

# matplotlib

## *Making your figures beautiful*

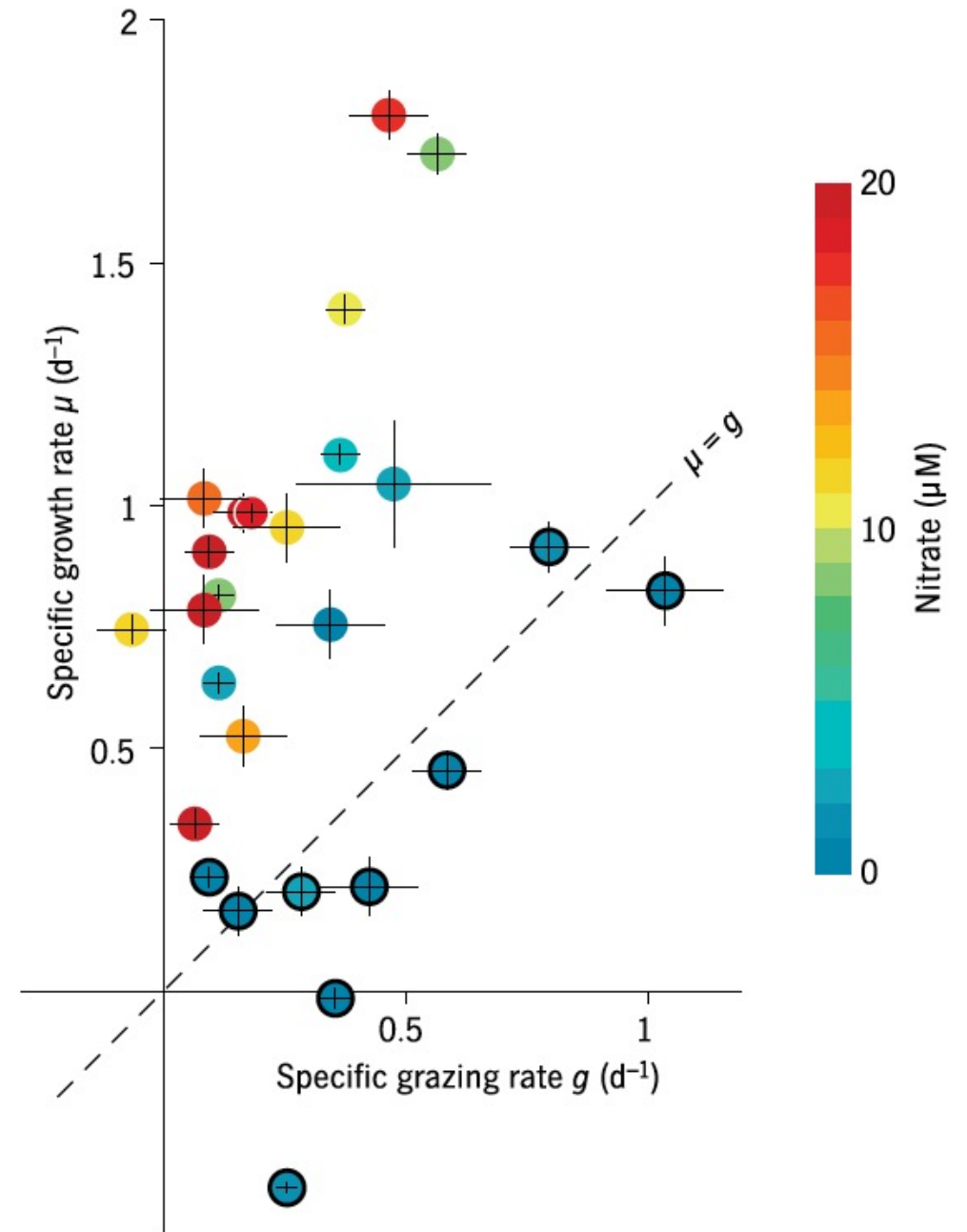
This PPT and associated code has useful tips about how to get your figures to be more effective in presentations and publications. It is part graphical advice, and part about how to get matplotlib to do what you want.

Associated code at:

