
Ashlee N. Wilkins

Department of Astronomy, University of Maryland, College Park, MD 20742-2421
awilkins@astro.umd.edu | www.astro.umd.edu/~awilkins | 301.405.1534

Education

University of Maryland College Park, MD	2010 - Present
M.S. Astronomy, December 2012	
Ph.D. Astronomy Expected July 2017	
Cornell University Ithaca, NY	2007 - 2010
B.A. Physics, English	

Research and Teaching Experience

University of Maryland	College Park, MD
<i>Graduate Research Assistant</i> Advisor: Drake Deming	2011 - Present
· Study atmospheres of transiting giant exoplanets via near-infrared spectroscopy with the Hubble Space Telescope.	
<i>Graduate Teaching Assistant</i>	2010 - 2011
· ASTR 220: Collisions in Space; ASTR 101: General Astronomy	
NASA Goddard Space Flight Center	Greenbelt, MD
<i>Graduate Research Assistant</i> Advisor: Michael McElwain	2013 - 2014
· Characterized a new photon-counting detector for direct imaging of extremely faint, Earth-like exoplanets.	
NASA Jet Propulsion Laboratory	Pasadena, CA
<i>California SpaceGrant Intern</i> Advisors: Amy Mainzer & Joe Masiero	2010
· Searched for NEOs and coolest brown dwarfs in WISE data.	
<i>NASA USRP Intern</i> Advisor: Amy Mainzer	2009
· Carried out pre-launch performance studies of WISE detectors and studied on-board software for a NEO mission.	
Cornell University	Ithaca, NY
<i>Undergraduate Research Assistant</i> Advisor: Greg Sloan	2008 - 2010
· Studied galactic dust with Spitzer IRS.	
<i>Undergraduate Research Assistant</i> Advisors: Jonathan Joseph & Jim Bell	2008 - 2010
· Calibrated initial, raw Mars Exploration Rover Pancam images.	
Virginia Tech	Blacksburg, VA
<i>Undergraduate Researcher</i> Advisor: Nahum Arav	2008
· Identified and measured outflow features in BALQSOs in the SDSS.	

Honors and Awards

UMD All-Scholarship, Teaching, And Research Fellowship	2016 - 2017
UMD Graduate Student Professional Development Award	2016
American Astronomical Society International Travel Grant	2015
UMD Graduate Research Interaction Day, Oral Presentation, 2nd place	2015
UMD International Conference Student Support Award	2013
UMD Dean's Fellowship	2010 - 2011

Invited Talks

Carnegie DTM Astronomy Seminar	2016
STScI Star and Planet Formation Seminar	2016
Penn State CEHW Lunch Seminar	2016
American Association of Physics Teachers Summer Meeting	2015
Montgomery College Women in Science Seminar	2014
Carnegie-DTM Astronomy Seminar	2014

Contributed Presentations

229th Meeting of the American Astronomical Society Talk	2017
Exoclimes 2016 Talk	2016
Cal Poly Pomona Department of Physics and Astronomy Seminar Talk	2016
Twenty Years of Giant Exoplanets Conference Talk	2015
Exoplanets, Biosignatures, and Instruments Poster	2014
223rd Meeting of the American Astronomical Society Talk	2014
General Assembly of the European Geosciences Union Talk	2013
NASA Goddard Exoplanet Club Talk	2013
217th Meeting of the American Astronomical Society Poster	2012

Diversity, Inclusion, and Outreach

GRAD-MAP Physics and Astronomy Diversity Initiative (UMD)	2013 - Present
· Founding member, Lead organizer (2014 - 2016), Advisor (2016 - present)	
· Conference Presentations:	
National Astronomy Consortium (2014, 2015, & 2016, Invited Talks)	
Inclusive Astronomy (2015, Contributed Poster)	
APS April (2015, Contributed Talk)	
National Society of Black Physicists (2015, Invited Workshops)	
AstroTerps Guest Lecturer (UMD)	2014 & 2017
H.D. Cooke Elementary, First Grade Guest Speaker	2016
UMD Observatory, Master of Ceremonies, One/year	2011 - 2016
Astronomy Gentladies' Network (AGN), Founding Member (UMD)	2013 - 2015
College Scholars Program Guest Lecturer (UMD)	2014
Maryland Day, Solar Observing Volunteer (UMD)	2011 - 2016
Expanding Your Horizons Volunteer (Cornell)	2009 & 2010

