

Andrew Vanderburg

SAGAN POSTDOCTORAL FELLOW AT THE UNIVERSITY OF TEXAS AT AUSTIN
2515 Speedway • Stop C1400 • Austin, TX 78712
avanderburg@utexas.edu • <https://www.cfa.harvard.edu/~avanderb/>

Appointments

Assistant Professor at The University of Wisconsin-Madison	Starting August 2020
NASA Sagan Postdoctoral Fellow at The University of Texas at Austin	September 2017 - present
Research Associate at the Smithsonian Astrophysical Observatory	September 2017 - present
Postdoctoral Associate at Harvard University	July 2017 - September 2017

Education

Harvard University <i>Ph.D. Astronomy and Astrophysics (2017)</i> <i>A.M. Astronomy and Astrophysics (2015)</i>	Cambridge, MA <i>August 2013 - May 2017</i>
University of California, Berkeley <i>B.A. Physics and Astrophysics (2013)</i>	Berkeley, CA <i>August 2009 - May 2013</i>

Research Interests

- Searching for and studying small planets orbiting other stars
- Determining detailed physical properties of terrestrial planets
- Learning about the origins and evolution of planetary systems
- Testing theories of planetary migration by studying the architecture of planetary systems
- Measuring the prevalence of planets in different galactic environments
- Developing and using new data analysis techniques in astronomy, including machine learning and deep learning.

Awards

- 2018 NASA Exceptional Public Achievement Medal
- 2017 NASA Sagan Fellow
- 2016 *Publications of the Astronomical Society of the Pacific* Outstanding Reviewer Award
- 2015 K2 Science Conference Student Researcher Award
- 2013 National Science Foundation Graduate Research Fellow
- 2013 Harvard Astronomy James Mills Peirce Fellow
- 2013 UC Berkeley Astronomy Department Dorothea Klumpke Roberts Prize
- 2013 UC Berkeley Physics Department Citation Award
- 2013 American Astronomy Society Chambliss Astronomy Achievement Student Award
- 2012 Barry Goldwater Scholar
- 2012 Caltech Summer Undergraduate Research Fellow
- 2009 National Merit Scholar

Publication Summary

Refereed/under review publications: 115 (14 first author, including one in *Nature*, 20 second author)

A full listing of publications is available at the end of this document.

Total Citations to Refereed Publications: 2537 (769 first author)

Unrefereed Publications: 4 (1 first author)

Invited Review Chapters: 1 (1 first author)

Successful/Awarded Grants

- PI of the TESS Guest Investigator Cycle 2 award: “Disintegrating Rocky Bodies Transiting White Dwarfs: The Key to Understanding Exoplanet Compositions”
Total budget: \$43,000. (admin PI: Adam Kraus)
- PI of the K2 Guest Observer Cycle 6 award: “Solidifying K2’s Legacy: Short-Cadence Characterization of K2’s Benchmark Planetary Systems”
Total budget: \$30,000. (admin PI: Adam Kraus)
- PI of the TESS Guest Investigator Cycle 1 award: “Disintegrating Rocky Bodies Transiting White Dwarfs: The Key to Understanding Exoplanet Compositions”
Total budget: \$37,000. (admin PI: Adam Kraus)
- PI of the Sagan Fellowship award: “The Galactic Distribution of Exoplanets”
Total budget: \$341,550. (admin PI: Adam Kraus)

Teaching and Advising

Classroom Experience

- Co-designed and co-taught a “Hands on Session” at the 2018 Sagan Summer Workshop in Pasadena, CA. The session was designed to teach beginning graduate students how to use the *vespa* software package to calculate the false positive probability of transiting candidate exoplanets and guide them through independent “group projects” to apply their skills. AV led the design of the group projects.
- Guest Lecturer for The University of Texas at Austin Astronomy 381 (Planetary Astrophysics) and Astronomy 364P (Planetary Systems), Fall 2017. Instructor: Adam Kraus.
- Teaching Fellow for Harvard Astronomy 218 (Graduate level radio astronomy), Fall 2015. Instructor: Lincoln Greenhill.
- Teaching Fellow for Harvard Astronomy 16 (Undergraduate level stellar and planetary astronomy), Spring 2015. Instructor: John Johnson.
- Lead instructor for UC Berkeley Electrical Engineering/Computer Science 98/198 (Pioneers in Engineering Robotics Mentorship), Spring 2013. Instructor of record: Pieter Abbeel.

Advising

Graduate Students

- Liang Yu (Massachusetts Institute of Technology): June 2018-May 2019. AV was the primary advisor of the final chapter of her thesis, and Ian Crossfield was her primary thesis advisor. Liang has submitted a paper (as first author) on this work.

Undergraduate Students

- Maura Lally (Northwestern University): June 2019-present, primarily advised by AV.
- Zoe de Beurs (University of Texas at Austin): September 2018-present, primarily advised by AV.
- Aditya Shah (University of Texas at Austin): August 2018-May 2019, primarily advised by AV.
- Gerlindero Difo Cheri (University of the Virgin Islands). June-August 2018. Summer TAURUS internship, primarily advised by AV.
- Anne Dattilo (University of Texas at Austin): Dec 2017-August 2019, primarily advised by AV. Anne has published a paper (as first author) describing the results of her work.
- Rayna Rampalli (Wellesley College): June 2017-May 2019. Summer internship (primarily advised by AV) and senior thesis (advised by D. Latham, assisted by AV). Rayna has published a paper (as first author) describing some of the results from her senior thesis.
- Clea Schumer (Harvard College): October 2016-August 2017. Primarily advised by AV.

- Andrew Mayo (Harvard College): April 2014-August 2017. Advised by AV during semesters, a summer internship (2015, official advisor J. Johnson), and senior thesis (2016-2017, primary advisor AV, official advisor D. Latham). Andrew Mayo is first author on a paper describing his senior thesis and co-author on six other papers resulting from his project.