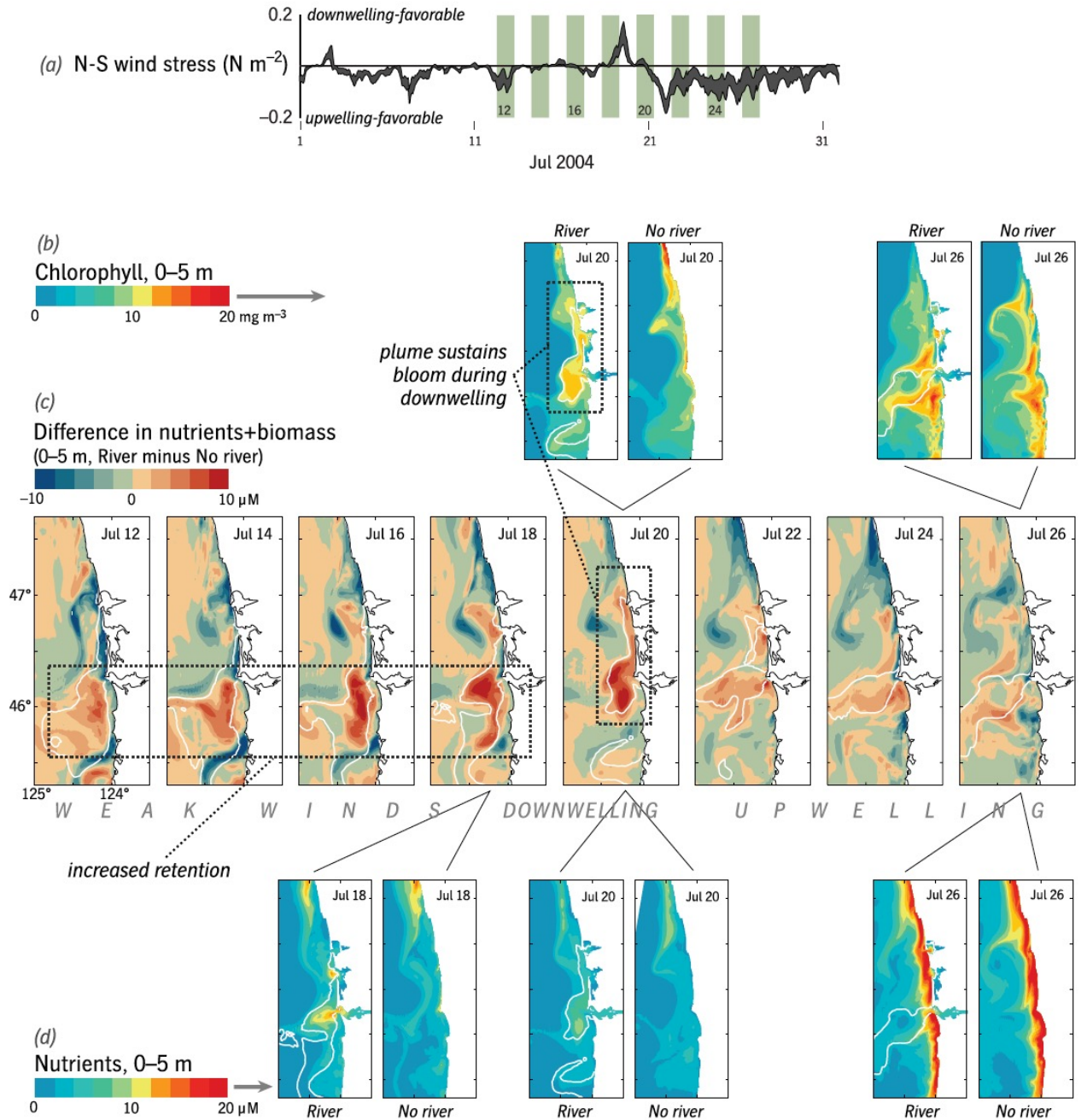
<https://github.com/parkermac/pmec.git>



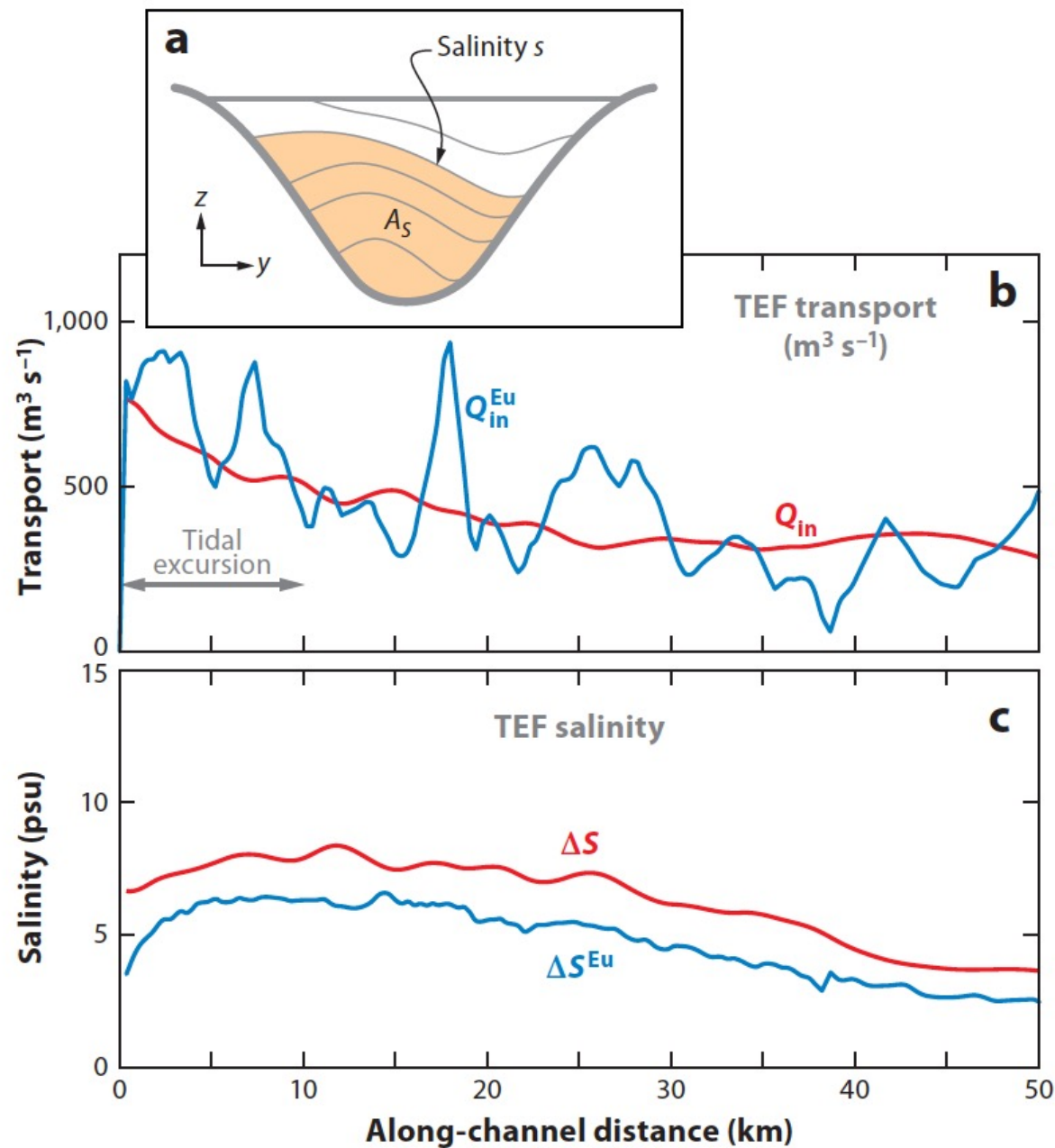
Keep it  
simple



