

Thursday, March 23, 2017
POLAR ICE DEPOSITS ON MERCURY AND MORE
8:30 a.m. Waterway Ballroom 1

[R501]

Chairs: Lillian Ostrach
Patrick Peplowski

- 8:30 a.m. Chabot N. L. * Shread E. E. Harmon J. K.
[*Investigating Mercury's South Polar Water Ice Deposits*](#) [#1103]
New results from Earth-based radar observations and from MESSENGER images investigate the water ice deposits near Mercury's south pole.
- 8:45 a.m. Susorney H. C. M. * James P. B. Chabot N. L. Ernst C. M. Mazarico E. M. et al.
[*Measuring the Thickness of Mercury's Polar Water Ice Using the Mercury Laser Altimeter*](#) [#2059]
The thickness of Mercury's polar ice deposits is constrained to a maximum of 20–40 meters using individual Mercury Laser Altimeter tracks.
- 9:00 a.m. Eke V. R. * Lawrence D. J. Teodoro L. F. A.
[*How Thick Are Mercury's Polar Water Ice Deposits?*](#) [#1379]
The Mercury Laser ALtimeter DEM is used to constrain the thickness of Mercury's polar water ice deposits.
- 9:15 a.m. Rubanenko L. * Mazarico E. Neumann G. A. Paige D. A.
[*Evidence for Surface and Subsurface Ice Inside Micro Cold-Traps on Mercury's North Pole*](#) [#1461]
Using the reflectance map of Mercury's north pole and a thermal model, we find evidence for trapped ice inside micro-cold traps on scales ~10–100 meters.
- 9:30 a.m. Deutsch A. N. * Head J. W. Neumann G. A. Chabot N. L.
[*Constraining the Depth of Polar Ice Deposits and Evolution of Cold Traps on Mercury with Small Craters in Permanently Shadowed Regions*](#) [#1634]
We constrain the thickness of radar-bright ice deposits on Mercury by measuring infill of small craters within regions of permanent shadow at the north pole.
- 9:45 a.m. Izenberg N. R. * Holsclaw G. M.
[*New Ultraviolet Through Near Infrared Surface Reflectance Data Products from MESSENGER*](#) [#2256]
New spectral reflectance data products, one combining Middle-UV through IR, and one a Far-UV reflectance are part of the MESSENGER extended data delivery.