

**Tuesday, March 20, 2018**  
**ASTEROIDS I: NEAS, PHAS, AND MBAS, OH MY!**  
**8:30 a.m. Waterway Ballroom 4**

[T202]

**Chairs: Vishnu Reddy**  
**Amanda Hendrix**

- 8:30 a.m. Takir D. \* Reddy V. Hanus J. Arai T. Lauretta D. S. et al.  
[3- \$\mu\$ m Spectroscopy of Asteroid \(3200\) Phaethon: Implications for B-Asteroids](#) [#2624]  
 We present the first rotationally resolved spectra of asteroid (3200) Phaethon to search for the 3- $\mu$ m absorption feature on this primitive asteroid.
- 8:45 a.m. Taylor P. A. \* Marshall S. E. Venditti F. Virkki A. K. Benner L. A. M. et al.  
[Radar and Infrared Observations of Near-Earth Asteroid 3200 Phaethon](#) [#2509]  
 We will present Arecibo and Goldstone radar data and infrared spectra from the NASA IRTF of near-Earth asteroid and JAXA DESTINY<sup>+</sup> mission target 3200 Phaethon.
- 9:00 a.m. Arai T. \* Kobayashi M. Ishibashi K. Yoshida F. Kimura H. et al.  
[DESTINY<sup>+</sup> Mission: Flyby of Geminids Parent Asteroid \(3200\) Phaethon and In-Situ Analyses of Dust Accreting on the Earth](#) [#2570]  
 DESTINY<sup>+</sup> is a flyby mission of asteroid Phaethon proposed for JAXA/ISAS Epsilon class small program with a launch target in 2022. Mission overview is presented.
- 9:15 a.m. Tanbakouei S. \* Trigo-Rodrigues J. M. Pellicer E. Sort J.  
[Mechanical Properties of Silicate-Rich Itokawa Regolith Particles](#) [#1613]  
 The mechanical properties of Itokawa samples were evaluated by using the method of Oliver and Pharr nano indentation.
- 9:30 a.m. Jin Z. L. \* Bose M. Peeters Z.  
[New Clues to Ancient Water on Itokawa](#) [#1670]  
 First NanoSIMS measurements of water contents and H isotopic ratios on two Itokawa particles. The results indicate Itokawa started out as a water-rich asteroid.
- 9:45 a.m. Reddy V. \* Lawrence D. J. Elkins-Tanton L. Takir D.  
[Constraining Hydrogen Abundance on Asteroid \(16\) Psyche](#) [#1344]  
 We propose a method to constrain the hydrogen abundance on asteroid (16) Psyche based on ground-based telescope and Dawn observations of asteroid (4) Vesta.
- 10:00 a.m. Cambioni S. \* Malhotra R. Hergenrother C. W. Rizk B. Kidd J. N. et al.  
[An Upper Limit on Earth's Trojan Asteroid Population from OSIRIS-REx](#) [#1149]  
 The Earth Trojan Asteroid Survey conducted by OSIRIS-REx yields an upper limit of the L4 population of  $73 \pm 22$  asteroids of absolute magnitude 20.5.
- 10:15 a.m. Plesko C. S. \* Eggleston J. R. Truitt A. R. Weaver R. P.  
[Impact Hazard Mitigation Scenarios and Mission Characteristics](#) [#2557]  
 Three impact hazard / Scenarios and mission / Characteristics.
- 10:30 a.m. Venditti F. C. F. \* Marchi L. O. Misra A. K. Prado A. F. B. A.  
[Dynamics of Tethered Binary Asteroid Systems](#) [#1885]  
 Potential impacts of near-Earth objects are one of the biggest motivations to study and detect NEAs. This work presents a tether-assisted deflection technique.

- 10:45 a.m. Kanamaru M. \* Sasaki S.  
[\*Estimation of Interior Density Distribution for Small Solar System Bodies\*](#) [#2902]  
The potential variance minimization technique is a potential method to make a constraint on density distribution within a small solar system body.
- 11:00 a.m. Hendrix A. R. \* Vilas F.  
[\*Ultraviolet Characteristics of Low-Albedo Class Asteroids\*](#) [#2845]  
We report on new analyses of CBGF asteroids using UV-visible data. This is a spectral region that may hold diagnostic clues to surface composition of these bodies.
- 11:15 a.m. Grav T. \* Mainzer A. Masiero J. R. Bauer J. Cutri R. et al.  
[\*Observations of Cybeles with NEOWISE\*](#) [#2581]  
In this paper we present the thermal observations of 1218 objects from the Cybele population using the WISE satellite during its cryogenic phase.
- 11:30 a.m. Dotson J. L. \* Hedges C. Barentsen G.  
[\*Observations of Solar System Objects with K2\*](#) [#2411]  
The K2 mission performs high-precision, un-interrupted photometry along the ecliptic plane. Over 300 solar system objects have been observed.