

Friday, March 24, 2017
ASTEROID AND SMALL BODY ASSORTMENT
8:30 a.m. Montgomery Ballroom

[F705]

- Chairs:** Faith Vilas
 Andrew Rivkin
- 8:30 a.m. Lauretta D. S. * OSIRIS-REx Team
[OSIRIS-REx: Activities in the First Year of Operations](#) [#2718]
 The spacecraft departed for near-Earth asteroid Bennu aboard an Atlas V 411 launch vehicle on September 8, 2016, on a seven-year journey.
- 8:45 a.m. Hergenrother C. W. * Malhotra R. Rizk B. Kidd J. N. Drouet d'Aubigny C. et al.
[A Search for Earth Trojan Asteroids with the OSIRIS-REx Spacecraft](#) [#2892]
 The OSIRIS-REx spacecraft will conduct a survey of the Sun-Earth L4 Lagrangian region for Earth Trojan asteroids as small as 100 m in diameter in February 2017.
- 9:00 a.m. Taylor P. A. * Howell E. S. Zambrano-Marin L. F. Rivera-Valentin E. G. Virkki A. et al.
[Radar and Infrared Observations of Binary Near-Earth Asteroid 5143 Heracles](#) [#1961]
 We present the physical and dynamical characterization of binary near-Earth asteroid 5143 Heracles based on radar and infrared observations from 2011 and 2016.
- 9:15 a.m. Polishook D. * Aharonson O.
[Surface Slopes of Asteroids in Pairs as Indicators of Mechanical Properties](#) [#1322]
 We construct maps of topographic slopes on asteroids that split by the rotational-fission mechanism, to test for frictional failure and internal cohesion.
- 9:30 a.m. Vilas F. * Hendrix A. R.
[Blue vs. Red Spectral Properties of the C-Complex Asteroids: Making the UV Great Again!](#) [#2797]
 Ultraviolet/blue spectra of C-complex asteroids are studied for compositional and space weathering information.
- 9:45 a.m. Rivkin A. S. * Emery J. P. Howell E. S.
[The Hydrated Mineralogies of the Largest Asteroids](#) [#1990]
 Largest asteroids retain current reminders of watery pasts.
- 10:00 a.m. Giebner T. * Jaumann R. Schröder S. E. Krohn K. Matz K.-D. et al.
[Pristine Crust Exposure in Marcia Crater on Vesta: New Spectral and Geomorphological Evidence](#) [#1922]
 The Marcia impactor likely hit pristine crust, exposed today in the NW crater walls. Also, the impactor itself likely delivered the dark material in the East.
- 10:15 a.m. McGraw A. M. * Reddy V. Sanchez J. A.
[Do L-Chondrites Come from the Gefion Asteroid Family?](#) [#1778]
 Result of an initial observational campaign to verify a link between the Gefion asteroid family and L-chondrites. NIR spectra of five asteroids obtained from IRTF.
- 10:30 a.m. Kohout T. * Soini A.-J. Yakovlev G. A. Kruglikov N. A. Luttinen A. et al.
[Distribution of Strength and Porosity in Small Asteroids](#) [#2778]
 Small, meter-sized, stony asteroids may have highly heterogeneous distribution of their strength and porosity with both weak zones and large coherent areas.

- 10:45 a.m. Welten K. C. * Caffee M. W. Nishiizumi K.
[*The Large Pre-Atmospheric Size of Paired Chondrites from Graves Nunataks, Antarctica*](#) [#2938]
We will review the size distribution of large pre-atmospheric objects found in Antarctica, based on the identification of a large H-chondrite pairing group.
- 11:00 a.m. Bryson K. L. * Ostrowski D. R.
[*Meteorite Fractures and Scaling for Asteroid Atmospheric Entry*](#) [#2501]
Strength plays a role in determining the outcome of impact events. Our objective is to scale fracture parameters in meteorites to their parent body.
- 11:15 a.m. Tabetah M. E. * Melosh H. J.
[*The Role of Air Penetration in the Break-Up of Entering Meteoroids*](#) [#1267]
The role of air penetration on the break-up of small meteoroids is investigated with the goal of explaining intense fragmentation at low mechanical strengths.
- 11:30 a.m. Flynn G. J. * Durda D. D. Jack S. J. Molesky M. J. Strait M. M. et al.
[*Hypervelocity Impact Cratering and Disruption of the CV3 Carbonaceous Chondrite Northwest Africa 4502 and the Saratov Ordinary Chondrite*](#) [#1058]
The momentum multiplication factor in hypervelocity cratering was ~3.3 for the NWA 4502 CV3, but two NWA 4502 targets disrupted under similar conditions.
- 11:45 a.m. Laird C. E. * Fries M. Matson R.
[*A Method for Estimating Meteorite Fall Mass from Weather RADAR Data*](#) [#2129]
The dark flight mass modeling method outlined in this abstract seeks to enhance meteorite search productivity with the utilization of NOAA RADAR data.