

Friday, April 28, 2017
EXOPLANETS: HABITABILITY:
THE APPLE DOESN'T FALL FAR FROM THE TREE:
INSIGHTS INTO PLANETARY HABITABILITY FROM STELLAR CHARACTERIZATION
1:30 p.m. Arizona Ballroom D

Chairs: **Natalie Hinkel**
 Patrick Young

- 1:30 p.m. Airapetian V. S. * Glocer A. Khazanov G. Danchi W. C.
 [Space Weather Affected Habitable Zones \(SWAHZ\) \[#3543\]](#)
 We show that non-thermal oxygen ion escape could be as important in removing the constituents of water from exoplanetary atmospheres under supersolar XUV irradiation.
- 1:45 p.m. Schneider A. C. * Shkolnik E. L. Barman T. S. Weinberger A. J. Flagg L. S. Kraus A. L.
 Allers K. N. Liu M. C.
 [The Evolution of High Energy Environments of Low-Mass Stars and Their Planets \[#3459\]](#)
 We assess the evolution of high-energy environments of low-mass stars and its effect on the habitability of their planets.
- 2:00 p.m. Schaefer L. K. *
 [Atmospheric Loss of Rocky Elements from M Dwarf Habitable Zone Planets \[#3676\]](#)
 I calculate the fractionation of Si/Mg during early magma oceans on HZ planets due to atmospheric escape driven by the high XUV flux of M dwarfs.
- 2:15 p.m. Wang H. S. * Lineweaver C. H. Ireland T. R.
 [Quantifying the Devolatilization that Leads to Rocky Planets \[#3313\]](#)
 Towards a fiducial model of devolatilization based on the elemental abundances of the Sun and the Earth.
- 2:30 p.m. Unterborn C. T. * Hull S. D. Johnson J. A. Panero W. R. Stixrude L. P. Teske J. K.
 [Characterizing Host Star Composition for Prioritizing Our Search for Habitable Planets \[#3701\]](#)
 We present models to determine how changes in the elemental abundances of a host star affects a terrestrial planet's likelihood to be "Earth-like" and habitable.
- 2:45 p.m. Truitt A. R. * Young P. A.
 [Diversity of Chemical Composition and the Effects on Stellar Evolution and Planetary Habitability \[#3195\]](#)
 We investigate how stars of different mass and composition evolve over time, and how stellar evolution directly impacts the location of a "habitable" zone.
- 3:00 p.m. Young P. A. * Truitt A. Pagano M. D.
 [Characterization of TESS Continuous Viewing Zone Stars \[#3724\]](#)
 We present characterizations for F, G, and K stars in the TESS Southern CVZ including new abundances and stellar and habitable zone evolution tracks.
- 3:15 p.m. Hinkel N. R. * Turnbull M. C. Mamajek E. E. Osby E. Shkolnik E. S. ASU NExSS Team
 [Database of Unified Stellar Properties for Stars Within 30 pc \[#3687\]](#)
 We collated a database for stars within 30pc including physical properties, stellar abundances, UV emission, and X-ray flux to better determine habitability.
- 3:30 p.m. Chandler C. O. * Kane S. R. Gelino D.
 [The Habitable Zone Gallery 2.0: An Online Exoplanet System Visualization Suite \[#3755\]](#)
 The Habitable Zone Gallery 2 generates and hosts animations and interactive, customizable, publication-ready visualizations of exoplanet systems.
- 3:45 p.m. CONFERENCE ADJOURNS