
brokenaxes Documentation

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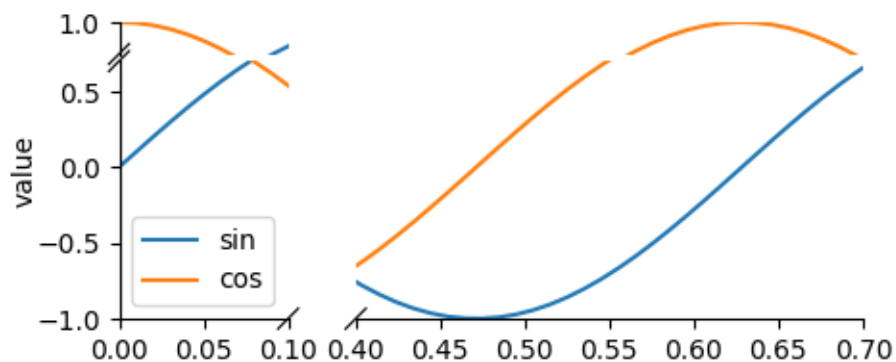
brokenaxes is a library for making broken axes plots in python using matplotlib. See the examples for different use-cases.

Contents:

Note: Click [here](#) to download the full example code

1.1 Basic usage

This example presents the basic usage of brokenaxes



```
import matplotlib.pyplot as plt
from brokenaxes import brokenaxes
import numpy as np

fig = plt.figure(figsize=(5,2))
bax = brokenaxes(xlims=((0, .1), (.4, .7)), ylims=((-1, .7), (.79, 1)), hspace=.05)
x = np.linspace(0, 1, 100)
bax.plot(x, np.sin(10 * x), label='sin')
bax.plot(x, np.cos(10 * x), label='cos')
bax.legend(loc=3)
```

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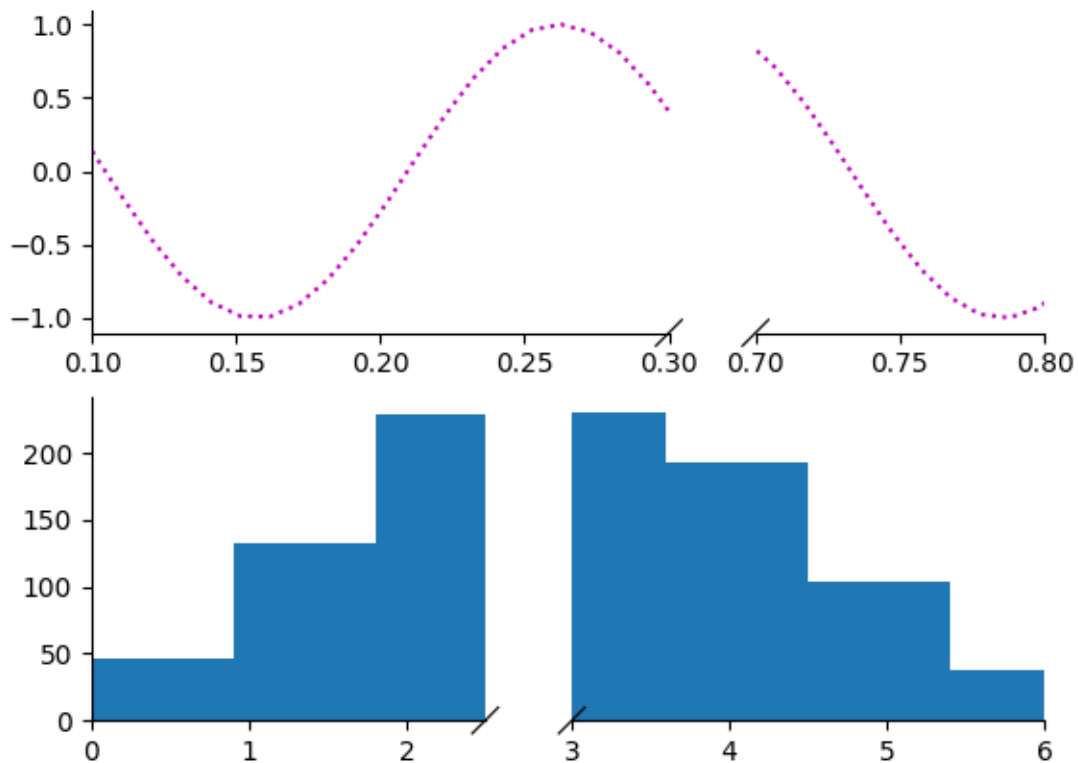
```
bax.set_xlabel('time')
bax.set_ylabel('value')
```