# Maximal control, by Neil Banas

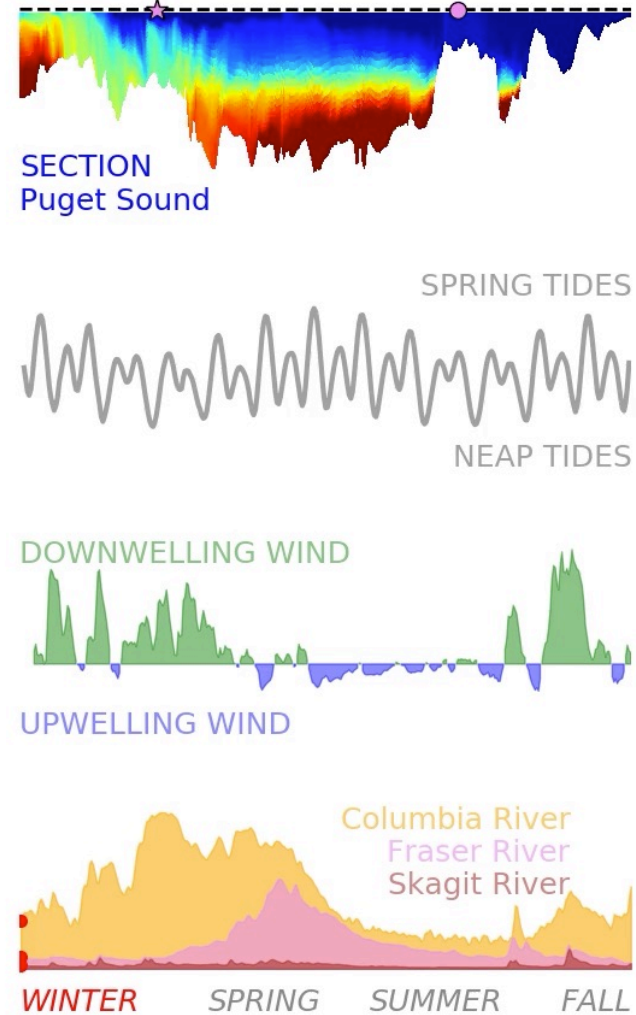
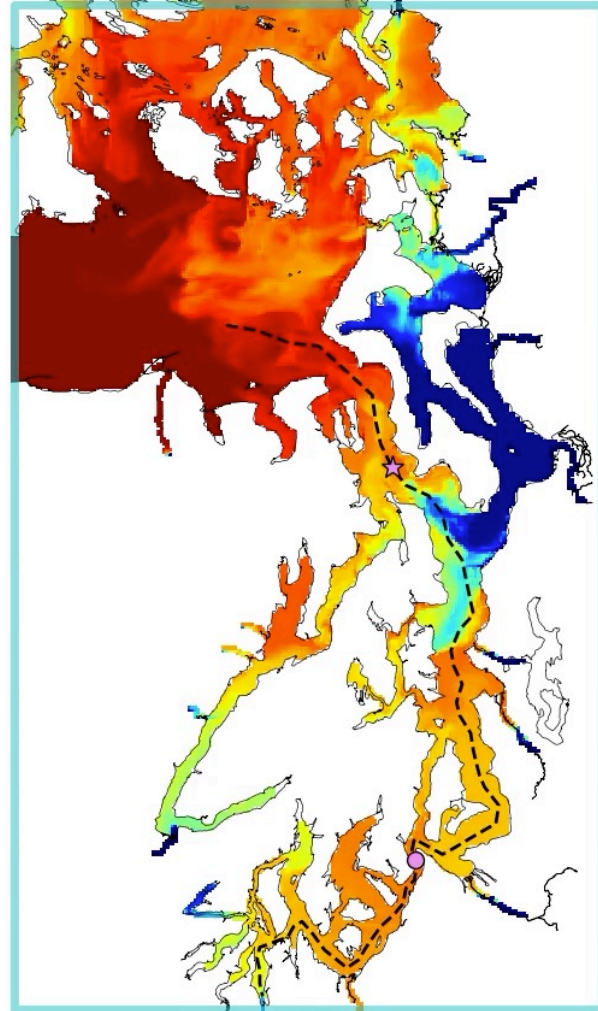
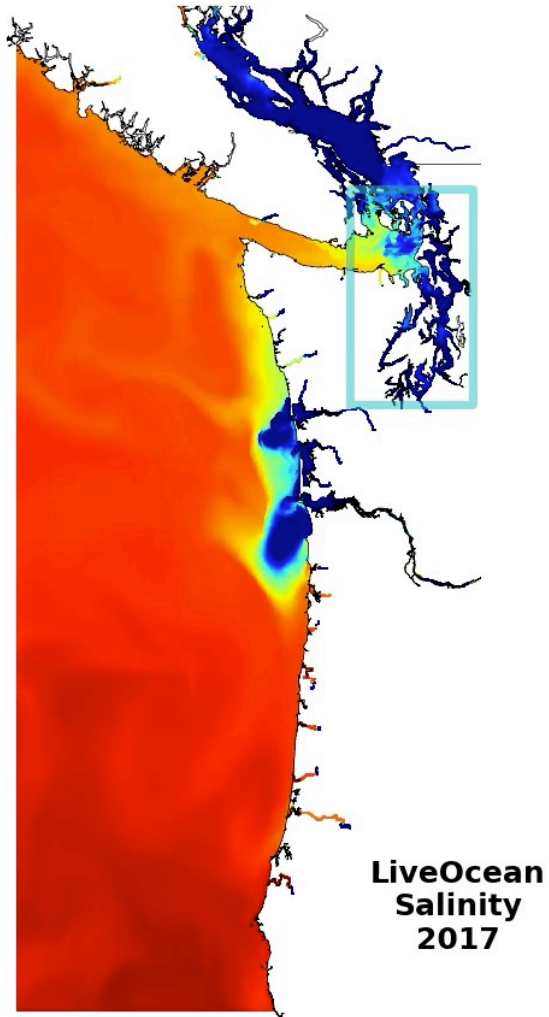


