Ashley Chontos

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Education

Ph.D., Astronomy, University of Hawai'i at Mānoa *(expected June 2022)*
Thesis: *Precise Stellar and Planet Properties in the Kepler, K2 & TESS Era*
Advisor: Daniel Huber

M.Sc., Astronomy, University of Hawai'i at Mānoa 2018

B.Sc., Mathematics, *Summa Cum Laude*, SUNY Albany 2016
Focuses: Statistics, Applied Mathematics
Minor: Computer Science

B.Sc., Physics, *Summa Cum Laude*, SUNY Albany 2016

Professional Employment

NSF Graduate Research Fellow 2018−*present*
Research Assistant, University of Hawai'i at Mānoa 2017−2018
Research Assistant, NASA Goddard Space Flight Center 2016
Research Assistant, Stanford University 2015−2016

Research Interests

Asteroseismology, stellar evolution, exoplanet detection and characterization, photometry, spectroscopy, precise radial velocities, software development, computational astrophysics, post main-sequence planetary system dynamics and evolution, space telescopes, astronomical surveys.

Selected Honors & Awards

Friends of the IfA Outreach Award 2019
ARCS (Achievement Reward for College Scientists) 2019
National Science Foundation Graduate Research Fellowship 2018
Outstanding Outreach Award 2017
John C. Mather Nobel Scholar 2016

Selected Talks

University of Chicago Exoplanet Journal Club *(invited)* September 2021
Carnegie EPL Astronomy Seminar *(invited)* September 2021
TESS Science Talk, MIT *(invited)* September 2021
Keck Science Meeting September 2021
TESS SciCon II August 2021
The Good Vibrations Seminar *(invited)* February 2021
TESS Science Team Meeting October 2020
Yale Exoplanets & Stars Seminar *(invited)* September 2020
Exoplanets III, Heidelberg, Germany July 2020
TASC5, MIT, Cambridge, USA July 2019
TESS SciCon I, MIT, Cambridge, USA July 2019
Kepler/K2 SciCon V, Glendale, CA March 2019
TASC4, Aarhus, Denmark July 2018
Columbia University Astronomy Seminar *(invited)* October 2017

Teaching, Service & Leadership

Mentor for high school students through HI STAR — 2017−*present*
Astronomy Graduate Outreach Coordinator & Volunteer — 2016−2020
Selected Events:
· Punahou Speaker Series (Oahu, HI) — 2018−*present*
· Starlab (Oahu, HI) — 2017−*present*
· Boy Scouts of Hawai'i Astronomy Merit Badge (Oahu, HI) — 2017, 2018, 2019
· Stem Fest (Oahu, HI) — 2017, 2018, 2019
· Hawaiian Astronaut Lacy Veach Day (Oahu, HI) — 2017, 2018, 2019
· Astroday (Big Island, HI) — 2016, 2017a/b, 2018a/b
Teaching Assistant, ASTR 110: Lab, University of Hawai'i — 2016
Teaching Assistant, ASTR 110: Lecture, University of Hawai'i — 2016
Teaching Assistant, ICSI 124X: Lecture, SUNY Albany — 2013, 2014

Press Coverage

Kepler's First Exoplanet Discovery [Chontos et al. 2019]: The discovery was announced during my talk at Kepler SciCon V, which included a coordinated press release between [NASA] and [UH]. Articles featuring the science result included [CNN], [Space.com], [Universe Today], [Science News], and many others. The story made the front page of the main [Hawaiian newspaper] as well as my [hometown newspaper]. I was also invited as a guest speaker to talk about the planet on live [Hawai'i public radio].

Awarded Telescope Time & Observing Experience

PI, 16 nights over 4 semesters using HIRES on Keck I 10m Telescope — 2019−*present*
Exoplanets Orbiting Subgiants: Benchmark Systems with TESS
Co-Is: Daniel Huber, Andrew Howard, Howard Isaacson, Lauren Weiss
Co-I, 4 nights in 2019B using HIRES on Keck I 10m Telescope — 2018
The TESS-Keck Survey of Exoplanets Orbiting Asteroseismic Host Stars
PI: Daniel Huber; Co-Is: Andrew Howard, Howard Isaacson, Lauren Weiss
Co-I, 0.5 night in 2019B using HIRES on Keck I 10m Telescope — 2018
Spin-Orbit Alignment in Kepler's First Exoplanet System
PI: Daniel Huber; Co-I: Teruyuki Hirano
Observer, 60 nights on Keck/HIRES through the California Planet Search — 2018−*present*
Observer, 5 nights on Gemini South/GPI through the GPI Exoplanet Survey — 2015

