Thursday, March 20, 2014 **[R728]**

POSTER SESSION: PLANETARY MAPPING, REMOTE SENSING, AND ASTROGEOLOGY: DATABASES, TECHNIQUES, AND TOOLS

6:00 p.m. Town Center Exhibit Area

Archinal B. A. Kirk R. L. Gaddis L. R. Titus T. N. Herkenhoff K. E. et al. ***POSTER LOCATION #505***
The Need for Planning the Future of Planetary Cartography **[#2466]**
We highlight the need to restart NASA planetary cartography planning, a foundation of planetary science and exploration.

Hare T. M. Keszthelyi L. Gaddis L. R. ***POSTER LOCATION #506***
Online Planetary Data and Services at USGS Astrogeology **[#2487]**
We provide an overview of Astrogeology software initiatives, planetary data products, online services, and infrastructure that support the planetary community.

Bailen M. B. Hare T. M. Shute J. ***POSTER LOCATION #507***
Astropedia: Long-Term Access for Planetary Cartographic Products **[#2040]**
The USGS Astrogeology Science Center houses a secure long-term access and storage facility for high-level planetary cartographic data products.

Neakrase L. D. V. Huber L. F. Beebe R. F. Rees S. K. Jasek J. et al. ***POSTER LOCATION #508***
The PDS4 Archive: Integrated Migration of the Mars Phoenix Data **[#1417]**
PDS4 represents the new planetary data archive. Migration of the Mars Phoenix data to PDS4 tests improved data user access under the new standard.

Bennett K. J. Wang J. Scholes D. ***POSTER LOCATION #509***
Accessing PDS Data in Pipeline Processing and Websites Through PDS Geosciences Orbital Data Explorer's Web-Based API (REST) Interface **[#1026]**
NASA's PDS Geosciences Node's Orbital Data Explorer (ODE) supports accessing PDS data in pipeline processing and web sites using a web-based API (REST) interface.

Hare T. M. Akins S. W. Sucharski R. M. Bailen M. S. Shute J. et al. ***POSTER LOCATION #510***
POW: Update for the PDS Map Projection Web Service **[#2474]**
In 2013 Astrogeology (USGS) released a tool called the Map Projection on the Web Service (POW). This online service converts PDS images to science-ready images.

Akins S. W. Hare T. M. Sucharski R. M. Gaddis L. Shute J. et al. ***POSTER LOCATION #511***
Map-A-Planet 2 Mosaic Projection Web Service **[#2047]**
The USGS Astrogeology Science Center has developed Map-A-Planet 2 (MAP2), an update to the existing Map-A-Planet of the Planetary Data System (PDS).

Stein T. C. Arvidson R. E. ***POSTER LOCATION #512***
PDS Analyst's Notebook for MSL and MER **[#1152]**
The Analyst's Notebook enriches data archives by integrating sequence information, engineering and science data, planning and targeting, and documentation.

Zhou J. Ayhan B. Yin J. Kwan C. Vance S. ***POSTER LOCATION #513***
New Layer in JMARS **[#1885]**
We developed a custom layer for JMARS to show the traverse map of Mars rovers including Spirit, Opportunity, and Curiosity.

Walter S. H. G. van Gasselt S. ***POSTER LOCATION #514***
HRSC Data Dissemination – Dynamic Queries and Data Interoperability **[#1088]**
We want to improve HRSC data dissemination for scientific analysis by a dynamic mapserver for data queries and data products compliant to geospatial standards.

Erkeling G. Luesebrink D. Hiesinger H. Reiss D. Jaumann R. ***POSTER LOCATION #515***
Multi-Temporal Database of High Resolution Stereo Camera (HRSC) Images **[#1330]**
Our HRSC database will help to globally identify areas with multitemporal HRSC ND coverage and gives the option to easily detect surface changes.

Kirk R. L. Edmundson K. L. Howington-Kraus E.
Redding B. Thomas O. et al. ***POSTER LOCATION #516***
Practical Processing of Mars Express HRSC Images in ISIS and SOCET SET **[#2535]**
New software allows scientists to work with HRSC Mars images in ISIS and make their own DTMs with SOCET SET.

Kirk R. L. Barrett J. M. Wahl D. E. Erteza I. Jackowatz C. V. et al. ***POSTER LOCATION #517***
Precision Geometric Processing of Mini-RF Bistatic Radar Images of the Moon **[#2548]**
We are developing tools to register Mini-RF bistatic images to other data and remove distortions, enabling quantitative comparisons to search for lunar ice.

Bowman-Cisneros E. Robinson M. S. Thompson S. Estes N. M. Malaret E. ***POSTER LOCATION #518***
Enhanced Lunar Reconnaissance Orbiter Camera Planetary Data System Data Node **[#2584]**
The LROC PDS Data Node provides an unprecedented ability for the science community and general public to explore one of the fastest growing planetary datasets.

