

Ashley Chontos

CONTACT

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EDUCATION

2016 - 2018 **University of Hawaii at Manoa**, Honolulu, HI
M.S. in Astronomy and Astrophysics

2013 - 2016 **State University of New York**, Albany, NY
Graduated Summa Cum Laude
B.S. in Physics, B.S. in Mathematics

RESEARCH EXPERIENCE

2017 - present	<p>GRADUATE STUDENT RESEARCHER, UNIVERSITY OF HAWAII <i>with Professor Daniel Huber</i></p> <p>Developed a processing pipeline to prepare light curves for asteroseismic analyses in order to better characterize stellar and planet properties. In doing so, discovered a new planetary system that turned out to be Kepler's very first exoplanet detection.</p>
Summer 2016	<p>GRADUATE STUDENT RESEARCHER, NASA GODDARD SPACE FLIGHT CENTER <i>with Postdoctorate Fellow Daniel Angerhausen</i></p> <p>Created a "beachball" model to analyze exoplanet surfaces and atmospheres in a more realistic manner. Most current models adapt a uniform sphere to avoid complexity, but this model allows for temperature changes through dayside and nightside environments while still remaining computational efficient.</p>
2015 - 2016	<p>UNDERGRADUATE STUDENT RESEARCHER, STANFORD UNIVERSITY SUMMER RESEARCH EARLY IDENTIFICATION PROGRAM (SR-EIP), STANFORD UNIVERSITY <i>with Professor Bruce Macintosh</i></p> <p>Developed a computer program that tests joint survey capabilities for NASA's upcoming space mission WFIRST (Wide-Field Infrared Survey Telescope). Explored the difference in planet yields by considering a ground-based Doppler survey to preselect targets as opposed to a blind mission.</p>
2014 - 2016	<p>UNDERGRADUATE STUDENT RESEARCHER, UNIVERSITY AT ALBANY <i>with Professor Kevin Knuth</i></p> <p>Categorized exoplanets using EXONEST, a nested sampling algorithm, using Bayesian framework for parameter estimation. Optimized for use with Kepler data, the program uses reflected light variations in order to detect non-transiting planets.</p>

TEACHING EXPERIENCE

Fall 2016 Lecture Teaching Assistant, ASTR 110: Survey of Astronomy
Fall 2016 Lab Teaching Assistant, ASTR 110: Survey of Astronomy
Spring 2014 Lecture Teaching Assistant, ICSI 124X: Computer Security Basics
Fall 2013 Lecture Teaching Assistant, ICSI 124X: Computer Security Basics

OUTREACH EXPERIENCE

October 2017 - Present Maunakea Scholars (MKS), long-term mentor. Big Island, HI.
June 2017 - Present HI STAR, long-term mentor. Oahu and Maui, HI.
February 2019 Boy Scouts of Hawaii, Astronomy Merit Badge. Oahu, HI.
November 2018 Punahou Speaker Series, Oahu, HI.
October 2018 Lacy Veach Day, Oahu, HI.
May 2018 Astroday. Big Island, Hawaii.
February 2018 Space Night. Oahu, HI.
January 2018 STEM Fest. Oahu, HI.
November 2017 Astroday West. Big Island, HI.
October 2017 Lacy Veach Day. Oahu, HI.
Oct 2017 HI STAR, student-mentor visit. Maui, HI.
Sept 2017 Starlab. Oahu, HI.
August 2017 Oahu In-step Science Show and Exposition. Oahu, HI.
August 2017 Boy Scouts of Hawaii, Astronomy Merit Badge. Oahu, HI.
June 2017 HI STAR, short-term mentor. Oahu, HI.
June 2017 HI STAR, camp counselor. Oahu, HI.
May 2017 Astroday. Big Island, HI.
April 2017 March for Science. Oahu, HI.
Nov 2016 Solar System Walk. Big Island, HI.
Oct 2016 KTA Super Store Haunted House. Big Island, HI.
Oct 2016 Girl Scouts of Hawaii, Light and Spectra Activity. Oahu, HI.