High School Students

- Alex Reichenbach (Phillips Andover Academy, Andover, MA): August 2017-present: External advisor for Andover Physics 530 (senior level astronomy research course).
- Andrew Wang (Phillips Andover Academy, Andover, MA): August 2017-present: External advisor for Andover Physics 530 (senior level astronomy research course).
- Joshua Marsh (Tully State High School, Tully, Queensland, Australia): July 2017-August 2017: MIT Research Science Institute intern (primarily advised by R. Di Stefano, assisted by AV).
- Josh Kelle (Leander High School, Leander, TX): June 2011-August 2011: Applied Research Laboratory at UT Austin, Science & Engineering Apprenticeship (primarily advised by F. Stefani, assisted by AV).
- Michael Kloc (Westlake High School, Austin, TX): Applied Research Laboratory at UT Austin, Science & Engineering Apprenticeship (primarily advised by F. Stefani, assisted by AV).
- Eliseo Treviño (Akins High School, Austin, TX): Applied Research Laboratory at UT Austin, Science & Engineering Apprenticeship (primarily advised by F. Stefani, assisted by AV).

Service

Professional Service

- Referee for *Nature*, *the Astrophysical Journal*, *the Astrophysical Journal Letters*, *the Astronomical Journal*, *Monthly Notices of the Royal Astronomical Society*, *Nature Astronomy*, *Astronomy and Astrophysics*, *Publications of the Astronomical Society of the Pacific*, *Astronomy and Computing*, and *Publications of the Astronomical Society of Australia* (2015-present).
- Panelist for the Hubble Space Telescope Cycle 27 proposal review (2019).
- External expert reviewer for OPTICON (European) and TAP (Chinese) telescope proposals (2018-present).
- Review Panelist for NASA Tabletop Review of K2 mission data products (2017).
- Reviewer for NASA K2 Mission DDT Proposals (2017).
- Reviewer for NASA Earth and Space Science Fellowship (NESSF) proposals (2018).
- Reviewer for NASA Future Investigators in NASA Earth and Space Science and Technology (FINESST) (2019).
- Poster competition judge for the Kepler/K2 Science Conference V (2019), the 227th AAS meeting (2016), the Kepler/K2 Science Conference IV (2017), and the Know Thy Star, Know Thy Planet Meeting (2017).
- Member of the Kepler False Positive Working Group (2017–present) and Kepler Reliability Working Group (2017–2018)
- Member of the TESS Follow-up Working Group (2017–present) and TESS TOI Working Group (2017-present), the TESS Extended Mission Working Group (2018-present), and the TESS Science Office (2018-present).
- Produces and publicly releases processed K2 data on the K2SFF High Level Science Product hosted at STSci. With over 200,000 light curves, this is the most complete collection of public K2 light curves (2014-present).

Department Service

- Member/postdoc representative for the University of Texas Astronomy Research Experience for Undergraduates (REU) selection committee (2019).
- Member/postdoc representative for the University of Texas Astronomy graduate admissions committee (2018-2019).
- Founder/organizer of ExoUpdate, a weekly group meeting for exoplanet researchers in the University of Texas Astronomy department (2017-present).
- Core group organizer of the University of Texas Pop-Up Institute for Planetary Habitability (2018).
- Mentor for incoming graduate students for the Harvard Astronomy Graduate Student Peer Mentorship Program (2016-2017).

Outreach

- Volunteer for Pioneers in Engineering robotics competition (Berkeley, CA), which promotes the involvement of underrepresented communities in science and engineering. Was a major participant from 2011-2013 while living in Berkeley, CA, and contributes at a lower level remotely from 2013-present.
- Docent at the Harvard-Smithsonian Center for Astrophysics Observatory Nights (2015-2017)
- Led outreach telescope observing with the Harvard Observing Project (2013-2017).

Press Coverage of First Author Papers

- *NASA's Kepler Reborn, Makes First Exoplanet Find of New Mission*: Joint release from the Harvard-Smithsonian Center for Astrophysics and NASA, December 18, 2014. Coverage: 285 uniquely hosted articles including the New York Times, Los Angeles Times, the Washington Post, PBS Newshour, Reuters, and Yahoo! News.
- *Cosmic "Death Star" is Destroying a Planet*: Joint release from the Harvard-Smithsonian Center for Astrophysics and NASA, October 21, 2015. Coverage: 995 uniquely hosted articles including the Wall Street Journal, the New York Post, the Washington Post, the BBC, the USA Today, and Yahoo! News.
- *New Kepler Mission Cranking Out Exoplanet Finds*: 11 uniquely hosted articles including Nature News, Popular Mechanics, Discovery News, Gizmodo, and AAS Nova.
- *Kepler's K2 mission Just Uncovered its First 5-Planet System*: 6 uniquely hosted articles including Mic, the Universe Today, and AAS Nova.

Employment

Space Sciences Laboratory Research Assistant	June 2013 - August 2013
Texas Research International/Center for Aeromechanics Research Research Assistant	June 2013 - August 2013
Summer Undergraduate Research Fellow at Caltech	June 2012 - August 2012
Institute for Advanced Technology Research Assistant	June 2009 - January 2012

Talks/Presentations

Invited/Guest

- Vanderburg, Andrew. "A Disintegrating Minor Planet Transiting a White Dwarf." TAURUS/REU Summer Seminar series, Austin, TX, Jul. 11, 2019.
- Vanderburg, Andrew "Benchmark Exoplanet Systems Discovered by the K2 Mission" Kepler & K2 Science Conference V, Glendale, CA, Mar. 5, 2019.
- Vanderburg, Andrew et al. "Preparing for Earth 2.0: The Detailed Properties of Terrestrial Exoplanets" University of Wisconsin-Madison Astronomy Colloquium, Madison, WI, Feb. 21, 2019.

