

# How to Give a Talk

or

A summary of the principles, practices, and pitfalls of presentations, including, but not limited to, the mitigation of confusion, clutter, jargon, and excessively verbose titles.

Teviet Creighton

# Outline

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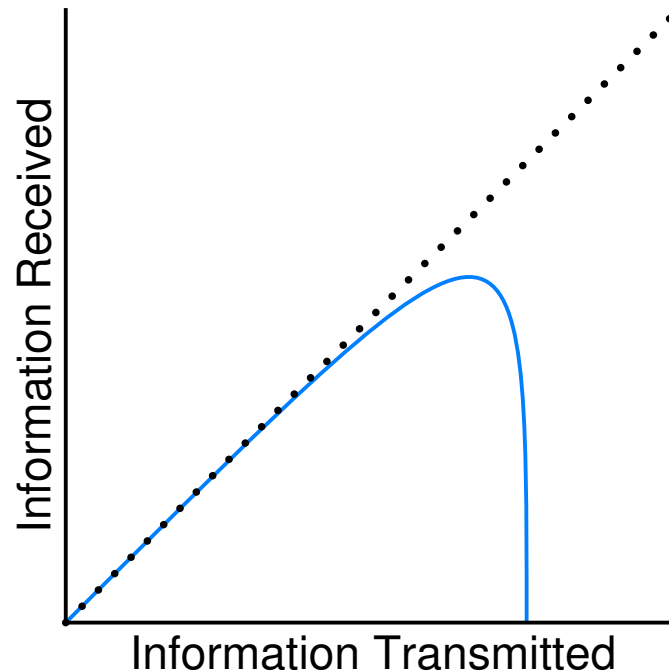
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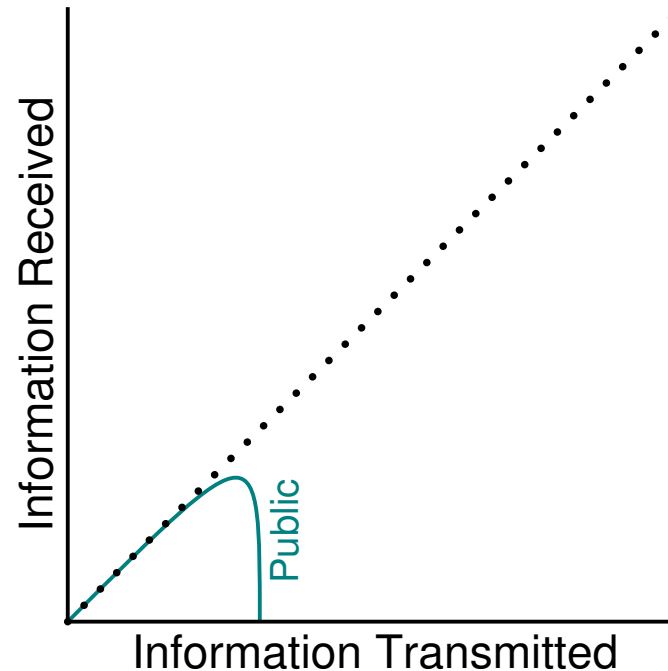
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- Prove that you've been hard at work. ✗
- Convey information to the audience. ✓