OTHER RELEVANT EXPERIENCE

September 2018 TESS DATA FOR ASTEROSEISMOLOGY (TDA) 7: STELLAR CLASSIFICATION WITH TESS, Ohio State University, Columbus, OH.
July 2018 TESS DATA FOR ASTEROSEISMOLOGY (TDA) 4: STELLAR CLASSIFICATION WITH TESS, Aarhus, Denmark
December 2016 THIRTY METER TELESCOPE (TMT) FUTURE LEADERS WORKSHOP, Big Island, Hawaii
November 2016 Observing, NASA INFRARED TELESCOPE FACILITY (IRTF), Maunakea, Big Island, Hawaii
September 2016 Observing, JAMES CLERK MAXWELL TELESCOPE (JCMT), Maunakea, Big Island, Hawaii
August 2015 THIRD LA SERENA SCHOOL FOR DATA SCIENCE: APPLIED TOOLS FOR ASTRONOMY, La Serena, Chile
August 2015 GEMINI PLANET IMAGER EXOPLANET SURVEY (GPIES), GEMINI SOUTH TELESCOPE, La Serena, Chile

GRANTS, FELLOWSHIPS, HONORS, & AWARDS

April 2018 National Science Foundation Graduate Research Fellowship Program
October 2017 Poster Award, Know Thy Star, Know Thy Planet, Pasadena, California
Summer 2017 Outstanding Outreach, Institute for Astronomy, University of Hawaii
Summer 2016 John C. Mather Nobel Scholar, NASA Goddard Space Flight Center

CONFERENCES TALKS, PRESENTATIONS, & SEMINARS

March 2019 KEPLER/K2 SCICON V, Glendale, CA.
September 2018 Astrobiology Seminar, University of Hawaii at Manoa, HI.
July 2018 TASC IV/KASC XI Annual Meeting, Aarhus, Denmark.
October 2017 KNOW THY STAR, KNOW THY PLANET, Pasadena, CA.
October 2017 Astronomy Seminar, Columbia University, New York, NY.
September 2017 KEPLER/K2 SCICON IV, NASA Ames, Mountain View, CA.
August 2016 NASA Goddard Space Flight Center, Greenbelt, MD.
January 2016 AAS Meeting #227, Kissimmee, FL.
January 2016 Conference for Undergraduate Women in Physics, Wesleyan, Middletown, CT.
July 2015 THIRD LA SERENA SCHOOL FOR DATA SCIENCE, La Serena, Chile.
June 2015 LEADERSHIP ALLIANCE NATIONAL SYMPOSIUM, Stamford, CT.

PUBLICATIONS

Huber, D., Chaplin, B., **Chontos**, A., Kjeldsen, H. Christensen-Dalsgaard, J., et al., *A Hot Saturn Orbiting An Oscillating Late Subgiant Discovered by TESS*. Institute for Astronomy, University of Hawaii, Oahu, Hawaii, submitted.
Chontos, A., et al., *The Curious Case of KOI-4: Confirming Kepler's First Exoplanet Detection*. Institute for Astronomy, University of Hawaii, Oahu, Hawaii, submitted.
Becker, J. et al., A Discrete Set of Possible Transit Ephemerides for Two Long-period Gas Giants Orbiting HIP 41378. University of Michigan, Ann Arbor, Michigan, accepted 2018.
Grunblatt, S., Huber, D., Gaidos, E., Lopez, E., Barclay, T., **Chontos**, A., Sinukoff, E., Van Eylen, V., Howard, A., and Isaacson, H., *Do Close-in Giant Planets Orbiting Evolved Stars Prefer Eccentric Orbits?*, Institute for Astronomy, University of Hawaii, Oahu, Hawaii, accepted 2018.
De Rosa, R. J., et al., *Astrometric Confirmation and Preliminary Orbital Parameters of the Young Exoplanet 51 Eridani b with the Gemini Planet Imager*. University of California, Berkeley, California, accepted 2015.