- Vanderburg, Andrew et al. “Preparing for Earth 2.0: The Detailed Properties of Terrestrial Exoplanets” University of California, Los Angeles Astronomy Colloquium, Los Angeles, CA, Jan. 23, 2019.
- Vanderburg, Andrew et al. “Preparing for Earth 2.0: Understanding the Detailed Properties of Exoplanets to Enable Future Missions to Characterize Earth Analogs” University of Michigan Astronomy Department Colloquium, Ann Arbor, MI, Nov. 1, 2018.
- Vanderburg, Andrew et al. “WASP-47 and the Origin of Hot Jupiters” Carnegie Institution of Science, Department of Terrestrial Magnetism, Astro Seminar, Washington DC, Oct. 5, 2018.
- Vanderburg, Andrew. “From Pixels to Planets: The Process of Validating Transiting Planets.” Sagan Exoplanet Summer Workshop, Pasadena, CA, July 23, 2018. Watch online at <https://www.youtube.com/watch?v=9HzLeELRgy0>.
- Vanderburg, Andrew. “A Disintegrating Minor Planet Transiting a White Dwarf.” TAURUS Summer Seminar series, Austin, TX, Jul. 17, 2018.
- Vanderburg, Andrew. “The Pathway towards Characterizing Exoplanets” University of Texas Pop-Up Institute on Planetary Habitability, Austin, TX, July 10, 2018.
- Vanderburg, Andrew et al. “WASP-47 and the Origin of Hot Jupiters” Lowell Observatory Colloquium, Flagstaff, AZ, Mar. 8, 2018.
- Vanderburg, Andrew et al. “WASP-47 and the Origin of Hot Jupiters” University of Texas at Austin Astronomy Department Colloquium, Austin, TX, Sept.19, 2017.
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” Harvard-Smithsonian Center for Astrophysics, Dissertation Colloquium, Cambridge, MA, May 2, 2017.
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” Vanderbilt University Seminar, Nashville, TN, November 4, 2016.
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” MIT Astrophysics Brown-Bag Lunch Seminar, Cambridge, MA, October 31, 2016.
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” IPAC Seminar, Pasadena, CA, October 28, 2016.
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” Penn State CEHW Seminar, State College, PA, October 10, 2016.
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” UC Santa Cruz FLASH Seminar, Santa Cruz, CA, September 23, 2016.
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” UC Berkeley CIPS Seminar, Berkeley, CA, September 21, 2016.
- Vanderburg, Andrew et al. “K2’s contribution to Opportunity M” Opportunity M Conference, Cambridge, MA, August 30, 2016.
- Vanderburg, Andrew et al. “Searching for Planets with K2” NASA Ames Research Center, Moffett Field, CA, April 21, 2016.
- Vanderburg, Andrew et al. “Searching for Planets with K2” Space Telescope Science Institute Star and Planet Formation Seminar, Baltimore, MD, April 8, 2016.
- Vanderburg, Andrew et al. “Searching for Planets with K2” University of Texas ISM Seminar, Austin, TX, January 29, 2016.
- Vanderburg, Andrew et al. “Searching for Planets with K2” Big Data@Tel Aviv Conference, Tel Aviv, Israel, December 14, 2015.
- Vanderburg, Andrew et al. “Characterizing K2 Planet Discoveries” Boston University Astronomy Tuesday Lunch Talk, March 2, 2015.
- Vanderburg, Andrew et al. “HIP 116454 b: K2’s First Exoplanet” as part of the K2 special session at the 225th American Astronomical Society Meeting, Seattle, WA, January 5, 2015

Contributed

- Vanderburg, Andrew et al. “Identifying Exoplanets with Deep Learning: New Discoveries and Progress Towards Planet Occurrence Rates in Kepler, K2, and TESS” Extreme Solar Systems VI, Reykjavik, Iceland, August 19, 2019
- Vanderburg, Andrew et al. “Detecting Exomoons via Doppler Monitoring of Directly Imaged Exoplanets” Bay Area Exoplanets Meeting, Moffett Field, CA, March 1 2019
- Vanderburg, Andrew et al. “Identifying Exoplanets with Deep Learning: Towards Improved Planet Occurrence Rates with Kepler, K2, and TESS” 233rd American Astronomical Society Meeting, Seattle, WA, January 9, 2019
- Vanderburg, Andrew et al. “Early Results from the TESS Mission” Sagan/Michelson Fellows’ Symposium, Pasadena, CA, November 8, 2018
- Vanderburg, Andrew et al. “Planet Occurrence in the M67 Open Cluster” K2 Dwarf Stars and Clusters Workshop, Boston, MA, January 16, 2018
- Vanderburg, Andrew et al. “WASP-47 and the Origin of Hot Jupiters” 231st American Astronomical Society Meeting, National Harbor, MD, January 12, 2018
- Vanderburg, Andrew et al. “WASP-47 and the Origin of Hot Jupiters” Bay Area Exoplanets Meeting, Moffett Field, CA, November 30 2017
- Vanderburg, Andrew et al. “Towards Better Planet Occurrence Rates from Kepler and K2” NASA Sagan/Michelson Fellows Symposium, Pasadena, CA, November 9, 2017
- Vanderburg, Andrew et al. “Precise Stellar Parameters are Crucial for Constraining Transiting Exoplanet Interiors” Know Thy Star, Know Thy Planet Meeting, Pasadena, CA, October 9, 2017
- Vanderburg, Andrew et al. “HARPS-N Observations of K2 Planet Candidates and Planet Masses in the WASP-47 System” Kepler & K2 Science Conference IV, Moffett Field, CA, June 19, 2017
- Vanderburg, Andrew et al. “Precise Masses in the WASP-47 System” 230th American Astronomical Society Meeting, Austin, TX, June 8, 2017
- Vanderburg, Andrew et al. “The Past, Present, and Future of Planetary Systems” 229th American Astronomical Society Meeting, Grapevine, TX, January 7, 2017
- Vanderburg, Andrew et al. “A Disintegrating Minor Planet Transiting a White Dwarf” Bay Area Exoplanets Meeting, Moffett Field, CA, September 30, 2016.
- Vanderburg, Andrew et al. “Planetary Candidates from the First Year of the K2 Mission” 227th American Astronomical Society Meeting, Kissimmee, FL, January 5, 2016
- Vanderburg, Andrew et al. “A Disintegrating Minor Planet Transiting a White Dwarf” K2 Science Conference, Santa Barbara, CA, November 4, 2015.
- Vanderburg, Andrew et al. “Characterizing K2 Planet Discoveries” 225th American Astronomical Society Meeting, Seattle, WA, January 5, 2015.

