How (Not) to Give a Talk

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Be organized

• Make sure your talk flows logically
• Start with an outline (or conclusions!), then introduction, method, results, conclusions
• Remind audience visually and/or orally when you move on to the next phase
• Give each slide a punchline in title or footer
• Leave conclusions slide up during questions
Use phrases instead of complete sentences

• The nice thing about using phrases is that people can read them much faster and then concentrate on what you're saying rather than trying to process both audio and visual information at the same time.
• If you just read out the full sentences you wrote on the slide word for word that makes it easy to process the information, but it gets boring quickly.
• Seriously, phrases help
Keep text in a readable size font
(preferably Sans-Serif, not yellow, and with a simple slide background)

- It's critical that everyone, especially those in the back of the room, can read what you put on the board
- Small fonts are pointless since they would only be needed if your slide has too much text anyhow
- This is 12pt, I always use at least 20pt except for references down to 16pt
- If you can read this, you don't need glasses
- All work and no play makes Jack a dull cosmologist
- All work and no play makes Jack a dull astronomer
- All work and no play makes Jack a dull physicist
- All work and no play makes Jack a dull astrophysicist
- All work and no play makes Jack a dull cosmetologist
- All work and no play makes Jack a dull observer
- All work and no play makes Jack a dull theorist
- All work and no play makes Jack a dull simulator
- All work and no play makes Jack a dull experimentalist
- All work and no play makes Jack a dull telescope operator
- All work and no play makes Jack a dull department chair
- All work and no play makes Jack a dull observatory director
- All work and no play makes Sir Martin a dull Astronomer Royal
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Leave slide onscreen long enough to be read

• Even if there is not a lot of text and figures, rushing through it helps nobody

figure by Kevin Schawinski (Yale)
Be sure to reference general research ideas and specific figures

(see handout on "Effective Oral Presentations" by JL Consulting, and the figure below)
Einstein equations: of the universe in the form of the scale factor. The derivation that follows comes from The main goal of cosmology has been to calculate the time evolution of these models and we briefly investigate how including radiation would alter the parameter $\Lambda$ unviersep with no dark energyp. The next two models also have no dark energyp and the behaviour suggested by each modelp. These models di.

Time Dependence of Scale Factor, Hubble Parameter and Energy Density for Six Cosmological Models

Jean Pr Walker

G 136 Frelinghuysen Rd.

Use 1 (or at most 2 related) figure(s) per slide

2 Methodology

We created a numerical solver which uses Runge-Kutta method, with a timestep of $10^{-3}$, and plot the time dependence of $\rho(t)$ and $\rho(t)$ for each modelp. The modelp describe the time dependence of the energy density and the Hubble constant, and the models are definitely consistent with the age of globular clusters. CDM models could be consistent within statistical uncertaintyp. The components of the energy density in each modelp are

$$\rho_{\text{CDM}} = \rho_{\text{CDM}} \rho_{\text{CDM}}$$

$\rho_{\text{CDM}}$ continues to increase foreverp. This suggests that the universe is neither closed nor flat and matter dominatedp. The phantom energy model exhibits an extremely accelerated increase in scale factor (almost de Sitterp). If we chose a different value of the scale factor for today, then we would essentially find models plotting the same trendsp. In order to have some absolute, or scaled measurement of the scale factor, we’d have to have distances for the same 2 objects in the past, and so, which we cannot do. Either this or we need an analog of the SN1 standard candles for distance (standard candles).

REFERENCES

Dodelson, S. 2003, Modern Cosmology, ed. J. Raymer (Elsevier)

This preprint was prepared with the AAS L LaTeX system v.2.2.
Make sure figures have readable lines and that axes are explained.
Deliver your message clearly

• Speak loudly without shouting
• Speak slowly and vary your pitch and rhythm
• Silence is golden! Use it instead of "um" or "uh". A second's pause feels like forever to the speaker but actually helps get the attention of the audience.
• Practice your talk, but don't let it sound memorized
Present yourself with confidence

• The speaker is in charge!
• Dress appropriately – avoid distractions
• Avoid pacing/rocking/dancing – move only during transitions
• Don't attack anything (or anyone) with the pointer
With technology, "trust but verify"

• Practice with a new projector by setting up early enough to trouble-shoot
• Use a body mike if offered unless there's feedback
• Use a remote for extra-smooth presentations
• Don’t overdo it with too much fancy Powerpoint
Summary

• Be organized
• Use phrases instead of complete sentences
• Keep text in a readable font size & color with simple background
• Leave slide onscreen long enough to be read
• Reference general research ideas and specific results/figures
• Use 1 (or at most 2 related) figure(s) per slide
• Make sure figures have readable lines and that axes are explained
• Deliver your message clearly
• Present yourself with confidence
• With technology, "trust but verify"