Academic Service and Leadership

University Senate Equity, Diversity, and Inclusion Committee (UMD)	2015 - Present
Better Astronomy for a New Generation (BANG!) Seminar Committee (UMD)	2012 - Present
Faculty Search Committee, Graduate Student Member (UMD)	2017
APS Graduate Education and Bridge Program Conference, "How to Create and Sustain a Physics Graduate Student Association" Panelist	2017
NSF AAPF Symposium, "Mentoring Underrepresented Students" Panelist	2017
Associate Dean Search Committee (UMD)	2016
Graduate Admissions Committee, Graduate Student Member (UMD)	2016
American Astronomical Society Congressional Visit Day Participant	2016

Graduate Student Government VP for Academic Affairs (UMD)	2015 - 2016
· Provost's Student Advisory Committee, Co-Chair	
· Graduate Council	
· University Senate Educational Affairs Committee	
· Graduate Research Appreciation Day Organizer	
Astronomy Department Equity and Inclusion Committee (UMD)	2014 - 2016
NASA Review Panels, Executive Secretary	2013 & 2016
Astronomy Department Prospective Graduate Student Visit Coordinator (UMD)	2013 - 2015
DC/MD/VA Conference for Graduate Students LOC	2013
Astronomy Graduate Student Un-Journal Club Organizer (UMD)	2011 - 2012

Technical Skills

Programming Languages	IDL, Python, R, HTML/CSS
Operating Systems	Macintosh, Windows, Linux
Software	L ^A T _E X, Microsoft Office, DS9, Adobe Creative Suite
Observing Experience	Palomar 200-inch Hale Telescope Keck I, OSIRIS APO ARC 3.5m, GIFS

Academic Enhancement

Penn State Summer School in Statistics for Astronomers XI	2015
Writing in the Sciences, Stanford Online	2014
NExScl Sagan Summer Workshop: Imaging Planets and Disks	2014
NASA Planetary Science Summer School, JPL (Uranus Orbiter, Deputy PI)	2014
Exoplanets, Biosignatures, and Instruments Astrobiology School	2014
CfAO Adaptive Optics Summer School, UC Santa Cruz	2013

Professional Affiliations

American Physical Society (APS), Student Member	2015 - Present
American Astronomical Society (AAS), Junior Member	2010 - Present

First Author Publications

2. **Wilkins, Ashlee N.**; Delrez, Laetitia; Barker, Adrian; Hamilton, Douglas; Deming, Drake; Gillon, Michael; Jehin, Emmanuel, 2016, ApJL, 836, 2, "Searching for Rapid Orbital Decay of WASP-18b"
1. **Wilkins, Ashlee N.**, Deming, Drake, Madhusudhan, Nikku, Burrows, Adam, Knutson, Heather, McCullough, Peter, & Ranjan, Sukrit, 2014, ApJ, 783, 113, "The Emergent 1.1-1.7 Micron Spectrum of the Exoplanet CoRoT-2b as Measured Using the Hubble Space Telescope"

Other Refereed Publications

14. Fraine, Jonathan, Deming, Drake, Benneke, Bjorn, Knutson, Heather, Jordan, Andres, Espinoza, Nestor, Madhusudhan, Nikku, **Wilkins, Ashlee N.**, & Todorov, Kamen, 2014, Nature, 513, 7519, "Water Vapor Absorption in the Clear Atmosphere of a Neptune-sized Exoplanet"
13. Ranjan, Sukrit, Charbonneau, David, Desert, Jean-Michel, Madhusudhan, Nikku, Deming, Drake, **Wilkins, Ashlee N.**, & Mandell, Avi, 2014, ApJ, 785, 148, "Atmospheric Characterization of 5 Hot Jupiters with Wide Field Camera 3 on the Hubble Space Telescope"

