HANNAH BISH

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University of Washington, Department of Astronomy
3910 15th Ave NE B323, Seattle WA 98195-0002

Education

Ph.D. Astronomy (expected), University of Washington — expected 2022
Advisor: Prof. Jessica Werk
Ph.D. Thesis: *CGM Gas Flows in the Milky Way*

M.S. Astronomy, University of Washington — 2016

B.S. Astrophysics, Rutgers University — 2014
Advisor: Prof. Eric Gawiser
Senior Thesis: *Ly-α Emission in High-Redshift Galaxies*

Appointments

Graduate Research Assistant, University of Washington — 2016 - present
Research: *Kinematics & Structure of Gas Flows in the Galactic Halo*
Advisor: Prof. Jessica Werk

Teaching Assistant, University of Washington — 2014 - 2016
Courses Taught: Intro Astronomy (ASTR 101), The Planets (ASTR 150)

Research Assistant, Rutgers University — 2012 - 2014
Research: *Ly-α Emission Strength in Star-Forming Galaxies*
Advisor: Prof. Eric Gawiser

REU Student, American Museum of Natural History — 2010
Research: *High Proper Motion Stars in the SUPERBLINK Survey*
Advisor: Prof. Sebastien Lepine

Honors and Awards

Co-I on successful HST Proposal (HST-GO-16679), 71 orbits	2021
Graduate Student Prize for Research Excellence, University of Washington	2019
Graduate Student Presentation Award, Wolfe Symposium in Astrophysics	2018
Co-I on successful HST Proposal (HST-GO-15154), 17 orbits	2017
ARCS Graduate Fellowship	2014 - 2017
Magna cum laude, Rutgers University	2014
Honors thesis in Astrophysics, Rutgers University	2014
Aresty Research Center Grant	2013
Richard J. Plano Summer Research Internship Award	2013
Rutgers University Academic Excellence Award	2013

Teaching, Mentoring, and Outreach

Mentor, Pre-Major in Astronomy Program (Pre-MAP), University of Washington 2016 - 2020
Supervised research of four undergraduate students

Speaker, Everett Astronomical Society, Everett WA 2019

Speaker, Astronomy on Tap, Seattle WA 2019

Volunteer, Meany Middle School Astronomy Outreach, Seattle WA 2019

Organizer, EquiTea, University of Washington 2017 - 2019

Volunteer, ARCS educational astronomy for children & parents, Seattle WA 2017

Volunteer, Planetarium presenter for visiting groups, University of Washington 2016 - 2017

Lecturer, Astronomy course for middle school girls, University of Washington 2016

Teaching Assistant, University of Washington 2014 - 2016
ASTR 101: Intro Astronomy, four terms
ASTR 150: The Planets, two terms

Publications

1. **Bish, H.V.**, Werk, J.K., Di Teodoro, E.M., Peek, J.E.G., Putman, M.E., Zheng, Y. "*The Sandwich Model: Kinematics of a Warm Extended Disk in the Milky Way's Circumgalactic Medium*" (in prep.)
2. **Bish, H.V.**, Werk, J.K., Peek, J.E.G., Putman, M.E., Zheng, Y. "*QuaStar: Measuring the Milky Way's Obscured Low-Velocity Circumgalactic Medium*" 2021, ApJ, 912, 8
3. **Bish, H.V.**, Werk, J.K., Prochaska, J.X.; Rubin, K.H.R.; Zheng, Y.; O'Meara, J.M.; Deason, A.J. "*Galactic Gas Flows from Halo to Disk: Tomography and Kinematics at the Milky Way's Disk-Halo Interface*" 2019, ApJ, 882, 76
4. Werk, J.K., Rubin, K.H.R., **Bish, H.V.**; Prochaska, J.X.; Zheng, Y.; O'Meara, J.M.; Lenz, D.; Hummels, C.; Deason, A.J. "*The Nature of Ionized Gas in the Milky Way Galactic Fountain*" 2019, ApJ, 887, 89
5. Vargas, C.J., **Bish, H.V.**, Acquaviva, V., Gawiser, E.J., Finkelstein, S.L., Ciardullo, R., Ashby, M., Feldmeier, J., Ferguson, H., Gronwall, C., Guaita, L., Hagen, A., Koekemoer, A., Kurczynski, P., Newman, J., & Padilla, N. "*To Stack or Not to Stack: Spectral Energy Distribution Properties of Ly-Emitting Galaxies at z=2.1*". 2013, ApJ, 783, 26.

Presentations

Oral:

AAS #236 205.03 - *QuaStar: A First Look at the Milky Way's Hidden CGM* 2020

Wolfe Symposium in Astrophysics - *Milky Way Gas Kinematics at the Disk-Halo Interface* 2018

MUSYC LAE Meeting - *SED Properties of z∼2-3 LAEs* 2013

Rutgers University - *MCMC SED Fitting in CANDELS* 2013

Tri-State Astronomy Conference - "*Physical Properties of LAEs at z = 2.1* 2013

CANDELS Team Meeting - *To Stack or Not to Stack: SED Properties of z=2.1 LAEs* 2013

MUSYC LAE Meeting - *SpeedyMC Results for z=2.1 LAEs with CANDELS SEDs* 2012

Posters:

AAS #225 143.55 - *What Determines the Strength of Lyα Emission in Star-Forming Galaxies?* 2015

AAS #223 145.05 - *To Stack or Not to Stack: Physical Properties of LAEs at z = 2.1* 2014

AAS #221 147.32 - *Physical Properties of Lyman Alpha Emitters in CANDELS* 2013