Public/Outreach

- Vanderburg, Andrew “Searching For Planets (and Life) Beyond Our Own Solar System.” Austin Independent School District Science + Mathematics X Conference, Austin, TX, Aug. 1, 2018.
- Vanderburg, Andrew “Using Artificial Intelligence to Find the Number of Earth-like Planets in our Galaxy” McDonald Observatory Special Viewing Night, Ft. Davis, TX, May 23, 2018.
- Vanderburg, Andrew “Using Artificial Intelligence to Find the Number of Earth-like Planets in our Galaxy” McDonald Observatory Special Viewing Night, Ft. Davis, TX, Mar. 26, 2018.
- Vanderburg, Andrew “Using Artificial Intelligence to Find the Number of Earth-like Planets in our Galaxy” McDonald Observatory Board of Visitors Meeting, Austin, TX, Feb. 17, 2018.

- Vanderburg, Andrew “A Disintegrating Minor Planet Transiting a White Dwarf” McDonald Observatory Special Viewing Night, Ft. Davis, TX, Jan. 31, 2018.
- Vanderburg, Andrew “A Disintegrating Minor Planet Transiting a White Dwarf” Amateur Telescope Makers of Boston monthly meeting, Cambridge, MA, Dec. 8, 2016.
- Vanderburg, Andrew “Kepler’s Second Chance” SkyScrapers Inc. Astronomical Society of Rhode Island annual AstroAssembly, North Scituate, RI, Oct. 3, 2015.

Posters

- Vanderburg, Andrew et al. “WASP-47 and the Origin of Hot Jupiters.” Frank N. Bash Symposium, Austin, TX, October 2017
- Vanderburg, Andrew et al. “Extracting Precise K2 Photometry.” Towards other Earths Conference, Porto, Portugal, September 2014
- Vanderburg, Andrew et al. “Investigating Systematic Errors in Iodine Cell Radial Velocity Measurements.” 223rd American Astronomical Society Meeting, National Harbor, MD, January 2013
- Vanderburg, Andrew et al. “Improving Radial Velocity Precision for Faint Star Extra-Solar Planet Surveys.” 221st American Astronomical Society Meeting, Long Beach, CA, January 2013
- Vanderburg, Andrew et al. “Improving Radial Velocity Precision for Faint Star Extra-Solar Planet Surveys.” 2012 Keck Science Meeting, San Diego, CA, September 2012
- Vanderburg, Andrew et al. “An Algorithm to Increase the Spectral Resolution of the TEDI/Triplespec Instrument.” 2012 Berkeley Physics Undergraduate Poster Session, Berkeley, CA, April 2012
- Vanderburg, Andrew et al. “An Algorithm to Increase the Usable Spectral Resolution of the TripleSpec/TEDI Instrument.” 2011 Berkeley Physics Undergraduate Poster Session, Berkeley, CA, April 2011
- Vanderburg, Andrew “Optimization of B-dot Sensors to Resolve Velocity Skin Effect.” Science and Engineering Apprenticeship Program Poster Session, Austin, TX, August 2009

Publications

Refereed/under review (14 first author, 115 total)

- **Vanderburg, A.** et al. “TESS Spots a Compact System of Super-Earths around the Naked-Eye Star HR 858” *The Astrophysical Journal Letters*, 881, L19 (2019).
- **Vanderburg, A.** et al. “Zodiacal Exoplanets in Time (ZEIT) VII: A Temperate Candidate Super-Earth in the Hyades Cluster” *the Astronomical Journal*, 156, 46 (2018).
- **Vanderburg, A.** et al. “Detecting Exomoons Via Doppler Monitoring of Directly Imaged Exoplanets” *the Astronomical Journal*, 156, 184 (2018).
- **Vanderburg, A.** et al. “Precise Masses in the WASP-47 System” *The Astronomical Journal*, 154, 237 (2017).
- **Vanderburg, A.** et al. “Two Small Planets Transiting HD 3167” *The Astrophysical Journal Letters*, 829, L9 (2016).
- **Vanderburg, A.** et al. “Five Planets Transiting a Ninth Magnitude Star” *The Astrophysical Journal Letters*, 827, L10 (2016).
- **Vanderburg, A.** et al. “Radial Velocity Planet Detection Biases at the Stellar Rotational Period” *Monthly Notices of the Royal Astronomical Society* 459, 4, p.3565-3573 (2016).
- **Vanderburg, A.** et al. “Planetary Candidates from the First Year of the K2 Mission” *The Astrophysical Journal Supplement*, 222, 14 (2016).
- **Vanderburg, A.** et al. “A Disintegrating Minor Planet Transiting a White Dwarf.” **Nature**, 526, 546 (2015).

