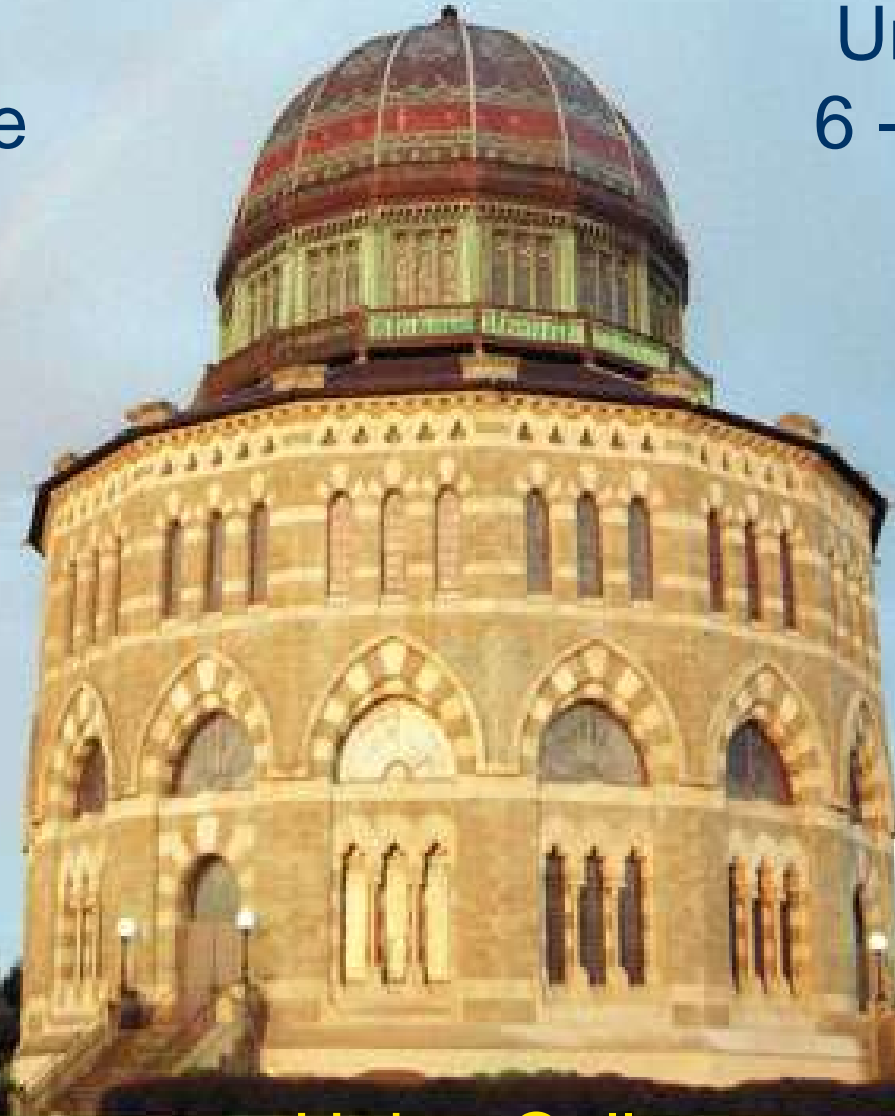


# ALFALFA Education & Outreach:

1st ALFALFA  
Undergraduate  
Workshop

Union College  
6 - 7 July 2005



Rebecca A. Koopmann, Union College

## ALFALFA White Paper 2003:

“In accordance with the agency requirements of both **NAIC** and the U.S. **NSF**-funded participants, education and outreach activities should be incorporated into E-ALFA activities.”

### Shared NAIC and E-ALFA responsibilities for education/outreach:

- Establishing educational opportunities for undergrads, grads, postdocs
- Developing educational materials for K-12, undergrads, grads
- Providing public information and outreach materials.



# First ALFALFA Undergraduate Workshop

(<http://www.union.edu/PUBLIC/PHYDEPT/koopmanr/ualfa.php>)

## Goals:

- To provide the undergraduates involved in summer research related to ALFALFA lectures covering the science background and technical details, to expose them to the nature of large legacy style surveys, and to give them the opportunity to exchange their experiences with their peers
- To provide the framework for exchanging materials (lecture PPT, handouts, exercises) among participants as well as others.

