


PHY 517 / AST 443: Observational Techniques in Astronomy

Final Presentations

Going to a conference

A stylized poster for the 'Cool Stars 16' workshop. The background is a light blue sky. In the foreground, there is a black silhouette of a city skyline, including the Space Needle on the left. A large, bright yellow sun with a red center is positioned in the lower right. Several smaller, solid-colored circles in red, purple, and yellow are scattered across the sky, representing stars or planets. The text 'COOL STARS 16' is at the top in large, bold, black letters. Below it, in smaller black letters, is '16TH CAMBRIDGE WORKSHOP ON COOL STARS, STELLAR SYSTEMS, AND THE SUN'. At the bottom right, the dates '29 AUG - 2 SEPT 2010' and the location 'SEATTLE, WASHINGTON' are written in bold, black letters. At the very bottom, the website 'HTTP://WWW.CONFCON.COM/COOLSTARS16' is listed in a smaller font.

COOL STARS 16

16TH CAMBRIDGE WORKSHOP ON COOL STARS,
STELLAR SYSTEMS, AND THE SUN

29 AUG - 2 SEPT 2010
SEATTLE, WASHINGTON

[HTTP://WWW.CONFCON.COM/COOLSTARS16](http://www.confcon.com/coolstars16)

1-5 JULY 2013
SESTO (BZ)
ITALY

SnowDARK 2013

A stylized graphic featuring a white silhouette of a skier in mid-jump, positioned above a white mountain peak. The background is a dark, cosmic scene filled with numerous yellow and white stars, and vibrant nebulae in shades of blue, purple, and pink. A bright blue light source is visible in the upper right corner, casting a glow.



**ASTRONOMY'S
NEXT-GENERATION
OBSERVATORY**

Thirty Meter Telescope Science Forum

Save the Date: The Thirty-Meter Telescope Observatory will host the inaugural "TMT Science Forum" on

July 22 and 23, 2013

at the

Waikoloa

Resort on the island of Hawaii.





The TMT is an international project to build and operate a 30-m telescope located on Mauna Kea, HI. The program will consist of talks and workshop discussions exploring science, first-light and future instruments, observatory operations, archiving and data products, key projects and cross-partnership collaborations, astronomy education and science, technology, engineering, and math (STEM) opportunities.

More information and the Forum program can be found at <http://conference.ipac.caltech.edu/tmts/>

If you are interested in attending the Forum, register at the conference website. As part of the NSF-TMT agreement, some travel funding will be available for U.S. community members (who are not at TMT institutions) to attend the forum. To request consideration for travel funding, send an email to TMT@nso.edu with your name, institutional affiliation, and areas of interest relevant to TMT.

ALIBRA
Arizona-Louisiana-Brazil
Intermediate-Resolution
Astrophysics

CALTECH
California Institute of
Technology

DSIT
Department of
Space and Terrestrial
Instruments

NACIL
National Astronomy
and Ionospheric
Center

NACJ
National Astronomy
and Ionospheric
Center

UC
University of
California

NSF
National Science Foundation

Instituto Avanzado de Cosmología - Carnegie Mellon University

Cosmology on the beach 2016

Essential Cosmology for the Next Generation

January 10th to 16th, 2016
Iberostar Turis/Quetzal
Playa del Carmen, Mexico
Information:
<https://www.google.com/scholar/cosmologyonthebeach2016/home>

INVITED LECTURES:
Raphael Flauger (CMU)
Karin Helmen (Cosmological Simulations)
Claudia Maraston (Galaxy Formation)
Vivi Perchat (Large Scale Structure)

INVITED PLENARY SPEAKERS:
Eric Linder
Marilena LoVerde
Rishabh Jain
Andrea Sandoval
Stefano Profumo
and more TBC.

SCIENTIFIC COMMITTEE
Mario Rodríguez (ININ, IAC)
Gustavo Niz (Universidad de Guanajuato, IAC)
Jorge Cervantes (ININ, IAC)

ORGANIZING COMMITTEE
Jorge Cervantes (ININ, IAC)
Rupert Croft (Carnegie Mellon University)
Molina D'Elia (Carnegie Mellon University)

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Goals for a conference attendance

- tell people about your awesome work !
- learn about the current hot topics in your field
- network

Conference format

- talks:
 - review / plenary talks
 - contributed talks (have to apply for these)
- posters:
 - displayed for the full duration; often dedicated poster session
 - often with “lightning talk” session
- social events (usually conference dinner)
- coffee breaks!!!

PHY517/AST443 Final presentations

- graduate students: make a poster + 1 minute “lightning talk”
- undergraduates: give a presentation; 12 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

- **Mon., Apr. 29 + Wed., May. 3** (last 2 days of class)
- For each presentation, you will fill out a grading rubric and assign a score (0-10). We will pass them to the presenter after anonymizing the feedback.
- The SBU astronomy group will be invited to listen in

Topics

- select one of your lab experiments
- within your group, one of you has to present a talk on Lab 3
- avoid (if possible) having two talks on the same lab within your group
- if you do research in **observational astronomy**, you can present your research instead of a Lab

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
 - Posters: good to include picture of yourself so that people can come find you

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.

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. *on the slide it is shown*
 - 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!

Practicalities

- You'll have to tell me your title ahead of time (for scheduling)
- Send me your talk in [google slides](#) or [pdf](#) format, well before the start of class