

Monday, March 20, 2017

[M153]

**PLANETARY SPATIAL DATA INFRASTRUCTURE I:
ENABLING EXPLORATION AND RESEARCH ACROSS THE SOLAR SYSTEM
2:30 p.m. Waterway Ballroom 5**

**Chairs: Emerson Speyerer
Samuel Lawrence**

- 2:30 p.m. Archinal B. A. * Laura J. Kirk R. L. Hare T. M. Gaddis L. R. et al.
[*Foundational Data Products Needed to Support Planetary Spatial Data Infrastructure*](#) [#2286]
We discuss the need to define foundational data products to support planetary spatial data infrastructure. Example datasets are discussed for the Moon and Mars.
- 2:45 p.m. Hare T. M. * Kirk R. L.
[*Community Sensor Model Standard for the Planetary Domain*](#) [#1111]
Here we present ongoing work to support software interoperability between different photogrammetric suites by implementing the Community Sensor Model Standard.
- 3:00 p.m. Besse S. * Vallat C. Barbarisi I. Arviset C. De Marchi G. et al.
[*The New Planetary Science Archive \(PSA\): Exploration and Discovery of Scientific Datasets from ESA's Planetary Missions*](#) [#1186]
The Planetary Science Archive is the repository of science data for ESA. The PSA provides access to scientific datasets at <http://psa.esa.int>.
- 3:15 p.m. Skinner J. A. Jr. *
[*The Role of Planetary Geologic Mapping in Establishing a Common Framework for Scientific Investigation and Exploration*](#) [#2759]
This presentation focuses on the role and status of the USGS-NASA Planetary Geologic Mapping Program as a mechanism to establish objective context for research.
- 3:30 p.m. Calef F. J. III * Gengl H. E. Soliman T. Abercrombie S. P. Powell M. W.
[*MMGIS: A Multi-Mission Geographic Information System for In Situ Mars Operations*](#) [#2541]
Our goal is to develop a multi-mission geographic information system (MMGIS) for Mars in situ operations that accesses science instrument data on a map.
- 3:45 p.m. Speyerer E. J. * Wagner R. V. Robinson M. S.
[*Geometric Calibration of the Clementine UVVIS Camera*](#) [#2705]
Sub-pixel geometric refinement of UVVIS images into the LRO reference frame enabling cross-mission analysis without the need to manually align observations.
- 4:00 p.m. Awumah A. * Mahanti P. Robinson M. S. Sato H.
[*Image Fusion Wavelet-based Sharpness Enhancement of LROC Wide Angle Camera Images - Performance Comparison Among Wavelet Types*](#) [#1309]
This work explores wavelet-based image fusion applied to LROC WAC multi-spectral images for the purpose of sharpness enhancement.
- 4:15 p.m. Kerner H. R. * Bell J. F. III Ben Amor H.
[*Detecting and Characterizing Compression-Related Artifacts in Mars Science Laboratory Mastcam Images*](#) [#1613]
This work predicts the likelihood that JPEG compression will have introduced problems in the scientific interpretation of Mars Science Laboratory Mastcam images.
- 4:30 p.m. Craft K. L. * Barnouin O. Gaskell R. Palmer E. Weirich J. et al.
[*A Stereophotoclinometry Model of a Physical Wall Representing Asteroid Bennu*](#) [#2564]
Asteroid Bennu / Stereo model and true / How do they compare?