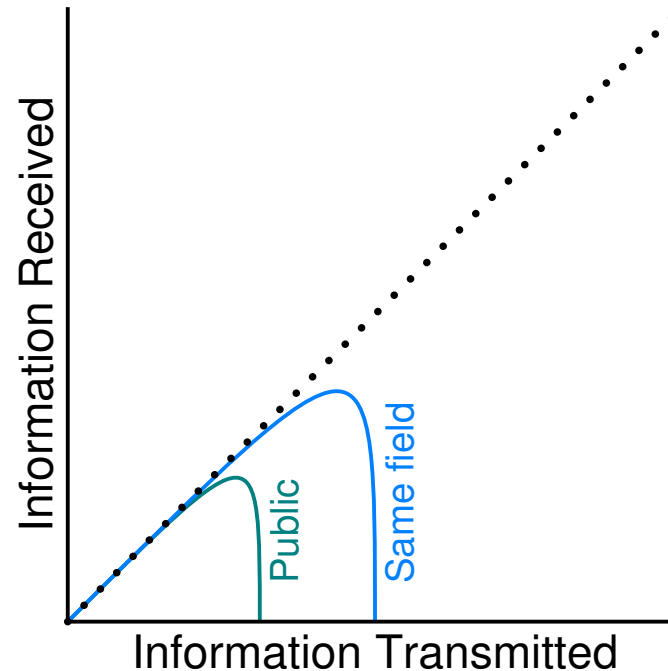
# Know your audience

- Provide information at an appropriate level.



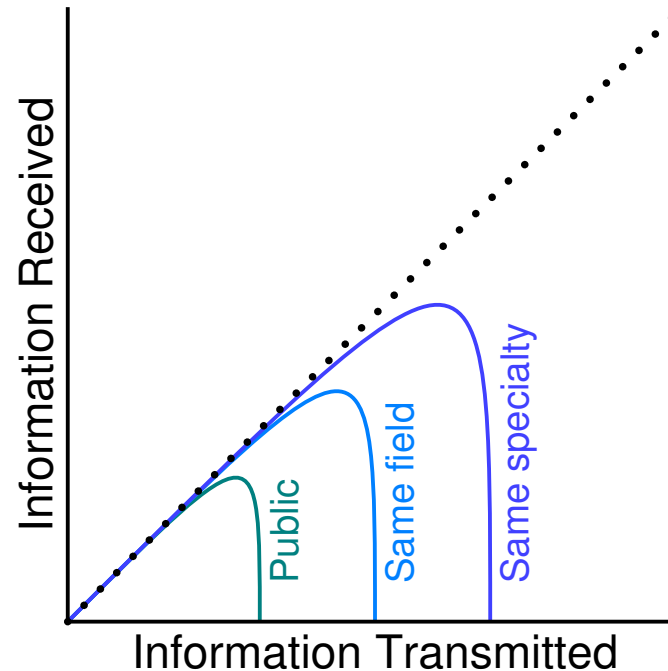
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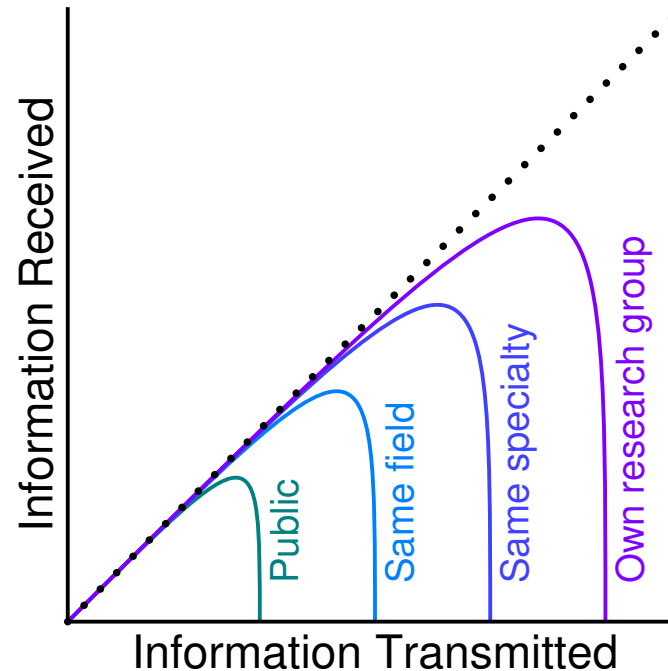
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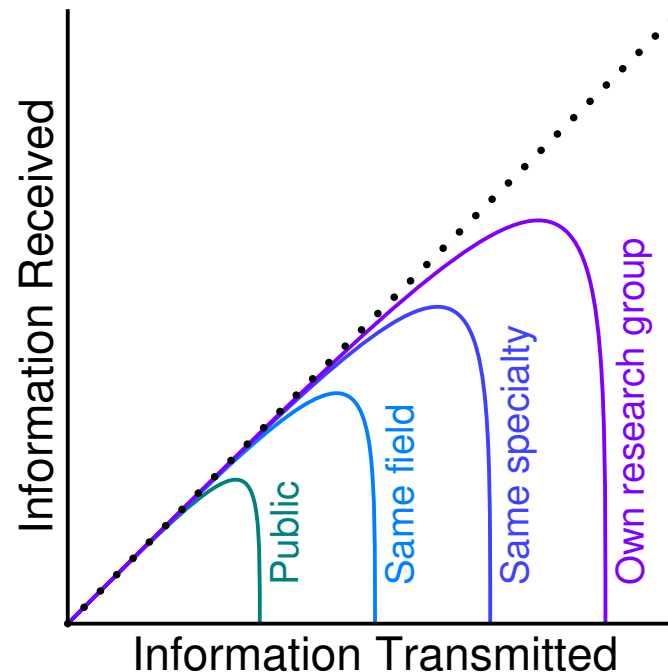
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# Know your audience

