

ALLISON MERRITT

curriculum vitae

Department of Astronomy
Yale University
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EDUCATION

Yale University (2011 - Present)

PhD candidate in Astronomy

Advisor: Pieter van Dokkum

Thesis: Unveiling the Low Surface Brightness Universe with the Dragonfly Telephoto Array

Yale University

Master of Science (2014)

Master of Philosophy (2014)

University of California, Berkeley (2007 - 2011)

B.A. in Astronomy and Physics

RESEARCH INTERESTS

Structure and stellar content of galactic stellar halos

Low surface brightness satellite galaxies of massive galaxies

Ultra diffuse galaxies in clusters, groups, and the field

PROFESSIONAL ACTIVITIES

Journal Referee

The Astrophysical Journal

2015 — present

Yale Time Allocation Committee

Member

2016 — present

Yale Galaxy Lunch

Board Member

2015 — present

SCIENTIFIC TALKS

FLASH Seminar University of California, Santa Cruz	September 2016
CCAPP Seminar (<i>invited</i>) The Ohio State University	September 2016
Galaxies and Cosmology Seminar Harvard-Smithsonian Center for Astrophysics	November 2016
Fall Seminar Columbia University	November 2016
Journal Club Space Telescope Science Institute	November 2016
KICP Friday Cosmology Seminar (<i>invited</i>) The Kavli Institute for Cosmological Physics at the University of Chicago	November 2016
Journal Club University of California, Los Angeles	November 2016
Astrophysics Seminar University of California, Irvine	November 2016
Lunch Talk Carnegie Observatories	December 2016
Lunch Talk National Optical Astronomy Observatory	December 2016
Tea Talk California Institute of Technology	December 2016
“On the Origin (and Evolution) of Baryonic Galaxy Halos” Conference Galapagos Islands, Ecuador	March 2017

PUBLICATIONS

LEAD AUTHOR

Merritt, A. van Dokkum, P., Danieli, S., Abraham, R., Zhang, J., Karachentsev, I. D., and Makarova, L. N.

The Dragonfly Nearby Galaxies Survey. II. Ultra Diffuse Galaxies Near the Elliptical Galaxy NGC 5485, 2016, accepted to ApJ. arxiv:1610.01609

Merritt, A., van Dokkum, P., Abraham, R., and Zhang, J.

The Dragonfly Nearby Galaxies Survey. I. Substantial Variation in the Stellar Halos Around Spiral Galaxies, 2016, ApJ, 830, 62

Merritt, A., van Dokkum, P., and Abraham, R.

The Discovery of Seven Extremely Low Surface Brightness Galaxies in the Field of the Nearby Spiral Galaxy M101, 2014, ApJL, 787, L37

CO-AUTHOR

Danieli, S. van Dokkum, P., **Merritt, A.**, Abraham, R., Zhang, J., Karachentsev, I. D., and Makarova, L. N.

The Dragonfly Nearby Galaxies Survey. III. The Luminosity Function of the M101 Group, 2016, submitted to ApJ

van Dokkum, P. G., Abraham, R., Brodie, J., Conroy, C., Danieli, S., **Merritt, A.**, Mowla, L., Romanowsky, A. J., and Zhang, J.

A High Stellar Velocity Dispersion and ~100 Globular Clusters for the Ultra Diffuse Galaxy Dragonfly 44, 2016, ApJL, 828, L6

van Dokkum, P. G., Romanowsky, A. J., Abraham, R., Brodie, J., Conroy, C., Geha, M., **Merritt, A.**, Villaume, A., and Zhang, J.

Spectroscopic confirmation of the existence of large, diffuse galaxies in the Coma Cluster, 2015, ApJL, 804, L26

van Dokkum, P. G., Abraham, R., **Merritt, A.**, Zhang, J., Geha, M., Conroy, C.

Forty-seven Milky Way-sized, Extremely Diffuse Galaxies in the Coma Cluster, 2015, ApJL, 798, L45

van Dokkum, P. G., Abraham, R., and **Merritt, A.**

First Results from the Dragonfly Telephoto Array: The Apparent Lack of a Stellar Halo in the Massive Spiral Galaxy M101, 2014, ApJL, 782, L24

TEACHING & OUTREACH

Warrior-Scholar Project: Independent Contractor

2015 — present

Contributed to the development and subsequent refinement of STEM curriculum; supervised small groups of students in astronomy research projects; taught sections; oversaw nightly study sessions;

Yale University: Teaching Fellow

Responsible for: designing section plan to supplement lecture, including quizzes, group worksheets and discussions; writing and grading homework assignments and exams; leading exam review sessions; leading star parties; supervising student observing runs and other astronomy labs; holding office hours

- Stars and Planets 2013
- Introduction to Cosmology 2012
- Galaxies and the Universe 2012
- Introduction to Astronomical Observing 2011

UC Berkeley: Teaching Assistant

Responsible for: designing section plan to supplement lecture, including quizzes, demonstrations, group worksheets and discussions; writing and grading homework assignments and exams; leading exam review sessions; leading star parties; supervising student observing runs and other astronomy labs; holding office hours

- The Planets 2011
- An Introduction to Astronomy 2011
- An Introduction to Astronomy 2010

UC Berkeley: Course Instructor

Responsible for: course design and implementation including creating all course materials, homework assignments, and quizzes; grading; holding office hours

- The IDL Way: An Introduction to Computer Programming for Astronomers 2010

ManyMentors

2014 — 2015

Mentor and board member; designed and led an interactive “Her-story” event emphasizing the accomplishments of influential female scientists for ~50 middle school girls; assisted in the implementation of coding challenges and college-help sessions

Women In Science At Yale (WISAY)

2014 — 2015

Mentor

OBSERVING EXPERIENCE

Dragonfly Telephoto Array (2013 — Present)

Successful Palomar Large Program Proposal (PI) / LFC (upcoming: Spring 2016/Fall 2017)

Keck Observatory / Deimos (2016, 1 night)

Palomar Observatory / CWI (2014, 5 nights)

WIYN Observatory / 3.5-m (2010, 2 nights)

SKILLS

Primary programming languages: Python

Familiarity with programming languages: R, IDL

Familiarity with: UNIX, GNU/Linux, iraf/PyRaf, html, css

Some familiarity with programming languages: C/C++, Perl

HONORS AND AWARDS

Yale Gruber Science Fellow

UC Berkeley Edward Frank Kraft Scholarship Prize

UC Berkeley Dean's Honors List for the College of Letters and Science