

Thomas G. Beatty – Curriculum Vitae

CONTACT INFORMATION	Steward Observatory, Rm. 256 University of Arizona 933 N. Cherry Ave, Tucson, AZ 85721 http://www.thomasgbeatty.org	phone: (520) 621-2054 tgbeatty@email.arizona.edu
EMPLOYMENT	2018 – present: Assistant Astronomer Steward Observatory, University of Arizona, Tucson, AZ 2017 – 2018: Assistant Research Professor The Pennsylvania State University, University Park, PA 2014 – 2017: Center for Exoplanets and Habitable Worlds Post-doctoral Fellow The Pennsylvania State University, University Park, PA	
EDUCATION	The Ohio State University , Columbus, OH Ph.D. Astronomy, Advisor: Prof. B. Scott Gaudi, June 2014 Massachusetts Institute of Technology , Cambridge, MA M.S. Physics, Advisor: Prof. Sara Seager, June 2009 Harvard University , Cambridge, MA B.A. Astronomy & Astrophysics with honors, June 2006	
HONORS AND AWARDS	2009 – 2012: <i>Distinguished University Fellowship</i> , The Ohio State University 2007 – 2008: <i>Whiteman Fellowship</i> , Massachusetts Institute of Technology 2007: <i>Thomas Temple Hoopes Prize</i> , Harvard University	
MAJOR GRANTS AND PROPOSALS	PI: <i>The Bond Survey of Exoplanet Atmospheres</i> 2016-2018, Large Binocular Telescope, 12 nights PI: <i>Testing the Formation Pathway of a Transiting Brown Dwarf in a Middle-aged Cluster</i> 2018, Spitzer Space Telescope, 15.8 hours PI: <i>Benchmarking Brown Dwarf Models With a Non-irradiated Transiting Brown Dwarf in Praesepe</i> 2018, Spitzer Space Telescope, 9.4 hours PI: <i>A Test of the Fundamental Physics Underlying Exoplanet Climate Models</i> 2018, Spitzer Space Telescope, 44.2 hours Co-I: <i>Light from Darkness: Understanding Extrasolar Planets From Their Shadows</i> 2017, Australian Research Council Co-I: <i>The KELT-11b Opportunity: Measuring the Atmospheric Water Abundance for a Sub-Saturn-Mass Planet around a Metal-Rich Star.</i> 2017, Hubble Space Telescope, 10 orbits PI: <i>Phase-Resolved Emission Spectroscopy of the Transiting Brown Dwarf KELT-1b Using WFC3</i> 2016, Hubble Space Telescope, 40 orbits PI: <i>Eclipse Observations of a Temperate Transiting Brown Dwarf</i> 2016, Spitzer Space Telescope, 15.7 hours PI: <i>A Spitzer Transit of the Most Inflated Planet Known, Around an Extremely Bright Sub-giant</i> 2015, Spitzer Space Telescope, 15.5 hours PI: <i>Phase Curve Observations of the Irradiated Transiting Brown Dwarf KELT-1b</i> 2014, Spitzer Space Telescope, 74.5 hours PI: <i>H-band Secondary Eclipse Spectroscopy of the Highly Irradiated Brown Dwarf KELT-1b</i> 2013, Large Binocular Telescope, 6 hours PI: <i>3.6μm and 4.5μm Secondary Eclipse Observations of the Highly Irradiated Transiting Brown Dwarf KELT-1b</i> 2012, Spitzer Space Telescope, 12 hours	

SERVICE AND
COMMITTEES

Penn State Astronomy Department Graduate Admissions Committee, 2017-2018
Penn State Astronomy Department Climate Committee, 2015-2018
Local/Science organizing committee for the ERES IV conference, 2017
Co-author of the white-paper *The Science Case for an Extended Spitzer Mission*, 2017
Local organizing committee for the EPRV III conference, 2017
Various NASA review panels for XRP, K2, and HST proposals, 2014-present
Local/Science organizing committee for the ERES I conference, 2015
Astronomy representative to the Ohio State Council of Graduate Students, 2010-2013
Referee for ApJ, AJ, MNRAS, and A&A, 2008-present

TEACHING AND
MENTORING

Independent Study Class, spring 2016, Pennsylvania State University. Ran a semester-long undergraduate independent study for two students focused on observing exoplanet transits.
Guest lecturer, 2014-present, Pennsylvania State University. Guest lectured seven lectures for undergraduate astronomy courses, and four lectures for graduate astronomy courses.
Guest lecturer, 2012-2014, Ohio State University. Guest lectured for several undergraduate astronomy courses.
Leo Liu, 2016-present, Pennsylvania State University graduate student. Supervised his reduction and analysis of NIR eclipse photometry taken using the WIYN telescope. Also supervised Leo's measurement of non-linearity effects in a new infrared detector on the Palomar 200", which he wrote up and presented as his second-year graduate project.
Kezman Saboi, Summer 2017, Pennsylvania State University REU student. Supervised his summer REU project to fit and analyze K2 transit photometry of WASP-52b, during which Kezman learned about transit observations, MCMC fitting, and Gaussian Processes.
Kim Cartier, 2015-2017, Pennsylvania State University graduate student. Supervised her reduction and analysis of HST eclipse observations of WASP-103b, published in Cartier et al. (2017), and a project to observe the transmission spectrum of WASP-103b using MINERVA, published in her dissertation.

SELECTED
INVITED TALKS

11. NASA Goddard Exoplanet Seminar, November, 2017
10. *BDEXOCON II*, October, 2017
9. *Know Thy Star, Know Thy Planet*, October, 2017
8. *Transiting Exoplanets*, October, 2017
7. Carnegie DTM Astronomy Seminar, December, 2016
6. NASA JPL Astronomy Seminar, November, 2016
5. NASA Goddard Exoplanet Seminar, November, 2015
4. UPenn Astronomy Seminar, October, 2015
3. Harvard/CfA Small Scale Seminar, October, 2015
2. *BDEXOCON*, October, 2014
1. NExScI Weekly Seminar, September 2012

SELECTED MEDIA
COVERAGE

Smart Talk With Scott LaMar, **WITF Harrisburg** (November 21, 2017)
AAS Afternoon Astronomy Coffee Hangout, **AAS** (November 7, 2017)
Sunscreen 'Snow' Falls on Scorching-Hot Alien Planet, **Space.Com** (October 27, 2017)
Hubble Observes Exoplanet that Snows Sunscreen, **NASA.gov** (October 26, 2017)
Feeling Hot, Hot, Hot: Astronomers Discover a Giant Planet Hotter Than Most Stars, **Scientific American** (June 2017)
Meet the Planet That's Hotter Than Most Stars, **CBC News** (June 8, 2017)
Star Wars Worlds Exoplanet Scientists Can't Help But Love, **Space.Com** (December 15, 2015)
Little Scope Makes Big Finds, **Sky & Telescope** (June 2012)
Newly Discovered Alien Planet Resets the bar for Weird, **NBC News** (June 20, 2012)
Weird Alien Planets Found by Small Telescope, **Space.Com** (June 19, 2012)
Small Telescope Helps Make Big Discovery, **New York Times** (June 18, 2012)