

# Best Practices

## Visualisations & Plots

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Here I will outline my personal preferences for best plotting practices. I will most likely update this as and when I make design choices across research. First thing's first, we need to import some packages and generate some example data.

```
import matplotlib.pyplot as plt
import numpy as np
import numpy.random as rnd
```

For now I simulate some convergence data where I have 4 different benchmarks, each containing 8 separate repeat runs.

```
it = 100; runs = 8; benchmarks = 4
x = np.linspace(1,it,it)
data = []
for b in range(benchmarks):
    y = []
    for i in range(runs):
        noise = [rnd.uniform(i,0)*(b+1) for i in reversed(range(it))]
        y.append(noise - 50*((b+1))*np.log(x) + 50*(b+1)*np.log(it))
    y = np.array(y)
    data.append(y)
data = np.array(data) / 1200
```