Friday, March 23, 2012
MARS AEOLIAN PROCESSES: PREPARE TO BE BLOWN AWAY!
8:30 a.m. Waterway Ballroom 6

Chairs: **Nathan Bridges**
Candice Hansen

8:30 a.m. Geissler P. E. * HiRISE Team
Persistent Surface Changes in Solis Lacus, Mars **[#2598]**
Orbital monitoring has shown that the Solis Lacus region experiences continual, drastic albedo changes due to eolian activity. Images from HiRISE help explain the activity, and show evidence for lateral surface transport of dust deposits.

8:45 a.m. Bridges N. T. * Ayoub F. Avouac J-P. Leprince S. Lucas A. Mattson S.
High Sand Fluxes and Abrasion Rates on Mars Determined from HiRISE Images **[#1322]**
We derive the reptation and saltation sand fluxes in Nili Patea, Mars. The dunes have unexpectedly high fluxes that are like those in Victoria Valley, Antarctica, implying that rates of landscape modification on Mars and Earth are similar.

9:00 a.m. Feldman W. C. * Bourke M. C. Teodoro L. F. A.
Water Equivalent Hydrogen variability in the North Polar Region: The Potential Influence of Katabatic Winds **[#2170]**
North polar dune sediment is subject to dessication by polar katabatic winds.

9:15 a.m. Bourke M. C. *
Seasonal Change in Polar Dune Morphology **[#2885]**
Cryo-aeolian processes play an important role in the North Polar dune morphology changes observed between Mars year 29 and 30.

9:30 a.m. Brothers T. C. * Holt J. W. Spiga A.
Abalos Mensa, Planum Boreum, Mars: A Constructional, Aeolian History Derived from Radar and Optical Stratigraphy, Reinforced by Atmospheric Modeling **[#1452]**
Radar and HiRISE data have unveiled a new formation scenario for Abalos Mensa only requiring observed atmospheric processes. Analysis of both radar and optical stratigraphy has revealed a constructional formation for Abalos Mensa.

9:45 a.m. Horgan B. * Sullivan R. Bell J. F. III
Seasonally Active Dune Slipface Avalanches on Mars: Evidence for a Wind-Related Origin **[#1631]**
The origin of slipface avalanches on some martian dunes has been previously attributed to spring CO_2 sublimation. However, we show that the timing, morphology, and orientations of the features support an aeolian origin in mid- to late summer.