

Wednesday, March 23, 2016

[W403]

SPECIAL SESSION:

DWARF-AGE DAYDREAM: SURFACE ICE DYNAMICS
ON DWARF PLANETS CERES AND PLUTO

8:30 a.m. Waterway Ballroom 4

Chairs: Paul Schenk

Hanna Sizemore

- 8:30 a.m. Schorghofer N. * Byrne S. Mazarico E. Platz T. Prettyman T. H. et al.
[The Permanently Shadowed Craters of Ceres as Seen by the Dawn Spacecraft](#) [#1629]
Permanently shadowed areas are identified on Ceres, and the amount of ice they may have accumulated is estimated.
- 8:45 a.m. Hayne P. O. * Aharonson O.
[Ice Sublimation, Outgassing, and Melting on Ceres: Models and Observations](#) [#2736]
We apply models of ice sublimation, melting, and outgassing to interpret observations of Ceres reported by the Dawn mission, and Earth-based observers.
- 9:00 a.m. Schmidt B. E. * Hughson K. G. Chilton H. T. Scully J. E. C. Platz T. et al.
[Ground Ice on Ceres?](#) [#2677]
We present geomorphological evidence that suggests ice is an important component of near surface material on Ceres.
- 9:15 a.m. Landis M. E. * Byrne S. Schorghofer N. Schmidt B. E. Raymond C. A. et al.
[Behavior and Stability of Ground Ice on Ceres: Initial Clues from Dawn](#) [#2401]
We consider the long-term stability and vapor production of pore-filling and regional surface ice on Ceres with input from new data from Dawn.
- 9:30 a.m. Krohn K. * Jaumann R. Otto K. A. von der Gathen I. Matz K.-D. et al.
[Channels and Cryogenic Flow Features on Ceres](#) [#2001]
Ceres' surface is affected by numerous impact craters. Some of them show channels or multiple flow events, indicating possible post-impact resurfacing.
- 9:45 a.m. Ruesch O. * Platz T. Schenk P. McFadden L. A. Castillo-Rogez J. C. et al.
[Ahuna Mons: A Geologically-Young Extrusive Dome on Ceres](#) [#2279]
We present morphological, morphometric, and model investigations of Ahuna Mons on Ceres.
- 10:00 a.m. Moore J. M. * Howard A. D. White O. L. Umurhan O. M. Schenk P. M. et al.
[Sublimation as a Landform-Shaping Process on Pluto](#) [#1636]
Pluto exhibits many examples of eroded terrains and landforms we ascribe to sublimation. We present both observations and initial modeling.
- 10:15 a.m. Howard A. D. * Moore J. M. White O. L. Umurhan O. Schenck P. et al.
[Present and Past Glaciation on Pluto](#) [#1089]
Pluto is presently experiencing nitrogen glaciation. Pluto has had extensive nitrogen paleoglaciation.
- 10:30 a.m. Philippe S. * Schmitt B. Grundy W. M. Protopapa S. Cruikshank D. P. et al.
[CH₄-Rich Ices Distribution at the Surface of Pluto Evidenced by New Horizons](#) [#2757]
The New Horizons mission revealed Pluto's surface. CH₄ ice rich areas are detected using a band position parameter and an anti-correlation to N₂ ice rich zones.

- 10:45 a.m. Schmitt B. * Philippe S. Grundy W. M. Protopapa S. Cruikshank D. P. et al.
[Mixing and Physical State of Pluto's Surface Materials from New Horizons LEISA Spectro-Images](#) [#2794]
Analysis of spectro-images of Pluto to understand how N₂, CH₄, and H₂O ices and reddish materials are mixed and what this implies in terms of evolution processes.
- 11:00 a.m. Protopapa S. * Berry K. L. Binzel R. P. Cook J. C. Cruikshank D. P. et al.
[Methane to Nitrogen Mixing Ratio Across the Surface of Pluto](#) [#2815]
Constraints on the abundances and scattering properties of the materials across the surface of Pluto as seen by NH/LEISA are presented and discussed.
- 11:15 a.m. Umurhan O. M. * Howard A. D. Moore J. M. Schenk P. Beyer R. A. et al.
[Examining Scenarios for Glacial Flow of Volatile Ices onto Pluto's Sputnik Planum](#) [#2093]
We examine various glacial flow scenarios to explain observed surface features on Pluto's Sputnik Planum and consider their implications for volatile transport.
- 11:30 a.m. Desch S. J. * Neveu M.
[Differentiation and Cryovolcanism in the Pluto-Charon System](#) [#1647]
Pluto and Charon / Worlds differentiated / Cryovolcanic.