IMPROVED SCIENCE THROUGH THE IMPLEMENTATION OF A PLANETARY SPATIAL DATA INFRASTRUCTURE

Monday, March 19, 2018

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.

          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.