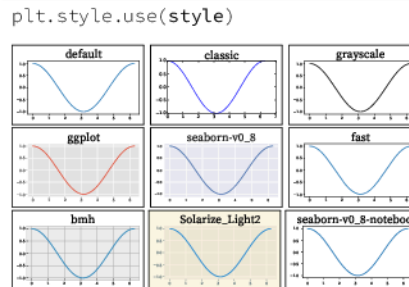
Event handling



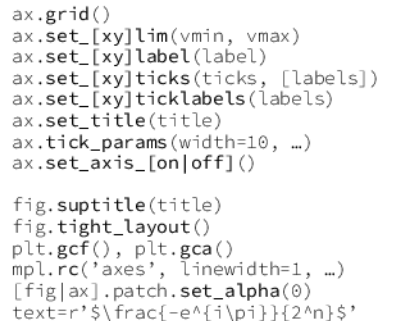
Animation



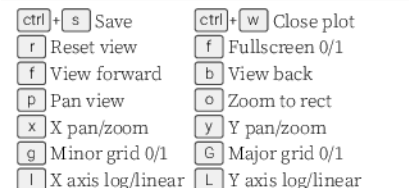
Styles



Quick reminder



Keyboard shortcuts



Ten simple rules