- **Vanderburg, A.** et al. “Characterizing K2 Planet Discoveries: A super-Earth Transiting the Bright K-dwarf HIP 116454.” *The Astrophysical Journal*, 800, 59 (2015).
- **Vanderburg, A.** and Johnson, J. A. “A Technique for Extracting Highly Precise Photometry for the Two-Wheeled *Kepler* Mission” *Publications of the Astronomical Society of the Pacific*, 126, 944 (2014).
- **Vanderburg, A.** et al. “The Electrical Specific Action to Melt of Structural Copper and Aluminum Alloys,” *IEEE Transactions on Plasma Science*, 42, 10, p.3167-3172, (2014)
- **Vanderburg, A.**, et al. “Measurements of Electrical Specific Action to Melt for Brass and Aluminum Alloys,” *IEEE Transactions on Plasma Science*, 41, 8, p.2427-2433, (2013)
- **Vanderburg, A.** and Stefani, F., “Measuring the Armature Position in a Railgun Using Embedded Permanent Magnets,” *IEEE Transactions on Plasma Science*, 39, 1, p.466-470, (2011)
- Rappaport, S., **Vanderburg, A.**, et al. “The Random Transiter - EPIC 249706694/HD 139139”, *Monthly Notices of the Royal Astronomical Society* 488, 2455 (2019).
- Yu, L., **Vanderburg, A.**, et al. “Identifying Exoplanets with Deep Learning III: Automated Triage and Vetting of TESS Candidates”, *the Astronomical Journal*, in press (2019).
- Dattilo, A., **Vanderburg, A.**, et al. “Identifying Exoplanets with Deep Learning II: Two New Super-Earths Uncovered by a Neural Network in K2 Data”, *the Astronomical Journal*, in press (2019).
- Becker, J. C., **Vanderburg, A.**, et al. “A Discrete Set of Possible Transit Ephemerides for Two Long Period Gas Giants Orbiting HIP 41378”, *The Astronomical Journal*, in press (2018).
- Rizzuto, A. C., **Vanderburg, A.**, et al. “Zodiacal Exoplanets in Time (ZEIT) VIII: A Two Planet System in Praesepe from K2 Campaign 16” *The Astronomical Journal*, 156, 195 (2018).
- Haywood, R. D., **Vanderburg, A.**, et al. “An accurate mass determination for Kepler-1655b, a moderately-irradiated world with a significant volatile envelope” *The Astronomical Journal*, 155, 203 (2018).
- Curtis, J. L., **Vanderburg, A.**, et al. “K2-231 b: A sub-Neptune exoplanet transiting a solar twin in Ruprecht 147 ” *The Astronomical Journal*, 155, 173 (2018).
- Mayo, A. W., **Vanderburg, A.**, et al. “275 Candidates and 149 Validated Planets Orbiting Bright Stars in K2 Campaigns 0-10” *The Astronomical Journal*, 155, 136 (2018).
- Shallue, C. J. and **Vanderburg, A.** “Identifying Exoplanets with Deep Learning: A Five Planet Resonant Chain around Kepler-80 and an Eighth Planet around Kepler-90” *The Astronomical Journal*, 155, 84 (2018).
- Becker, J. C., **Vanderburg, A.**, et al. “Exterior Companions to Hot Jupiters Orbiting Cool Stars are Coplanar ” *The Astronomical Journal*, 154, 230 (2017).
- Mann, A. W., **Vanderburg, A.**, et al. “Zodiacal Exoplanets in Time (ZEIT) VI: A Three-Planet System in the Hyades Cluster Including an Earth-Sized Planet” *The Astronomical Journal*, 155, 4 (2017).
- Rodriguez, J. E., **Vanderburg, A.**, et al. “ A System of Three Super Earths Transiting the Late K-Dwarf GJ 9827 at Thirty Parsecs,” *The Astronomical Journal*, 155, 72 (2018).
- Rappaport, S. A., **Vanderburg, A.**, et al. “ Likely Transiting Exocomets Detected by Kepler” *Monthly Notices of the Royal Astronomical Society*, 474, 1453 (2018).
- Christiansen, J. L., **Vanderburg, A.**, et al. “Three’s Company: An additional non-transiting super-Earth in the bright HD 3167 system, and masses for all three planets,” *The Astronomical Journal*, 154, 122 (2017).
- Rappaport, S., **Vanderburg, A.**, et al. “WD 1202-024: The Shortest-Period Pre-Cataclysmic Variable ” *Monthly Notices of the Royal Astronomical Society*, 471, 948 (2017).
- Dressing, C. D., **Vanderburg, A.**, et al. “Characterizing K2 Candidate Planetary Systems Orbiting Low-Mass Stars II: Planetary Systems Observed During Campaigns 1-7” *The Astronomical Journal*, 154, 207 (2017).
- Rappaport, S., **Vanderburg, A.**, et al. “ EPIC 220204960: A Quadruple Star System Containing Two Strongly Interacting Eclipsing Binaries” *Monthly Notices of the Royal Astronomical Society*, 467, 2160 (2017)

