

Tuesday, September 22, 2015
POSTER SESSION: PLANETARY PERSPECTIVES AND REMOTE SENSING
6:00 p.m. Geology Department

Gottwald M. Fritz T. Breit H. Schaettler B. Harris A.

[*How Can the TanDEM-X Digital Elevation Model Support Terrestrial Impact Crater Studies?*](#) [#1018]

The German Aerospace Center operated the X-band radar satellites TerraSAR-X and TanDEM-X as a single-pass SAR interferometer. Data acquisition occurred over the entire land surface for the generation of a very high quality digital elevation model.

Galiazzo M. A. Silber E. A. Bancelin D. Wiegert P. Osinski G. R.

[*V-Type NEAs: Impacts and Close Encounters with Terrestrial Planets*](#) [#1024]

We perform numerical modeling of V-NEAs with the aim to study their orbital evolution over the period of 10 Myr, determine the rate of collisions with the terrestrial planets, and simulate crater formation on planetary surfaces.

Pan L. Ehlmann B. L. Carter J. Ernst C. M.

[*Insights into the Stratigraphy of Mars' Northern Plains from Impact Crater Mineralogy*](#) [#1106]

We study the newest CRISM images over large craters to probe the buried stratigraphy of the northern plains and place the identified hydrated minerals and unaltered mafic minerals into geologic context using impact scaling models.

Cremonese G. Borin P. Cambianica P. Lucchetti A. Daubar I. McEwen A. S. Marzari F.

[*New Impactor Flux Estimate on Mars and Its Application on Fresh Craters*](#) [#1044]

New dynamical model of impactor, size range 0.25–5 m, on Mars. Correlation of impactor size distribution, and velocity distribution, with fresh impact craters. iSale simulation of fresh craters.

Sisodia M. S. Basu Sarbadhikari A. Mahajan R. R. Bhandari N.

[*Impact Ejecta in Meteorites from Asteroid 4 Vesta: Some Possible Implications to Earth*](#) [#1014]

We report the results of study of Lohawat and Piplia Kalan meteorites derived from Vesta. Piplia was reequilibrated due to shock effects and heating. Lohawat constitutes hydrated and weathered minerals that throws light on origin of Earth's water.

Rolf T. Schott M. Luther R. Zhu M.-H. Wünnemann K. Werner S. C.

[*Thermal and Volcanic Evolution of Small Planetary Bodies: Role of Impact Processes Through Shock Heating and Insulating Ejecta Deposits*](#) [#1050]

Models of impact crater formation (iSALE) are used to infer shock heating and the deposition of insulating ejecta on small planetary bodies. These are plugged into thermal evolution models to estimate the timespan of thermal and volcanic activity.