

Tuesday, May 16, 2017

POSTER SESSION:

BEDFORM MORPHOLOGY: ORIGINS, ACTIVITY, ANALOGS, PROPERTIES

6:00 p.m. Zion Room

Bernhardson M. Alexanderson H.

[*Inland Dunes of Sweden, an Aeolian Archive*](#) [#3030]

The largest continuous dune field in Sweden, Bonåsheden has been investigated concerning its geochronology and geomorphology. The dunes were mainly formed by north-westerly winds shortly after the deglaciation of this part of Sweden (ca 10.5 ka).

Urso A. C. Chojnacki M. McEwen A. Dundas C.

[*Ripple-Like Features on Recurring Slope Lineae \(RSL\) Fans in Valles Marineris, Mars*](#) [#3059]

We explored the active ripples at RSL sites. These climbing ripples may be linked to RSL formation causing fading or sourced by the lineae.

Boyd A. S. Burr D. M. Tran L. T.

[*Investigating Sand Sources and Origins in Aeolis Dorsa, Mars, via Quantitative GIS Techniques*](#) [#3016]

We are mapping sand deposits and aeolian features in Aeolis Dorsa, Mars, while also developing and applying new GIS techniques to analyze their distribution. The results will be used to test multiple hypotheses for regional sand sources and origins.

Scheidt S. P. Bonnefoy L. E. Sutton S. Whelley P. Hamilton C. W. deWet A. P.

[*Remote Sensing Analysis of Askja Pumice Megaripples in the Vikursundar, Iceland as an Analog for Martian Transverse Aeolian Ridges*](#) [#3020]

We provide analysis of remote sensing data for these unique megaripples found in Iceland. Although other aeolian gravel ripples have been suggested as terrestrial analog for TARs on Mars, these are unique because of the Mars analog environment.

Bridges N. T. de Silva S. L. Spagnuolo M. G. Zimelman J. R.

[*The Argentinean Puna as an Aeolian Mars Analog: Summary of Recent Results and Future Plans*](#) [#3036]

The Argentinean Puna is an ideal analog laboratory for aeolian landscapes on Mars. Initial results have provided fundamental insights into how aeolian terrains form on Mars. We discuss results so far and future plans.

Carson H. Fenton L. K. Michaels T. I.

[*Using Atmospheric Modeling to Pinpoint Ripple Migration Timing in Meridiani Planum During the Last 400 ky*](#) [#3053]

The sun breathed the wind / The wind waved back with ripples / But how long ago?

Vaz D. A. Silvestro S. Sarmiento P. T. K. Cardinale M.

[*Linking Ripples and Dune Morphodynamics on Mars*](#) [#3012]

We present an integrated survey of ripples and dunes on Herschel Crater. We characterize and assign a morphodynamic meaning to different sets of ripples, which can be correlated with specific dune settings and wind regimes.

Yizhaq H. Katra I. Kok J. F. Silvestro S.

[*A New Mechanism for the Transverse Instability of Megaripples and Implication for Martian Bedforms*](#) [#3007]

Differences in sinuosity between normal and megaripples are due to grain size segregation. Accumulations of coarse particles allow further growth of the ripple, thus decreasing their migration rate and encouraging further accumulation of coarse grains.

Hoover R. H. Putzig N. E. Fenton L. K. Courville S.

[*Thermophysical Characterization of Southern Hemisphere Dunes On Mars*](#) [#3063]

Investigating thermophysical properties of southern hemisphere dunes on Mars as a way to identify subsurface volatiles.

Putzig N. E.

[*A SHARAD's Eye View of Martian Dunes*](#) [#3054]

SHARAD has been observing dunes on Mars for over ten years. While many dunes severely scatter the radar signals, others allow them to penetrate, revealing internal layering and underlying surfaces, some of which are related to subsurface ice.

Lucas A. Rodriguez S. Narteau C. Charnay B. Rozier O.

[*Wind Regime, Sediment Flux, and Bedform Response on Titan*](#) [#3027]

Linear dunes observed within the equatorial sand seas on Titan are investigated from remote-sensing associated to predictions of global circulation models allowing sediment transport estimations and fine geomorphology analysis.

Lewis R. C. Bishop B. Radebaugh J. Christiansen E. H.

[*A Comparative Analysis of Sediment Transport and Deposition Trends of the Sand Seas of Earth and Titan*](#) [#3041]

The analysis of linear dune widths and spacings according to elevation and other variables such as proximity to sand sea margin on Earth and Titan provide better understanding of sediment transport and deposition patterns in sand seas.