- Stello, D., **Vanderburg, A.**, et al. “The K2 M67 Study: Revisiting old friends with K2 reveals oscillating red giants in the open cluster M67 ” *The Astrophysical Journal*, 832, 133 (2016).
- Becker, J. C., **Vanderburg, A.**, et al. “WASP-47: A Hot Jupiter System with Two Additional Planets Discovered by K2” *The Astrophysical Journal Letters* 812, L18 (2015).
- Muirhead, P. S., **Vanderburg, A.**, et al. “Characterizing the Cool KOIs. V. KOI-256: A Mutually Eclipsing Post-common Envelope Binary.” *The Astrophysical Journal* 767, 111 (2013).
- Leiner, E., Mathieu, R. D., **Vanderburg, A.**. “ Blue Lurkers: Hidden Blue Stragglers on the M67 Main Sequence Identified from their Kepler/K2 Rotation Periods”, under review (2019).
- Carmichael, T., Latham, D. W., **Vanderburg, A.**. “New substellar discoveries from Kepler and K2: Is there a brown dwarf desert?”, under review (2019).
- Rappaport, S., Zhou, G., **Vanderburg, A.**, et al. “Deep Long Asymmetric Occultation in EPIC 204376071”, *Monthly Notices of the Royal Astronomical Society*, in press (2019).
- Vanderspek, R., Huang, C. X., **Vanderburg, A.**, et al. “TESS Discovery of an ultra-short-period planet around the nearby M dwarf LHS 3844”, under review (2018).
- Huang, C. X., Burt, J., **Vanderburg, A.**, et al. “TESS Discovery of a Transiting Super-Earth in the π Mensae System”, *The Astrophysical Journal Letters*, in press (2018).
- Torres, G., Curtis, J.L., **Vanderburg, A.**, et al. “Eclipsing binaries in the open cluster Ruprecht 147. I: EPIC 219394517”, *the Astrophysical Journal*, 866, 67 (2018).
- Zhou, G., Rodriguez, J.E., **Vanderburg, A.**, et al. “The warm Neptunes around HD 106315 have low stellar obliquities”, *the Astronomical Journal*, 156, 93 (2018).
- Esselstein, R., Aigrain, S., **Vanderburg, A.**, et al. “The K2 M67 Study: Establishing the Limits of Stellar Rotation Period Measurements in M67 with K2 Campaign 5 Data”, *the Astrophysical Journal*, 859, 167 (2018).
- David, T. J., Mamajek, E. E., **Vanderburg, A.**, et al. “Discovery of a Transiting Adolescent Sub-Neptune Exoplanet with K2”, *the Astronomical Journal*, in press (2018).
- Rizzuto, A. C., Mann, A. W., **Vanderburg, A.**, et al. “Zodiacal Exoplanets in Time (ZEIT) V: A Uniform Search for Transiting Planets in Young Clusters Observed by K2”. *The Astronomical Journal*, 154, 224 (2017).
- Rappaport, S. A., Gary, B. L., **Vanderburg, A.**, et al. “WD 1145+017: Optical Activity During 2016-2017 and Limits on the X-Ray Flux”. *Monthly Notices of the Royal Astronomical Society*, 474, 933 (2017).
- Shporer, A., Zhou, G., **Vanderburg, A.**, et al. “Three statistically validated K2 transiting warm Jupiter exoplanets confirmed as low-mass stars”. *The Astrophysical Journal Letters*, 847, 18 (2017).
- Rodriguez, J. E., Zhou, G., **Vanderburg, A.**, et al. “A Multi-Planet System Transiting the A Multi-Planet System Transiting the V = 9 Rapidly Rotating F-Star HD 106315”. *The Astronomical Journal*, 153, 256 (2017).
- Mann, A., Gaidos, E., **Vanderburg, A.**, et al. “Zodiacal Exoplanets in Time (ZEIT) IV: Seven Transiting Planets in the Praesepe Cluster ” *The Astronomical Journal*, 153, 64 (2017).
- Croll, B., Dalba, P. A., **Vanderburg, A.**, et al. “Multiwavelength Transit Observations of the Candidate Disintegrating Planetesimals Orbiting WD 1145+017” *The Astrophysical Journal*, 863, 82 (2017).
- Muirhead, P. S., Mann, A., **Vanderburg, A.**, et al. “Kepler-445, Kepler-446 and the Occurrence of Compact Multiples Orbiting Mid-M Dwarf Stars” *The Astrophysical Journal*, 801, 18 (2015).
- Swift, J. J., Montet, B. T., **Vanderburg, A.**, et al. “Characterizing the Cool KOIs VIII. Parameters of the Planets Orbiting Kepler’s Coolest Dwarfs” *The Astrophysical Journal Supplement*, 218, 26S (2015).
- Becker, J. C., Johnson, J. A., **Vanderburg, A.**, et al. “Extracting Radial Velocities of A- and B-type Stars from Echelle Spectrograph Calibration Spectra” *The Astrophysical Journal Supplement*, 218 29B (2015).

- Blunt, S. et al., **including Vanderburg, A.** “Radial Velocity Discovery of an Eccentric Jovian World Orbiting at 18 AU”, the *Astronomical Journal*, in press (2019).
- Kreidberg, L. et al., **including Vanderburg, A.** “Absence of a thick atmosphere on the terrestrial exoplanet LHS 3844b”, *Nature*, 573, 87 (2019).
- Yu, Z. et al., **including Vanderburg, A.** “A 9-Hr CV With One Outburst in 4 Years of Kepler Data”, *Monthly Notices of the Royal Astronomical Society*, in press (2019).
- Eastman, J. D. et al., **including Vanderburg, A.** “EXOFASTv2: A public, generalized, publication-quality exoplanet modeling code”, under review, (2019).
- Gaidos, E. et al., **including Vanderburg, A.** “Planetesimals Around Stars with TESS (PAST): I. Transient Dimming of a Binary Solar Analog at the End of the Planet Accretion Era”, *Monthly Notices of the Royal Astronomical Society*, 488, 4465 (2019).
- Newton, E. et al., **including Vanderburg, A.** “TESS Hunt for Young and Maturing Exoplanets (THYME): A planet in the 45 Myr Tucana-Horologium association”, the *Astrophysical Journal Letters*, 880, L17 (2019).
- Zeng, L. et al., **including Vanderburg, A.** “Growth model interpretation of planet size distribution”, *Proceedings of the National Academies of Science*, 116, 9723 (2019).
- Xu, S. et al., **including Vanderburg, A.** “Shallow Ultraviolet Transits of WD 1145+017”, the *Astrophysical Journal*, in press (2019).
- Günther, M. et al., **including Vanderburg, A.** “A Super-Earth and two sub-Neptunes transiting the bright, nearby, and quiet M-dwarf TOI-270”, under review, (2019).
- Damasso, M. et al., **including Vanderburg, A.** “So close, so different: characterization of the K2-36 planetary system with HARPS-N”, *Astronomy and Astrophysics*, in press, (2019).
- Bonomo, A. S. et al., **including Vanderburg, A.** “A giant impact as the likely origin of different twins in the Kepler-107 exoplanet system”, *Nature Astronomy*, in press, (2019).
- Rodriguez, J. E. et al., **including Vanderburg, A.** “An Eccentric Massive Jupiter Orbiting a Sub-Giant on a 9.5 Day Period Discovered in the Transiting Exoplanet Survey Satellite Full Frame Images”, under review, (2019).
- Quinn, S. N. et al., **including Vanderburg, A.** “Near-resonance in a system of sub-Neptunes from TESS”, under review, (2019).
- Kosiarek, M. R. et al., **including Vanderburg, A.** “EPIC 247418783b: A rocky super-Earth in a 2.2 day orbit”, *The Astronomical Journal*, in press, (2019).
- Dragomir, D. et al., **including Vanderburg, A.** “The Longest Period TESS Planet Yet: A Sub-Neptune Transiting A Bright, Nearby K Dwarf Star”, under review, (2019).
- Rice, K. et al., **including Vanderburg, A.** “Masses and radii for the three super-Earths orbiting GJ 9827, and implications for the composition of small exoplanets”, *Monthly Notices of the Royal Astronomical Society*, in press, (2019).
- Ansdell, M. et al., **including Vanderburg, A.** “The Little Dippers: Transits of Star-grazing Exocomets?”, *Monthly Notices of the Royal Astronomical Society*, in press, (2018).
- Jones, M. et al., **including Vanderburg, A.** “HD2685 b: A Hot-Jupiter orbiting an early F-type star detected by TESS”, under review, (2018).
- Oláh, K. et al., **including Vanderburg, A.** “Eclipsing Spotted Giant Star With K2 and Historical Photometry”, *Monthly Notices of the Royal Astronomical Society*, in press (2018).
- Borkovits, T. et al., **including Vanderburg, A.** “Photodynamical analysis of the triply eclipsing hierarchical triple system EPIC 249432662”, *Monthly Notices of the Royal Astronomical Society*, in press (2018).
- Mortier, A. et al., **including Vanderburg, A.** “K2-263b: A 50-day period sub-Neptune with a mass measurement using HARPS-N”, *Monthly Notices of the Royal Astronomical Society*, 481, 1839 (2018).

