

# **PHY 517 / AST 443:**

# **Observational Techniques in Astronomy**

**Final Presentations**

# 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/COOLSTAR16](http://WWW.CONFCON.COM/COOLSTAR16)



The meeting will focus on three main topics:

- The matter distribution in clusters from different probes
- The cycle of baryons in clusters and their galaxy populations
- Cosmology and large-scale structure of the Universe.

#### Scientific Organizing Committee

C.Bough (Univ-Durham), M. Bortmann (Univ Heidelberg), J. Bartlett (Univ Paris Diderot), S. Borgani (INAF, Trieste), G. De Luca (INAF), M. Haynes (Cornell University), T. Kodama (NAOJ), S. Mies (Univ Paris Diderot), B. Mc Namara (Univ Waterloo), C. Norman (JHU), M. Postman (STScI), P. Rosati (ESO), A. Shapley (UCLA), P. Tozzi (INAF).

#### Local Organizing Committee

W. Cui, M. Girardi, M. Kiledar, S. Pianelles, V. Presotto, B. Sartoris, P. Tozzi.

Registrations close on 30th March 2013

[www.sexten-cfa.eu](http://www.sexten-cfa.eu) • [sesto13@oats.inaf.it](mailto:sesto13@oats.inaf.it)

# Going to a conference

## SnowDARK 2013



1-5 JULY 2013  
SESTO (BZ)  
ITALY



## 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/tmtsf>

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@noao.edu](mailto:TMT@noao.edu) with your name, institutional affiliation, and areas of interest relevant to TMT.



Instituto Avanzado de Cosmología - Carnegie Mellon University

## Cosmology on the beach 2016

Essential Cosmology for the Next Generation

January 10th to 16th, 2016  
Iberostar Tucan/Quetzal,  
Playa del Carmen, Mexico

Information:  
<https://sites.google.com/site/cosmologyonthebeach2016/home>

INVITED LECTURES:  
Raphael Flauger (CMB)  
Karin Heitmann (Cosmological Simulations)  
Claudia Maraston (Galaxy Formation)  
Will Percival (Large Scale Structure)

INVITED PLENARY SPEAKERS:  
Eric Linder  
Marilena LoVerde  
Bhuvnesh Jain  
Andres 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)  
Tiziana DiMatteo (Carnegie Mellon University)

## ADASS XXI

Astronomical Data Analysis Software and Systems

Paris Marriott Rive Gauche Conference Center

6–10 November 2011

#### Key Topics

GPUs in Astronomy  
Cloud Computing and Virtualization  
Statistical Data Analysis and Knowledge Discovery  
Planning, Scheduling, and Operating Observatories  
Solar Astronomy  
Virtual Observatory  
Long-Term Preservation of Astronomical Software

#### Program Organising Committee

Carlos Gabriel (ESO, Spain, Chair)

Pascal Baeten (Co-chair)

Jean Aboussoud

David Barnes (CAS, Australia)

Daniel Bonilla (IN2P3, France)

Daniel Egret (Observatoire de Paris, France)

Tony Krueger (STScI, USA)

Deborah Levine (IPAC, USA)

Jim Lewis (Cambridge, UK)

Nora Lorenz (IPAC, USA)

François Ochsenbein (IAU)

Michel Paillard (Strasbourg, France)

Way Pannier (NSF, USA)

Amrit Ranjan (NOAO, USA)

Betty Stebbins (IPAC, USA)

Takafumi Takada (NAOJ, Japan)

Christian Veillet (CfHT, USA)

Gérard Ziegler

http://www.adass.org

E-mail: loc.adass2011@obspm.fr



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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)

# 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

- **Wed., Nov. 30 + Mon., Dec. 5** (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 4
- avoid 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