8:30 a.m. Dundas C. M. * Mellon M. T.  
**Active Boulder Movement Associated with Martian Lobate Landforms** [#2018]  
Active boulder movement occurs in decameter-scale lobate landforms on steep slopes at high latitudes on Mars.

8:45 a.m. Brooker L. M. * Balme M. R. Conway S. J. Hagermann A. Barrett A. M. et al.  
**Possible Formation Mechanisms of Clastic Polygonal Networks Around Lyot Crater, Mars from Morphometric Analysis** [#1873]  
Clastic polygons / Look to the morphology / Thermal contraction?

9:00 a.m. Levy J. S. Fassett C. I. Rader L. X. King I. R. Chaffey P. M. et al.  
**Distribution and Characteristics of Boulder Halos at High Latitudes on Mars: Reworking of Sediment and Ice Indicates Boulders Outlast the Craters that Excavate Them** [#1093]  
Boulder halos form on surfaces with abundant, shallow ground ice and suggest icy mantles tens of m thick, surface sediment reworking, and slow boulder breakdown.

**Radar Detections of Ice Within Lobate Flows in Nereidum Montes, Mars** [#1544]  
Nereidum Montes is densely populated with lobate flow features. With SHARAD data, we have detected a basal reflector consistent with a water ice boundary.

9:30 a.m. Petersen E. I. * Holt J. W. Levy J. S.  
**All Our Aprons are Icy: No Evidence for Debris-Rich "Lobate Debris Aprons" in Deuteronilus Mensae** [#2354]  
Mars’ lobate aprons / Are all high purity ice / Not just some of them.

9:45 a.m. Hibbard S. M. Williams N. R. Golombek M. P. Osinski G. R.  
**Evidence for Flow in Buried Ice in the Mid-Latitudes of Arcadia Planitia** [#2606]  
Flow in buried ice / Massive glacial deposit? / Low relief region.

10:00 a.m. Bernhardt H. Ivanov M. Reiss D. Hiesinger H. Hauber E. et al.  
**The Banded Terrain on the Hellas Basin Floor, Mars: Gravity-Driven Flow Not Supported by New Observations** [#1143]  
Grid mapping shows patterns of banded terrain not correlating with topography. Observations indicate slope-independent stresses deformed volatile-rich veneer.

10:15 a.m. Stillman D. E. Codd S. L. Seymour J. D. Lei P. Young M. et al.  
**Magnetic Resonance and Dielectric Spectroscopy Derived Values of Unfrozen Water Content in Ice-Regolith Mixtures** [#2658]  
Lab measurements demonstrate how brine freezes within a porous medium. We then use this to determine if cryosuction or regelation created the excess ice on Mars.

10:30 a.m. Campbell B. A. Morgan G. A.  
**Signatures of Ice Content in Non-Polar Material on Mars from Multi-Band SHARAD Data Processing** [#120]  
We present a method for deriving dielectric loss tangents indicative of ice content from SHARAD radar data.
10:45 a.m. Baker D. M. H. * Carter L. M.
*Formation of Impact Crater Landforms Within Glaciers on Mars* [1589]
We test hypotheses for the formation of crater landforms within glacial deposits on Mars. Observations are most consistent with evolution of icy mantle units.

11:00 a.m. Butcher F. E. G. * Arnold N. S. Balme M. R. Gallagher C. Conway S. J. et al.
*Glacier-Linked Eskers on Mars: Environments of Recent Wet-Based Glaciation from Numerical Models* [1490]
We present estimates of the environmental conditions required for basal melting of mid-latitude glaciers on Mars, and thus formation of glacier-linked eskers.

11:15 a.m. Bouquety A. B. * Séjourné A. S. Costard F. C. Bouley S. B.
*Morphometrics Evidence of Glacial Features in Martian Highlands: Dawes Crater* [2125]
The goal of this study is to find geomorphologic evidence of an early Mars cold climate to constrain the climatic conditions thanks to a morphometric analysis.

11:30 a.m. Denton C. A. * Head J. W.
*Mapping the Fretted Terrain North of Arabia Terra, Mars: Results and Implications for Dichotomy Boundary Evolution* [1597]
Analysis of the fretted terrain and the Arabia Terra plateau indicates that material removal was facilitated by extensive disruption of the subsurface.