**Location: Union College, Schenectady, NY**



**It's at the center of it all!**



# Except...



# Workshop Participants

Arecibo	Jose Alonso (Director, Arecibo Vis. Center)
Colgate	Tom Balonek + 4 undergrads
Cornell	Martha, Riccardo + 2 undergrads + 2 grads
Lafayette	Lyle Hoffman + 2 undergrads
U. Puerto Rico	Carmen Pantoja + 1 undergrad
St. Lawrence	Aileen O'Donoghue
Union	Becky + > 3 undergrads
Wesleyan	John Salzer

# Workshop Agenda:

## First ALFALFA Undergraduate Workshop Agenda

**Wednesday July 6**

<b>Time</b>	<b>Leader</b>	<b>Title</b>
11:00am	Becky	Welcome, logistics, introductions
11:20am	Riccardo	Introduction to ALFALFA and the Arecibo Telescope
12:10pm		Lunch Break
1:00pm	Lyle	Fundamentals of Radio Astronomy
1:50pm		Break
2:00pm	Sabrina	Overview of the Arecibo Telescope
2:50pm		Break
3:00pm	Martha	Using ALFA for ALFALFA
3:50pm		Break
4:00pm	Brian & Sabrina	Introduction to CIMA and Remote Observing
4:50pm		Dinner
6:00pm		Setup for Remote Observation
6:30pm		Start Observing
8:30pm		Adjourn for day

# Workshop Agenda:

## Thursday 7 July

Time	Leader	Title
8:00am		Continental Breakfast
8:30am	Brian	Overview of the Local Universe
9:20am		Break
9:30am	Riccardo	Overview of Extragalactic HI
10:20am		Break
10:30am	John	Optical Counterparts of HI-rich Galaxies
11:20am		Break
11:30am	Martha	ALFALFA in 2005: Results and Plans
12:20am	Martha/Jose/Becky	Lunch and Panel Discussion Discussion will focus on how participants can participate in ALFALFA over the next year
1:00pm		Intro to ALFALFA processing .... plus processing of the data taken the night before. <i>Flexible, depending on interest and time</i>
3:00pm		Adjourn



# Proposal Web Link

## The ALFALFA Undergrad Proposals page

### Links for everybody

- The October 2004 [full ALFALFA proposal](#) and its [cover sheet](#).
- The [A2010 page](#) at NAIC. This is a good place to look for information on what has been observed already, and you'll also find useful things like the "Master List of Drift Declination Assignments".
- The skeletal [LaTeX file](#).
- AO [telescope schedules](#). (Look at the one for Jul. 2, 05)
- NAIC [proposal instructions](#). (We will not follow this 100%. Most notably, you won't submit the proposal and it won't be refereed!)
- Martha's [FORTRAN program driftlinks.f](#) to generate links to the SDSS, Skyview DSS1 and DSS2, and NED.

# Sample ALFALFA Science Link

## Known HI clouds, tidal remnants and other "intergalactic" objects

[John Hibbard's HI Rogues' Gallery](#)

[THINGS home page](#)

Name	Mean position	Vhelio	Reference
Leo Ring	10h48m, +12d30'	750 - 1030	<a href="#">Schneider 1989a, ApJ 343, 94</a> <a href="#">Schneider 1989b, AJ 97, 666</a> <a href="#">Schneider et al. 1986, AJ 91, 13</a> <a href="#">Schneider 1985, ApJ 288, 33</a> <a href="#">Schneider et al. 1983, ApJ 273, 1</a>
Leo Triplet	11h20m, +13h14'	830 - 950	Haynes et al. 1979, ApJ 229, 83
HI 1225+01			Chengalur et al. 1995, AJ
VirgoHI14			Oosterloo & van Gorkom 2005 Davies et al. 2004
VirgoHI21			Minchin et al. 2005 Bekki et al. 2005 (astro-ph) Vollmer et al. 2005 (astro-ph)
N4532-DDO137	12h34m, +06d24'	1800 - 2200	<a href="#">Hoffman et al. 1999</a> Hoffman et al. 1992, ApJ 388, L5.
M81 group	10h21m, +68d42'		Walter et al. 2005 Boyce et al. 2001
HIPASS J1712-64	17h12m, -64d	451- 464	<a href="#">Kilborn, et al. 2000, AJ 120, 1342</a>
The Smith cloud	SGR Dwf	98	<a href="#">Bland-Hawthorn, et al. 1998, MNRAS, 299,611</a>
M31 HVCs	Various	Various	<a href="#">Westmeier, et al. 2005, A&amp;A, 436,101</a>
NGC 3256 HI fragments	10h27m, -43d54m	~2800 km/s	<a href="#">English et al. 2003, AJ, 125, 1134</a>
NGC 2992	09h45m42.0s -14d19m35s	2311	<a href="#">Brinks, et. al. 2004 (astro-ph)</a>
NGC 2992	09h45m42.0s -14d19m35s	2311	<a href="#">Brinks, et. al. 2004 (astro-ph)</a>

