

Matplotlib tips & tricks

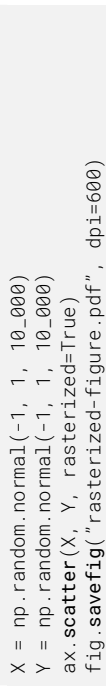
Transparency

Scatter plots can be enhanced by using transparency (alpha) in order to show area with higher density. Multiple scatter plots can be used to delineate a frontier.



Rasterization

If your figure has many graphical elements, such as a huge scatter, you can rasterize them to save memory and keep other elements in vector format.



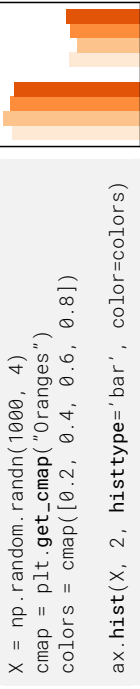
Offline rendering

Use the Agg backend to render a figure directly in an array.



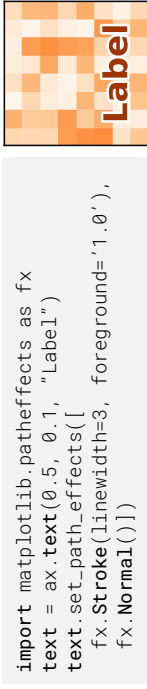
Range of continuous colors

You can use colormap to pick from a range of continuous colors.



Text outline

Use text outline to make text more visible.



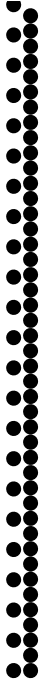
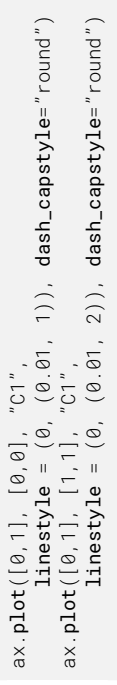
Multiline plot

You can plot several lines at once using None as separator.



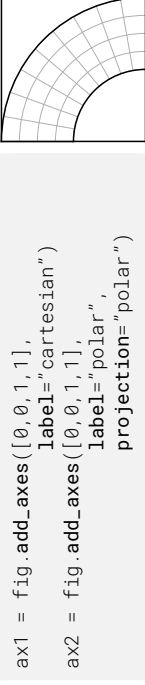
Dotted lines

To have rounded dotted lines, use a custom linestyle and modify dash_capstyle.



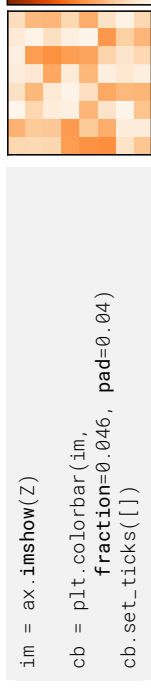
Combining axes

You can use overlaid axes with different projections.



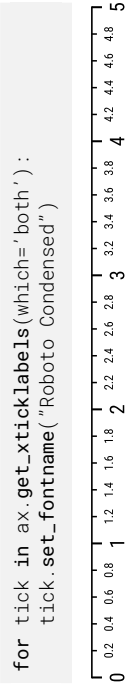
Colorbar adjustment

You can adjust a colorbar's size when adding it.



Taking advantage of typography

You can use a condensed font such as Roboto Condensed to save space on tick labels.

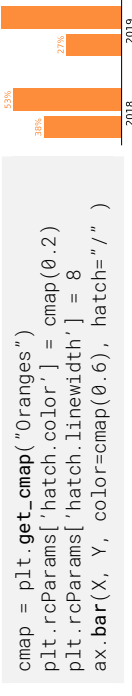


Getting rid of margins

Once your figure is finished, you can call `tight_layout()` to remove white margins. If there are remaining margins, you can use the `pdfcrop` utility (comes with TeX live).

Hatching

You can achieve a nice visual effect with thick hatch patterns.



Read the documentation

Matplotlib comes with an extensive documentation explaining the details of each command and is generally accompanied by examples. Together with the huge online gallery, this documentation is a gold-mine.

Matplotlib 3.4.2 handbook for tips & tricks. Copyright (c) 2021 Matplotlib Development Team. Released under a CC-BY 4.0 International License. Supported by NumFOCUS.