

Jesse Robb Feddersen

CONTACT INFORMATION	46 Hillhouse, Office 206 Department of Astronomy, Yale University New Haven, CT 06511 USA	<i>Phone:</i> (812) 272-3386 <i>E-mail:</i> jesse.feddersen@yale.edu <i>Website:</i> http://jessefeddersen.com
EDUCATION	Yale University , New Haven, Connecticut, USA M.S., M.Phil. Astronomy PhD, Astronomy	December, 2015 expected August, 2019
	Indiana University , Bloomington, Indiana, USA B.S., Astronomy/Astrophysics B.S., Physics	May, 2013 May, 2013
RESEARCH EXPERIENCE	Department of Astronomy, Yale University , New Haven, CT USA <i>Thesis Research</i> Advisor: Dr. Héctor Arce	2015 - present
	Studied the impact of stellar feedback on the structure of molecular gas in the Orion Molecular Cloud using multiwavelength observations as part of the CARMA-NRO Orion collaboration.	
	<i>Theoretical second year project</i> Advisor: Dr. Marla Geha	2014
	Studied the effect of the random sampling of stellar initial mass functions on the stellar populations of ultra-faint dwarf galaxies around the Milky Way and investigated the possibility of using pulsar observations to constrain the initial mass function in these systems.	
	<i>Observational first year project</i> Advisor: Dr. Pieter van Dokkum	2013
	Studied the evolution of the median mass galaxy from redshift of 2 to present, using galaxy catalogs from the 3D-HST survey.	
	Space Telescope Science Institute , Baltimore, MD USA <i>Space Astronomy Summer Program Research Intern</i> Advisors: Dr. Janice C. Lee, Dr. Chun Ly	June, 2012 - August, 2012
	Investigated the relations between stellar mass, gas-phase oxygen abundance, and star-formation rate in galaxies at $z \approx 0.8$ Used IDL extensively for both analysis and plotting tasks.	
	Department of Astronomy, Indiana University , Bloomington, IN USA <i>Research Assistant</i> Advisor: Dr. John J. Salzer	2009 - present
	Lead a study of nearly unresolved emission-line galaxies in H α images of the local universe and carried out image reduction/photometry and optical spectral reduction/measurement in order to determine their nature. Measured star-formation and metallicity properties to constrain scaling relations.	

TEACHING EXPERIENCE	<p>Yale Summer Program in Astrophysics, New Haven, CT USA Residential intensive research program for high school students at the Leitner Family Observatory and Planetarium.</p> <p><i>Teaching Fellow</i> 2016, 2017 Supervisor: Dr. Michael Faison</p> <p>Led programming tutorials and observing labs for 4-week intensive research program for high school students.</p> <p>Department of Astronomy, Yale University, New Haven, CT USA</p> <p><i>Teaching Fellow</i> 2013 - 2015 Led discussion sections, research labs, tutored, and graded for the following undergraduate astronomy courses:</p> <p>ASTR 220 - Galaxies and Cosmology Fall, 2013 Supervisor: Dr. Louise Edwards</p> <p>ASTR 160 - Frontiers and Controversies in Astrophysics Spring, 2014 Supervisor: Dr. Louise Edwards</p> <p>ASTR 120 - Galaxies and the Universe Summer, 2014 Supervisor: Dr. Robert Zinn</p> <p>ASTR 255 - Research Methods in Astrophysics Fall, 2014 Supervisor: Dr. Marla Geha</p> <p>ASTR 170 - Introduction to Cosmology Fall, 2015 Supervisor: Dr. Louise Edwards</p>
	<p><i>Refereed Publications</i></p> <p>Feddersen, J. R., Arce, H. G., Kong, S., et al. 2018, ApJ, 862, 121 Kong, S., Arce, H. G., Feddersen, J.R., et al. 2018, ApJS, 236, 25 de los Reyes, M. A., et al. 2015, AJ, 149, 79</p> <p><i>Popular Writing</i> https://massivesci.com/people/jesse-feddersen/ https://astrobites.org/author/jfeddersen/</p>
VOLUNTEER AND OUTREACH EXPERIENCE	<p>Astrobites Author 2014-2016 Wrote summaries of recent astrophysics papers aimed at an audience of undergraduates interested in beginning their research career. Edited other authors' work, and served on admissions committee for new authors. My work for Astrobites can be found at: https://astrobites.org/author/jfeddersen/</p> <p>Leitner Family Observatory and Planetarium Presenter 2014-Present Presented live planetarium shows to thousands of members of the public at Yale University's Leitner Family Observatory and Planetarium. https://leitnerobservatory.yale.edu</p> <p>Yuri's Night at Yale 2015-2016 Organized outreach event at Yale University's Leitner Family Observatory and Planetarium celebrating the anniversary of human spaceflight. Ran instructional tables, rocket launch demos, planetarium</p>

shows, and telescope viewing for several hundred members of the public.

Adler Planetarium Zooniverse Demonstration **2014**

As part of two-week school on education and outreach at the Kavli Institute for Cosmological Physics, designed a floor experience for families at the Adler Planetarium in Chicago, Illinois. <https://blog.zooniverse.org/2014/07/07/demonstrating-citizen-science-at-adler-planetarium/>

Sidewalk Astronomy **2011-2013**

Hosted telescope viewing in downtown Bloomington with Indiana University Astronomy Club, targeted towards unsuspecting passersby.

Physics and Astronomy Open House **2011-2012**

Assisted with various educational astronomy activities at departmental open house, attended by several thousand members of the public annually.

Venus Transit Viewing **June, 2012**

Organized and co-ran event hosted by Indiana Department of Natural Resources; set up telescopes and helped over a hundred members of the public view the transit of Venus safely.

Child's Elementary Telescope Night **February, 2012**

Helped organize and run a telescope viewing at a local elementary school with Indiana University Astronomy Club.

Astronomy with the Stars **October, 2011**

Assisted Bloomington Department of Parks and Recreation with event designed to orient interested members of the public to the night sky. Operated several telescopes and assisted with public viewing.

TECHNICAL SKILLS	• Programming Languages: Python, IDL, Fortran, Supermongo	
	• Specialized Software: MIRIAD, IRAF (primarily image and spectral reduction and measurement routines), SAOImage DS9, L ^A T _E X	
	• Operating Systems: OS X, Unix/Linux, Windows.	
OBSERVING EXPERIENCE	CARMA (2 weeks)	January, 2015
	Arecibo (1 night)	October, 2014
	WIYN 0.9m (6 nights)	October, 2012
	WIYN 0.9m (5 nights)	May, 2011
	WIYN 0.9m (4 nights)	June, 2010
HONORS AND AWARDS	Hutton Honors College Travel Grant (\$700)	2012
	Hollis and Greta Johnson Research Prize (\$300)	2012 & 2013
	McCreery Travel Award (\$700)	2012
	Hutton Honors College Research Partnership Grant (\$1000)	2011
	Cox Research Scholarship (\$20,000/yr)	2009-present
	National Merit Scholarship (\$1,000/yr)	2009-present
	Indiana University Dean's List	2009-present