Authoring

Angelo Santos

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* Red
* Green
* Blue

# 2. Shapes

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* Smooth
* Bumpy
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# 4. Equations

Einstein’s theory of special relatively that expresses the equivalence of mass and energy:

$E=mc^{2}$

## 4.1 Bibliography

Knuth says always be literate [@canavire-bacarreza\_unintended\_2018].

1 + 1

2

## 4.2 References

# 5. Cross references

See [Figure 1](#fig-simple) in [Section 5.1](#sec-plot) for a demonstration of a simple plot.

See [Equation 1](#eq-stddev) to better understand standard deviation.

## 5.1 Plot

import matplotlib.pyplot as plt
plt.plot([1,23,2,4])
plt.show()

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| --- |
| Figure 1: Simple Plot |

## 5.2 Equation

$$s=\sqrt{\frac{1}{N−1}\sum\_{i=1}^{N}\left(x\_{i}−\overline{x}\right)^{2}}  \left(1\right)$$

# 6. Callout

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| --- |
|  Note |
| Note that there are five types of callouts, including: note, tip, warning, caution, and important. |

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|  Tip |
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|  Warning |
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|  Caution |
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|  Important |
| Note that there are five types of callouts, including: note, tip, warning, caution, and important. |

# 7. Article layout

## 7.1 Placing Colorbars

Colorbars indicate the quantitative extent of image data. Placing in a figure is non-trivial because room needs to be made for them. The simplest case is just attaching a colorbar to each axes:[[1]](#footnote-50).

import matplotlib.pyplot as plt
import numpy as np

fig, axs = plt.subplots(2, 2)
fig.set\_size\_inches(20, 8)
cmaps = ['RdBu\_r', 'viridis']
for col in range(2):
 for row in range(2):
 ax = axs[row, col]
 pcm = ax.pcolormesh(
 np.random.random((20, 20)) \* (col + 1),
 cmap=cmaps[col]
 )
 fig.colorbar(pcm, ax=ax)
plt.show()



1. See the [Matplotlib Gallery](https://matplotlib.org/stable/gallery/subplots_axes_and_figures/colorbar_placement.html) to explore colorbars further [↑](#footnote-ref-50)