Monday

8:30-9:15  Introduction

   Jakosky, B., and D. Titov  Welcome to conference and introduction
   Brain, D.  INVITED: EVOLUTION OF THE MARS ATMOSPHERE

9:15-12:00  Upper atmosphere structure, composition, and dynamics

   Stone, S.  Temperature Variations of the Martian Upper Atmosphere from MAVEN NGIMS
   Thiemann, E.  MAVEN EUVM Solar Occultation Measurements of Mars Thermospheric CO2
   Pawlowski, D.  Global simulations of the thermosphere during time periods of high solar control
   Stevens, M.  First Observations of the Nitric Oxide Dayglow on Mars

10:15-10:45  Break

   Milby, Z.  NITRIC OXIDE NIGHTGLOW AND MARTIAN MESOSPHERIC CIRCULATION FROM MAVEN/IUVS OBSERVATIONS AND LMD-MGCM PREDICTIONS
   González-Galindo, F.  Global simulation of UV atmospheric emissions
   Benna, M.  KEY ISOTOPE AND GAS MIXING RATIOS IN THE UPPER ATMOSPHERE AND IONOSPHERE OF MARS

   Coupling between the lower and upper atmosphere

   Montmessin, F.  INVITED: COUPLINGS BETWEEN THE LOWER AND THE UPPER ATMOSPHERE OF MARS

12:00-1:30  Lunch

1:30-3:30  Coupling between the lower and upper atmosphere (continued)

   Gröller, H.  ATMOSPHERIC ABUNDANCES, TEMPERATURE PROFILES, AND WAVE/TIDE STRUCTURES OBSERVED WITH IUVS/MAVEN STELLAR OCCULTATIONS.
   Yiğit, E.  Role of small-scale gravity waves in the formation and variation of high-altitude CO2 ice clouds in the Martian atmosphere
   Wilson, R.  Observations and Modeling of Thermal Structure in the Lower Atmosphere and the Upward Propagation of Tides into the Thermosphere
   Slipski, M.  Homopause Variability as Observed by MAVEN
Ionosphere

McFadden, J. MAVEN STATIC Observations of Ion Density, Temperature, Composition, and Winds in the Martian Ionosphere

Dieval, C. Altitude variation of magnetically controlled electron density structures in the dayside Martian ionosphere

Han, Q On the relationship between ionopause and photoelectron boundary on Mars: MAVEN observations

3:30-6:00 Poster session 1

Upper atmosphere posters

Elrod, M. STANDARDIZING SCALE HEIGHT COMPUTATION OF MAVEN NGIMS NEUTRAL AR, CO2, N2, AND O DATA

Zurek, R. The Martian thermosphere as seen by MAVEN spacecraft accelerometers during low-altitude excursions (Deep Dips)

Mayyasi, M. OBSERVATIONS OF THE OXYGEN 130.4 nm TRIPLET IN THE UPPER ATMOSPHERE OF MARS: IMPLICATIONS FOR PRODUCTION SOURCES

Jain, S. IUVS observations of Martian dayglow: Thermospheric temperature and density variations during one Martian year

Evans, S. FIRST THERMOSPHERIC CARBON MONOXIDE RETRIEVAL FROM MARS DAYGLOW OBSERVATIONS

Lo, D. Photochemical Modeling of MAVEN IUVS Observations of C I Emissions at 156.1 nm and 165.7 nm

Chaufray, J.-Y Possible observations of deuterium Lyman-alpha emission with the "low resolution mode" of MAVEN/IUVS

González-Galindo, F. Variability of the thermospheric temperatures given by a Global Climate Model

Roeten, K. Thermospheric winds at Mars: MAVEN NGIMS measurements and corresponding global model simulations

Derks, A. SCIENCE ON A SPHERE: A NEW WAY TO SEE MAVEN DATA

Nasr, C. IUVS CONTEXT MOVIES: A TOOL FOR UNDERSTANDING OBSERVATIONS OF AURORA, NIGHTGLOW, AND OTHER PHENOMENA IN THE MARTIAN ATMOSPHERE

Coupling posters

Andersson, L. Plumes Provide New Insight Into the Physis of Mars' Atmosphere.

