Creating Great Slides, Plots & Talks

Based off graduate student, postdoc seminars given by
Aaron Lee, Chelsea Harris, & Adrian Liu; UCB Astro (2/2016, 3/2013)

Always keep in mind

- What are your 3-4 main take-away points?
- Maximize your signal to noise on each and every slide.
- Short-term memory can only hold 5-9 items at once.
- Make understanding the content of your talk as simple as possible, but not simpler.

Some talk-giving philosophy

- What is your narrative? Use your slides as a prop to support your oral story.
- This ain't no murder mystery: share your main results right away, then continually support them.
- Consider making your outline slide a "conclusion-lite" slide.
- People tend to listen rather than read. Full written sentences are optional.
- Repetition is a form of emphasis, but you should not just read your slides.
- *Effective redundancy*: Your slides and speech should reinforce each other.

Fonts

- Simple **thick fonts**, *please*
- Consider dyslexic-friendly fonts like OpenDyslexic or LexiaReadable. Else provide line and paragraph spacing.
- Color changes provide emphasis, but don't rely on only color (underline or change the font size too).
- Use font sizes > 20 pt. Be wary of auto-font size adjustments.
- STOP YELLING AT ME!

Equations and Numbers

- *Know your audience:* No need to reproduce basic equations.
- Equations show trends and OOM well.
- Use to highlight what is novel about your work.
- *LaTeXIT*: Create beautiful vector-graphic LaTeX equations with ease!
- If borrowing other papers' equations: LaTeXIT yourself in the way that works best for your talk.

Slide backgrounds

- The background should contrast with your text colors.
- Consider dark backgrounds with gradual smooth shapes.
- Do not use pretty astro images as a background, no matter how doctored they are.

Animations

- Should guide, reveal, and instruct, not distract.
- *Guide* the viewers' eyes to specific slide content.
- *Reveal* the content of the slide gradually.
- *Instruct* by showing simple animations that convey the basic idea.

Slide & Plot Colors

- Your slides will always look worse on a projector.
- Avoid mixing reds and greens.
- Test your slides at color-blindness.com or by desaturating your images.

Plots

- Tailor your own plots and others' plots for your presentation. e.g., Try to remove material you never intend to reference.
- *Seaborn*: Awesome matplotlib module that helps you make amazing looking plots for talks and papers.
- People screen grab others' plots: Make the key plot in your paper look great on slides too.
- Be **bold**, especially for talks: thick bold tick marks, labels, and lines.

Aesthetics & Content Layout

- Don't feel bound to the PowerPoint templates. Create your own backgrounds and slide layouts.
- With a lot of content, create vertical and horizontal lines by aligning shapes, text, and headings
- *Rule of thirds*: Divide slide into thirds horizontally and vertically. Place important elements at intersections and along these dividing lines.