Professional touches,  
from  
*Annual Reviews*





Movies can be made from collections of .png's using ffmpeg



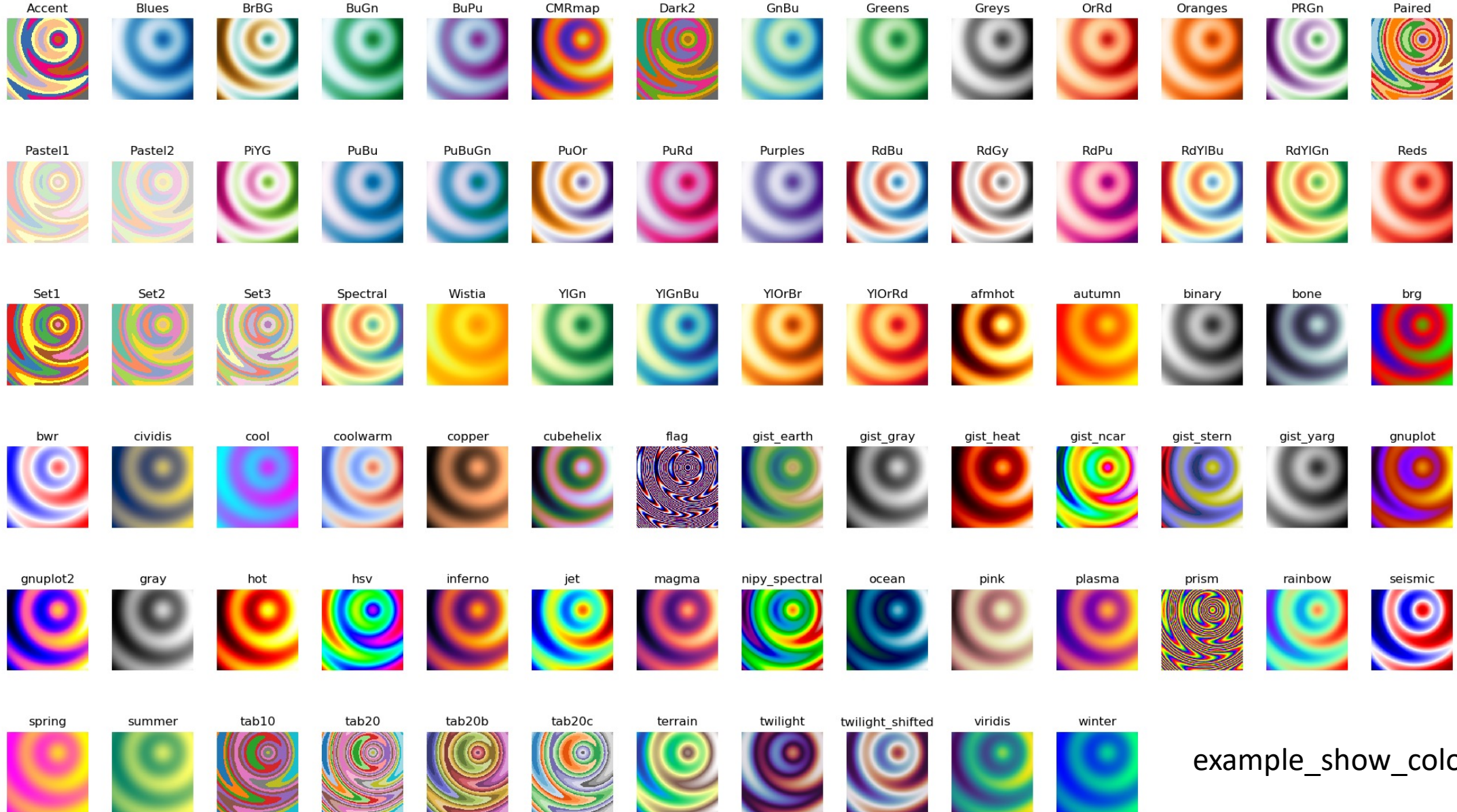
Instructions for getting ffmpeg (mac): <http://faculty.washington.edu/pmacc/LO/movies.html>