Peer-Reviewed Publications

Total publications: 37, with 4 as first author and 10 with significant contributions.
Total citations: 412, h−index=13 (updated November 27, 2021).
Bibliography: [NASA ADS] [ORCID]

First Author Publications:

Chontos, A., Sayeed, M. and Huber, D., "`pySYD`: Automated Measurements of Global Asteroseismic Parameters," *JOSS*, *in review.* [NASA ADS]

Chontos, A., et al., "The TESS-Keck Survey: Science Goals and Target Selection," *in review* (with favorable referee report). [NASA ADS]

Chontos, A., Huber, D., Kjeldsen, H., et al., "TESS Asteroseismology of α Mensae: Benchmark Ages for a G7 Dwarf and its M-dwarf Companion," *ApJ*, *in press.* [NASA ADS]

Chontos, A., Huber, D., Latham, D., et al., "The Curious Case of KOI 4: Confirming Kepler's First Exoplanet Detection," *AJ*, **157**, 192 (2019). [NASA ADS]

Significant Co-Author Publications:

Huber, D., White, T., Metcalfe, T., **Chontos, A.,** et al., "A 20-Second Cadence View of Solar-Type Stars and Their Planets with TESS: Asteroseismology of Solar Analogs and a Re-characterization of π Men c," *in press.* [NASA ADS]

Rosenthal, L. J., et al. [including **Chontos, A.,**], "The California Legacy Survey. I. A Catalog of 178 Planets from Precision Radial Velocity Monitoring of 719 Nearby Stars over Three Decades," *ApJSS*, **225**, 8 (2021). [NASA ADS]

Guerrero et al. [including **Chontos, A.,**], "The TESS Objects of Interest Catalog from the TESS Prime Mission," *ApJSS*, **254**, 39 (2021). [NASA ADS]

Addison, B. C., et al. [including **Chontos, A.,**], "TOI-257b (HD 19916b): a warm sub-saturn orbiting an evolved F-type star," *MNRAS*, **502**, 3704-3722 (2021). [NASA ADS]

Rubenzahl, R., Dai, F., Howard, A. W., **Chontos, A.,** et al., "The TESS-Keck Survey. IV. A Retrograde, Polar Orbit for the Ultra-low-density, Hot Super-Neptune WASP-107b," *AJ*, **161**, 119 (2021). [NASA ADS]

Lund, M., Knudstrup, E., Silva Aguierre, V., Basu, S., **Chontos, A.,** et al., "Asteroseismology of Multiplanet System K2-93," *AJ*, **158**, 248 (2019). [NASA ADS]

Crossfield, I. J. M., et al. [including **Chontos, A.,**], "A Super-Earth and Sub-Neptune Transiting the Late-type M Dwarf LP 791-18," *ApJL*, **883**, L16 (2019). [NASA ADS]

Huber, D., Chaplin, W., **Chontos, A.,** et al., "A Hot Saturn Orbiting an Oscillating Late Subgiant Discovered by TESS," *AJ*, **157**, 245 (2019). [NASA ADS]

Grunblatt, S., et al. [including **Chontos, A.,**], "Do Close-in Giant Planets Orbiting Evolved Stars Prefer Eccentric Orbits?" *ApJL*, **861**, L5 (2018). [NASA ADS]

De Rosa, R. J., et al. [including **Chontos, A.,**], "Astrometric Confirmation and Preliminary Orbital Parameters of the Young Exoplanet 51 Eridani b with the Gemini Planet Imager," *ApJL*, **814**, L3 (2015). [NASA ADS]

Other Co-Author Publications:

Heidari, N., et al. [including **Chontos, A.,**], "HD207897 b: A Dense Sub-Neptune Transiting a Nearby and Bright K-type Star," *in review.* [NASA ADS]

Saunders, N., et al. [including **Chontos, A.,**], "TESS Giants Transiting Giants I: A Non-inflated Hot Jupiter Orbiting a Massive Subgiant," *in review.* [NASA ADS]

Winters, J. G., et al. [including **Chontos, A.,**], "A Second Planet Transiting LTT-1445A and a Determination of the Masses of Both Worlds," *in review.* [NASA ADS]

MacDougall, M., et al. [including **Chontos, A.,**], "The TESS-Keck Survey. VI. Two Eccentric Sub-Neptunes Orbiting HIP-97166," *AJ*, *in press.* [NASA ADS]