Connour, K. ANALYSIS OF CLOUDS DETECTED IN MAVEN/IUVS IMAGES

Lue, C. Solar wind proton scattering off MAVEN: Characteristics and potential applications

Everding, D. Aerosol lifting above the Martian exobase
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<td>Using Magnetic Topology to Probe the Sources and Sinks of Mars' Nightside Ionosphere</td>
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<td>SEASONAL AND SPATIAL VARIABILITY OF THE M2 LAYER OBSERVED BY MAVEN</td>
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6:00
End of day

**Tuesday**

8:30-12:00

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<td>Kopf, A.</td>
<td>Possible Ionospheric Effects of Radial Solar Wind Magnetic Field at Mars Observed by MAVEN and MEX-MARSIS</td>
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10:00-10:30  Break

Xu, S.  Mapping Field-aligned Potentials at Mars by MAVEN
Cravens, T.  IONOSPHERIC TRANSPORT AT MARS: ESTIMATES BASED ON MAVEN DATA
Shane, A.  Isotropic high energy photoelectron pitch angle distributions at Mars
Frahm, R.  LARGEST ELECTRON DIFFERENTIAL ENERGY FLUX OBSERVED AT MARS, 2004-2016
Voschepynets, A.  Active Experiments at Mars: Sounder Accelerated Particles Observed by ASPERA-3 on Mars Express

12:00-1:30  Lunch

1:30-2:45  Ionosphere (continued)

Grebowsky, J.  Ionosphere Metal Ions - Response to Atmosphere Chemistry, Dynamics And Electrodynamics
Crismani, M.  THE METALS DELIVERED BY COMET SIDING SPRING TO MARS
Futaana, Y.  Mars Express/ASPERA-3 observation of comet Siding Spring encounter in conjunction of ICME disturbances
Fox, J.  INVITED: Chemistry of the Upper Atmosphere of Mars

2:45-3:15  Break

3:15-5:45  Magnetosphere

Mazelle, C.  Martian Electron Foreshock: New Results from MAVEN and Comparison with Terrestrial One.
Vaisberg, O.  ANALYSIS OF THE MAGNETIC BARRIER OF MARS AS OBSERVED ON MAVEN ON JANUARY 4, 2015
Shuvalov, S.  Analysis of solar wind-Mars interaction region and pick-up ions from MAVEN measurements on January 04, 2015
Mitchell, D.  Magnetic Topology and Ion Outflow in Mars' Magnetotail
DiBraccio, G.  MAVEN observations of complex magnetic field configuration in the Martian magnetotail
Harada, Y.  Statistical properties of magnetotail reconnection at Mars
Grigorenko, E.  Influence of quasi-adiabatic ion dynamics on the current sheet structures observed in the Martian magnetotail by MAVEN
Bowers, C.  Physical Characteristics of the Martian Current Sheet From MAVEN Data
Ruhunusiri, S.  What do the Mars plasma environment and mixing of coffee have in common?
Dubinin, E.  ROLE OF DIFFERENT DRIVERS ON ION LOSSES AT MARS. MARS EXPRESS AND MAVEN OBSERVATIONS

5:45  End of day
Wednesday

8:30-10:15 Magnetosphere (continued)

- Halekas, J.  INVITED: The Magnetosphere and Space Environment of Mars
- Ma, Y.  MHD with Embedded Particle-in-Cell to Study the Magnetic Reconnection Process in the Martian Plasma Tail
- Rong, Z.  The dayside current system associated with the martian crustal field: inferred from the MGS/MAG measurements
- Sakai, S.  Effects of a weak intrinsic magnetic field on the Martian plasma environments based on global multi-species MHD simulations
- Chai, L.  The induced global looping magnetic field on Mars
- Egan, H.  Comparison of Global Martian Plasma Models Using MAVEN Data

