



Needed Areas of Sci/Tech/EPO Expertise:

1. Optical Identifications, SFR, Metallicities, Stellar Pop. Synthesis
2. HI high Res Imaging , Galaxy Kinematics
3. HI Absorption
4. Continuum data set: Variability, Transients
5. Galaxy Dynamics, N-body, Hydro Simulations
6. Large-scale Structure, Distances
7. High Velocity Clouds
8. "Taking the Telescope out of the Data":
Cleaning, Gridding, Calibration
9. Internal Communications, wiki tools
10. Data Base Management
11. Public Access Tools, NVO
12. EPO



Optical Identifications, Pop. Synthesis,
Broad-band Imaging, H α imaging
Optical Spectrophotometry
IR Imaging and Spectroscopy
UV Imaging, Re-analysis of
Extant Catalogs
→ SFR, Ages, Metallicities



Others interested in participating should contact Riccardo!

Optical follow-up:

Noah Broasch, Liese vanZee, Peppo Gavazzi,
Roberto Scaramella, Sabina Sabatini, Eduardo Hardy,
Jessica Rosenberg, Karen Masters,
Amelie Saintonge, Becky Koopmann, Jon Davies.

IR & UV: Susan Neff, Vassilis Charmandaris, Noah Brosch,
Ale Boselli, Riccardo Giovanelli



ALFALFA



HI high Res Imaging , Galaxy Kinematics
VLA Synthesis Mapping,
Arecibo follow-up,
H α Spectroscopy

Kristine Spekkens, Brian Kent, Sabrina Stierwalt,
Barbara Catinella, Liese vanZee,
Lyle Hoffman, David Kornreich, Emmanuel Momjian,
Josep M. Solanes, Martha Haynes & Riccardo Giovanelli

Others interested in participating should contact Riccardo!





HI Absorption

VLA, VLBA, optical spectroscopy

Emmanuel Momjian, Jeremy Darling & Brian Kent,
Barbara Catinella, Riccardo Giovanelli, Eduardo Hardy

Others interested in participating should contact Riccardo!



ALFALFA

Continuum data set: Variability, Transients



TBFarmed out to Cordes & C.?

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ALFALFA

Galaxy Dynamics, N-body, Hydro Simulations



David Kornreich, Fabio Governato, Jose Maria Solanes,
Diego Garcia L., Carlos Valotto

Others interested in participating should contact Riccardo!



ALFALFA

Large-scale Structure, Distances



Karen Masters, Martha Haynes, Riccardo Giovanelli,
Lyle Hoffman, Barbara Catinella

Others interested in participating should contact Riccardo!



ALFALFA

High Velocity Clouds



Riccardo Giovanelli, Lyle Hoffman, Martha Haynes,
Karen Masters, David Kornreich, Brian Kent

Others interested in participating should contact Riccardo!



ALFA



"Taking the Telescope out of the Data":
Cleaning, Gridding, Calibration

Lyle Hoffman, Brian Kent, Kristine Spekkens,
Emmanuel Momjian, Riccardo Giovanelli, Martha Haynes,
Sabrina Stierwalt, Barbara Catinella

Others interested in participating should contact Riccardo!



ALFA



Internal Communications, wiki tools

Marco Scodiggio, Martha Haynes, Brian Kent, Liese vanZee

Others interested in participating should contact Riccardo!





Data Base Management, Catalog X-correlation tools

Martha Haynes, Brian Kent, Kristine Spekkens, Liese vanZee,
Karen Masters, Jessica Rosenberg, Marco Scodeggio

Others interested in participating should contact Riccardo!



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Public Access Tools, NVO



Brian Kent, Martha Haynes, Karen Masters,
Kristine Spekkens, Riccardo Giovanelli

Others interested in participating should contact Riccardo!



ALFALFA



Education & Public Outreach

Becky Koopmann, Martha Haynes, David Kornreich, Jessica Rosenberg,
Sabrina Stierwalt, Noah Brosch, Karen Masters, Kristine Spekkens,
Lyle Hoffman

Others interested in participating should contact Riccardo!