- Rodriguez Martinez, R. et al., **including Vanderburg, A.** “Characterization of Low Mass K2 Planet Hosts Using Near-Infrared Spectroscopy”, under review (2018).
- Yu, L. et al., **including Vanderburg, A.** “EPIC 246851721 b: A Tropical Jupiter Transiting a Rapidly Rotating Star in a Well-Aligned Orbit”, *the Astronomical Journal*, 156, 250 (2018).
- Rodriguez, J.E. et al., **including Vanderburg, A.** “A Compact Multi-Planet System With A Significantly Misaligned Ultra Short Period Planet”, *the Astronomical Journal*, 156, 245 (2018).
- Borkovits, T. et al., **including Vanderburg, A.** “EPIC 219217635: A Doubly Eclipsing Quadruple System Containing an Evolved Binary”, *Monthly Notices of the Royal Astronomical Society*, 478, 5135 (2018).
- Yu, L. et al., **including Vanderburg, A.** “Two warm, low-density sub-Jovian planets orbiting bright stars in K2 campaigns 13 and 14”, *The Astronomical Journal*, 156, 127 (2018).
- Damasso, M. et al., **including Vanderburg, A.** “Eyes on K2-3: A system of three likely sub-Neptunes characterized with HARPS-N and HARPS”, *Astronomy and Astrophysics*, 615, 69 (2018).
- Sandquist, E. et al., **including Vanderburg, A.** “The K2 M67 Study: A Curiously Young Star in an Eclipsing Binary in an Old Open Cluster”, *the Astronomical Journal*, 155, 152 (2018).
- Zhou, G. et al., **including Vanderburg, A.** “Occultations from an active accretion disk in a 72 day detached post-Algol system detected by K2 ”, *The Astrophysical Journal*, 854, 109 (2018).
- Zeng, L. et al., **including Vanderburg, A.** “Survival Function Analysis of Planet Orbit Distribution and Occurrence Rate Estimate”, under review (2018).
- Zeng, L. et al., **including Vanderburg, A.** “Survival Function Analysis of Planet Size Distribution with GAIA Data Release 2 Updates”, *Monthly Notices of the Royal Astronomical Society*, 479, 5567 (2018).
- Christiansen, J. L. et al., **including Vanderburg, A.** “The K2-138 System: A Near-resonant Chain of Five Sub-Neptune Planets Discovered by Citizen Scientists”, *The Astronomical Journal*, 155, 57 (2018).
- Malavolta, L. et al., **including Vanderburg, A.** “An ultra-short period rocky super-Earth with a secondary eclipse and a Neptune-like companion around K2-141”, *The Astronomical Journal*, 155, 107 (2018).
- Boyajian, T. S. et al., **including Vanderburg, A.** “The First Post-Kepler Brightness Dips of KIC 8462852”, *The Astrophysical Journal Letters*, 853, 8 (2018).
- Xu, S. et al., **including Vanderburg, A.** “A dearth of small particles in the transiting material around the white dwarf WD 1145+017”, *Monthly Notices of the Royal Astronomical Society*, 474, 4795 (2017).
- Dai, F. et al., **including Vanderburg, A.** “The discovery and mass measurement of a new ultra-short-period planet: EPIC 228732031b”. *The Astronomical Journal*, 154, 226 (2017).
- Bowler, B. et al., **including Vanderburg, A.** “The Young Substellar Companion ROXs 12 B: Near-Infrared Spectrum, System Architecture, and Spin-Orbit Misalignment ”. *The Astronomical Journal*, 154, 165 (2017).
- Shporer, A. et al., **including Vanderburg, A.** “K2-114b and K2-115b: Two Transiting Warm Jupiters”. *The Astronomical Journal*, 154, 188 (2017).
- Grunblatt, S. K. et al., **including Vanderburg, A.** “Seeing double with K2: Testing re-inflation with two remarkably similar planets around red giant branch stars,” *The Astronomical Journal*, 154, 254 (2017).
- Bayliss, D. et al., **including Vanderburg, A.** “HATS-36b and 24 other transiting/eclipsing systems from the HATSouth - K2 Campaign 7 program ” *The Astronomical Journal*, 155, 119 (2018).
- Guenther, E. W. et al., **including Vanderburg, A.** “K2-106, a system containing a metal rich planet and a planet of lower density” *Astronomy & Astrophysics*, 608, 93 (2017).
- Campante, T. et al., **including Vanderburg, A.** “Weighing in on the masses of retired A stars with asteroseismology: K2 observations of the exoplanet-host star HD 212771 ” *Monthly Notices of the Royal Astronomical Society*, 469, 1360 (2017).

