

# Stephen Pardy

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<b>CONTACT</b>	Astronomy Department University of Wisconsin - Madison 475 N. Charter St., Madison, WI 53706	spardy@astro.wisc.edu <a href="http://www.astro.wisc.edu/~spardy/">www.astro.wisc.edu/~spardy/</a>
<b>EDUCATION</b>	<i>Ph.D.</i> , Astronomy – expected May 2018 <i>Masters</i> , Astronomy – December 2015 University of Wisconsin - Madison  <i>Bachelor of Arts</i> , Physics with an Astronomy Emphasis – May 2013 Macalester College - St. Paul, MN	
<b>AWARDS and GRANTS</b>	University of Wisconsin - Madison Student Research Travel Grants - \$600 (May 2016), \$1,500 (November 2016). Stebbins Award for significant research achievement.  Macalester College Dr. Sherman W. Schultz Memorial Award for academic excellence and outstanding research.  AAS 221 Chambliss Astronomy Achievement Student Award	
<b>RESEARCH EXPERIENCE</b>	<i>Research Assistant</i> University of Wisconsin - Madison	Fall 2013 - Current
	<i>ISIMA Summer Student</i> International Summer Institute for Modeling in Astrophysics - CITA, Toronto	Summer 2014
	<ul style="list-style-type: none"><li>Used restricted 3-Body models and Bayesian techniques to study the tidal stream of NGC 5466 and the dark matter potential of the Milky Way.</li></ul>	
	<i>REU Summer Student</i> National Radio Astronomy Observatory, Charlottesville, VA	Summer 2012
	<ul style="list-style-type: none"><li>Wrote IDL code to cluster CO emission data from M51.</li><li>Reduced data for VLA summer student observing project.</li></ul>	
	<i>Research Assistant</i> Physics and Astronomy Department, Macalester College, St. Paul, MN	Summer 2011
	<ul style="list-style-type: none"><li>Reduced GBT and VLA data for the Lyman Alpha Reference Sample.</li><li>Published paper with analysis from HI and Ly<math>\alpha</math> emission in LARS.</li></ul>	
<b>TEACHING EXPERIENCE</b>	<i>Teaching Assistant</i> Astronomy 103 The Evolving Universe: Stars, Galaxies, and Cosmology Astronomy 104 Our Exploration of the Solar System	University of Wisconsin - Madison Spring 2014  Fall 2016, Fall 2017
	<ul style="list-style-type: none"><li>Designed classroom material</li></ul>	

- Led six discussion sections per week

*Substitute Lecturer*

University of Wisconsin - Madison

Astronomy 200

Spring 2017

- Taught major-level introductory astronomy lectures
- Led classroom activity on analyzing GAIA proper motion data

*Astronomy Preceptor*

Macalester College, St. Paul, MN

Observational Astronomy

Fall 2012

- Teaching assistant and telescope operator for introductory astronomy class.

## PUBLICATIONS REFEREED PAPERS

1. Chen, B.; D'Onghia, E.; **Pardy, S.**; Pasquali, A.; et al., ApJ submitted – *Chemo-Dynamical Clustering applied to APOGEE data: Re-Discovering Globular Clusters*
2. **Pardy, S.A.**; Cannon, J.M.; Östlin, G.; Hayes, M.; Bergvall, N. 2016 AJ, 152, 178 – *Detection of HI in Emission in the Ly $\alpha$  Emitting Galaxy Haro 11*
3. **Pardy, S.A.**; D'Onghia, E.; Athanassoula, E.; Wilcots, E. M.; Sheth, K., 2016 ApJ, 827, 149 – *Tidally-Induced Offset Disks in Magellanic Spiral Galaxies*
4. Herenz, E.C.; Gruyters, P.; Orlitova, I.; Hayes, M., et al. 2016 A&A, 587, 78 – *The Lyman alpha reference sample. VII. Spatially resolved H $\alpha$  kinematics*
5. de Swardt, B.; Sheth, K.; Kim, T.; **Pardy, S.**, et al. 2015 ApJ, 808, 90– *The Odd Offset between the Galactic Disk and Its Bar in NGC 3906*
6. Guaita, L.; Melinder, J.; Hayes, M.; Östlin, G. et al., A&A, 576, A51– *The Lyman alpha reference sample: IV. Morphology at low and high redshift*
7. Östlin, G.; Hayes, M.; Duval, F.; Sandberg, A., et al. 2014 ApJ, 797, 11 – *The Lyman-alpha Reference Sample: I. Survey outline and first results for Markarian 259*
8. **Pardy, S.A.**; Cannon, J.M.; Östlin, G.; Hayes, M., et al. 2014 ApJ, 794, 101 – *The Lyman Alpha Reference Sample: III. Properties of the Neutral ISM from GBT and VLA Observations*
9. Bernstein-Cooper, E. Z., Cannon, J. M., Elson, E. C., Warren, S.R., et al. 2014, AJ, 148, 35 – *ALFALFA Discovery of the Nearby Gas-rich Dwarf Galaxy Leo P. V. Neutral Gas Dynamics and Kinematics*
10. Hayes, M., Östlin, G., Duval, F., Sandberg, A, et al. 2014, ApJ, 782, 6 – *The Lyman alpha Reference Sample: II. HST imaging results, integrated properties and trends*
11. Cannon, J. M., Bernstein-Cooper, E. Z., Cave, I. M., Harris, J. B., et al. 2012, AJ, 144, 82 – *The Neutral Gas Dynamics of the Nearby Magellanic Irregular Galaxy UGCA 105*

## CONFERENCE PUBLICATIONS AND CONTRIBUTED TALKS

The Role of Gas in Galaxy Dynamics, University of Malta

Feedback in the Magellanic Clouds Workshop, Space Telescope Science Institute  
 Lyman Alpha as an Astrophysical Tool Workshop, NORDITA, Stockholm, Sweden

**Pardy, S.**, et al. 2013, AAS Meeting Abstracts, 221, #146.20

**Pardy, S.**, et al. 2012, AAS Meeting Abstracts #219, 219, #244.05

## SUCCESSFUL TELESCOPE PROPOSALS

### PI proposals

Jansky Very Large Array 45.5 hours – VLA/17B-287

Robert C. Byrd 100m Green Bank Telescope 10 hours – GBT/14B-306

**PROGRAMMING** > 10,000 lines: Python  
**SKILLS** > 1,000 lines: Javascript, IDL, C  
 < 1,000 lines: Java, bash, C++, Ruby

Tools: L<sup>A</sup>T<sub>E</sub>X, Mathematica, Git, Jekyll, Amazon Web Services  
 Packages: Pandas, numpy/scipy, D3.js

**PROFESSIONAL DEVELOPMENT** Astrostatistics Summer School Summer 2015  
 Pennsylvania State University

GAIA data workshop Fall, 2016  
 Max Planck Institute for Astrophysics

Scaling to Petascale workshop Summer 2017  
 University of Chicago

## OUTREACH and SERVICE

- Referee - Monthly Notices of the Royal Astronomical Society
- Webmaster and LOC member for ‘The Role of Gas in Galaxies’ - international conference with 130+ attendees.
- Televised lecture at UW-Madison Space Place
- Department service: Graduate student Chair - 2016, Prospective graduate student organizer - 2014, 2015, 2017
- Public talks and observing at state parks through the ‘Universe in the Park’ program
- Telescope operator for public observing at Washburn Observatory and Macalester College

### Mentoring

- Wisconsin state Science Olympiad competition
- Ramsey Junior High School Science Fair

#### Undergraduates Mentored:

- William Tyndall 2014 - 2016
- Boquan Chen 2014 - present