

Caprice L. Phillips

Curriculum Vitae

The Ohio State University
Department of Astronomy
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EDUCATION

- **Ohio State University** Columbus, OH
Graduate Student *Currently Enrolled*
- **University of Texas at Austin** Austin, TX
M.A. Astronomy *Spring 2019*

Thesis Title: *2M0443+3723 B: A Young Companion at the Substellar Boundary with Potential Membership in the β Pictoris Moving Group*
- **University of Arkansas at Little Rock** Little Rock, AR
B.S. Physics; Minor: Mathematics *December 2015*

RESEARCH EXPERIENCE

- **Graduate Student Researcher, Advisor: Dr. Ji Wang** Columbus, OH
Department of Astronomy, Ohio State University *2019–Present*
 - Using *JWST* to search for bio signatures on Super-Earths
- **Graduate Student Researcher, Advisor: Dr. Brendan Bowler** Austin, TX
Department of Astronomy, The University of Texas at Austin *2017–2019*
 - Characterized the physical and empirical properties of a candidate benchmark brown dwarf companion in the 23 Myr Beta Pictoris Moving Group
- **Undergraduate Student Researcher, Advisor: Dr. Tony Hall** Little Rock, AR
Department of Physics & Astronomy, The University of Arkansas at Little Rock *2014–2015*
 - Performed a comparative study of meteorites for composition determination
 - Used a Raman spectrometer, petrographic microscope, and chemical test for nickel for analysis of meteoritic samples to determine if unknown samples were meteorites
 - Created a meteorite & “meteor-wrong” catalog for Department of Physics & Astronomy
- **Undergraduate Student Researcher, Advisor: Dr. Alois Adams** Little Rock, AR
Department of Physics & Astronomy, The University of Arkansas at Little Rock *2014*
 - Investigated the probability of intelligent observers on confirmed exoplanets identifying Earth as a confirmed exoplanet through the transit method of detection

OBSERVING EXPERIENCE

Keck II, NIRC2, LGS, Mauna Kea Observatory, (P.I. B. Bowler)	1 night
LBT, MODS/LBC, Mount Graham International Observatory	7 nights

PUBLICATIONS

Phillips, C., et al. “2M0443+3723 B: A Young Companion at the Substellar Boundary with Potential Membership in the β Pictoris Moving Group” 2019, in prep

PRESENTATIONS

2M0443+3723 B: A Young Companion at the Substellar Boundary with Potential Membership in the β Pictoris Moving Group (contributed talk), *National Society of Black Physicists*, November 2019, Providence, RI

2M0443+3723 B: A Young Companion at the Substellar Boundary with Potential Membership in the β Pictoris Moving Group, *Astronomy Students Association*, April 2019, Austin, TX

Phillips, C., Bowler, B., Liu, Michael C., Mace, Gregory N., Sokal, Kimberly, American Astronomical Society Meeting Abstracts, 231, 349.04

Martinez, R, Bozek, B, Drew, P, Manning, S, **Phillips, C**, Equity & Inclusivity Efforts of the Department of Astronomy at The University of Texas at Austin, *Women in Astronomy IV Conference*, July 2017, Austin, TX

Dark Sky Project, *UT Austin Graduate Student Postdoc Seminar*, February 2017, Austin, TX

Phillips, C, Exploring Practical Methods for Identifying Potential Meteorites, *McNair Research Symposium*, September 2015, Little Rock, AR

Phillips, C, Earth as a Transiting Exoplanet, *American Association of Physics Teachers Arkansas–Oklahoma–Kansas Section Meeting*, September 2014, Arkadelphia, AR

Phillips, C, Earth as a Transiting Exoplanet, *McNair Heartland Research Conference*, September 2014, Kansas City, MO

Phillips, C, Earth as a Transiting Exoplanet, *McNair Research Symposium*, September 2014, Little Rock, AR