- Malavolta, L. et al., **including Vanderburg, A.** “The Kepler-19 system: a thick-envelope super-Earth with two Neptune-mass companions characterized using Radial Velocities and Transit Timing Variations” *The Astronomical Journal*, 153, 224 (2017).
- Rodriguez, J. E. et al., **including Vanderburg, A.** “The Mysterious Dimmings of the T Tauri Star V1334 Tau” *The Astrophysical Journal*, 836, 209 (2017).
- Dressing, C. D. et al., **including Vanderburg, A.** “Characterizing K2 Candidate Planetary Systems Orbiting Low Mass Stars I: Classifying Low-Mass Host Stars Observed During Campaigns 1-7” *The Astrophysical Journal*, 836, 167 (2017).
- Leiner, E. et al., **including Vanderburg, A.** “The K2 M67 Study: An Evolved Blue Straggler in M67 from K2 Mission Asteroseismology” *The Astrophysical Journal Letters*, 832, 13L (2016).
- Lopez-Morales, M. et al., **including Vanderburg, A.** “Kepler-21b: A rocky planet around a $V = 8.25$ magnitude star” *The Astronomical Journal*, 152, 204 (2016).
- Buchhave, L. A. et al., **including Vanderburg, A.** “A 1.9 Earth radius rocky planet and the discovery of a non-transiting planet in the Kepler-20 system” *The Astronomical Journal*, 152, 160 (2016).
- Gaidos, E. et al., **including Vanderburg, A.** “Zodiacal Exoplanets in Time (ZEIT) II: A Super-Earth Orbiting a Young K Dwarf in the Pleiades Neighborhood”, 464, 850 (2016).
- Rappaport, S. et al., **including Vanderburg, A.** “A Quintuple Star System Containing Two Eclipsing Binaries” *Monthly Notices of the Royal Astronomical Society*, 462, 2, p.1812-1825 (2016).
- Mann, A. et al., **including Vanderburg, A.** “Zodiacal Exoplanets in Time (ZEIT) III: A Short-period Planet Orbiting a Pre-main-sequence Star in the Upper Scorpius OB Association” *The Astronomical Journal*, 152, 61 (2016).
- Mann, A. et al., **including Vanderburg, A.** “Zodiacal Exoplanets In Time (ZEIT) I: A Neptune-sized planet orbiting an M4.5 dwarf in the Hyades Star Cluster” *The Astrophysical Journal*, 818, 46 (2016).
- Dai, F. et al., **including Vanderburg, A.** “Doppler Monitoring of Five K2 Transiting Planetary Systems” *The Astrophysical Journal*, 853, 115 (2016).
- Erskine, D. J. et al., **including Vanderburg, A.** “High resolution broadband spectroscopy using externally dispersed interferometry at the Hale telescope: Part 1, data analysis and results” *Journal of Astronomical Telescopes, Instruments, and Systems*. 2, id. 025004 (2016).
- Van Eylen, V. et al., **including Vanderburg, A.** “The K2-ESPRINT Project V: a short-period giant planet orbiting a subgiant star” *The Astronomical Journal*, 152, 143 (2016).
- Rappaport, S. et al., **including Vanderburg, A.** “Drifting Asteroid Fragments around WD 1145+017” *Monthly Notices of the Royal Astronomical Society*, 458, 4, p.3904-3917 (2016).
- Gettel, S. et al., **including Vanderburg, A.** “The Kepler-454 System: A Small, Not-rocky Inner Planet, a Jovian World, and a Distant Companion”, *The Astrophysical Journal*, 816, 95 (2016).
- Yee, J. C. et al., **including Vanderburg, A.** “Two Stars Two Ways: Confirming a Microlensing Binary Lens Solution with a Spectroscopic Measurement of the Orbit” *The Astrophysical Journal*, 821, 121 (2016).
- Motalebi, F. et al., **including Vanderburg, A.**, “The HARPS-N Rocky Planet Search I. HD219134b: A transiting rocky planet in a multi-planet system at 6.5 pc from the Sun”, *Astronomy & Astrophysics*, 584A, 72 (2015).
- Dai, F. et al., **including Vanderburg, A.** “Doppler Monitoring of the WASP-47 Multiplanet System”, *The Astrophysical Journal Letters*, 813, L9 (2015).
- Muirhead, P. S., et al., **including Vanderburg, A.** ”Characterizing the Cool KOIs. VI. H-and K-band Spectra of Kepler M Dwarf Planet-candidate Hosts.” *The Astrophysical Journal Supplement Series*, 213, 5 (2014).

- Muirhead, P. S., et al., **including Vanderburg, A.** “Precise stellar radial velocities of an M dwarf with a Michelson interferometer and a medium-resolution near-infrared spectrograph.” *Publications of the Astronomical Society of the Pacific* 123, 904, p.709-724 (2011).
- Ben-Ami, S., et al., **including Vanderburg, A.** “Discovery and Early Multi-Wavelength Measurements of the Energetic Type Ic Supernova PTF12gzk: A Massive-Star Explosion in a Dwarf Host Galaxy.” *The Astrophysical Journal Letters*, 760, L33 (2012).

Non-refereed (1 first author, 4 total)

- **Vanderburg, A.** “Reduced Light Curves from Campaign 0 of the K2 Mission” arXiv:1412.1827 (2014).
- Plavchan, P. et al., **including Vanderburg, A.** “Radial Velocity Prospects Current and Future: A White Paper Report prepared by the Study Analysis Group 8 for the Exoplanet Program Analysis Group (ExoPAG)” arXiv:1503.01770 (2015).
- Edelstein, J., et al., **including Vanderburg, A.** “Enhanced spectral resolution via externally dispersed interferometry.” *Proceedings of the SPIE*, Vol. 8446 (2012).
- Erskine, D. J., et al., **including Vanderburg, A.** “Ten-fold spectral resolution boosting using TEDI at the Mt. Palomar NIR Triplespec spectrograph.” *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*. Vol. 8146 (2011).

Invited Review Chapters (1 first author, 1 total)

- **Vanderburg, A.**, and Rappaport, S. “Transiting Disintegrating Planetary Debris Around WD 1145+017” *Handbook of Exoplanets* edited by H.J. Deeg and J.A. Belmonte, Springer Reference Works (2017).

Last updated September 11, 2019.