

Jill's Oral Presentation Topics

A 515, Spring 2009

Prepare a 10 minute talk on one of the following topics.

References are meant to be suggested starting points for reading.

Suggestions for other topics are welcome, but please discuss your topic with us beforehand.

1. The pre-ionization IGM: 21cm forest, foregrounds, tomography

Furlanetto 2006 MNRAS 370 1867

The 21-cm forest

Furlanetto & Briggs 2004 New Astronomy Reviews 48, 1039

21cm tomography of the high-redshift universe with SKA

Wang et al. 2006 2006 ApJ 650 529

21 cm Tomography with Foregrounds

Bowman [astroph/0901.0569](#) and [0901.0570](#)

2. Hot Gaseous Halos, WIM of Nearby Disk Galaxies

Q. Daniel Wang [Review astro-ph/0611038](#)

Reynolds et al. [astroph/0812.4304](#)

3. Local ISM

Frisch & Slavin

The Sun's Journey Through the Local Interstellar Medium:

The PaleoLISM and Paleoheliosphere

[astro-ph/0606743](#)

4. Interstellar UV absorption from O VI and other highly ionized species and the distribution of warm gas in the Milky Way

Savage and Sembach ARAA 1996 and references therein.

Savage et al. 2003 ApJS 146 125 and references therein

5. FUSE observations of the ISM in the LMC and SMC

Review to get started: [Lehner astroh/0812.2977](#)

6. Ultraluminous IRAS Galaxies

7. M16 HST imaging -- what did we learn beyond the pretty picture?

Hester et al. 1996 AJ 111,2349

Sankrit & Hester 2000 ApJ 535, 847.

Williams et al. 2001, MNRAS 327, 788

8. Cold dust in M82

Leeuw & Robson [astroph/0812.3682](#)

9. HCNO molecular abundances from starbursts

Martin et al. [astroph 0812.3688](#)

10. Submillimeter galaxies

Knudsen et al [astroph/0812.3409](#)

11. Helium Gunn-Peterson Absorption

Furlanetto [astroph/0812.3411](#)

12. Population III star-formation

Recent review is Trenti & Stiavelli [astroph/0901.07011](#). Follow references to how the process of Pop III star-formation differs from Pop I & II.

13. IR Cirrus with Spitzer/MIPS

Bot et al astroph/0901.0792

14. Fe K-alpha lines in AGN accretion disks
Miller ARAA 2007
15. Emission Line Diagnostics of Extragalactic Jets and ionization cones
A. S. Wilson review paper
16. Abundances in quasar broad line regions
Fred Hamann et al. (2002) ApJ,564,592 and references therein.
Hamann & Ferland (1999) ARAA, 37, 487
also astroph/0901.0974
17. Deuterium Abundances in the ISM
Lemoine + 1998 New Astronomy 4, 231
Sembach et al. 2004 ApJS 150, 387 and references therein
18. ALMA
Report on prospects for advances in ISM, and status
19. Molecules in Diffuse Clouds
Snow & McCall 2006 ARAA
20. CO emission studies of UV absorption sight lines
List, astroph/0901.1116
21. Case study of a Stromgren sphere
Watson et al. astroph/0901.1097
22. Molecular gas at high redshift
Solomon & VandenBout 2005 ARAA
23. AGN feedback and E galaxies
Ciotti et al astroph 0901.1089
24. Case Study: NLR of MKN 3
Collins et al. 0901.0972
25. Massive Star-formation
Zinecker & Yorke 2007 ARAA
26. Pulsar wind nebulae
Gaensler & Slane 2006 ARAA
27. Physics of Galactic Winds
Veilleux, Cecil & Bland-Hawthorn 2005 ARAA
28. Galactic Magnetic Fields
Recent Reviews:
J.L. Han astroph/0901.0040
R. Beck astroph/0812.4925
and other articles from Proc. IAU SYmp. 259, Strassmeier et al. (eds)