10:15-10:45 Break

10:45-12:00 Space weather and effects

- Lentz, C.  Statistical Similarities Between WSA-ENLIL+Cone Model And Maven In Situ Observations From November 2014 To March 2016
- Wang, X.  Precipitation of Solar Wind and Planetary Hydrogen Atoms to the Upper Atmosphere of Mars
- Seki, K.  Solar Energetic Electron Penetration into the Martian Atmosphere Observed by MAVEN
- Deighan, J.  DISCOVERY OF PROTON AURORA AT MARS
- Schneider, N.  THREE TYPES OF AURORA ON MARS

12:00-1:30 Lunch

1:30-2:15 Space Weather and effects (continued)

- Soobiah, Y.  A MAVEN PERSPECTIVE FOR UNDERSTANDING DISCRETE AURORA AND INVERTED-V PARTICLE SIGNATURES AT MARS
- Ramstad, R.  THE DAY THE PRIMORDIAL SOLAR WIND HIT MODERN DAY MARS - AND MARS EXPRESS WAS THERE
- Curry, S.  The early and active Sun: the implications of EUV and space weather events on the Martian atmosphere

2:15-3:15 Hydrogen and hydrogen escape

- Mayyasi, M.  THE VARIABILITY OF DEUTERIUM IN THE MARTIAN UPPER ATMOSPHERE AS OBSERVED BY MAVEN IUVS OVER ONE MARS YEAR
- Clarke, J.  ESTIMATING THE HYDROGEN ESCAPE FROM MARS AND UNDERSTANDING THE D/H RATIO
Chaffin, M.  
H escape rates inferred from MAVEN/IUVS observations of the Mars corona

Chaufray, J.-Y  
Effect of the lateral exospheric transport on the horizontal hydrogen distribution at the exobase of Mars

**Poster session 2**

**3:15-6:00**

**Magnetosphere posters**

Liemohn, M.  
DAWN-DUSK ASYMMETRY OF THE MARS MAGNETOTAIL: THE ROLE OF THE IONOSPHERE

Holmberg, M.  
Pressure balance boundaries in the dayside magnetosphere of Mars

Fillingim, M.  
Horizontal Magnetic Fields and Currents in the Ionosphere of Mars and Their Dependence on the Interplanetary Magnetic Field

Weber, T.  
VARIATIONS IN MARTIAN MAGNETIC TOPOLOGY DUE TO SOLAR WIND DRIVERS

Hara, T.  
On the origins of magnetic flux ropes in near-Mars magnetotail current sheets

Richardson, K.  
MAVEN Observations of the Magnetic Field Draping Direction and Comparison with MGS data

Espley, J.  
Space Weather in the Martian Magnetosphere: Magnetospheric Reconfiguration

Fang, X.  
Characterization of Mars Mini-Magnetospheres Over Strong Crustal Magnetic Field Regions

Matsunaga, K.  
Statistical study of relations between the induced magnetosphere, ion composition, and pressure balance boundaries around Mars based on MAVEN observations

Fallows, K.  
HIGH DENSITY OBLIQUE ECHOES IN CUSP-LIKE CRUSTAL FIELD REGIONS

Romanelli, N.  
INFLUENCE OF THE CRUSTAL MAGNETIC FIELDS AND CHANGES IN THE IMF ORIENTATION ON THE MARTIAN MAGNETOSPHERE: MAVEN OBSERVATIONS AND LATHYS RESULTS.

**Space weather and effects posters**

Holmstrom, M.  
THE MARS EXPRESS/ASPERA-3 AND VENUS EXPRESS/ASPERA-4 SOLAR WIND DATABASES

Pilinski, M.  
The Effect of Solar Irradiation on Mars’ Atmosphere and Ionosphere

Luhmann, J.  
SOLAR WIND INTERACTION AND CRUSTAL FIELD EFFECTS ON MARS’ UPPER IONOSPHERE: INSIGHTS FROM MAVEN THERMAL ION AND MAGNETIC FIELD MEASUREMENTS AND MODELS

