

Jeremy D. Bradford

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Education

Yale University (anticipated, December 2017)

Ph.D. in Astronomy

Advisor: Marla Geha

Thesis: Isolated Low Mass Galaxies as Probes of Galaxy Formation & Evolution

Yale University (2015)

M.S., M.Phil. in Astronomy

Central Connecticut State University (2012)

B.S. in Physics, B.A. in Mathematics, summa cum laude

Research Interests

The dark matter and baryon content of low-mass galaxies and environmental influence on galaxy evolution.
Neutral hydrogen as a probe of galaxy kinematics.

Honors, Awards and Scholarships

Yale University Jane A. Nisbet Fellow (2016)

National Science Foundation Graduate Research Fellow (2014 - 2017)

Yale University Stephen B. Butler Fellow (2013 - 2014)

National Science Foundation Graduate Research Fellowship, Honorable Mention (2013)

Yale Gruber Science Fellow (2012 - 2014)

CT State University System Foundation Henry Barnard Distinguished Student Award (2012)

CT Space Grant Consortium Undergraduate Fellowship (2011 & 2012)

CCSU Brian M. O'Connell Scholarship (2011)

CCSU Physics and Earth Science Departmental Honors Award (2011 & 2012)

CCSU John B. Bulman Physics Award (2011)

CCSU Physics and Earth Science Department Service Award (2010)

CCSU National Science Foundation Computer Science, Math and Physics Scholarship (2009 - 2012)

Teaching Experience and Training

Yale Warrior-Scholar program STEM curriculum designer and teaching assistant, 2015-2017

Scientific Teaching Fellow, Yale Scientific Teaching Course, 2016

Expanding Ideas of Time and Space, TA, Yale University, Spring 2015

Galaxies and Cosmology, TA, Yale University, Fall 2014

Introduction to Cosmology, TA, Yale University, Fall 2013

Galaxies and the Universe, TA, Yale University, Spring 2013

Research Methods in Astrophysics, TA, Yale University, Fall 2012

Physics Lab Technician, CCSU, 2011

Physics Tutoring, CCSU, 2009-2012

Employment

Research Assistant, Yale University, New Haven, CT *Aug 2011 to Aug 2012*
Research assistant to Marla Geha in Yale's department of astronomy.

Project Manager, The Computer Company, LLC, Cromwell, CT *Jul 2007 to Sept 2009*
Managed programming and web design projects, managed client project development.

Systems Administrator and IT Manager, Schuco USA, Newington, CT *Aug 2000 to Jun 2007*
Managed network design, employees, projects, budget and infrastructure.

Publications

1. "A Slippery Slope: Systematic Uncertainties in the Baryonic Tully-Fisher Relation", **Jeremy D. Bradford**, Marla C. Geha, Frank C. van den Bosch, arxiv:1602.02757, *Astrophys. J.* , **832**, 11 (2016)
2. "A Study in Blue: the Baryon Content of Isolated Low Mass Galaxies", **Jeremy D. Bradford**, Marla C. Geha and Michael R. Blanton, arXiv:1505.04819, *Astrophys. J.* **809**, 146 (2015)
3. "Structure and Dynamics of the Globular Cluster Palomar 13", **J. D. Bradford**, M. Geha, R. R. Munoz, F. A. Santana, J. D. Simon, P. Cote, P. B. Stetson, E. Kirby, S. G. Djorgovski, arXiv:1110.048, *Astrophys. J.*, **743**, 167 (2011)
4. "NIHAO III: The Constant Disc Gas Mass Conspiracy", G.S. Stinson, A. A. Dutton, L. Wang, A. V. Macció, J. Herpich , **J. D. Bradford**, T. R. Quinn, J. Wadsley, B. Keller, arXiv:1506.08785, *MNRAS* **451**, 1 (2015)

Research Presentations and Public Talks

"Isolated Low-Mass Galaxies: A Control Sample for Galaxy Formation and Evolution", UMASS Amherst, October, 2016

"Isolated Low-Mass Galaxies: A Control Sample for Galaxy Formation and Evolution", Tufts University, October, 2016

"The Baryon Content of Isolated Low-Mass Galaxies", Space Telescope Science Institute, October 2015

"Galactic Astrophysics", Bolton High School, October 2015

"How to Be an Astronomer", Bolton Middle School, June 2015

"The Darkness in Our Universe," Astronomical Society of Greater Hartford, Invited Talk, May 2013

"Testing Statistical Isotropy of the CMB," University of Michigan, July 2010.

"The Darkness in Our Universe: Gravity, Dark Matter and Dark Energy," CCSU, May 2010

Public Outreach and Mentoring

Bolton Middle and High Schools guest speaker, 2015

Yale Warrior-Scholar program teaching assistant, 2015

Yale Warrior-Scholar program volunteer, 2014

Yale Girls Science Investigation volunteer, 2013

Observing Experience

Palomar, Hale 200-inch, Cosmic Web Imager IFU observations of H α , PI, 16 nights

Arecibo, L-Band observations of HI, PI and CO-I, 14 nights