Thursday, March 22, 2012
POSTER SESSION II: IMPACTS ON SMALL BODIES
6:00 p.m. Town Center Exhibit Area

Schenk P. Marchi S. O'Brien D. P. Vincent J. B. Jaumann R. Gaskell R. Roatsch T. Keller H. Denevi B. W. Raymond C. A. Russell C. T.
Impact Cratering on a Mid-Sized Planetary Body: Insights from Morphology as seen by Dawn at Vesta **[#2677]**
Dawn at Vesta has revealed a transitional world with diverse crater morphologies. These examined from a solar system perspective. Impact melt, slumping, crater chains and ejecta are examined, measured and compared.

Flynn G. J. Durda D. D. Minnick M. A. Lipman M. D. Strait M. M.
Disruption of Porous Pumice Targets: Implications for Cratering on 253 Mathilde **[#1091]**
Hypervelocity impacts into porous pumice targets demonstrate that under conditions that disrupt non-porous targets a crater-like hole, with very little ejecta, results. This is likely to explain the large, overlapping craters on the asteroid Mathilde.

Bowling T. J. Melosh H. J.
Sub-Surface Excavation of Transient Craters in Porous Targets: Explaining the Impact Delay **[#2433]**
We numerically investigate the subsurface excavation of the transient crater in the earliest moments after the Deep Impact event. At high target porosities the crater remains hidden from observation long enough to explain the "impact delay."

Schultz P. H. Hermalyn B. Veverka J.
The Deep Impact Crater as Seen from the Stardust-NExT Mission **[#2440]**
The Stardust-NExT mission imaged the impact crater formed by the DI impact probe. The size of the crater is estimated to be 150 m to 200 m in diameter based on the observed crater and disruption of ejecta as seen in images from the DI flyby in 2005.

Ipatov S. I.
Location of the Upper Borders of the Cavities Excavated after the Deep Impact Collision **[#1318]**
The upper border of the largest cavity excavated during ejection of material after the collision of the Deep Impact impact module with Comet 9P/Tempel 1 could be located at a depth of about 3–5 meters below the pre-impact surface of the comet.

Lorenz C. Basilevsky A. Shingareva T. Oberst J. Waehlisch M. Willner K. Noekum G.
Phobos: Impact Crater Morphology and Regolith Structure from Mars-Express Images **[#1142]**
Analysis of craters of complex morphology on the entire Phobos surface using Mars-Express images indicates local vertical variations of regolith strength in the scale 10–100 meters due to occurrence of buried layers of consolidated ejecta material.

Oklay N. Vincent J.-B. Sierks H. Wünnemann K. Elbeshausen D.
Impacts on a Differentiated Lutetia **[#1845]**
Is Lutetia differentiated? Using iSALE hydrocode simulations we investigate how the peculiar morphology of Massilia crater could be explained by an impact into a layered body. This allows to put some constrain on the asteroid inner structure.

Elbeshausen D. Wünnemann K. Sierks H. Vincent J. B. Oklay N.
The Effect of Topography on the Impact Cratering Process on Lutetia **[#1867]**
By using three-dimensional simulations we investigate whether a landslide in a crater at asteroid (21) Lutetia might be triggered by an impact that occurred at the rim of this crater. This study gives new insights into the effect of topography on crater formation.