# CURRICULUM VITAE RYAN P KEENAN

#### CONTACT INFORMATION

Steward Observatory 933 N Cherry Ave, Room D312 Tucson, AZ 85719

## **EDUCATION**

2017-Present University of Arizona

Ph.D., Astronomy and Astrophysics

Advisor: Dan Marrone

M.S., Astronomy and Astrophysics (2020)

2013-2017 University of Michigan

B.S., Applied Mathematics, Astronomy and Astrophysics, Physics (2017) Advisor: Sally Oey — Thesis: Lyman Continuum Escape From Haro 11

## FELLOWSHIPS, AWARDS, AND HONORS

2019-Present	National Science Foundation Graduate Research Fellowship		
2021	University of Arizona Departmental Graduate Student Award for Excellence in Service		
2017	University of Michigan Departmental Award for Best Senior Thesis in Astronomy		
2013-2017	Stamps Leadership Scholar		
2014-2017	College Honors, University of Michigan		
2016	Honors Travel Grant for thesis-related work		
2016	Sigma Pi Sigma Honors Society Inductee		
2013	Energy Solutions Scholarship Recipient		

## LEADERSHIP IN DIVERSITY EQUITY AND INCLUSION

2018-Present	Coordinator for Mentorship and Education in SCIence for Tucson (MESCIT)
2020-2021	Graduate Student Representative, Steward Observatory Diversity, Equity and Inclusion Initiative
	Task Force on Mentorship
2020	Coordinator for Tucson Initiative for Minority Engagement in Science and TEchnology Program

(TIMESTEP) Summer Internship Research/Writing Coach at Stegner Young Writing Scholar's Institute

### Publications

2014-2019

#### First Author Publications

- 3. "An Intensity Mapping Constraint on the CO-Galaxy Cross Power Spectrum at Redshift ~ 3", R. P. Keenan, G. K. Keating & D. P. Marrone 2022, The Astrophysical Journal, 927, 161
- 2. "Biases and Cosmic Variance in Molecular Gas Abundance Measurements at High Redshift", **R. P. Keenan**, D. P. Marrone, & G. K. Keating 2020, *The Astrophysical Journal*, 904, 127

1. "Haro 11: Where is the Lyman Continuum Source?", R. P. Keenan, M. S. Oey, A. E. Jaskot, & B. L. James 2017, The Astrophysical Journal, 848, 12

#### Collaborator Authored Publications

- "Probing Cosmic Reionization and Molecular Gas Growth with TIME", G. Sun, T.-C. Chang, B. D. Uzgil, J. Bok, C. M. Bradford, V. Butler, C.-C. Tessalie, Y.-T. Cheng, A. Cooray, A. T. Crites, S. Hailey-Dunsheath, N. Emerson, F. Clifford, B. L. Hoscheit, J. R. Hunacek, R. P. Keenan, C.-T. Li, P. Madonia, D. P. Marrone, L. Moncelsi, C. Shiu, I. Trumper, A. Turner, A. Weber, T.-S. Wei, M. Zemcov 2020, The Astrophysical Journal, 915, 33
- 2. "An Intensity Mapping Detection of Aggregate CO Line Emission at 3 mm", G. K. Keating, D. P. Marrone, G. C. Bower, & R. P. Keenan 2020, The Astrophysical Journal, 901, 141
- 1. "Mapping Lyman Continuum Escape in Tololo 1247-232", G. Micheva, M. S. Oey, R. P. Keenan, A. E. Jaskot, & B. L. James 2018, *The Astrophysical Journal*, 867, 1

#### Talks and Posters

#### Research Talks and Posters

- 8. Steward Observatory Early Career Scientist Talk, Tucson, Arizona, USA, October 2021: "A Constraint on the CO-Galaxy Cross Power Spectrum at Redshift 3" (talk)
- 7. UChicago/KICP Line Intensity Mapping Workshop, July 2021: "A Constraint on the CO-Galaxy Cross Power Spectrum at Redshift 3" (talk)
- 6. UChicago/KICP Line Intensity Mapping Workshop, July 2021: "IMSim: An Intensity Mapping Simulation Pipeline" (talk)
- 5. Max Planck Institute for Astronomy Galaxy Coffee, Heidelberg, Germany, October 2020: "Quantifying Effects of Cosmic Variance on our Understanding of the Cosmic Abundance of Molecular Gas" (talk)
- 4. NOIRLab Friday Lunch Astronomy Seminar Hour, Tucson, Arizona, USA, October 2020: "Quantifying Effects of Cosmic Variance and Measurement Bias on our Understanding of the Cosmic Abundance of Molecular Gas" (talk)
- 3. Lines in the Large Scale Structure, Marseille, France, July 2019: "Simulating Future Intensity Mapping Fields" (talk)
- 2. University of Michigan Undergraduate Poster Session, Ann Arbor, Michigan, USA, April 2017: "Haro 11: Where is the Lyman Continuum Source?" (poster)
- 1. 229th Meeting of the American Astronomical Society, Grapevine, Texas, USA, January 2017: "Haro 11: Where is the Lyman Continuum Source?" (poster)

#### Outreach-Related Talks

- 2. Tucson Area Physics Teachers Breakfast, Tucson, Arizona, USA, October 2020: "Mentorship and Education in SCIence for Tucson" (talk, given with I. Shivaei and E. Schlawin)
- 1. NOAO Friday Lunch Astronomy Seminar Hour, Tucson, Arizona, USA, December 2019: "Mentorship and Education in SCIence for Tucson" (talk, given with I. Shivaei and E. Schlawin)

## Teaching

2021 Spring	University	of Arizona, ASTR302 Introduction to Observational Astronomy, Teaching Assistant
2020 Fall	University	of Arizona, ASTR300A Dynamics in Astrophysics, Teaching Assistant
2017 Spring	University	of Michigan, ASTRO 104 Alien Skies: A Tour Through the Universe, Grader
2016 Fall	University	of Michigan, PHYSICS 453 Quantum Mechanics, Grader
2015 Fall, 2016	Spring	University of Michigan, PHYSICS 140 General Physics I, Learning Assistant