

Thursday, March 22, 2012
POSTER SESSION II: MARS FLUVIAL
6:00 p.m. Town Center Exhibit Area

Howard A. D. Moore J. M.

[*Enigmatic Valley in Northern Arabia: 800 km Long, Constant Width, Undulating Profile, and No Tributaries*](#) [#1106]

This unnamed Arabian valley may have been formed subglacially as a tunnel valley. It formed near the Noachian-Hesperian boundary and suggests ice coverage of much of Arabia at this time.

Williams R. M. E. Chuang F. C.

[*Mapping of Sinuous Ridges in Oxia Palus, Mars: New Insight into the Aqueous Record*](#) [#2156]

New geomorphic mapping of sinuous ridges and associated features (inferred preservation styles of valley networks) reveals correlation of certain types with stratigraphic units and record of multiple periods of fluvial events in the Noachian.

Jacobsen R. E. Burr D. M.

[*Paleo-Fluvial Features in the Western Medusae Fossae Formation, Aeolis and Zephyria Plana, Mars: Elevations and Implications*](#) [#2398]

Sinuous ridges interpreted as inverted channelized flow features are classified, delineated, and measured. Gathering sinuous ridge elevations enable initial interpretations of relative stratigraphy and spatio-temporal history of fluvial processes.

Penido J. C. Fassett C. I.

[*Comparison of Small Valley Networks on Earth and Mars Through Scaling Laws*](#) [#2274]

Using HRSC DEMs, we measure small valley networks on Mars to determine whether scaling laws derived for valley systems on Earth adequately describe catchment and valley properties on Mars, and our data support earlier observations that they do not.

Peel S. E. Fassett C. I.

[*Central Pit Craters with Interior Valley Networks on Mars: Characteristics and Formation Processes*](#) [#1250]

Valley networks in central pit craters are examined to characterize their morphology and morphometry, assess their hydrology and formative conditions, and investigate the relationship of valley initiation to the formation of the host craters.

Rauhala A. I. Kostama V.-P.

[*Origins and Age Constraints of the Palos Crater Floor Deposits and Tinto Vallis, Mars*](#) [#2261]

Our observations indicate that the previously hypothesized volcanic origin of Tinto Vallis is very unlikely. Palos crater records variety of events and it likely served as a conduit for water and material transfer from Hesperia to Amenthes Planum.

Goddard K. Gupta S. Warner N. H. Kim J-R. Muller J-P.

[*Transient Landscape Evolution in the Amazonian-Age Mojave Crater, Mars*](#) [#1393]

Mojave Crater likely records an unusual morphology that represents an early and transient stage of crater rim degradation by precipitation. We describe how the growth of catchment-fan systems on intracrater ranges influences crater rim evolution.