

GILLIAN DORA BELTZ-MOHRMANN

6911 Stevenson Center, Department of Physics and Astronomy, Vanderbilt University, Nashville, TN 37235
gillian.d.beltz-mohrmann@vanderbilt.edu \diamond gbeltzmo@wellesley.edu \diamond (908)-577-2812 \diamond <https://gbeltzmo.github.io>

EDUCATION

Ph.D., Astrophysics, Vanderbilt University	expected 2022
Advisor: Andreas Berlind	
M.A., Astrophysics, Vanderbilt University	2018
B.A., Astrophysics, German, <i>cum laude</i> , Wellesley College	2016
Advisors: Kim McLeod, James Battat	

HONORS & AWARDS

Vanderbilt Physics & Astronomy Dept. - Most Outstanding Student Publication Award	2020
Vanderbilt Physics & Astronomy Dept. - Spring McMinn Award	2020
Vanderbilt Data Science Symposium - Graduate Student Poster Competition (1st place)	2019
Vanderbilt Physics & Astronomy Dept. - Summer McMinn Award	2019
Vanderbilt Akunuri V. Ramayya Award for Outstanding Teaching Assistant	2018
Vanderbilt College of Arts and Sciences - Graduate Summer Research Award	2018
Vanderbilt Provost Graduate Fellowship	2016–2021
Undergraduate Chambliss Astronomy Achievement Award (Honorable Mention)	2016
Wellesley College Sarah Frances Whiting Medal for Achievement in Astronomy	2014

RECENT TALKS & POSTERS

Invited Talks

Johns Hopkins Galaxies and AGN Journal Club	2021
<i>The impact of baryonic physics on the abundance, clustering, and concentration of halos</i>	
Yale Galaxy Lunch	2021
<i>The impact of baryonic physics on the abundance, clustering, and concentration of halos</i>	
Astronomy Journal Club, Vanderbilt	2019
<i>Testing the Accuracy of HOD Modeling using Hydro Simulations</i>	
Meet the Astronomer Night, Dyer Observatory	2018
<i>Large Scale Structure in the Universe</i>	

Contributed Talks

KITP Conference: The Galaxy-Halo Connection Across Cosmic Time	2020
<i>HMF Discrepancies between Hydro and DMO Simulations</i>	
Mock Innsbruck: the connection between galaxies and dark matter haloes	2020
<i>Taking Halo Modeling to the Next Level</i>	

Contributed Posters

The First Shanghai Assembly on Cosmology and Galaxy Formation	2019
<i>Taking HOD Modeling to the Next Level: Results from SDSS & Hydrodynamic Simulations</i>	
Santa Cruz Galaxy Workshop	2019
<i>Can We Ignore Baryons in Halo Modeling?</i>	

PUBLICATIONS

4. **Beltz-Mohrmann, G. D.**, Berlind, A. A., 2021, “The impact of baryonic physics on the abundance, clustering, and concentration of halos”, *The Astrophysical Journal*, in press.

3. **Beltz-Mohrmann, G. D.**, Berlind, A. A., Szewciw, A. O., 2020, “Testing the Accuracy of Halo Occupation Distribution Modelling using Hydrodynamical Simulations”, *Monthly Notices of the Royal Astronomical Society*, 491, 5771.
2. Dale, D. A., **Beltz-Mohrmann, G. D.**, Egan, A. A., Hatlestad, A. J., Herzog, L. J., Leung, A. S., McLane, J. N., Phenicie, C., Roberts, J. S., Barnes, K. L., Boquien, M., Calzetti, D., Cook, D. O., Kobulnicky, H. A., Staudaher, S. M., van Zee, L., 2016, “Radial Star Formation Histories in Fifteen Nearby Galaxies”, *The Astronomical Journal*, 151, 4.
1. Souza, S. P., **Beltz-Mohrmann, G.**, Sami, M., 2014, “The Light Curve and Period of MT696”, *The Journal of the American Association of Variable Star Observers*, 42, 154.

SKILLS & EXPERIENCE

Computational Skills

Languages: PYTHON, C, MATLAB, BASH, GIT, \LaTeX

Parallel Computing: MPI, OPENMP

Supercomputing Time

Co-Investigator & Allocation Manager: Texas Advanced Computing Center 2017–
 118k node hours on Stampede2 - GADGET-2 & GADGET-4 cosmological simulations,
 ROCKSTAR halo finder, 2LPTIC, CAMB

Telescope Time

Wyoming Infrared Observatory 2.3 meter telescope: 80 hours 2014
 Wellesley College 0.6 meter telescope: 200 hours 2013–2016
 Williams College 0.6 meter telescope: 80 hours 2013

TEACHING & OUTREACH

Graduate Teaching Assistant, *Intro Astronomy Lab*, Vanderbilt University 2016–2019
 Co-mentored high school student Caleigh Dennis 2017–2019
 Two-time 1st place winner at Middle Tennessee Science & Engineering Fair
 Physics Tutor, Wellesley College 2013–2016
 Whittier Observatory Volunteer, Wellesley College 2012–2016

PRE-DOCTORAL APPOINTMENTS

Graduate Research Assistant, Vanderbilt University 2016–
 LIGO Summer Undergraduate Research Fellow, Caltech 2015
 Advisors: Alan Weinstein, Jonah Kanner
 NSF REU, University of Wyoming 2014
 Advisor: Daniel Dale
 Keck Northeast Astronomy Consortium Summer Research Fellow, Williams College 2013
 Advisor: Steven Souza
 Undergraduate Research Assistant, Wellesley College 2013–2016

MEMBERSHIP

N-Body Shop Collaboration 2021–
 Sigma Xi: The Scientific Research Honor Society 2016–
 American Astronomical Society 2015–