# Color names you can use

	black		k		dimgray		dimgray
	gray		grey		darkgray		darkgray
	silver		lightgray		lightgray		gainsboro
	whitesmoke		w		white		snow
	rosybrown		lightcoral		indianred		brown
	firebrick		maroon		darkred		r
	red		mistyrose		salmon		tomato
	darksalmon		coral		orangered		lightsalmon
	sienna		seashell		chocolate		saddlebrown
	sandybrown		peachpuff		peru		linen
	bisque		darkorange		burlywood		antiquewhite
	tan		navajowhite		blanchedalmond		papayawhip
	moccasin		orange		wheat		oldlace
	floralwhite		darkgoldenrod		goldenrod		cornsilk
	gold		lemonchiffon		khaki		palegoldenrod
	darkkhaki		ivory		beige		lightyellow
	lightgoldenrodyellow		olive		y		yellow
	olivedrab		yellowgreen		darkolivegreen		greenyellow
	chartreuse		lawngreen		honeydew		darkseagreen
	palegreen		lightgreen		forestgreen		limegreen
	darkgreen		g		green		lime
	seagreen		mediumseagreen		springgreen		mintcream
	mediumspringgreen		mediumaquamarine		aquamarine		turquoise
	lightseagreen		mediumturquoise		azure		lightcyan
	paleturquoise		darkslategray		darkslategray		teal
	darkcyan		c		aqua		cyan
	darkturquoise		cadetblue		powderblue		lightblue
	deepskyblue		skyblue		lightskyblue		steelblue
	aliceblue		dodgerblue		lightslategray		lightslategray
	slategray		slategray		lightsteelblue		cornflowerblue
	royalblue		ghostwhite		lavender		midnightblue
	navy		darkblue		mediumblue		b
	blue		slateblue		darkslateblue		mediumslateblue
	mediumpurple		rebeccapurple		blueviolet		indigo
	darkorchid		darkviolet		mediumorchid		thistle
	plum		violet		purple		darkmagenta
	m		fuchsia		magenta		orchid
	mediumvioletred		deeppink		hotpink		lavenderblush
	palevioletred		crimson		pink		lightpink

