

Astronomy 596/496 APA
Lecture 8
Oct. 13, 2016

Today's Agenda

- ★ Scientific Presentations
- ★ Colloquium Preview

Scientific Presentations

Scientific Presentations

Q: why are talks important? how important are they?

Q: What are your goals when giving a talk?

Q: How do you know if you have succeeded?

Q: What are different types of scientific talks?

Q: how are they similar? different?

Q: What are ingredients of a good talk? pitfalls?

Tips for Talks

Gammie's Law: have something to say!

Know your audience! Think from their perspective!

- respect your audience
- keep to time
- practice, practice, practice, preferably in front of a human
- order of magnitude calculations!

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Note: Not everyone agrees on what makes a good talk!

Become a Student and Practitioner of Talks

- think about the talks you hear
- bonus Jedi exercise: during bad talk, think of how to make it a good talk

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- take every opportunity to give talks
 - get feedback on your talks

Talks are Not All the Same

as a student, postdoc, and faculty

there are many kinds of talks you will hear and give

Q: examples specific to students, postdocs, faculty?

Q: examples common to students, postdocs, and faculty?

Types of Talks

Students

- class presentation
- prelim
- defense
- TA leading discussion section

Postdocs

- job talk

Faculty

- teaching

Everyone

- journal club
- seminar
- colloquium
- conference talks: contributed, invited
- talks for general public

Lesson: a huge range!

Q: how are these different? What's the goal? Who's the audience?

Q: what do these differences imply for you as you prepare?

Know your audience! Know your goal!

Audience: Questions to frame your thinking

Who is your typical audience member—theorist, observer, astro, physics, geo, students, faculty, in your field, out of field?

How mixed is the audience?

What background material should you provide? not provide?

Goals

- identify the 1–3 key takehome points
structure the talk to highlight these
- make clear why these points are interesting/important
- show confidence and enthusiasm (fake it if need be!)
- try hard to not say wrong things – less is more

Q: What makes a good slide? a bad slide?

Q: What makes a good plot? a bad plot?

Q: What is a good number of equations?

Slides, Plots, Equations

- Everyone should understand every mark on your slides
- less is more!
info emitted is irrelevant
info absorbed is what counts
- equations: use depends on context
clarity vs precision
can simply, say things like “+ loss terms”

Random Tips

- ★ If people in the room work on topics you mention, say so!
include abbreviated cites on slides
for example: Vangioni+2016, Paris Group
style points for mentioning audience members by name
- ★ People like hearing things they already know
and are impressed if you say them well
- ★ Color exists! Use it! ...but not to excess

Answering Questions

Q: what's hard about answering questions?

Q: what are some pitfalls/mistakes people make?

Q: what if you have no idea what the answer is?

Q: strategies for answering questions?

Colloquium Preview

Next week, Oct. 18

- Natalia Storch, Caltech
- Aero-Resonant Migration: a new disk migration mechanism for small planets

Q: What does it mean for planets to migrate?

Q: Why do we think this is a thing in nature—what's the evidence?

Q: What are mechanisms to make planets migrate?

Q: Why might migration be different for small and large planets?

Q: What are possible observational tests for migration?