

# HANNAH BISH

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

## EDUCATION

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- Ph.D. Astronomy (expected)**, University of Washington *2021*  
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- $\alpha$  Emission in High-Redshift Galaxies*

## APPOINTMENTS

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- 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- $\alpha$  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

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- Graduate Student Prize for Research Excellence, University of Washington *2019*
- Best Graduate Student Presentation, Wolfe Symposium in Astrophysics *2018*
- Co-I on successful HST Proposal (HST-GO-15154) *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 *2012*

## TEACHING, MENTORING, AND OUTREACH

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<i>Mentor</i> , Pre-Major in Astronomy Program (Pre-MAP), University of Washington	2016-2020
Supervised research of four undergraduate students	
<i>Speaker</i> , Everett Astronomical Society, Everett WA	2019
<i>Speaker</i> , Astronomy on Tap, Seattle WA	2019
<i>Volunteer</i> , Meany Middle School Astronomy Outreach, Seattle WA	2019
<i>Organizer</i> , EquiTea, University of Washington	2017-2019
<i>Volunteer</i> , ARCS educational astronomy day for children & parents, Seattle WA	2017
<i>Volunteer</i> , Planetarium presenter for visiting groups, University of Washington	2016
<i>Lecturer</i> , Astronomy course for middle school girls, University of Washington	2016
<i>Teaching Assistant</i> , University of Washington	2014-2016
ASTR 101: Intro Astronomy, four terms	
ASTR 150: The Planets, two terms	

## PUBLICATIONS

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1. **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
2. **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
3. 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
4. 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

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### TALKS:

AAS #236 205.03 - <i>QuaStar: A First Look at the Milky Way’s Hidden CGM</i>	2020
Wolfe Symposium in Astrophysics - <i>Milky Way Gas Kinematics at the Disk-Halo Interface</i>	2018
MUSYC LAE Meeting - <i>SED Properties of <math>z\sim 2-3</math> LAEs</i>	2013
Rutgers University - <i>MCMC SED Fitting in CANDELS</i>	2013
Tri-State Astronomy Conference - “ <i>Physical Properties of LAEs at <math>z = 2.1</math></i> ”	2013
CANDELS Team Meeting - <i>To Stack or Not to Stack: SED Properties of <math>z=2.1</math> LAEs</i>	2013
MUSYC LAE Meeting - <i>SpeedyMC Results for <math>z=2.1</math> LAEs with CANDELS SEDs</i>	2012

### POSTERS:

AAS #225 143.55 - <i>What Determines the Strength of Ly<math>\alpha</math> Emission in Star-Forming Galaxies?</i>	2015
AAS #223 145.05 - <i>To Stack or Not to Stack: Physical Properties of LAEs at <math>z = 2.1</math></i>	2014
AAS #221 147.32 - <i>Physical Properties of Lyman Alpha Emitters in CANDELS</i>	2013