Tuesday, March 17, 2015
POSTER SESSION I: PLANETARY MISSION CONCEPTS: LUNAR MISSIONS
6:00 p.m.  Town Center Exhibit Area

Anand M. Crawford I. A. Sims M. R. Smith A. Burgess R. et al. POSTER LOCATION #573
Lunar Mission One: The First Crowdfunded Mission to the Moon Presenting New Opportunities for Lunar Science [#2611]
We will present the mission concept and the primary science drivers for Lunar Mission One — the first crowdfunded mission to the Moon.

Lawrence S. J. Stopar J. D. Jolliff B. L. Robinson M. S. Speyerer E. J. POSTER LOCATION #574
Lunar Surface Traverse and Exploration Planning: Destinations for Automated Sample Return [#2755]
We present new lunar potential regions of interest for automated sample return optimized to address key lunar and planetary science questions.

Garrick-Bethell I. Pieters C. M. Russell C. T. Weiss B. P. Halekas J. et al. POSTER LOCATION #575
NanoSWARM: A Cubesat Discovery Mission to Study Space Weathering, Lunar Magnetism, Lunar Water, and Small-Scale Magnetospheres [#3000]
The NanoSWARM mission concept uses a fleet of cubesats around the Moon to address a number of open problems in planetary science.

Milazzo M. P. Stone T. Heynssens J. Daubar I. Springmann A. et al. POSTER LOCATION #576
Naaki: A Twin CubeSat Mission to the Moon [#2875]
Naaki: CubeSat/Lunar voyeur exposing/Light and dark impacts.

Clark P. E. Didion J. Cox R. Ghafoor N. POSTER LOCATION #577
CubeSat Deployables on the Lunar Surface? [#1109]
We revisit the small, deployable lunar instrument package design concept, useful for environment monitoring with existing cubesat technology.

Cohen B. A. Hayne P. O. Paine C. G. Paige D. A. Greenhagen B. T. POSTER LOCATION #578
Lunar Flashlight: Mapping Lunar Surface Volatiles Using a Cubesat [#2020]
Sunlight glinting off/Our cubesat's solar sail will/Reveal lunar frost..

Neutron Spectrometer Prospecting During the Mojave Volatiles Project Analog Field Test [#2885]
The Mojave Volatiles Project was a robotic lunar analog test aimed at maturing instrument and operational approaches for a future landed mission.

Classifying Planetary Surfaces with Results from TextureCam Processing with the Mojave Volatiles Prospector (MVP) Rover Mission [#2239]
TextureCam (automated pixel classification method) was applied to Groundcam images from the Mojave Volatiles Prospector mission to determine the terrain type.

Speyerer E. J. Lawrence S. J. Stopar J. D. Robinson M. S. Jolliff B. L. POSTER LOCATION #581
Optimized Traverse Planning for Future Lunar Polar Prospectors [#2299]
A polar prospector that samples multiple PSRs near persistently illuminated regions could answer many questions about the resource potential of lunar volatiles.
The International Space Exploration Coordination Group (ISECG) has begun an effort to develop a coordinated strategy to investigate lunar polar volatiles.

A lunar lander SELENE-2 has been considered. It lands on the Moon’s surface and performs in situ scientific observation, environment investigation.

Optimum landing sites for a lunar resources demonstration mission can be identified, and the oxygen yield can be predicted using orbital data.

Optimal landing sites on the Moon are selected considering sunlight, communication, inclination angle, and ice distribution with multi-objective optimization.

We provide the new way that refines the area of crater under digital observation data gathered by space explorer opened for the public.

Astrobotic’s lunar delivery service opens access to the Moon for new science investigations from around the world.

Multi-rover framework and associated operational autonomy, based on stochastic optimization and LIDAR, for the autonomous exploration of planetary lava tubes.

Automated optimal rover traverse planner using multivariate stochastic optimization based on terrain data in the presence of simultaneous mission constraints.