- Provide information at an appropriate level.
- In a mixed audience, provide something for everyone.



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- Have  $\sim 1-3$  points per slide.
- Spend  $\sim 1-3$  minutes per slide.

# Use slides appropriately

Slides should contain brief, bulleted information to emphasize the main points of your talk. Don't use long narrative paragraphs with complete sentences, that's what your oral presentation is for! The slides are not a substitute for your own presentation notes: put those on a presenter's screen (or index cards) if needed. You shouldn't just read everything on the slide verbatim. That's really boring and makes for cluttered hard-to-follow slides.

(Although nowadays presentation slides are sometimes used as a substitute for conference proceedings or published reports; these tend to be much denser as they have to contain all the relevant information. But that's a different thing; most of your talks won't be like that!)

# Use slides appropriately (2)

- Include only information relevant to your message.

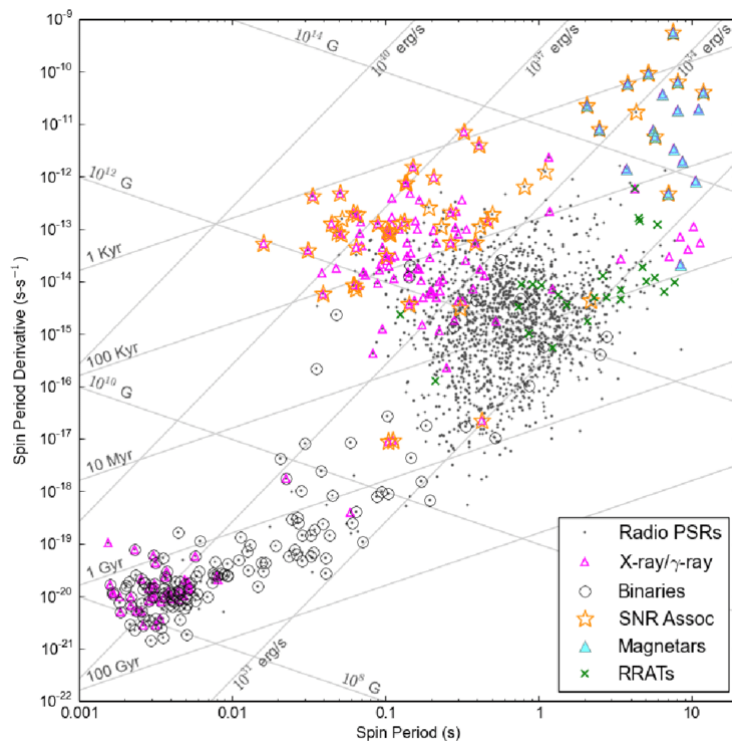
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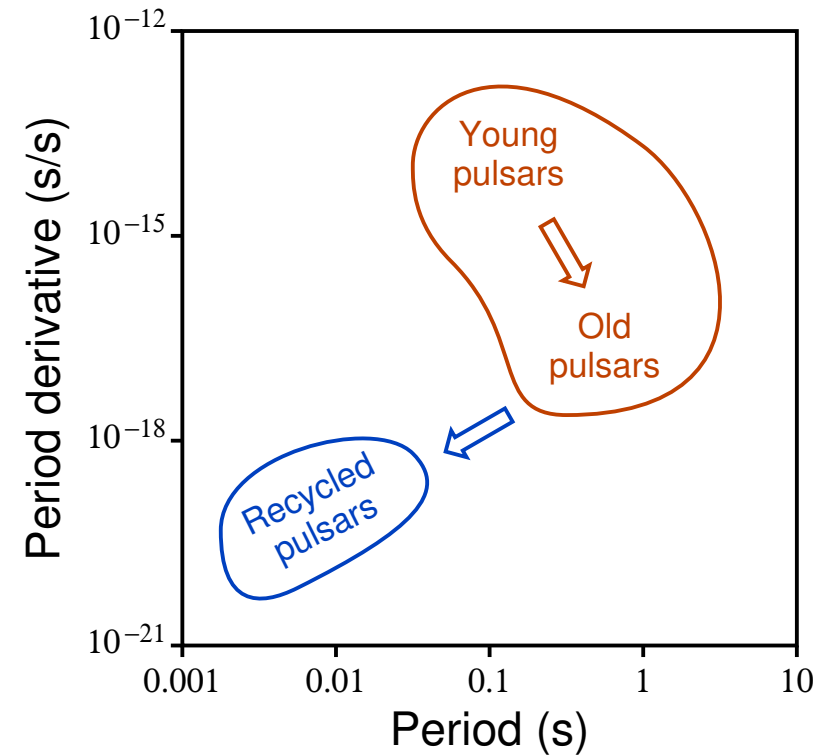
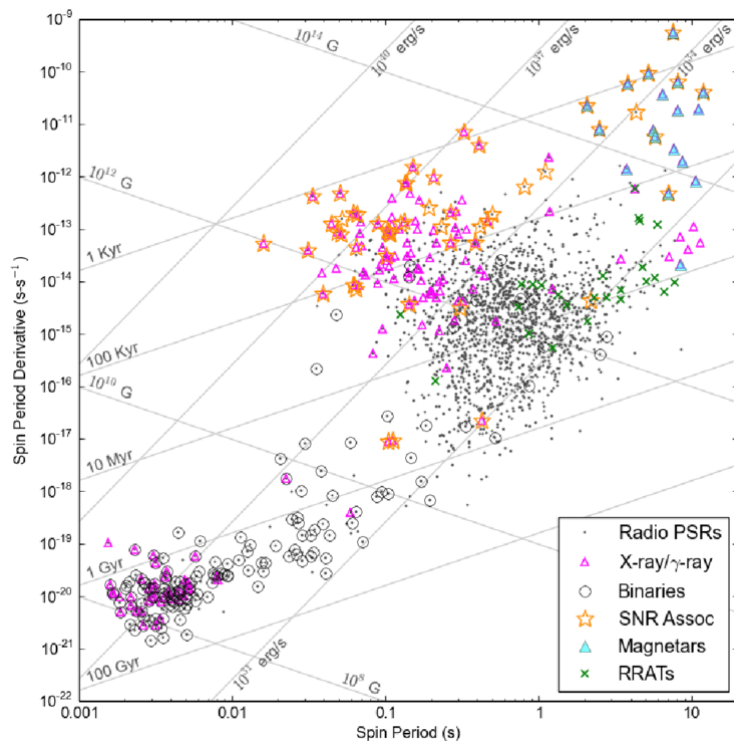
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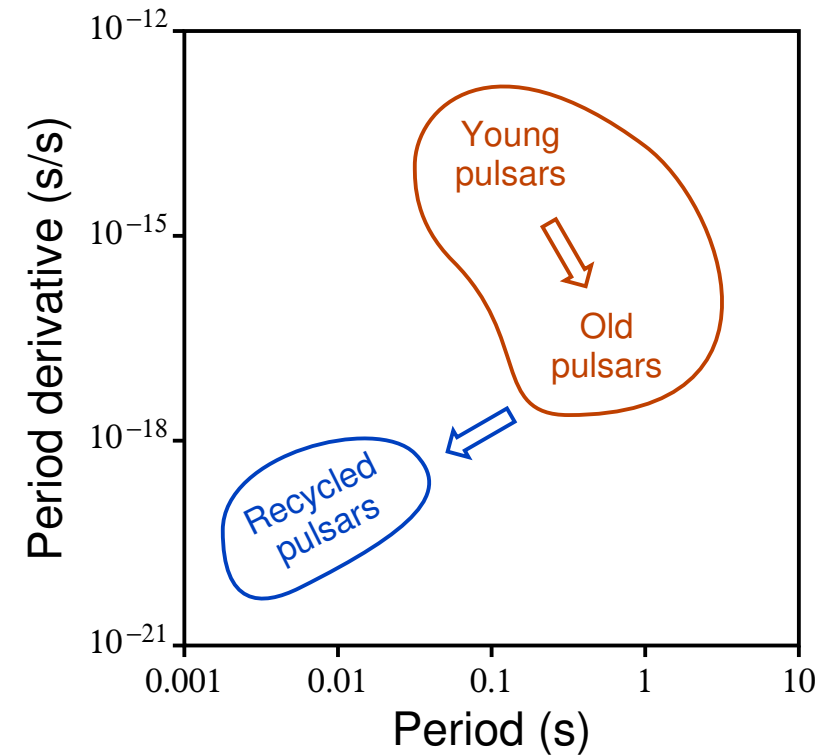
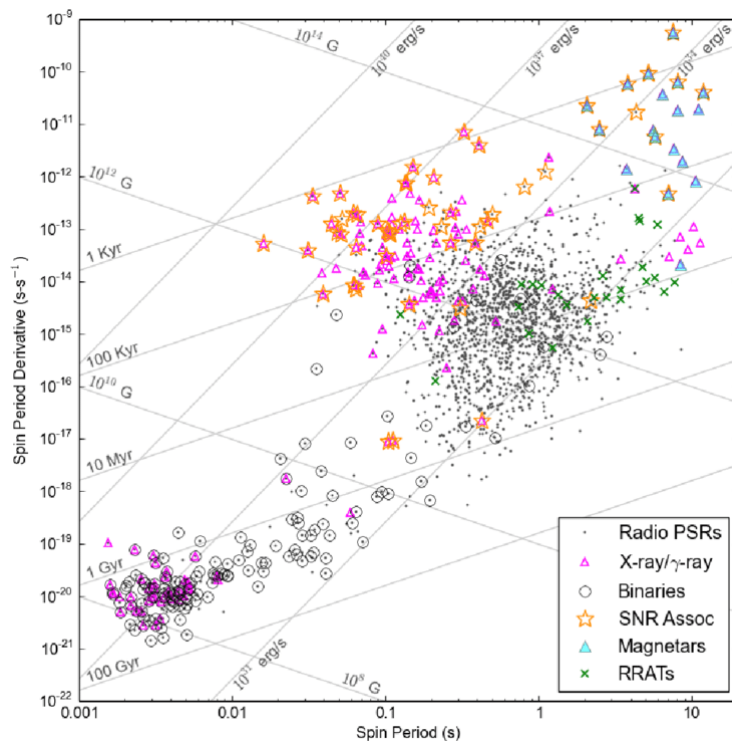
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- Be ready to answer questions about anything on slide.