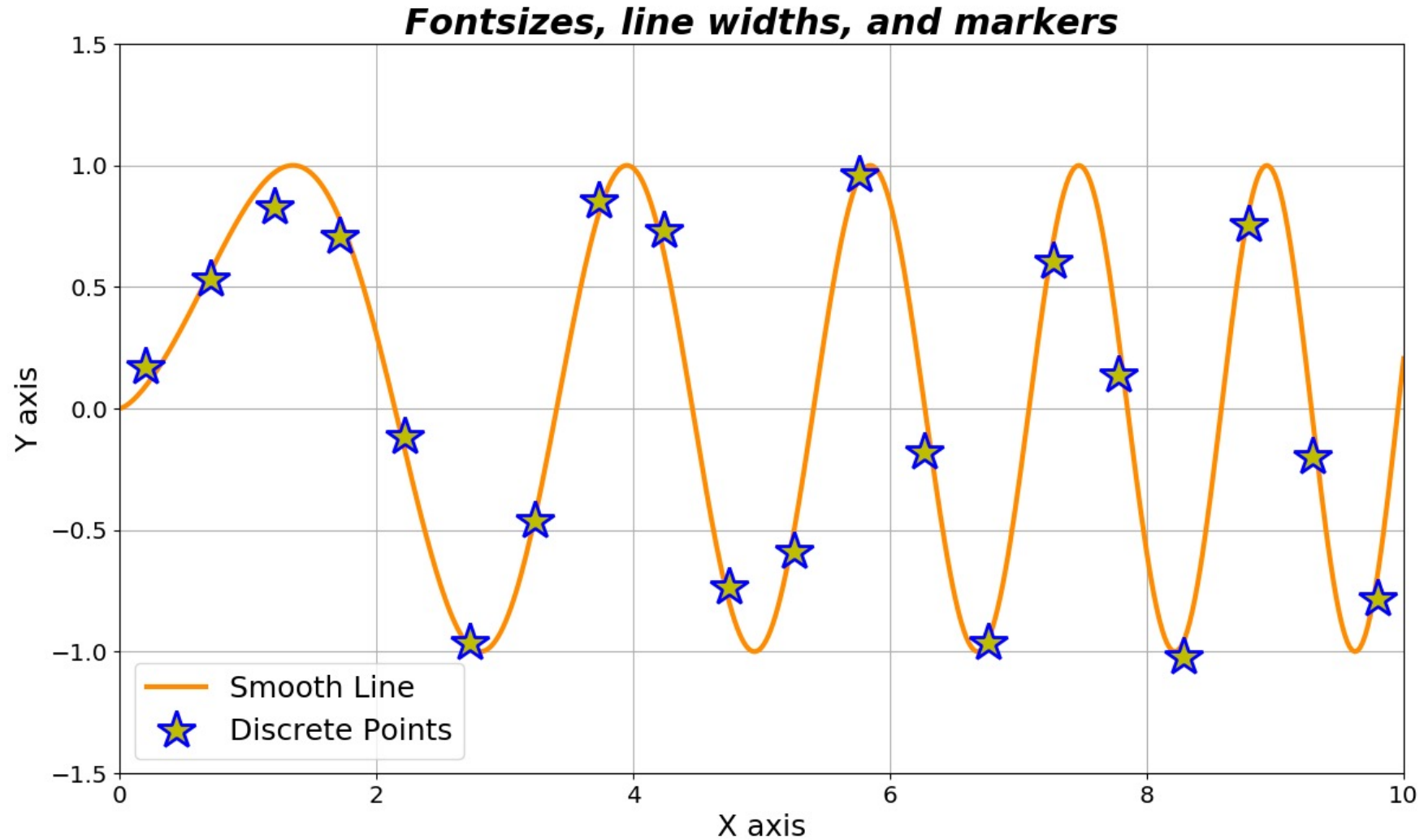


# Colormaps (also available as [cmap]\_r)



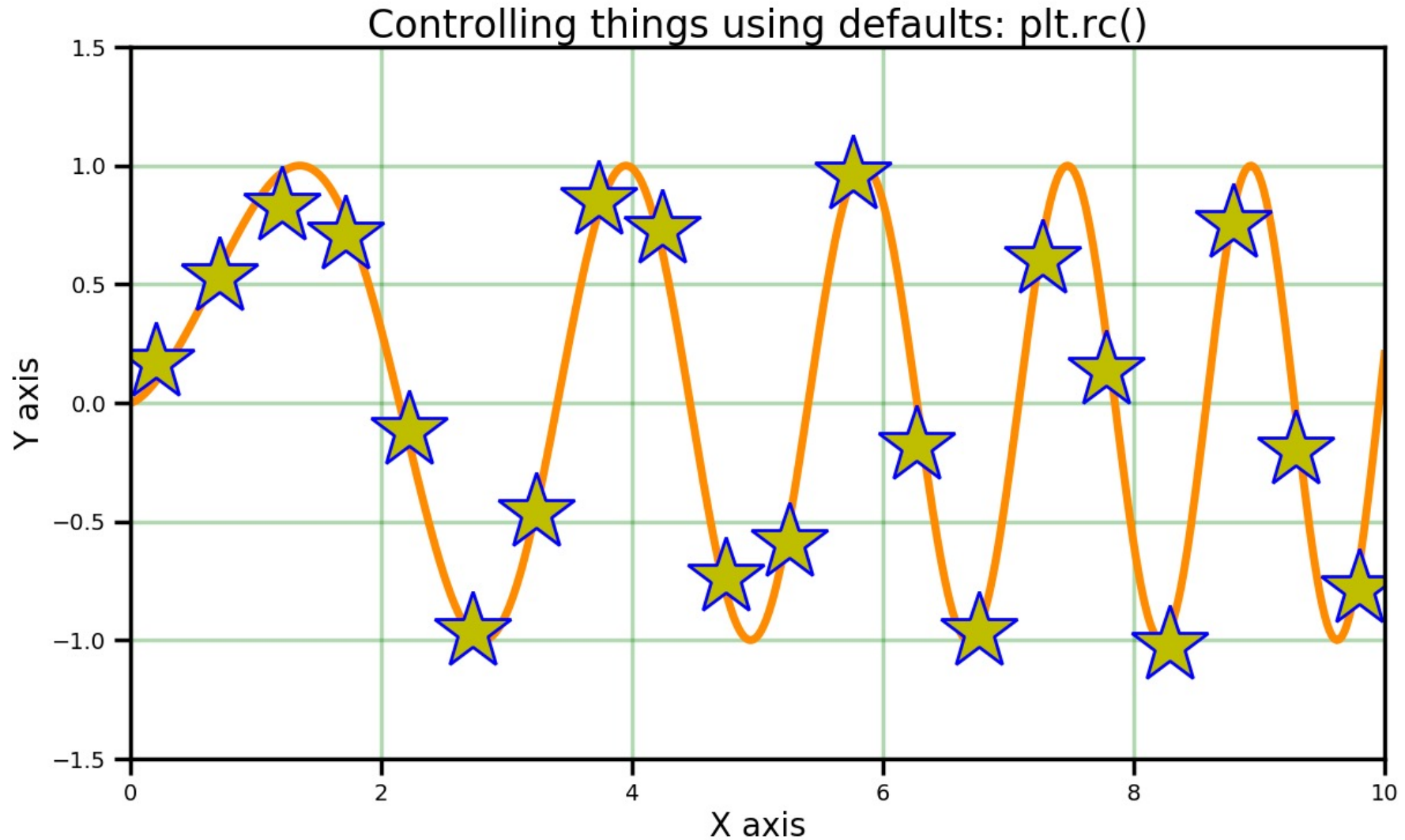
example\_show\_colormaps.py

# fontsize\_and\_linewidth.py





# fontsize\_and\_linewidth.py ...more

