

**Monday, February 3, 2014**  
**POSTER SESSION: VESTA AT LARGE**  
**6:00 p.m. Great Room**

Roatsch Th. Kersten E. Matz K.-D. Preusker F. Scholten F. Jaumann R. Raymond C. A. Russell C. T.  
[The Atlases of Vesta](#) [#2007]

One of the major goals of the mission is a global mapping of Vesta. Atlases from Survey, HAMO, and LAMO mission phases were calculated. Nomenclature for geological features was proposed to IAU and applied to the atlases.

Roatsch Th. Schröder S. E. Mottola S. Matz K.-D. Kersten E. Jaumann R. Raymond C. A. Russell C. T.  
[The Colors of Vesta](#) [#2006]

One of the goals of the Dawn mission was a global color mapping of Vesta. True color was achieved by scaling images acquired through the red, green, and blue filters to RGB values calculated from the CIE color matching functions and a Vesta spectrum.

Preusker F. Scholten F. Matz K.-D. Roatsch T. Jaumann R. Raymond C. A. Russell C. T.  
[Global Shape of \(4\) Vesta from Dawn FC Stereo Images](#) [#2027]

After about one year in orbit of (4) Vesta, the Dawn Framing Camera (Dawn FC) acquired several thousand clear filter images. We have used these images to derive a global shape of (4) Vesta represented by a digital terrain model (DTM).

Scully J. E. C. Yin A. Russell C. T. Buczkowski D. L. Williams D. A. Blewett D. T. Ruesch O.  
 Hiesinger H. Le Corre L. Mercer C. Yingst R. A. Garry W. B. Jaumann R. Roatsch T. Preusker F.  
 Gaskell R. W. Schröder S. E. Ammannito E. Pieters C. M. Raymond C. A.  
[Geomorphology and Structural Geology of Saturnalia Fossae and Adjacent Structures in the Northern Hemisphere of Vesta](#) [#2002]

This work examines the link between impact cratering processes and structural and geologic features in Vesta's northern hemisphere through a mapping study of the Saturnalia Fossae, adjacent structural features and geologic units.

Stephan K. Jaumann R. De Sanctis M. C. Tosi F. Ammannito E. Krohn K. Zambon F. Marchi S.  
[Vesta — Compositional Fingerprint of Small Fresh Impact Craters](#) [#2004]

We investigated the spectral properties of small fresh impact craters with respect to their geo- and geomorphological context in order to further understand the composition of the upper as well as lower parts of Vesta's crust.

McFadden L. A. Skillman D. R. Memarsadeghi N. Li J.-Y. Mutchler M. McLean B. Carsenty U.  
 Mottola S. Hellmich S. Sykes M. V. Tricarico P. Palmer E. Russell C. T. Raymond C. A.  
[Experiment to Determine the Upper Limits and Completeness of Dawn's Search for Satellites at Vesta](#) [#2009]

Dawn's satellite working group planned and executed a satellite search upon approach to Vesta. We report efforts to determine our upper limits of detection and completion. No satellites were found with 50% completeness to apparent visual magnitude 20.54.

Le Corre L. Reddy V. Schmedemann N. Becker K. J. O'Brien D. P. Yamashita N. Peplowski P. N.  
 Prettyman T. H. Li J.-Y. Cloutis E. A. Denevi B. W. Kneissl T. Palmer E. Gaskell R. W. Nathues A.  
 Gaffey M. J. Mittlefehldt D. W. Gary W. B. Sierks H. Russell C. T. Raymond C. A.  
[Nature of the "Orange" Material on Vesta from Dawn](#) [#2048]

The Dawn mission revealed distinct units on Vesta with red spectral slope. Oppia ejecta is identified as "Leslie unit" postulated by Gaffey (1997). Orange material composition is unlikely to be metal or olivine. Its nature is most likely impact melt.

Zambon F. De Sanctis M. C. Schröder S. Tosi F. Li J.-Y. Longobardo A. Ammannito E. Blewett D. T.  
 Palomba E. Capaccioni F. Frigeri A. Capria M. T. Fonte S. Mittlefehldt D. W. Nathues A. Pieters C.  
 Russell C. T. Raymond C. A.  
[Global View of the Bright Material on Vesta](#) [#2023]

In this work we will give a global view of the bright material on Vesta. We studied the mineralogy of the bright material units through the spectral parameters analysis.

Reedy R. C. Prettyman T. H. Yamashita N.

[Peaks in Dawn Gamma-Ray Spectra at and Near Vesta](#) [#2047]

The peaks in gamma-ray spectra at various distances from Vesta are presented and summarized. Spectra from Vesta for low- and high-neutron leakage fluxes are also presented.

Szurgot M.

[Mean Composition of Feldspar in HED Meteorites and in Protoplanet Vesta](#) [#2052]

Mean composition of feldspar in 28 HED meteorites has been determined and compared with the mean composition of feldspar in HED meteorites parent body. Vesta mean feldspar predicted by various models is very close to eucrites and howardites feldspar.

Voropaev S. A.

[Some Petrological Constrains on the Vesta Mantle from the Study of Gravitational Potential by the Dawn Mission](#) [#2021]

In order to explore the implications of the gravity and shape for the interior structure of Vesta, simple two-layer mass-balance model was explored with an assumed core as two axial oblate ellipsoid.

Slyuta E. N.

[Gravitational Deformation and Thermal History of Vesta](#) [#2012]

Significant difference between the magnitude of the stress deviator on Vesta and the yield strength of stony meteorites confirms that Vesta in the early stages of its existence has subjected to strong heating, and, perhaps, even to complete melting.

Schenk P. Vincent J.-B. Bray V. Kramer G.

[Cratering on a Small Planet: Morphologies of Fresh Craters and the Simple-Complex Transition on Vesta](#) [#2042]

We examine simple crater formation processes and the simple-complex crater transition on Vesta, the largest non-lunar asteroidal/dwarf planet visited to date.

Kochemasov G. G.

[From Vesta to Ceres: Predicting Spectacular Dichotomous Convexo-Concave Shape for the Largest Mini-Planet in the Main Asteroid Belt](#) [#2003]

Predicting spectacular dichotomous convexo-concave shape of Ceres is based on available poor quality images but mainly on comparative wave planetology showing that all celestial bodies in non-circular keplerian orbits are warped and wave1 bends them.