Monday, March 19, 2018 **[M151]**
MARS ATMOSPHERE
2:30 p.m. Waterway Ballroom 1

Chairs: **Alejandro Soto**
German Martinez

2:30 p.m. Haberle R. M. * Zahnle K. Barlow N. G.
Warming Early Mars by Impact Degassing of Reduced Greenhouse Gases **[#1682]**
Impact degassing of reduced greenhouse gases into a thick CO_2 atmosphere can warm early Mars above the melting point on multiple occasions.

2:45 p.m. Soto A. * Marchi S. Black B. A.
Photochemical Effects of Impact Melt Pool Outgassing on Mars **[#2521]**
We investigate the photochemical response of the martian atmosphere to outgassing from impact melt pools generated by large impacts on Mars.

3:00 p.m. Steakley K. E. * Kahre M. A. Murphy J. R. Haberle R. M. Kling A. M.
Post-Impact Climates on Early Mars: Revisiting 1-D Scenarios with a 3-D GCM **[#2702]**
We examine simulated temperature and precipitation trends following impacts, and explore the factors that make it difficult to sustain warm and wet conditions.

3:15 p.m. Palumbo A. * Head J.
Characterizing a Warm and Wet Early Martian Climate with a 3D Global Climate Model **[#2699]**
We use a 3D climate model for early Mars to simulate a climate with MAT 273 K to determine if the valley networks and lakes could have formed in this climate.

3:30 p.m. Fischer E. * Martinez G. M. Renno N. O.
The Phoenix Lander's Relative Humidity Sensor Calibration: New Results and Analysis **[#2811]**
We show the results of a novel recalibration of Phoenix's RH sensor in the entire temperature, pressure, and humidity range observed on Mars.

3:45 p.m. Aye K.-M. * Schwamb M. E. Portyankina G. Hansen C. J. Lintott C. J. et al.
Probing the Martian South Polar Winds by Mapping CO_2 Jet Deposits **[#2841]**
We produced a fan and blotch catalog from output of Citizen Science based mapping of CO_2 jet deposits. We derive constraints on wind directions and strengths.

4:00 p.m. Kahanpää H. * Lemmon M. T. Reiss D. Raack J. Mason E. et al.
Martian Dust Devils Observed Simultaneously by Imaging and by Meteorological Measurements **[#1442]**
MSL has observed dust devils by imaging and by meteorological measurements. We use this data to determine meteorological properties of these martian dust devils.

4:15 p.m. Vicente-Retortillo A. * Martinez G. M. Renno N. O. Lemmon M. T.
Dust Deposition and Removal from the Mars Science Laboratory UV Sensor **[#1701]**
Temporal evolution of the attenuation of the UV radiation caused by the dust deposited on the REMS UV Sensor of the Mars Science Laboratory mission.

4:30 p.m. Martinez G. M. * Giuranna M. McConnochie T. H. Tamppari L. K. Smith M. D. et al.
Interannual Variability of Water Ice Opacity at Gale Crater from Ground-Based Curiosity and Orbital Mars Express Observations **[#2317]**
Groundbased and orbital results at the location of Gale indicate a significant increase in water ice opacity (up to 50%) from martian year (MY) 32 to MY 33.