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Rayleigh Distribution

[< Previous](#)[Next >](#)

Rayleigh Distribution

Rayleigh distribution is used in signal processing.

It has two parameters:

scale - (standard deviation) decides how flat the distribution will be default 1.0).

size - The shape of the returned array.

Example

Draw out a sample for rayleigh distribution with scale of 2 with size 2x3:

```
from numpy import random  
  
x = random.rayleigh(scale=2, size=(2, 3))  
  
print(x)
```

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Visualization of Rayleigh Distribution

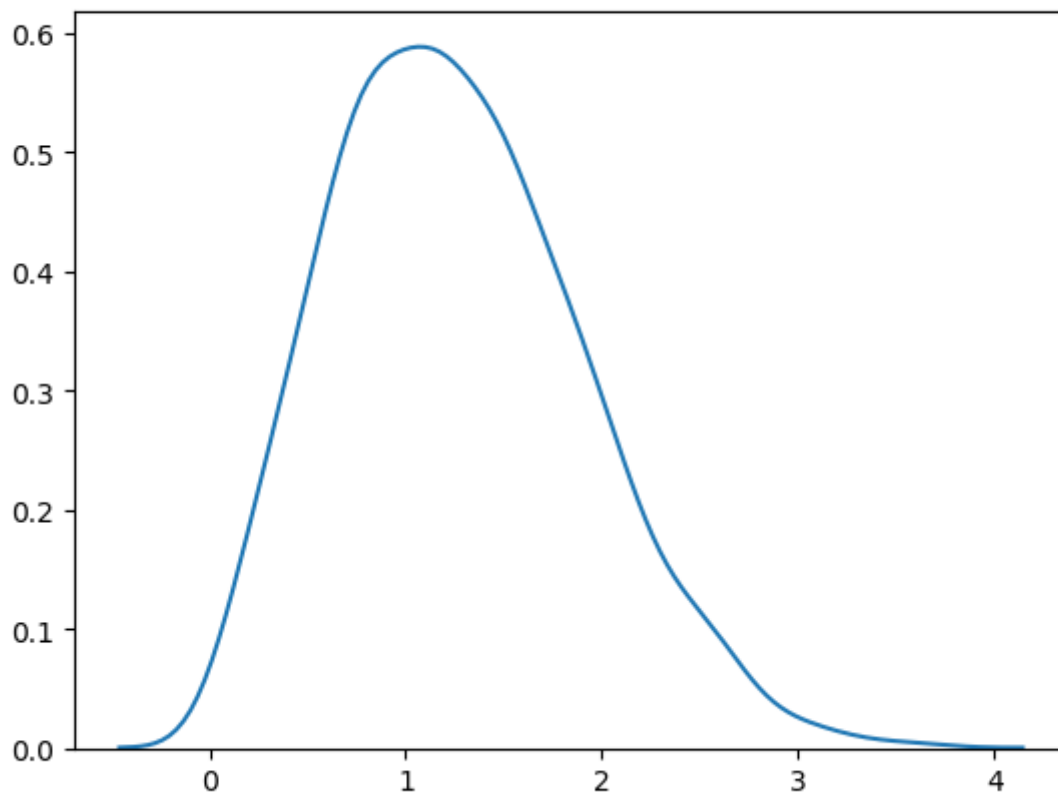
Example

```
from numpy import random
import matplotlib.pyplot as plt
import seaborn as sns

sns.distplot(random.rayleigh(size=1000), hist=False)

plt.show()
```

Result



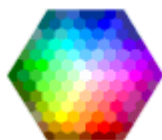
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Similarity Between Rayleigh and Chi Square Distribution

At unit stddev the and 2 degrees of freedom rayleigh and chi square represent the same distributions.

[< Previous](#)[Next >](#)

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Top Navigation
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Progress Bars
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Tooltips
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