Mathur, S., et al. [including **Chontos, A.,**], "Detections of solar-like oscillations in dwarfs and subgiants with Kepler DR25 short-cadence data," *A&A*, *in press.* [NASA ADS]

Lubin, J., et al. [including **Chontos, A.,**], "TESS-Keck Survey IX: Masses of Three Sub-Neptunes Orbiting HD 191939 and the Discovery of a Warm Jovian Plus a Distant Sub-Stellar Companion," *AJ*, *in press.* [NASA ADS]

Polanski, A. S., et al. [including **Chontos, A.,**], "Wolf 503 b: Characterization of a Sub-Neptune Orbiting a Metal-Poor K Dwarf," *AJ*, **162**, 238 (2021). [NASA ADS]

Scarsdale, N., et al. [including **Chontos, A.,**], "The TESS-Keck Survey. V. Twin Sub-Neptunes Transiting the Nearby G Star HD 63935," *AJ*, **162**, 215 (2021). [NASA ADS]

Llop-Sayson, J., et al. [including **Chontos, A.,**], "Constraining the Orbit and Mass of ϵ Eridani b with Radial Velocities, Hipparcos IAD-Gaia DR2 Astrometry, and Multi-epoch Vortex Coronagraphy Upper Limits," *AJ*, **162**, 181 (2021). [NASA ADS]

Zhang, J., Weiss., L. M., Huber., D., Blunt, S., **Chontos, A.,** et al., "Long-period Jovian Tilts the Orbits of Two sub-Neptunes Relative to Stellar Spin Axis in Kepler-129," *AJ*, **162**, 89 (2021). [NASA ADS]

Fulton, B. J., et al. [including **Chontos, A.,**], " The California Legacy Survey. II. Occurrence of Giant Planets beyond the Ice Line," *ApJSS*, **255**, 14 (2021). [NASA ADS]

Dai, F., et al. [including **Chontos, A.,**], "TKS X: Confirmation of TOI-1444b and a Comparative Analysis of the Ultra-short-period Planets with Hot Neptunes," *AJ*, **162**, 62 (2021). [NASA ADS]

Weiss, L. M., et al. [including **Chontos, A.,**], "The TESS-Keck Survey. II. An Ultra-short-period Rocky Planet and its Siblings Transiting the Galactic Thick-disk Star TOI-561," *AJ*, **161**, 56 (2021). [NASA ADS]

Kosiarek, M. R., et al. [including **Chontos, A.,**], "Physical Parameters of the Multiplanet Systems HD 106315 and GJ 9827," *AJ*, **161**, 47 (2021). [NASA ADS]

Dreizler, S., et al. [including **Chontos, A.,**], "The CARMENES search for exoplanets around M dwarfs. LP 714-47 b (TOI 442.01): populating the Neptune desert," *A&A*, **644**, A127 (2020). [NASA ADS]

Dai, F., et al. [including **Chontos, A.,**], "The TESS-Keck Survey. III. A Stellar Obliquity Measurement of TOI-1726 c," *AJ*, **160**, 193 (2020). [NASA ADS]

Demory, B. O., et al. [including **Chontos, A.,**], "A Super-Earth and a Sub-Neptune Orbiting the Bright, Quiet M3 Dwarf TOI-1266," *A&A*, **642**, A49 (2020). [NASA ADS]

Carleo, I., et al. [including **Chontos, A.,**], "The Multiplanet System TOI-421," *AJ*, **160**, 114 (2020). [NASA ADS]

Cloutier, R., et al. [including **Chontos, A.,**], "TOI-1235 b: A Keystone Super-Earth for Testing Radius Valley Emergence Models around Early M Dwarfs," *AJ*, **160**, 22 (2020). [NASA ADS]

Dalba, P., et al. [including **Chontos, A.,**], "The TESS-Keck Survey. I. A Warm Sub-Saturn-mass Planet and a Caution about Stray Light in TESS Cameras," *AJ*, **159**, 241 (2020). [NASA ADS]

Guo, X., et al. [including **Chontos, A.,**], "Updated Parameters and a New Transmission Spectrum of HD 97658b," *AJ*, **159**, 239 (2020). [NASA ADS]

Pope, B. J. S., et al. [including **Chontos, A.,**], "The Kepler Smear Campaign: Light Curves for 102 Very Bright Stars," *ApJSS*, **244**, 18 (2019). [NASA ADS]

Becker, J. C., et al. [including **Chontos, A.,**], "A Discrete Set of Possible Transit Ephemerides for Two Long-period Gas Giants Orbiting HIP 41378," *AJ*, **157**, 19 (2019). [NASA ADS]

References

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