Tuesday, March 20, 2018 [T315]
POSTER SESSION I: MARS AND EXOPLANET ATMOSPHERES
6:00 p.m. Town Center Exhibit Area

Bills B. G. Mischna M. A. Richardson M. I. Lee C. ***POSTER LOCATION #169***
Time-Variable Gravity Signatures of the Mars Annual Atmospheric Mass Transport Cycle **[#1308]**
We examine the amplitude of gravitation field changes associated with the Mars annual atmospheric mass transport cycle.

Rakesh R. B. Varghese S. ***POSTER LOCATION #170***
Conceptual Design and Analysis of Aerodynamic Vehicles at Different Mach Speeds Re-Entering Martian Atmosphere **[#2827]**
The paper describes some conceptual designs and how effective can an aerodynamic vehicle interact with the martian atmosphere at different re-entry speeds.

Chapman R. M. Lewis S. R. Balme M. R. Steele L. J. ***POSTER LOCATION #171***
Comparison of Global-Scale and Mesoscale Modelling of Vertical Profiles in the Martian Atmosphere: How Does Model Resolution Impact Predictions of Conditions at Mission Landing Sites? **[#2277]**
Investigating how changes in model scale and resolution can impact experimental results. Case study: the selected landing site of ESA's Schiaparelli module.

Jha V. Kahre M. ***POSTER LOCATION #172***
Investigating the Role of Radiatively Active Clouds on Wind Stress Based Dust Lifting During Northern Hemisphere Summer on Mars **[#2919]**
We present preliminary results from an investigation that focuses on the effects of radiatively active water ice clouds on dust lifting processes.

Shumway A. Ojha L. Wolff M. ***POSTER LOCATION #173***
Seasonal Atmospheric Obscuration in Valles Marineris **[#2952]**
Seasonal atmospheric obscuration that contains characteristics of water ice clouds is observed over the coldest parts of four Mars Years in Valles Marineris.

Esteban S. A. Lee P. ***POSTER LOCATION #174***
Fog on Mars: Potential Implications for Water Extraction from the Martian Atmosphere **[#2770]**
We review atmospheric water extraction techniques operational on Earth and examine their potential application to Mars.

VanBommel S. J. Gellert R. Clark B. C. Ming D. W. ***POSTER LOCATION #175***
Six Mars Years of Atmospheric Argon Measurements with the Mars Exploration Rover Alpha Particle X-Ray Spectrometer **[#1013]**
Calibration of MER APXS atmospheric spectra and resulting analysis of six years of data. Results promote further study and collaboration with MSL SAM and REMS.

Lo D. Y. Lillis R. J. Yelle R. V. MAVEN Team ***POSTER LOCATION #176***
Modeling Carbon Production and Densities in the Martian Atmosphere Under MAVEN Deep Dip 2 Conditions **[#2466]**
CO_2 photodissociation and HCO^+ dissociative recombination are important atomic C production channels in the martian atmosphere. H_2O abundance is not important.

Zhuravlova A. Fries M. D. Locke D. R. Archer D. ***POSTER LOCATION #177***
Survival of Carbon Delivering to the Martian Surface from Interplanetary Dust Particles **[#2440]**
This study is focused on interplanetary dust particles' carbon content and its alteration under different atmospheric conditions, especially the martian ones.

Yoshida T. Kuramoto K. ***POSTER LOCATION #178***
The Effect of Radiative Cooling on the Hydrodynamic Escape of a Martian Proto-Atmosphere **[#1981]**
We develop a radiative hydrocode which includes H_2 and CO, and analyze the effect of radiative cooling on the hydrodynamic escape of a proto-martian atmosphere.

Wordsworth R. D. Schaefer L. K. Fischer R. A. ***POSTER LOCATION #179***
A Generalized Approach to Rocky Planet Oxidation via Gravitational Differentiation: Implications for Exoplanets and the Solar System **[#2059]**
Hydrogen escapes to space and iron sinks to the core, leaving oxygen in the middle. Does this ever lead to O_2 atmospheres? Yes, if conditions are right!