

William Waalkes

William.Waalkes@Colorado.edu

EDUCATION

Current (PhD) **University of Colorado**, Boulder, CO
PhD Candidate, Astrophysics & Planetary Sciences Department

2013-16 (B.S.) **University of Michigan**, Ann Arbor, MI
BS, *Magna Cum Laude*, Astronomy & Astrophysics, Physics

RESEARCH PROFILE

2017- **PhD Candidate**
Advisor: Zachory Berta-Thompson, University of Colorado Boulder

2014-16 **Research Assistant, U of M Astronomy & Astrophysics Department**
Advisor: Dr. Edwin Bergin, University of Michigan

2015 **REU Intern, Smithsonian Astrophysical Observatory**
Advisors: Dr. Viviana Guzmán & Dr. Karin Öberg, Harvard Smithsonian Center for Astrophysics

2014 **REU Intern, U of M Space Sciences Department**
Advisor: Dr. Orenthal Tucker, University of Michigan

TEACHING EXPERIENCE

2018 **TA, Astronomy 3400: Research Methods**
University of Colorado Boulder Astrophysics and Planetary Sciences Department

2016 **Lab Instructor, Astronomy 102: Introductory Astronomy**
University of Michigan Astronomy & Astrophysics Department

2016 **Lab Instructor, Astronomy 101: The Solar System**
University of Michigan Astronomy & Astrophysics Department

AWARDS & HONORS

2018 NSF Graduate Research Fellow

2017 NSF GRFP Honorable Mention

2016 Chambliss Astronomy Achievement Student Award, Undergrad. Honorable Mention

MEMBERSHIPS & COMMITTEES

2016 Sigma Pi Sigma Physics Honor Society

2015-2016 President, University of Michigan Student Astronomical Society

2015-Present Member, American Astronomical Society

PUBLICATIONS

Crossfield, I., and 59 other authors including **William Waalkes**. “A Super-Earth and Sub-Neptune Transiting the Late-type M Dwarf LP 791-18.” (2020), *ApJ*.

Waalkes, William et al., “*Constraining neutral hydrogen outflow and stellar host Lyman-alpha reconstruction for transiting super-Earth GJ1132b.*” (2019), *Astronomical Journal*.

Vanderspek, R., and 46 other authors including **William Waalkes**. “*TESS Discovery of an Ultra-Short-Period Planet around the Nearby M Dwarf LHS 3844.*” (2019), *ApJ*.

Bean, J., and 101 other authors including **William Waalkes**. “*The Transiting Exoplanet Community Early Release Science Program for JWST.*” (2019), *PASP*.

Tucker, O., **Waalkes, W.C.**, Tenishev, V., Johnson, R., Bieler, A., Combi, M., Nagy, A. “*Examining the Exobase Approximation: DSMC Models of Titan’s Upper Atmosphere.*” (2016), *Icarus*.

PRESENTATIONS

- 2019 American Astronomical Society 233rd Meeting. “*Lyman-alpha transit observations of the warm rocky exoplanet GJ1132b.*” Talk.
- 2018 Cool Stars 20 Conference, Boston, MA. “*Lyman-alpha transit observations of the warm rocky exoplanet GJ1132b.*” Poster.
- 2018 American Astronomical Society 231st Meeting, Washington, DC. “*Investigating Neutral Hydrogen Outflow from Rocky Exoplanet GJ1132b using Lyman- α Transit Observations.*” Poster.
- 2016 American Astronomical Society 227th Meeting, Kissimmee, FL. “*Spatial Distribution of Small Organics in Prestellar and Protostellar Cores.*” Poster. (Chambliss Honorable Mention Recipient)
- 2015 SAO Summer Intern Symposium at the Harvard-Smithsonian Center for Astrophysics, Cambridge, MA. “*Spatial Distribution of Small Organics in Prestellar and Protostellar Cores.*” Talk.
- 2015 Astronomy Undergraduate Poster Session, University of Michigan, Ann Arbor, MI. “*A Survey of HCN Abundance in Hot Cores.*” Poster.
- 2014 REU Summer Symposium, University of Michigan, Ann Arbor, MI. “*Modeling Titan’s Exosphere Using the Direct Simulation Monte Carlo Method.*” Talk.

OBSERVING EXPERIENCE

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| 2018-20 | Las Cumbres Observatory (LCOGT) |
| 2018 | Astronomy Research Consortium Small Aperture Telescope (ARCSAT) |
| 2018 | Astronomy Research Consortium 3.5m Telescope |
| 2015 | Miniature Exoplanet Radial Velocity Array (MINERVA) |
| 2015 | MDM Observatory |

PUBLIC OUTREACH & COMMUNITY SERVICE

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| 2017-20 | Mentor for a local high school student on a science fair project |
| 2017-20 | Public outreach contributor at the Somers-Bausch Observatory |
| 2014-16 | U of M Student Astronomical Society Public Observing Nights & Planetarium Shows |