Stephen Pardy

CONTACT Astronomy Department

spardy@astro.wisc.edu stephenpardy.com

University of Wisconsin - Madison 475 N. Charter St., Madison, WI 53706

EDUCATION

Ph.D., Astronomy – expected May 2018 Masters, Astronomy – December 2015 University of Wisconsin - Madison

Bachelor of Arts, Physics with an Astronomy Emphasis – May 2013 Macalester College - St. Paul, MN

AWARDS and GRANTS

University of Wisconsin - Madison

Travel Grants - \$600 (May 2016), \$1,500 (November 2016), \$1,200 (November 2017). 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

RESEARCH EXPERIENCE Research Assistant

Fall 2013 - Current

University of Wisconsin - Madison

ISIMA Summer Student

Summer 2014

International Summer Institute for Modeling in Astrophysics - CITA, Toronto

• 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.

REU Summer Student

Summer 2012

National Radio Astronomy Observatory, Charlottesville, VA

- Wrote IDL code to cluster CO emission data from M51.
- Reduced data for VLA summer student observing project.

Research Assistant

Summer 2011

Spring 2014

Physics and Astronomy Department, Macalester College, St. Paul, MN

- Reduced GBT and VLA data for the Lyman Alpha Reference Sample.
- Published paper with analysis from HI and Ly α emission in LARS.

TEACHING EXPERIENCE Teaching Assistant Astronomy 103 University of Wisconsin - Madison

The Evolving Universe: Stars, Galaxies, and Cosmology

Astronomy 104 Fall 2016, Fall 2017

Our Exploration of the Solar System

• Designed classroom material and Led six discussion sections per week

University of Wisconsin - Madison Spring 2017

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

Astronomy Preceptor Observational Astronomy Macalester College, St. Paul, MN Fall 2012

• Teaching assistant and telescope operator for introductory astronomy class.

PUBLICATIONS REFEREED PAPERS

- 12. Bridge, J. S.; Hayes, M., Melinder, J.; Östlin, G.; et al. ApJ Accepted *The Lyman Alpha Reference Sample. VIII. Characterizing Lyman-Alpha Scattering in Nearby Galaxies*
- 11. Chen, B.; D'Onghia, E.; **Pardy, S.**; Pasquali, A.; et al. ApJ submitted *Chemo-Dynamical Clustering applied to APOGEE data: Re-Discovering Globular Clusters*
- 10. **Pardy, S.A.**; Cannon, J.M.; Östlin, G.; Hayes, M.; Bergvall, N. 2016 AJ, 152, 178 Detection of HI in Emission in the LYα Emitting Galaxy Haro 11
- 9. **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*
- 8. Herenz, E.C.; Gruyters, P.; Orlitova, I.; Hayes, M.; et al. 2016 A&A, 587, 78 The Lyman alpha reference sample. VII. Spatially resolved Hα kinematics
- 7. 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
- 5. 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
- 4. 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
- 3. 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
- 2. Hayes, M.; Ostlin, G.; Duval, F.; Sandberg, A; et al. 2014, ApJ, 782, 6 The Lyman alpha Reference Sample: II. HST imaging results, integrated properties and trends
- 1. 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: LATEX, Mathematica, Git, Jekyll, Amazon Web Services

Packages: Pandas, numpy/scipy, D3.js

PROFESSIONAL Astrostatistics Summer School DEVELOPMENT Pennsylvania State University

Summer 2015

GAIA data workshop Max Planck Institute for Astrophysics Fall, 2016

Scaling to Petascale workshop University of Chicago Summer 2017

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