

Wednesday, April 26, 2017
**EXOPLANETS: HABITABILITY:
 CONNECTING MODELING AND OBSERVATIONS
 IN THE SEARCH FOR HABITABLE PLANETS I**
 10:15 a.m. Arizona Ballroom D

Chairs: Tyler Robinson
 Kimberly Bott

- 10:15 a.m. Haqq-Misra J. * Koppapapu R. K. Batalha N. E. Harman C. E. Kasting J. F.
[Limit Cycles Complicate the Outer Edge of the Habitable Zone](#) [#3089]
 We discuss the conditions under which planets in the habitable zone should oscillate between glacial and warm states, known as limit cycles.
- 10:30 a.m. Checlair J. * Menou K. Abbot D. S.
[Lack of Snowball Bifurcations on Earth-Like Tidally-Locked Exoplanets](#) [#3099]
 Earth-like planets orbiting in the habitable zone of M-stars are likely tidally-locked. Here we show that such planets cannot go through Snowball bifurcations.
- 10:45 a.m. Yang J. * Ding F. Ramirez R. Peltier W. Hu Y.
[Dramatic Climate Transition Precludes the Potential Habitability of Icy Planets and Moons](#) [#3055]
 Icy planets will enter a moist or runaway greenhouse state because their melting requires stellar fluxes being higher than the moist/runaway greenhouse limit.
- 11:00 a.m. Kadoya S. * Tajika E.
[Lifetime of the Warm Climate of Earth-Like Planets in the Habitable Zone](#) [#3272]
 The lifetime of the warm climate of Earth-like planets is about 4 Gyr, which is almost independent of the luminosity evolution of the central star.
- 11:15 a.m. Koppapapu R. K. * Wolf E. T. Haqq-Misra J. Grimm S. Arney G. Heng K.
[Habitable Moist-Greenhouse Atmospheres Aroung M-Dwarf Stars](#) [#3027]
 Our GCM results show that planets with “moist-greenhouse” atmospheres at the inner HZ around M-dwarfs maintain habitable surface temperatures (~280 K).
- 11:30 a.m. Lincowski A. P. * Meadows V. S. Crisp D. Robinson T. D. Arney G. N.
[Condensible Atmospheres of Terrestrial Planets](#) [#3618]
 We present an enhanced 1D RCE climate model with generalized condensates to study planets with condensibles in their atmospheres unlike Earth.
- 11:45 a.m. Mai C. * Line M. R.
[Exploring Exoplanet Cloud Assumptions in JWST Transmission Spectra](#) [#3493]
 Exoplanet clouds are diverse / With Bayesian retrieval of different model assumptions / What properties can we constrain in simulated JWST data?
- 12:00 p.m. Barnes R. *
[Tidal Locking of Habitable Exoplanets](#) [#3052]
 This presentation shows that tidal locking of habitable exoplanets may be far more common than previous believed.
- 12:15 p.m. *Lunch*