

Tuesday, March 2, 2010
VESTA AND DAWN
3:15 p.m. Waterway Ballroom 1

Chairs: Carol Raymond
Rhiannon Mayne

- 3:15 p.m. Raymond C. A. * Russell C. T. Dawn Science Team
[Exploring Asteroid 4 Vesta with the Dawn Mission](#) [#2155]
Dawn reaches Vesta in August 2011. Science observations planned during the one-year stay using cameras, visible/infrared and gamma ray/neutron spectrometers, and radiometric tracking are discussed in the context of the mission's science goals.
- 3:30 p.m. Nugent C. R. * Margot J. L. Russell C. T. Nolan M. C. Magri C. Giorgini J. D.
[SHAPE Modeling of \(4\) Vesta for Dawn Mission Support and SHAPE Inversion Validation](#) [#2637]
This work supports the Dawn mission by using SHAPE software to invert radar images, light curves, and optical images of Vesta to generate a 3-D model of an asteroid as well as characterize its spin state.
- 3:45 p.m. Reddy V. * Gaffey M. J. Kelley M. S. Nathues A. Li J.-Y. Yarbrough R.
[Rotationally-resolved Compositional Study of Asteroid \(4\) Vesta's Southern Hemisphere: Implications for the DAWN Mission](#) [#1373]
We present results from the first rotationally-resolved spectroscopy of Vesta's Southern Hemisphere including the South Pole Crater. Existence of olivine in this crater will be explored.
- 4:00 p.m. Jutzi M. * Asphaug E.
[Impacts on Vesta](#) [#2129]
We present three-dimensional SPH simulations of impacts on asteroid 4 Vesta using a new model to simulate the granular flow of post-impact regolith.
- 4:15 p.m. Schmidt B. E. * Moore W. B.
[Giant Impacts Can Drive Asteroid Dynamics: Lessons for Vesta](#) [#2700]
We present the result of geophysical modeling of Vesta to determine its interior state prior to impact and the subsequent surface deformation and rotational and thermal evolution of the asteroid.
- 4:30 p.m. Bills B. G. * Nimmo F.
[Are the Spin Poles of Ceres and Vesta Fully Damped?](#) [#2604]
We examine the possibility, and implications, of fully damped spin poles for Ceres and Vesta. Their spin poles are close to estimates of damped states. If confirmed, damped spin poles would yield estimates of moments of inertia.