Boyd A. K. Stopar J. D. Robinson M. S. ***POSTER LOCATION #519***
LROC NAC Photometric Analysis: A Global Solution and Local Applications **[#2826]**
Using 740,000 NAC image tiles we determined an empirical global photometric solution for the Moon and applied it to NAC images using a high-resolution NAC DTM.

Henriksen M. R. Seymour P. Burns K. N.
Speyerer E. J. Robinson M. S. et al. ***POSTER LOCATION #520***
Improvements to High Resolution LROC NAC Digital Terrain Models **[#2851]**
Many improvements have been made to LROC NAC DTM production at ASU that reduces the amount of time required and increases the absolute accuracy of the DTMs.

Klem S. M. Henriksen M. R. Stopar J. Boyd A. Robinson M. S. et al. ***POSTER LOCATION #521***
Controlled LROC Narrow Angle Camera High Resolution Mosaics **[#2885]**
LROC NAC images have been controlled to create high-resolution mosaics that provide an accurate cartographic resource for engineering and scientific studies.

Speyerer E. J. Wagner R. V. Licht A. Robinson M. S. Becker K. J. et al. ***POSTER LOCATION #522***
New Spice to Improve the Geodetic Accuracy of LROC NAC and WAC Images **[#2421]**
Geometric refinements along with improved ephemeris enable seamless projection of LROC NAC image pairs (accuracy ~20 m) and subpixel projection of WAC images.

Isbell C. Gaddis L. Garcia P. Hare T. Bailen M. ***POSTER LOCATION #523***
Kaguya Terrain Camera Mosaics **[#2268]**
Multiple near-global lunar mosaics derived from data acquired by the Selenological and Engineering Explorer (SELENE) “Kaguya” Terrain Camera (TC) instrument.

Sefton-Nash E. Williams J.-P. Paige D. A. ***POSTER LOCATION #524***
Modeling, Gridding and Storage of Effective Fields of View for Terascale, Point-Based Planetary Datasets: Case Study — LRO Diviner **[#2737]**
We present a method to calculate, store, and make gridded map products from effective fields of view for large point-based planetary datasets.

Estes N. M. Hanger C. D. Licht A. A. Bowley K. S. Koeber S. et al. ***POSTER LOCATION #525***
Lunaserv 3 Development and Usage Over the Past Year **[#2180]**
Lunaserv 3, developed by the LROC SOC, introduces simpler installation and more capabilities such as Lommel-Seeliger illumination and better WMS compatibility.

Moratto Z. M. McMichael S. T. Beyer R. A. Alexandrov O. Fong T. ***POSTER LOCATION #526***
Automated and Accurate: Making DTMs from LRO-NAC Using the Ames Stereo Pipeline **[#2892]**
In this abstract we present a method to process all LRO-NAC imagery and how to correct their ephemeris.

Beyer R. A. Alexandrov O. Moratto Z. M. ***POSTER LOCATION #527***
Aligning Terrain Model and Laser Altimeter Point Clouds with the Ames Stereo Pipeline **[#2902]**
We introduce the pc_align program, which aligns two 3-D point clouds to one another (laser altimetry, lidar, dense DTMs), and show examples of use.

Sylvest M. E. Dixon J. C. Leone R. C. Barnes A. ***POSTER LOCATION #528***
DEM Extraction from Stereo Webcam Videos for Small-Scale Experimental Geomorphological Modeling **[#2309]**
This work discusses application of image processing and computer vision techniques to automate extraction of digital elevation models from HD webcam videos.

Re C. Roncella R. Forlani G. Cremonese G. Gwinner K. ***POSTER LOCATION #529***
Using Advanced Geometric Models in Image Matching with High Resolution Space Images **[#2291]**
The paper describes the main features of the optimized version of Dense Matcher software, developed by the University of Parma, for planetary mapping.

Saleh R. A. ***POSTER LOCATION #530***
Geometric Preprocessing and Automated Pattern Matching Techniques for Planetary Photogrammetric Mapping **[#2462]**
Describes work on geometric preprocessing with tests to examine impact of misalignment on matching success, quantify the impact, then implement modifications.

Clark C. S. Clark P. E. ***POSTER LOCATION #531***
Using Boundary-Based Maps to Illustrate the Role of External and Internal Processes in Mercury's Surface Formation **[#1051]**
We discuss the first application of Constant Scale Natural Boundary mapping to Mercury, and the implications for the origin of its major terranes.

Coleman E. A. Ishikawa S. T. Gulick V. C. ***POSTER LOCATION #532***
Clickworkers Interactive: Progress on a JPEG2000-Streaming Annotation Interface **[#2593]**
We present progress on a new JPEG2000-streaming annotation web interface for classifying landforms and enabling pan/zoom capabilities using HiRISE images.

Statella T. Bandeira L. Hare T. ***POSTER LOCATION #533***
Influence of Map Projection on Directions Measured over HiRISE and MOC Images **[#1338]**
We investigate the influence of map projection on directions measurements in MOC and HiRISE images and quantify the angular distortion.