TEACHING EXPERIENCE

- **Teaching Assistant, ASTR 309N, “Lives and Deaths of Stars”** Austin, TX
Department of Astronomy, The University of Texas at Austin Spring 2019
 - Course on supernovas, white dwarfs, neutron stars, and black holes
 - Assisted students with course materials
- **Teaching Assistant, ASTR 321, “The Future of Humanity”** Austin, TX
Department of Astronomy, The University of Texas at Austin Spring & Fall 2018
 - Writing focused upper division astronomy course based on technological advancement
 - Graded and provided constructive feedback on written assignments
- **Teaching Assistant, ASTR 309C, “Birth of Stars & Planets”** Austin, TX
Department of Astronomy, The University of Texas at Austin Fall 2017
 - Course on specific topic of star & planet formation
 - Assisted students with in-class activities
 - Graded written portion of exams
- **Teaching Assistant, ASTR 1301, “Introduction to Astronomy”** Little Rock, AR
Department of Physics & Astronomy, The University of Arkansas at Little Rock Spring 2014 & Fall 2015
 - Worked with students on in-class assignments
 - Provided tutoring/office hours 2 hours a week
 - Graded students assignments
- **Teaching Assistant, PHYS 1122, “Elementary Physics II Laboratory”** Little Rock, AR
Department of Physics & Astronomy, The University of Arkansas at Little Rock Spring 2015
 - Provided assistance to students conducting laboratory exercises
 - Maintained laboratory equipment
- **Lab Tutor, Student Support Services** Little Rock, AR
TRiO Programs, The University of Arkansas at Little Rock 2013-2014
 - Tutored students in calculus, college algebra, pre-core mathematics, and elementary physics

OTHER EXPERIENCE

- **National Park Service, Sequoia National Park** Mineral King, CA
Night Skies Assistant 2019
 - Designed pop-up activities on the importance of natural skies and natural sounds for visitors to Mineral King
 - Designed evening program on the importance of natural skies for visitors to Mineral King
- **National Park Service, Sleeping Bear Dunes National Lakeshore** Empire, MI
Night Skies Assistant 2016
 - Photo documented lighting inventory for park per Dark-Sky Park application guidelines
 - Worked with night sky ranger and Grand Traverse Astronomical Society for public outreach at monthly star parties and solar events
 - Led astronomy demo and public presentation for the inaugural Astronomy Day
 - Created content for the park website and developed programs and activities for astronomy events
- **Museum of Discovery** Little Rock, AR
Museum Educator 2013 - 2016
 - Facilitated STEM workshops and programs with museum visitors
 - Worked with Planet X educator on Race for Planet X mobile museum throughout Arkansas
- **Maria Mitchell Association** Nantucket, MA
Astronomy Educator 2015
 - Developed and implemented programs for children and families that taught astronomy using art, story-telling, rockets, robots, and the science of flight
 - Directed science camps for preschoolers and their families
 - Assisted with public stargazing nights at Maria Mitchell Association Loines Observatory
 - Hosted weekly solar telescope viewings
- **Code/Interactive** Bronx, NY
Shepherd Intern 2013
 - Worked with Code/Interactive staff to execute the Young Entrepreneur Summit (Y.E.S), a 10-14 day program where students learned different aspects of project development and entrepreneurial skills with technology education lectures and outdoor based excursions
 - Guided students through interactive astronomy lesson
 - Served as a mentor and advisor to inner-city urban youth
 - Assisted with SummerQamp internship programs through event planning, scheduling, and participating in interviews and attending technology startup site visits

OUTREACH AND SERVICE

- **The Ohio State University Department of Astronomy Diversity Committee** Columbus, OH
Graduate student representative 2019
- **Capital of Texas Undergraduate Research Conference** Austin, TX
Graduate student judge 2018
- **TAURUS Summer Research Program** Austin, TX
Served as a graduate student mentor and developed imposter syndrome graduate student panel seminar 2017, 2018
- **UT Austin Girls Days Festival** Austin, TX
STEM festival for over 8,600 K-8th grade girls with activities and demos 2017, 2019
- **Aviators Academy** Little Rock, AR
Led an after-school outreach program for 6-11 students focused on STEM activities 2016

- **Arkansas Children's Hospital** Little Rock, AR
Led science outreach programs for inpatients 2015
- **Maker-faire** North Little Rock, AR
Maintained STEM focused makers booth 2015
- **Amazeum Tinkerfest** Bentonville, AR
One day STEAM oriented festival 2014
- **Girls of Promise** Little Rock, AR
Led physics demos for 8th grade girls 2014-2015
- **Discover UALR Day** Little Rock, AR
Led physics demonstrations for prospective students 2014-2015

PROGRAMMING LANGUAGES & SOFTWARE

Python, \LaTeX

PROFESSIONAL MEMBERSHIPS

American Astronomical Society Junior Member

FELLOWSHIP, AWARDS AND HONORS

- IGEN Travel Award 2019
- LSSTC Data Science Fellowship 2018
- Dean's Strategic Fellowship (UT Austin) 2016
- Astronomy Graduate Excellence Fellowship (UT Austin) 2016
- Outstanding Senior Award (McNair Scholars Program) 2016
- Ronald E. McNair Scholars Program 2014-2016
- UALR College of Arts, Letters, and Sciences Ambassador 2014-2015
- Friday Fellows Scholarship Program for Leadership and Service 2012-2014
- Shepherd Poverty Studies Intern 2013
- Just Communities of Arkansas Leadership for Social Justice Program 2011