Marquette, M.  
Autocorrelation study of the solar wind at Mars

Thiemann, E.  
The FISM-M Model of EUV Irradiance at Mars

Jolitz, R.  
Atmospheric effects of precipitating solar wind and SEP protons

Gruesbeck, J.  
SPACE WEATHER IN THE MARTIAN MAGNETOSPHERE: ON THE IMPACT OF DIFFERENT SOLAR TRANSIENTS

Dunn, P.  
RECONSTRUCTING HIGH ENERGY ION FLUXES WITH THE MAVEN SOLAR ENERGETIC PARTICLE INSTRUMENT
Gray, C.  
SOLAR EFFECTS ON NIGHTSIDE IONOSPHERIC VARIATIONS FOR NON-MAGNETIC TERRESTRIAL PLANETS WITH CO2 ATOMOSPHERES

Lee, C.  
Observations by MAVEN/SEP and MSL/RAD during SEP event periods at Mars

**Loss to space and evolution posters**

Halekas, J.  
Seasonal Variability of the Hydrogen Exosphere of Mars

Bhattacharyya, D.  
The Dynamic Hydrogen Exosphere at Mars

Brain, D.  
MAVEN MEASUREMENTS OF ION LOSS FROM MARS

Dong, C.  
MODELING OF ION AND PHOTOCHEMICAL LOSSES TO SPACE OVER THE MARTIAN HISTORY

Regoli, L.  
Multi-species and multi-fluid MHD approaches for the study of ionospheric escape at Mars

Tenishev, V.  
Global distribution of the heavy ions in the Mars’s environment, and effect of their precipitation on the atmospheric escape

Luhmann, J.  
MARS AS AN OXYGEN ION SOURCE IN THE HELIOSPHERIC CONTEXT

Altman, I.  
Through Thick and Thin: How the Thickness of the Martian Atmosphere is Affected by Impactors

Leblanc, F.  
ON MARS’ ATMOSPHERIC SPUTTERING AFTER MAVEN FIRST TWO YEARS

Thayer, F.  
High Altitude Negative Potential Spike Signatures

Gacesa, M.  
SENSITIVITY OF NON-THERMAL ESCAPE RATES OF LIGHT NEUTRALS FROM MARS TO SCATTERING CROSS SECTIONS AND DENSITIES OF BACKGROUND GASES

Ledvina, S.  
Simulation of Heavy Ion Loss From Mars

**Mission posters**

Titov, D.  
Mars Express science highlights and future plans

Jakosky, B.  
MAVEN Mission Status and Plans

Almatroushi, H.  
Emirates Mars Ultraviolet Spectrometer (EMUS) Overview from the Emirates Mars Mission

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**Thursday**

**8:30-9:00**  
**Mission status and mission concepts**

Patel, M.  
The NOMAD spectrometer suite on the ExoMars Trace Gas Orbiter: Current status

Sharaf, O.  
EMIRATES MARS MISSION (EMM) 2020 OVERVIEW

**9:00-11:45**  
**Loss to space and atmospheric evolution**

Jakosky, B.  
MAVEN Observations of Mars Atmospheric Loss and Implications for Long-Term Evolution

Yelle, R.  
Thermal Ion Escape from Mars
Dong, Y.  THE SEASONAL VARIATION OF MARTIAN ION ESCAPE WITH SOLAR EUV FROM MAVEN AND MEX OBSERVATIONS
Rojas-Castillo, D. Mars Express Results on the Mass Composition of the Martian Escaping Flux

10:00-10:30  Break

Inui, S. Dense cold ion outflow observed in the Martian induced magnetotail by MAVEN
Fan, K. Effects of crustal field on the ion escape: MAVEN observations
Lillis, R. PHOTOCHEMICAL ESCAPE OF OXYGEN FROM MARS DERIVED FROM IN-SITU MEASUREMENTS
Rahmati, A. Variability of Neutral Escape from Mars as Constrained by MAVEN Pickup H+ and O+ Measurements

11:45-12:15  Synthesis

Bougher, S. INVITED: Comparative Aeronomy of Terrestrial Planets

12:15  End of meeting