Things to do for ALFALFA - IDL:



- Procedure to process continuum sources in tiled region
- Signal-finding algorithm in 3d tile cubes: peak-finding, matched filter
- Signal-finding algorithm in 2d drift maps: peak-finding
- Map deconvolution of beam characteristics: "take the telescope out of the map"
- Matched-filter photometric/kinematic procedure
- Recovery of flux for large solid angle features, e.g. HVCs
[Does anybody care about $\text{res}=5 \text{ km/s}$ Galactic HI?]
- Optimization of Destriping algorithms
- Procedures to overlay optical images on IDL/ATV HI maps, etc.
- Procedure to simultaneously fit all sources above given S/N in a tile cube
- Procedure to simultaneously fit all sources above given S/N in a drift map



Criteria for ALFALFA Spinoff Projects and Authorship (proposal)



- 0.0 A member of the ALFALFA collaboration who wishes to work on a specific project that relies on ALFALFA data should inform the OC. A description of the project scientific goals, instruments to be used and extent of use of ALFALFA data should be indicated, as well as a timetable for completion of the project. The plan of work will be posted on the ALFALFA website and other ALFALFA group members informed. Any member of the group interested in the project should feel free to contact the provisional project leader and propose to join, provided that a useful contribution can be made within the given timetable. The ultimate constitution of the team is however up to the project leader. Progress reports will be provided; project leadership will be linked to schedule. Posted projects, especially PhD thesis projects, will thus be "protected" within the collaboration, and external users of the data will be advised of the ongoing internal activities of the group.
- 0.1 In case of partial conflict of interests between different proposed projects, differences will be preferentially resolved amicably by team members. The OC can act as arbitrator if required.
- 0.2 In preparation of publication of ALFALFA and ALFALFA-related results by group members, an authorship list should be sent to the OC. The OC may thus advise or recommend modifications, for increased fairness.





- 0.3 One category of group members should be considered potential co-authors on all ALFALFA and ALFALFA-related results: that of individuals who :
- (a) acted for more than 100 hours of telescope time as "designated observers", within the last year
 - or
 - (b) processed and inspected more than 100 hours of telescope time worth of data, within the last year
 - or
 - (c) made major contributions to the HI data processing and management software.
- 0.4 In the publication of strictly ALFALFA HI data, results or catalogs, the authorship list will include those in 0.3. Inclusion of any others is up to the consideration of the team leader.
- 0.5 For a paper that uses publicly posted but scientifically unprocessed data, such as source lists, level 1 or level 2 data sets, the same considerations described above apply, if the initiators are ALFALFA collaboration members.
- 0.6 For a paper that uses published ALFALFA data, the usual criteria of professional courtesy apply.





0.7 For all publications, an effort should be made to protect the projects led by PhD students, and to emphasize their contributions. For the papers which are a substantive part of students' theses, "dilution" of credit should be minimized, i.e. members of the collaboration who didn't make a substantive contribution to that specific project should be encouraged to exclude themselves from authorship.

0.8 "Surprise" or "unexpected" discovery reports: "Hot" sources will occasionally be found during various stages of data inspection. The discoverer will have the option of first authorship after clearance with the OC, whether the finding is the result of blind luck or planned search. Discovery papers of "hot" sources found through automated signal identification algorithms will be led by authors selected with a "merit" criterion that involves level of commitment to observations, data processing, software development and other overall contributions to the survey.

[Signed and approved by the House of Argue, Argue & Dolittle,
Dewey, Chitham & Howe Attorneys at law]





SF, id: On same (moderate size) telescope:

- B-band imaging to 26 mag/sqarsec
- Ha to 5×10^{-16}
- R-band imaging to 25.2 m/a

- J, K imaging

Pop Synthesis: Spectroscopy?

Metallicity:

- Spectroscopy w/large scope
Palomar, 6m SAO. Gemini N, MMT





PhD Theses:

- Saintonge, Kent, Stierwalt, (Martin) at Cornell
- 1 student at Tel Aviv
- 1 student at UChile/NRAO
- 1 student at Barcelona/NRAO
- 1-2 at Indiana

Master's :

- 1-2 students at Wesleyan

Honors' Sr. Theses REU Students:

- The more the merrier! AAS posters

