

Monday, February 3, 2014
VESTA IN THE SOLAR SYSTEM
8:40 a.m. Lecture Hall

Chairs: **Richard Binzel**
 Faith Vilas

- 8:40 a.m. Binzel R. P. *
 [*Discovery and Earth-Based Reconnaissance of Vesta*](#) [#2045]
 For decades Earth-based astronomers built the case for Vesta as a large basalt covered asteroid possibly linked to HED meteorites. The success of Dawn's confirming findings and new results offers ongoing lessons for planetary exploration.
- 9:00 a.m. Russell C. T. *
 [*A Journey in Space and Time: First Stop Vesta*](#) [#2053]
 The Dawn mission is a voyage in space and time to interview the oldest intact survivor of the evolved solar system.
- 9:20 a.m. Vilas F. * Hendrix A. R. Li J.-Y. Cochran A. L.
 [*Vesta in the Ultraviolet/Blue: What We Knew Before Dawn's Arrival, and How does it Augment What We Learned from Dawn?*](#) [#2050]
 Earth-based telescopic data on asteroid 4 Vesta prior to Dawn's arrival are discussed in the context of predictions before the mission and results after the mission.
- 9:35 a.m. Bottke W. F. *
 [*On the Origin and Evolution of Vesta and the V-Type Asteroids*](#) [#2024]
 We explore whether Vesta and some V-type asteroids were originally denizens of the terrestrial planet region. We also examine whether some V-types are fragments from Vesta-like objects that were dynamically removed from the primordial main belt.
- 9:55 a.m. DISCUSSION
- 10:05 a.m. BREAK
- 10:20 a.m. Lazzaro D. *
 Vesta and its Family: Composition Versus Evolution
- 10:40 a.m. Buratti B. J. * Dalba P. A. Hicks M. D.
 [*Vestoids, Vesta, and HEDs: What Explains Their Color Differences?*](#) [#2015]
 The color differences among the vestoids, Vesta, and the HEDs can be explained by particle sizes and by the addition of spectrally neutral carbonaceous material. The effects of phase reddening are slight and do not explain the differences.
- 10:55 a.m. Longobardo A. * Capaccioni F. Palomba E. De Sanctis M. C. Tosi F. Schroeder S. E. Li J.-Y.
 Capria M. T. Ammannito E. Raymond C. A. Russell C. T.
 [*Retrieval of Disk-Resolved Phase Functions of Vesta and Comparison with Other Asteroids*](#) [#2028]
 In this work we obtain visible/infrared phase functions of Vesta dark and bright regions. We try to find an equivalent photometric of these regions, by comparing their phase functions with those found in other asteroids of different spectral type.
- 11:10 a.m. Li J.-Y. * Buratti B. J. De Sanctis M. C. Denevi B. W. Hoffmann M. Longobardo A. Mottola S.
 Nathues A. Reddy V. Russell C. T. Schröder S. E.
 [*The Photometric Properties of Vesta and the Implications*](#) [#2032]
 We summarize the globally averaged photometric properties of Vesta and the comparisons with other rocky bodies in the solar system, and discuss the implications in both photometric properties and photometric modeling.

11:25 a.m. O'Brien D. P. * Marchi S. Morbidelli A. Bottke W. F. Schenk P. Russell C. T. Raymond C. A.
[*The Impact History of Vesta*](#) [#2049]

We have developed a crater chronology for Vesta based on dynamical models of the evolution of the asteroid belt.

11:45 a.m. DISCUSSION