

Monday, March 7, 2011
SMALL BODIES: A TRAVERSE FROM NEOs TO TNOs
8:30 a.m. Waterway Ballroom 5

Chairs: Amy Mainzer
 Andrew Rivkin

- 8:30 a.m. Mainzer A. K. * Bauer J. M. Grav T. Cutri R. M. Dailey J. Masiero J. McMillan R. S. Walker R. Wright E. Tholen D.
[*NEOWISE — An Infrared View of the Solar System* \[#1121\]](#)
 The Wide-field Infrared Survey Explorer (WISE) has imaged the entire sky from 3 to 22 μm . Additions to the baseline pipeline (known as “NEOWISE”) have resulted in the detection of >155,000 minor planets, including >500 NEOs and 120 comets.
- 8:45 a.m. Michel P. * Delbo M.
[*Past Thermal and Orbital Histories of 1999JU3 and 1999RQ36: Two Potential Targets of Sample Return Space Missions to a Primitive Asteroid* \[#1234\]](#)
 Computations of thermal evolutions of two targets of sample return space missions to a primitive asteroid, namely 1999JU3 and 1999RQ36, indicate that if organic material is present in their subsurface at depths of 3–5 cm, it should be protected from thermal break-up.
- 9:00 a.m. Masiero J. * Mainzer A. K. Grav T. Bauer J. M. Cutri R. Dailey J. Delbo M. McMillan R. S. Mueller M. Walker R. G. Wright E. L.
[*WISE Results for the Main Belt Asteroids* \[#1304\]](#)
 We present diameter and albedo results for main belt asteroids using data from the WISE spacecraft. We focus on the distribution of albedo as a function of position within the belt.
- 9:15 a.m. Vernazza P. * King P. L. Izawa M. R. M. Maturilli A. Helbert J. Cruikshank D. Brunetto R. Marchis F. Binzel R. P. Flemming R. L.
[*Opening the Mid-IR Window on Asteroid Physical Properties* \[#1344\]](#)
 By conducting new laboratory experiments, we seek to reveal and model asteroid physical properties (such as composition and effective mean particle size) that may be uniquely revealed in the mid-infrared.
- 9:30 a.m. Vilas F. * Hendrix A. R.
[*The Short Wavelength End of the Space Weathering of S-Complex Asteroids* \[#2264\]](#)
 Ground-based UV/VIS reflectance spectra and photometry of S-complex asteroids, including members of newly-discovered very young asteroid families, are used to test hypothesis that the UV/blue spectral region is a more sensitive indicator of space weathering than the VNIR.
- 9:45 a.m. Reddy V. * Gaffey M. J. Carvano J. M. Lazzaro D. Mothé-Diniz T.
[*Mineralogical Characterization of Baptistina Asteroid Family* \[#2106\]](#)
 Baptistina asteroid family has been proposed as the source region of the K-T impactor. Our study of the family shows that it is not the K-T impactor source.
- 10:00 a.m. Granahan J. C. *
[*Spectral Observations of a Non-Chondritic 951 Gaspra* \[#1002\]](#)
 An updated analysis of NASA Galileo spacecraft observations indicate that 951 Gaspra has been subjected to igneous processes. This is derived from an observed relative abundance of olivine that is higher than measured in ordinary chondrites.

- 10:15 a.m. Rivkin A. S. * Clark B. E. Ockert-Bell M. E. Shepard M. K. Volquardsen E. L. Howell E. S. Bus S. J.
[*Observations of 21 Lutetia in the 2–4 \$\mu\$ m Region with the NASA IRTF*](#) [#1439]
Lutetia's surface / Rosetta looked at its north / We looked to the south.
- 10:30 a.m. Burbine T. H. * Duffard R. Buchanan P. C. Cloutis E. A. Binzel R. P.
[*Spectroscopy of O-Type Asteroids*](#) [#2483]
O-type asteroids 3628 Božněmcová and 7472 Kumakiri have absorption bands similar to pyroxenes but with band minima that are not typically found for terrestrial pyroxenes and known pyroxene-dominated meteorite assemblages.
- 10:45 a.m. O'Dea E. R. * Hardersen P. S.
[*Searching for Igneous Asteroids in the Outer Main Belt*](#) [#2479]
Near-infrared reflectance spectroscopy of two outer main-belt asteroids was performed in order to continue to constrain the abundance of igneous asteroids in the outer main belt.
- 11:00 a.m. Beck P. * Quirico E. Sevestre D. Montes-Hernandez G. Pommerol A. Schmitt B.
[*Ice vs. Goethite as the Origin of the 3 Micron Feature on Low Albedo Asteroids*](#) [#2047]
We measured the reflectance spectra of synthetic goethite and compared it with asteroid observations.
- 11:15 a.m. Takir D. * Emery J. P. McSween H. Y. Jr.
[*Outer Main Belt Asteroids: Identification and Distribution of Four Spectral Groups*](#) [#1182]
VNIR spectra of outer main belt asteroids have revealed an interesting trend spanning the $2.5 < a < 4.6$ AU region. Four spectral groups were identified: the Ceres-like group, the sharp OH group, the rounded H₂O group, and the featureless group.
- 11:30 a.m. Cook J. C. * Desch S. J. Rubin M.
[*The Black Sheep of Haumea's Collisional Family*](#) [#2503]
We predict that the impact that produced Haumea's collisional family likely ejected undifferentiated (rock/ice mix) crustal fragments that spectrally resembled other KBOs. We suggest candidates for these non-icy members of the collisional family.