Wednesday, July 16, 2014
AMAZONIAN CLIMATE AND ICE CAPS
1:00 p.m. Beckman Auditorium

Chairs: **Joseph Levy**
Stephen Clifford

1:00 p.m. Forget F. * **[INVITED]**
What does Obliquity do to the Climate? **[#1318]**
The present-day Mars climate is a complex system in which the atmospheric dynamic is coupled with the dust cycle, the CO_2 cycle and the water cycle.

1:20 p.m. Holt J. W. * **[INVITED]**
The Long-Term Evolution of Planem Boreum, Mars: A Synthesis of Recent Observations and Modeling **[#1167]**
Longstanding questions regarding the polar regions of Mars [1] can be addressed in a new way due to the advent of orbital radar sounding. In particular, a new perspective on the long-term evolution of Planum Boreum (PB) has emerged from radar stratigraphy obtained by the Shallow Radar (SHARAD) [2] on Mars Reconnaissance Orbiter, especially when combined with new modeling efforts.

1:45 p.m. Plaut J. J. *
A Decade of Radar Sounding at Mars **[#1464]**
This paper reviews the key findings from the Mars radar sounders, which have provided new insight into many aspects of the history and current environment of the planet.

2:00 p.m. Putzig N. E. * Foss F. J. II Campbell B. A. Phillips R. J.
New Views of Planum Boreum Interior in a Migrated 3-D Volume of SHARAD Data **[#1336]**
A geometrically corrected 3-D volume of SHARAD observations on 1579 MRO orbits encompassing all of Planum Boreum is providing a greatly improved view of the internal structure from the surface to the base of the north polar layered deposits.

2:15 p.m. *Afternoon Break*

2:30 p.m. Smith I. B. * Holt J. W. Spiga A.
The Spiral Troughs of Mars: Formation and Evolution **[#1198]**
We discuss recent observations and atmospheric simulations that have led to a complete model of trough formation and evolution. The northern and southern troughs are compared, and processes involving winds and clouds are presented.

2:45 p.m. Mellon M. T. * Feldman W. C. Hansen C. J. Arvidson R. E. Sizemore H. G.
Ground-Ice Extremes in Martian Permafrost as Revealed by Periglacial Landforms **[#1106]**
We use the characteristics of the periglacial geomorphology to probe the distribution of ground ice at spatial scales not achievable with the MONS data or the Phoenix mission.

3:00 p.m. Wood S. E. * Griffiths S. D. Bapst J. N.
Mars at Low Obliquity: Perennial CO_2 Caps, Atmospheric Collapse, and Subsurface Warming **[#1495]**
A modeling study of the subsurface effects of atmospheric collapse at low obliquity due to the formation of perennial CO_2 polar caps.

3:15 p.m. Adeli S. * Hauber E. Le Deit L. Kleinhans M. G. Jaumann R.
Outflow Channels and Associated Fan Deltas: Post-Noachian Fluvial Diversity in the Southern Highlands of Mars **[#1235]**
A series of outflow channels in the southern highlands of Mars dated as Amazonian, represent evidence for local and limited aqueous environmental conditions and rich post-Noachian aqueous activity.

3:30 p.m. Howard A. D. * Moore J. M. Wilson S. A.
Fresh Shallow Valleys (FSVs) on Mars **[#1199]**
Fresh Shallow Valleys are narrow, short or discontinuous valleys, mostly mid-latitude, generally incised more than a few decameters, and are only slightly degraded. They may have formed by snowmelt during Hesperian-Amazonian climate excursions.