Monday, March 19, 2018 **[M153]**

IMPROVED SCIENCE THROUGH THE IMPLEMENTATION OF A PLANETARY SPATIAL DATA INFRASTRUCTURE I

2:30 p.m. Waterway Ballroom 5

Chairs: **Lisa Gaddis**
Jason Laura

2:30 p.m. Laura J. R. * Archinal B. Bland M. T. Gaddis L. R. Hagerty J. J. et al.
Planetary Spatial Data Infrastructure Foundational Data Product Knowledge Inventory **[#1426]**
A presentation of the available foundational data products and identification of the strategic data knowledge gaps.

2:45 p.m. Gaddis L. * Laura J. Arvidson R.
The Role of the Planetary Data System in a Planetary Spatial Data Infrastructure **[#1540]**
We provide context for the NASA Planetary Data System's efforts in ongoing discussions of a national Planetary Spatial Data Infrastructure.

3:00 p.m. Speyerer E. J. * Wagner R. V. Mazarico E. Silva V. Anderson J. et al.
Production of New Clementine UVVIS Map Products Tied to the LRO Reference Frame **[#2538]**
We created a new set of Clementine UVVIS map products that are registered with the LRO reference frame using a new camera model and updated spacecraft geometry.

3:15 p.m. Kodikara G. R. L. * McHenry L. J.
Application of Machine Learning Methods for Mapping Surface Composition of the Taurus-Littrow and Surrounding Area of the Moon **[#1546]**
We demonstrate the application of Machine Learning algorithms to map the surface composition of the Taurus-Littrow valley using Moon Mineralogy Mapper data.

3:30 p.m. Barnouin O. S. * Daly M. G. Palmer E. Johnson C. L. Perry M. et al.
Altimetry Efforts at Bennu **[#1041]**
The extensive altimetry efforts at Bennu are presented. These support the science and sampling objectives of the mission which arrives at Bennu late next year.

3:45 p.m. Piqueux S. * Edwards C. S. Fergason R. L. Laura J. Weintraub A. et al.
Improving Thermal Model Capability for the Planetary Science Community **[#1027]**
We describe recent improvements aiming at enhancing and expanding the capability of KRC, a well-established thermal model for planetary data analysis.

4:00 p.m. Edwards C. S. * Pilorget C. Osterloo M. M.
A Novel Thermal Infrared Spectral Model for Testing the Uncertainties in Remote Mineral Abundance Retrievals: Implications for Remote Sensing Investigations **[#2573]**
A new, monte-carlo based spectral model provides the means to test the ability of spectral unmixing to retrieve mineral abundances of planetary surfaces.

4:15 p.m. Logan T. L. * Smyth M. M. Calef F. J. Trautman M. R.
Mars_Nest Orbital Image Co-Registration and Mapping **[#1178]**
The "Mars_Nest" software is a georeferencing pipeline that automatically co-registers two map-projected Mars images to subpixel accuracy.

4:30 p.m. Hare T. M. * Davis R. M. Collom R. B. Day B. H. Hill J. R. et al.
Mars Human Exploration Zones (MarsGIS) Spatial Data Infrastructure **[#1699]**
The MarsGIS initiative is a community-based initiative being developed for Mars operations. Here we map the MarsGIS goals into a Spatial Data Infrastructure.