# Pictures > Words > Equations

E.g. The rocket equation:

$$\Delta v = \frac{F}{|\dot{m}|} \ln \left( \frac{m_p + m_f}{m_p} \right)$$

- Okay for a class lecture on astrodynamics.

# Pictures > Words > Equations

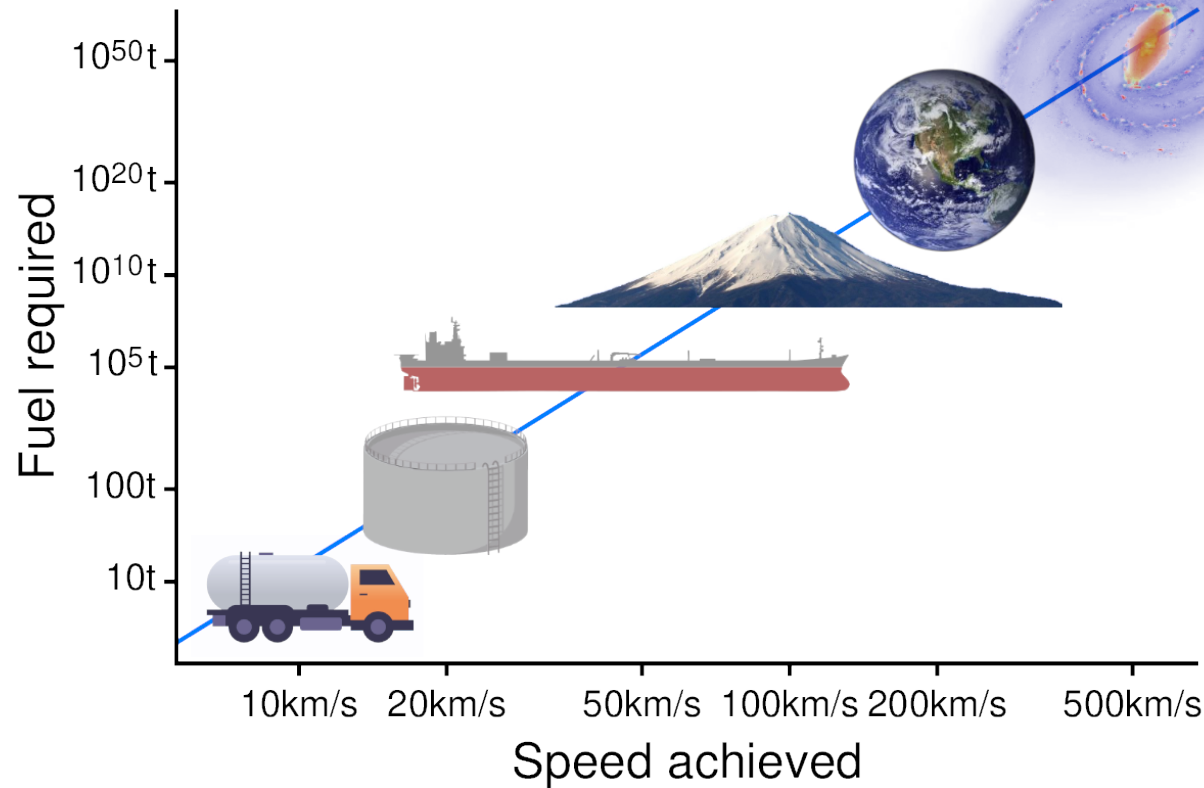
E.g. The rocket equation:

$$\text{Maneuver speed} = \text{exhaust speed} \times \log\left(\frac{\text{fuel}}{\text{payload}}\right)$$

- Good for a talk to physicists.

# Pictures > Words > Equations

E.g. The rocket equation:



- Better for a public talk.

# Be prepared!

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11-11-11





# Be prepared!

- Your talk is a talk.
- Your visual aids are aids.
- You should be able to deliver your talk *a cappella*.

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# Credit where credit is due

## Acknowledgements

- Thanks to Kip Thorne and Richard Price.

## Credits

- $P-\dot{P}$  diagram generated by Mayuresh Surnis using script `ppdot_plane_plot.py` in PRESTO  
([www.cv.nrao.edu/~sransom/presto](http://www.cv.nrao.edu/~sransom/presto))