

# PHY 517 / AST 443: Observational Techniques in Astronomy

Lecture 7:

Final Presentations

# Final presentations

- **Monday, Dec 6**

- Format: series of talks, break with poster session and lightning talks by poster presenters
- Just like a real conference!
- For each talk / poster, you will fill out a grading rubric and assign a score (0-10). We will collect them, and pass to the presenter after anonymizing the feedback.
- *If there are too many talks, we will need some volunteers to present on Dec. 1*
- The SBU astronomy group will be invited to listen in

# Final presentations

- graduate students: make a poster + 1 minute “lightning talk”
- undergraduates: give a presentation; 10 minute talk + 3 minutes questions
- undergraduates who have already fulfilled the SPK requirement: can do presentation or poster  
(send me your transcript to show SPK has been fulfilled)

# Final presentations

- posters will also be asked to attend the poster session of the physics graduate lab (free food + talk to many people in the department), date TBD

# Final presentations

- graduate students: poster has to be on one of your labs
- undergraduates: if you do research in **observational astronomy**, you can present your research instead
- within your group, one of you has to present your Lab 4

# How to give a good talk

- Know your audience!
- Aim: *everyone* should get something out of your talk
  - Include enough background information
  - Avoid too much jargon
  - Avoid too many equations
  - Tell a coherent story

# How to give a good talk

- Slides: visual aids to your story
  - Assume ~1-2 minutes / slide
  - Don't put too much "stuff" on one slide
  - Include relevant **pictures / figures**
  - Prefer concise keywords to full sentences (let alone paragraphs)
  - Make everything legible (e.g., axis labels)
  - Use color and font style / size to highlight points, but **Don't overDO** IT
  - Don't use yellow, light green, low-contrast colors

# How to give a good talk

- Speaking:
  - Don't speak too fast
  - Prepare not just your slides, but also what you will say
  - ... but don't memorize your talk, **speak freely**
  - *Your tone and articulation play an important part in conveying your story*
  - Engage with your audience - make eye contact
  - Avoid too many “umm”s - better to pause
  - **Practice** your talk, more than once, with different people!



# How to give a good talk

- References, and avoiding plagiarism
  - Make sure to give proper credits
  - Every figure (that you did not make) needs to reference the author
  - Every research result needs to be properly cited with author / collaboration name + year; good to include journal, etc.
  - Visibly acknowledge your co-authors when presenting your own research, e.g. on title slide

# How to make a good poster

- *Many of the same guidelines as for talks*
- Avoid too much text!!!
- Clearly structure your poster
- Make sure figures and text are well legible
- Include your picture + e-mail address

# “Lightning talk” ?

- One slide, one minute - advertise your poster!

# Presentation structure

- Title slide:
  - Title: be descriptive! (I.e. NOT “AST443 Final Presentation”)
  - Speaker name, with affiliation
  - Co-authors
  - Venue, date
  - Good to include: affiliation logo, funding source logo (if applicable), pretty picture relevant to your talk

# Presentation structure

- Background / introduction
  - Present the big picture
  - Introduce the main concepts
  - Describe your target
  - Summarize previous work
  - Clearly state the question(s) your project addresses

# Presentation structure

- Data / observations
  - Equipment
  - Important information depends on project, e.g.
    - Date of observations (time-variable observations)
    - Filter (imaging)
    - Grating (spectroscopy)
    - ...

# Presentation structure

- Data analysis and measurements
  - “Basic” data reduction does not have to explained (but can be mentioned) - by now, everybody should know what a dark frame is
  - Describe analysis choices, e.g. lightcurve binning + estimates of uncertainties
  - Describe measurements clearly, e.g. transit depth

# Presentation structure

- Inferred physics and interpretation
  - E.g. ratio of planet/star size
  - Comparison to expectations / literature



# Presentation structure

- Conclusion
  - Summarize the main points that you want your audience to take away
  - Can include next steps, future work, etc.

# Practicalities

- You'll have to tell me your title ahead of time (for scheduling)
- Talks:
  - Send me your talk in [google slides](#) or [pdf](#) format.
- Posters:
  - [PHY515 templates and guidelines](#)
  - You will be able to sign up for poster-printing slots at the Physics Dept. a few days before the presentation
  - Lightning talk slides will be collected on google slides