

Monday, March 19, 2018
MARS POLAR CAPS WHERE ICE LINGERS
2:30 p.m. Montgomery Ballroom

[M155]

Chairs: Wendy Calvin
Ali Bramson

- 2:30 p.m. Smith I. B. * Putzig N. E. Holt J. W.
[*Renewed Analysis of Buried Deep Structures in Planum Boreum with the 3-D SHARAD Volume*](#) [#2206]
 We use the new 3-D SHARAD dataset at the north pole of Mars to renew analysis of deep features and to describe new features never interpreted with radar.
- 2:45 p.m. Whitten J. L. * Campbell B. A.
[*Analysis of the Radar Properties of the South Polar Layered Deposits on Mars Using SHARAD Data*](#) [#1238]
 SHARAD data are used to study the radar properties of reflectors in the South Polar Layered Deposits of Mars and to further characterize its interior structure.
- 3:00 p.m. Mirino M. * Sefton-Nash E. Witasse O. Frigeri A. Holt J. W. et al.
[*Multi-Instrument Data Handling for Sub-Surface Analysis on Mars*](#) [#2281]
 Using datasets from MRO mission, we demonstrate how joint analysis of surface and sub-surface data can benefit geological interpretation of planetary bodies.
- 3:15 p.m. Bramson A. M. * Byrne S. Bapst J. Smith I. B.
[*The Role of Sublimation in the Migration of Mars' Spiral Polar Troughs*](#) [#2611]
 We model ice loss from Mars' polar troughs over time and compare to trough migration paths in SHARAD data to place constraints on the mass balance of the NPLD.
- 3:30 p.m. Nerozzi S. * Holt J. W.
[*Ice Caps Under Sand Caps Under an Ice Cap: Revealing a Record of Climate Change on Mars with SHARAD*](#) [#1075]
 Polar cap-ception: / Ice under sand under ice / Radar reveals it.
- 3:45 p.m. Calvin W. M. * Cantor B. C. James P. B.
[*Mars North Polar Cap Recession and Summer Variation: Five Mars Years of MARCI Observations*](#) [#2455]
 New observations of seasonal cap retreat support brightening of the residual ice due to dust lag removal. Residual ice appearance is highly variable in each MY.
- 4:00 p.m. Vos E. * Aharonson O. Schorghofer N.
[*Dynamic and Isotopic Evolution of Mars Ice Reservoirs*](#) [#1414]
 We model the exchange of water ice among the dominant reservoirs on Mars and predict D/H layering in the North Polar Cap measurable by future missions.
- 4:15 p.m. Bapst J. * Byrne S. Bandfield J. L.
[*Recent Accumulation of Water Ice at the North Pole of Mars?*](#) [#2987]
 Using TES data, we derive thermal properties of the north residual cap (<5 m). Our models favor a porous ice layer ~1 m thick covering most of the residual cap.
- 4:30 p.m. Fusco M. S. * Farnsworth K. Knightly J. P. Yazdani A. Chevrier V.
[*Spatial and Geomorphological Evolution of Swiss Cheese Terrains in the Martian South Polar Cap*](#) [#2682]
 Swiss Cheese Features at various latitudes and longitudes of the Martian South Polar Cap are shown to be growing in surface area over the five martian years sampled.