# Outcomes

- Summer 2005 Undergraduates
- Dry run for future (larger?) (annual?) meetings
- Ideas to develop education and outreach materials to undergraduates

Examples from other surveys:

SDSS: <http://cas.sdss.org/dr3/en/>

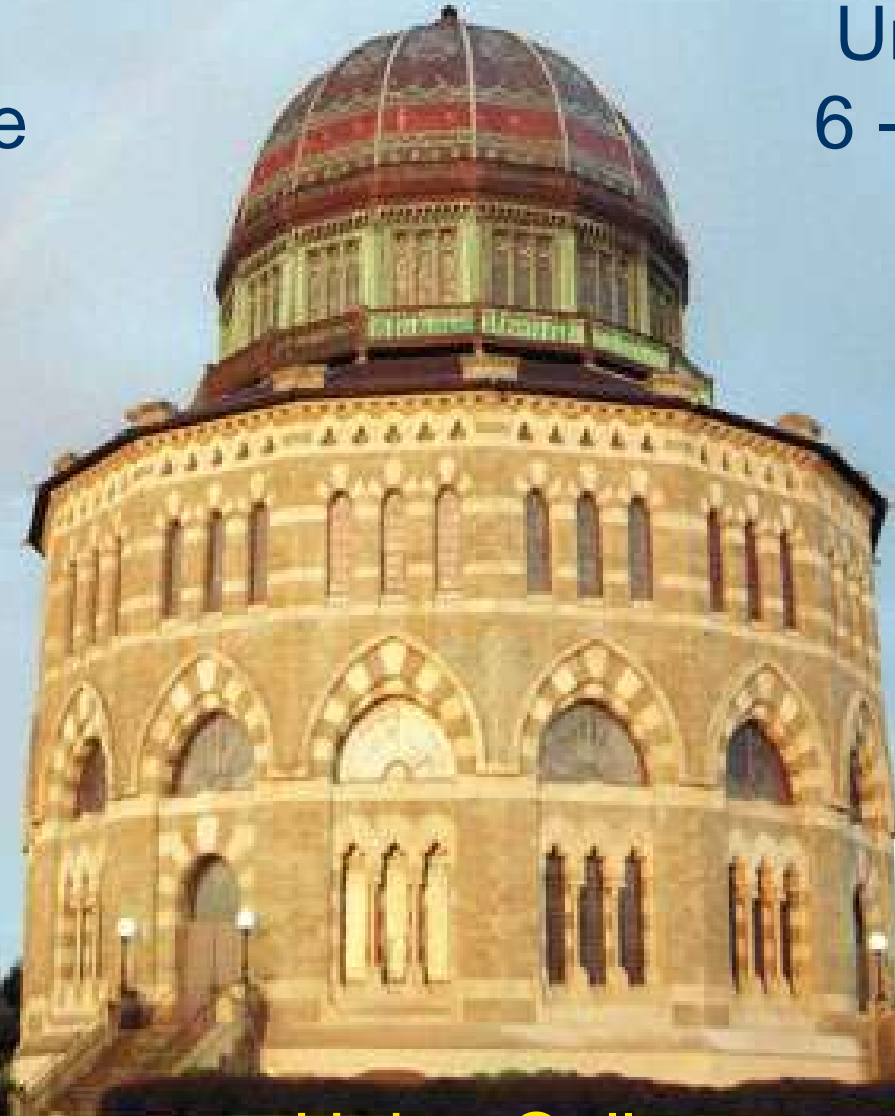
2MASS: <http://www.ipac.caltech.edu/2mass/outreach/>

WMAP: [http://map.gsfc.nasa.gov/m\\_uni.html](http://map.gsfc.nasa.gov/m_uni.html)

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