12. Line, Michael R., Knutson, Heather, Deming, Drake, **Wilkins, Ashlee N.**, & Desert, Jean-Michel, 2013, ApJ, 778, 183, "A Near-Infrared Transmission Spectrum for the Warm Saturn HAT-P-12b"
11. Deming, Drake, **Wilkins, Ashlee N.**, et al., 2013, ApJ 774, 95, "Infrared Transmission Spectroscopy of the Exoplanets HD 209458b and XO-1b Using the Wide Field Camera-3 on the Hubble Space Telescope"
10. Bauer, James P.; 22 others including **Wilkins, Ashlee N.**, 2013, ApJ 773, 1, 22, "Centaur and Scattered Disk Objects in the Thermal Infrared: Analysis of WISE/NEOWISE Observations"
9. Dunn, Jay P.; Arav, Nahum; Aoki, Kentaro; **Wilkins, Ashlee N.**; Laughlin, Courtney; Edmonds, Doug; & Bautista, Manuel, 2012, ApJ 750,2,143, "BAL Outflow Contribution to AGN Feedback: Frequency of S IV Outflows in the SDSS"
8. Grav, T.; 16 others including **Wilkins, Ashlee N.**, 2012, ApJ 744, 2, 197, "WISE/NEOWISE Observations of the Hilda Population: Preliminary Results"
7. Mainzer, A.; 37 others including **Wilkins, Ashlee N.**, 2011, ApJ 743, 2, 156, "NEOWISE Observations of Near-Earth Objects: Preliminary Results"
6. Grav, T.; 16 others including **Wilkins, Ashlee N.**, 2011, ApJ 742, 1, 40, "WISE/NEOWISE Observations of the Jovian Trojans: Preliminary Results"
5. Masiero, Joseph; 17 others including **Wilkins, Ashlee N.**, 2011, ApJ 741, 2, 68, "Main Belt Asteroids with WISE/NEOWISE. I. Preliminary Albedos and Diameters"
4. Bauer, James P.; 20 others including **Wilkins, Ashlee N.**, 2011, ApJ 738, 2, 171, "WISE/NEOWISE Observations of Comet 103P/Hartley 2"
3. Mainzer, A.; 34 others including **Wilkins, Ashlee N.**, 2011, ApJ 731, 1, 53, "Preliminary Results from NEOWISE: An Enhancement to the Wide-field Infrared Survey Explorer for Solar System Science"
2. Woods, Paul; 57 others including **Wilkins, Ashlee N.**, 2011, MNRAS 411, 3, "The SAGE-Spec Spitzer Legacy programme: the life-cycle of dust and gas in the Large Magellanic Cloud - Point source classification II"
1. Kemper, F.; 55 others including **Wilkins, Ashlee N.**, 2010, MNRAS 122, 892, "The SAGE-Spec Spitzer Legacy programme: the life-cycle of dust and gas in the Large Magellanic Cloud - Point source classification I"

Conference Proceedings

1. **Wilkins, Ashlee N.**, McElwain, Michael W., Norton, Timothy J., Rauscher, Bernard J., Rothe, Johannes F., Malatesta, Michael, Hiton, George M., Bubeck, James. R., Grady, Carol A., & Lindler, Don J., 2014, Proc. of the SPIE, 9154, "Characterization of a photon counting EMCCD for space-based high contrast imaging spectroscopy of extrasolar planets"
2. McElwain, Michael W.; 11 others including **Wilkins, Ashlee N.**, 2013, Proc. of the SPIE, 8864, "PISCES: an integral field spectrograph to advance high contrast imaging technologies"