Total running time of the script: (0 minutes 12.282 seconds)

Note: Click [here](#) to download the full example code

1.2 Handle subplots with brokenaxes

If you want to use subplots together with brokenaxes, you have to use GridSpec.



```
from brokenaxes import brokenaxes
from matplotlib.gridspec import GridSpec
import numpy as np

sps1, sps2 = GridSpec(2,1)

bax = brokenaxes(xlims=((0.1, 0.3), (0.7, 0.8)), subplot_spec=sps1)
x = np.linspace(0, 1, 100)
bax.plot(x, np.sin(x*30), ls=':', color='m')
```

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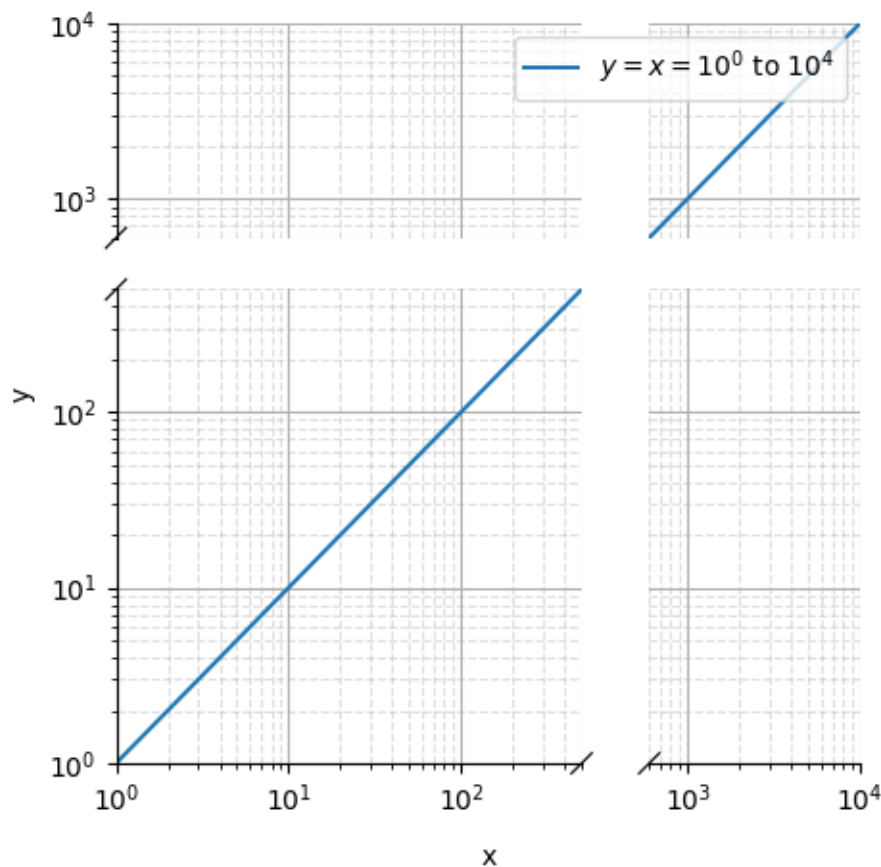
```
x = np.random.poisson(3, 1000)
bax = brokenaxes(xlims=((0, 2.5), (3, 6)), subplot_spec=sps2)
bax.hist(x, histtype='bar')
```

Total running time of the script: (0 minutes 8.709 seconds)

Note: Click [here](#) to download the full example code

1.3 Log scales

Brokenaxe compute automatically the correct layout for a 1:1 scale. However, for logarithmic scales, the 1:1 scale has to be adapted. This is done via the *yscale* or *yscale* arguments.



```
import matplotlib.pyplot as plt
from brokenaxes import brokenaxes
import numpy as np

fig = plt.figure(figsize=(5,5))
```

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```
bax = brokenaxes(xlims=((1, 500), (600, 10000)),
                 ylims=((1, 500), (600, 10000)),
                 hspace=.15, xscale='log', yscale='log')

x = np.logspace(0.0, 4, 100)
bax.loglog(x, x, label='$y=x=10^{0}$ to $10^{4}$')

bax.legend(loc='best')
bax.grid(axis='both', which='major', ls='-')
bax.grid(axis='both', which='minor', ls='--', alpha=0.4)
bax.set_xlabel('x')
bax.set_ylabel('y')
plt.show()
```

Total running time of the script: (1 minutes 8.214 seconds)