

Python 3.9.13 (main, Aug 25 2022, 23:51:50) [MSC v.1916 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 7.31.1 -- An enhanced Interactive Python.

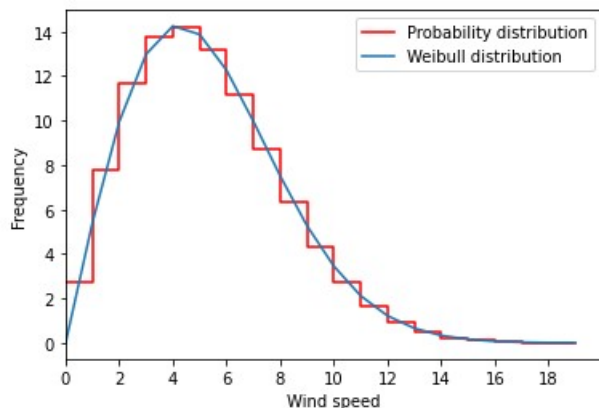
```
In [1]: import numpy as np
...: import pandas as pd
...: from scipy.stats import norm
...: import matplotlib.pyplot as plt
...: import astroML
```

```
In [2]: p = np.arange(0, 20, 1)
```

```
In [3]: y = np.array([2.75, 7.8, 11.64, 13.79, 14.20, 13.15, 11.14, 8.72, 6.34, 4.3, 2.73, 1.62,
0.91, 0.48, 0.24, 0.11, 0.05, 0.02, 0.01, 0.00])
```

```
In [4]: def weib_dist(p,n,a):
...:     return (a / n) * (p / n)**(a - 1) * np.exp(-(p / n)**a)
...:
```

```
In [5]: plt.xlim(0, 20)
...: plt.xticks(np.arange(min(p), max(p)+1, 2))
...: plt.step(p, y, where='post',color='red')
...: plt.plot(p, weib_dist(p, 6., 2.)*100)
...: plt.legend(['Probability distribution', 'Weibull distribution'])
...: plt.xlabel('Wind speed')
...: plt.ylabel('Frequency')
...: plt.show()
```



```
In [6]:
```