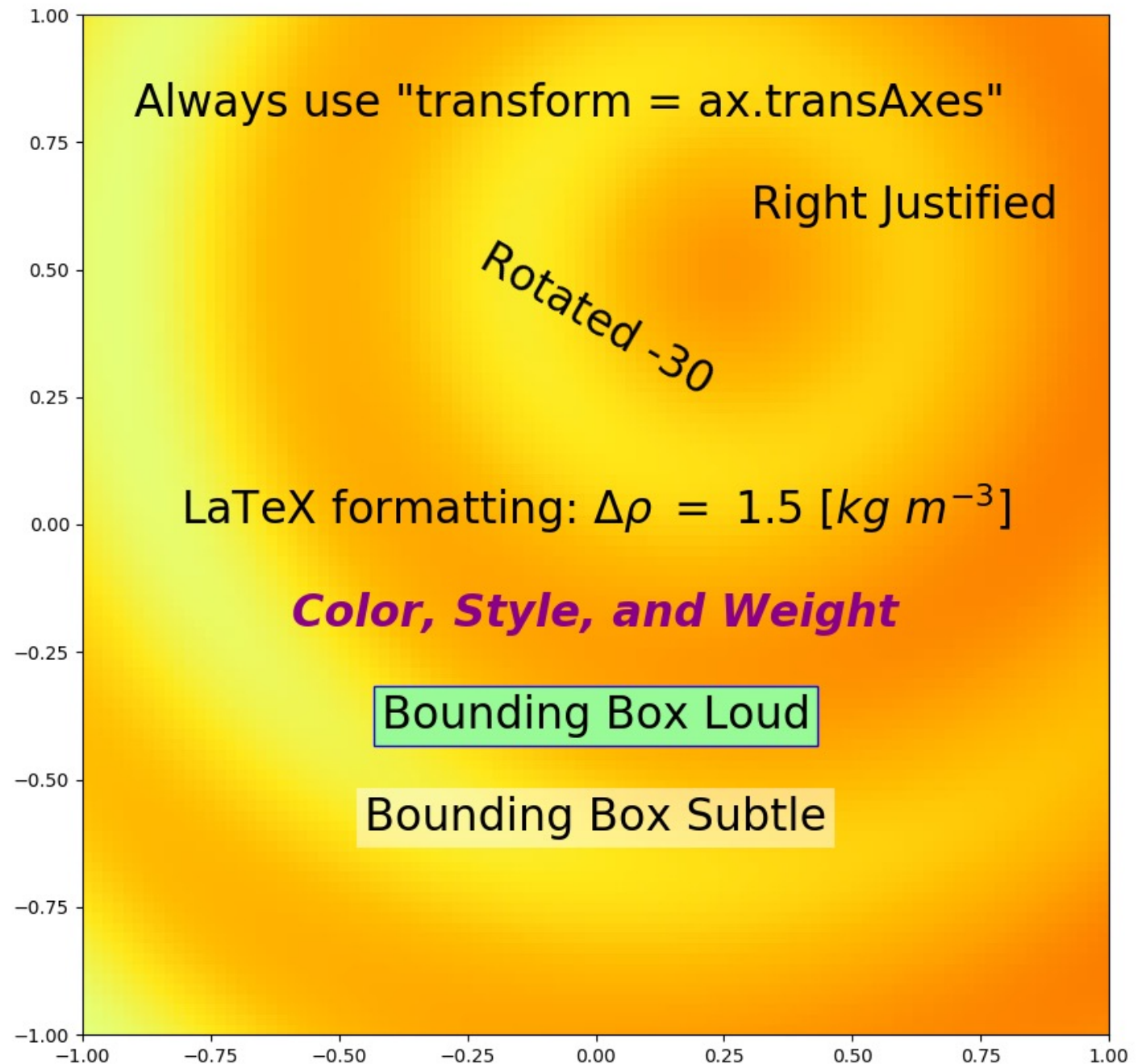


# more thoughts about using defaults

- One of the quickest ways to make all your text big enough to read is to use these few lines at the start and end of the plotting section of your code:

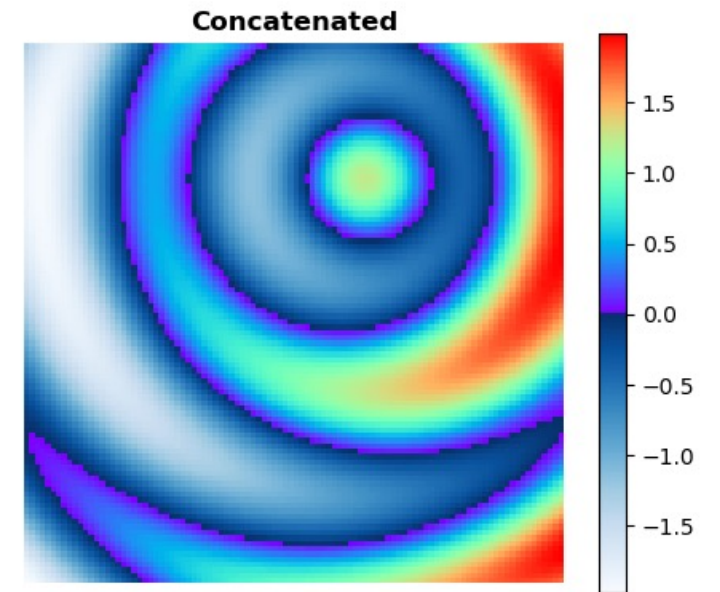
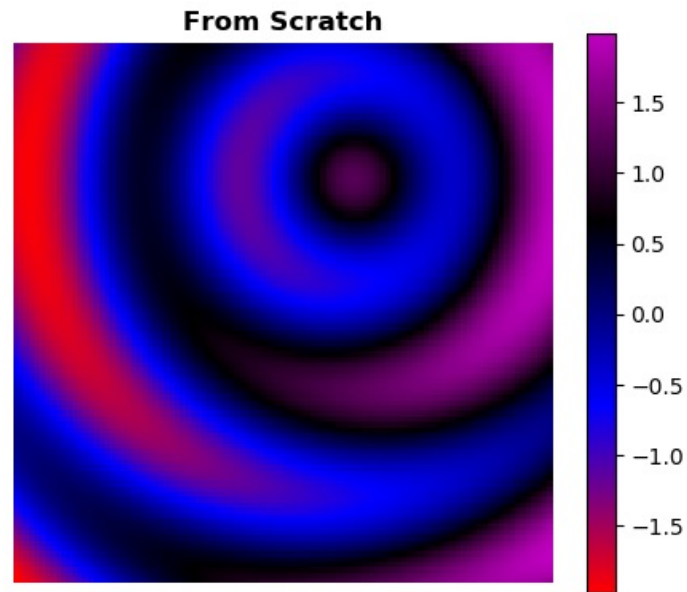
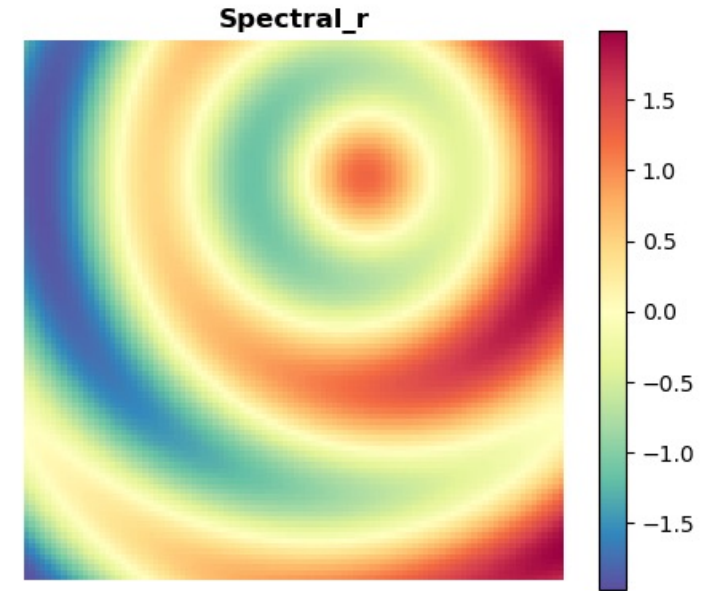
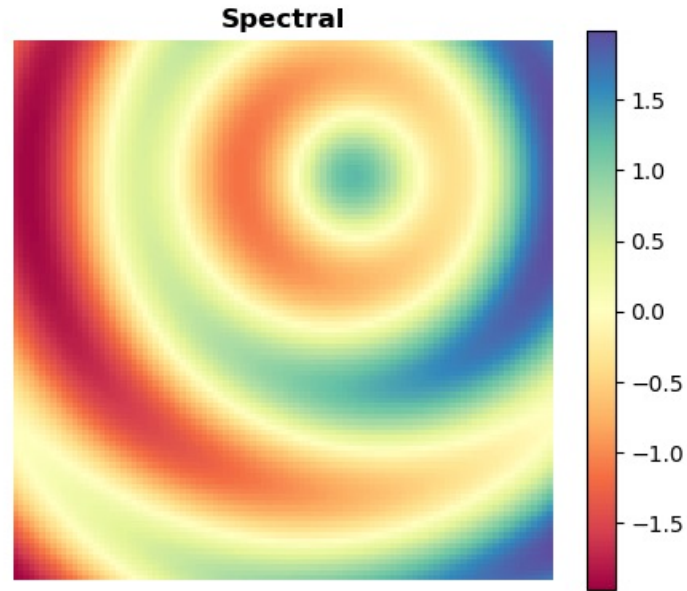
```
fs = 18 # set default fontsize
plt.rc('font', size=fs)
# -- plotting code goes here --
plt.rcdefaults() # restore defaults
```

text\_control.py



colormaps.py

and `ax.set_axis_off()`





# salt\_map.py: aspect ratio and inset colorbar

