

Monday, April 24, 2017  
EXOPLANETS: BIOSIGNATURES:  
THE SCIENCE OF EXOPLANET BIOSIGNATURES USING  
SPACE AND GROUND-BASED TELESCOPES I  
11:15 a.m. Arizona Ballroom D

**Chairs:** Ravi Kopparapu  
Edward Schwieterman

- 11:15 a.m. Berdyugina S. V. \* Santl-Temkiv T. Finster K.  
[Biohaze as Atmospheric Biosignature on Exoplanets](#) [#3380]  
We model biohaze signatures and estimate the minimum of biomass in the atmosphere necessary for remote detection on distant Earth-like exoplanets.
- 11:30 a.m. Rackham B. V. \* Apai D.  
[The Effect of Heterogeneous Stellar Photospheres on Searches for Transiting Exoplanet Biosignatures](#) [#3610]  
We summarize our work on the impact of heterogeneous stellar photospheres on transmission spectra, including implications for future searches for biosignatures.
- 11:45 a.m. Harman C. E. \* Schwieterman E. W. Schottelkotte J. C. Kasting J. F.  
[Oxygen False Positives in Terrestrial Planetary Atmospheres: Taking a Closer Look at Proxima Centauri b](#) [#3605]  
This talk returns to the issue of photochemical oxygen false positives generated in CO<sub>2</sub>-dominated atmospheres on lifeless worlds, with a focus on Prox Cen b.
- 12:00 p.m. Schwieterman E. W. \* Lustig-Yaeger J. Meadows V. S. Robinson T. D. Sparks W. B.  
[A Phase-Dependent Spectral Earth Database with Applications for Directly Imaged Earth-Like Exoplanets](#) [#3515]  
We simulate disk-averaged spectra of the Earth with applications for testing the detectability of atmospheric and surface features with space telescopes.
- 12:15 p.m. *Lunch*