

Tuesday, March 21, 2017

[T322]

POSTER SESSION I: LUNAR MISSION CONCEPTS

6:00 p.m. Town Center Exhibit Area

Kramer G. Y. Lawrence D. L. Beeson P. Bonasso R. P.
Burridge R. R. et al.

POSTER LOCATION #345

[Lunar Capabilities Roadmap](#) [#2538]

The LCR will highlight technical capabilities critical for science and exploration of the Moon and the potential for science and exploration beyond the Moon.

Cohen B. A. Hayne P. O. Greenhagen B. T. Paige D. A.
Camacho J. M. et al.

POSTER LOCATION #346

[Payload Design for the Lunar Flashlight Mission](#) [#1709]

Shadowed and frigid / The lunar poles can't conceal / Their icy riches.

Hibbitts C. A. Blewett D. T. Brandt P. Clyde B. Cohen B. A. et al.

POSTER LOCATION #347

[The Lunar WATER Mission: A Small Orbital Mission to Characterize the Water on the Moon's Surface](#) [#2636]

The Lunar WATER mission concept proposes Discovery-class investigations of the lunar water cycle as a SmallSat mission.

Zuniga A. F. Rasky D. J. Pittman R. B.

POSTER LOCATION #348

[Lunar COTS Mission Concept: Using the Moon's Resources to Enable an Economical and Sustainable Pathway to Mars and Beyond](#) [#1252]

The Lunar Commercial Orbital Transfer Services (COTS) mission concept presents a cost-effective approach to establish cislunar capabilities and services.

Slyuta E. N. Vasilev A. V. Dalyaev I. Yu.

POSTER LOCATION #349

[Lunokhod "Robot-Geologist": Scientific Tasks and Technical Configuration](#) [#1929]

The main task of the automatic "Robot-Geologist" is a thematic geological, geochemical, and geophysical survey with sampling of lunar soil.

Park K. K. Choi H. L.

POSTER LOCATION #350

[Rapid Path Planning of Lunar Rover Mission at Polar Region](#) [#2844]

For rover path optimization at lunar polar mission, simple algorithm using Bellman-Ford with heuristic method is suggested and verified by simple simulation.

Landgraf M. Carpenter J. Hufenbach B. Picard M. Lange C. et al.

POSTER LOCATION #351

[Technical Challenges and Scientific Opportunities of Enabling International Access to the Far Side and Polar Regions for Humans and Robots from a Staging Post in the Lunar Vicinity](#) [#1790]

Ideas are sought for scientific investigations in the frame of GER mission scenarios. Opportunities exist to shape the implementation of these scenarios.

Blewett D. T. Hurley D. M. Denevi B. W. Cahill J. T. S.

POSTER LOCATION #352

Klima R. L. et al.

[Exploration of a Lunar Crustal Magnetic Anomaly: The Lunar Compass Rover Mission Concept](#) [#1251]

We make the case for a Discovery-class rover mission to explore a lunar magnetic anomaly.

Colaprete A. Elphic R. C. Andrews D. Trimble J. Bluethmann B. et al.

POSTER LOCATION #353

[Resource Prospector: An Update on the Lunar Volatiles Prospecting and ISRU Demonstration Mission](#) [#1685]

An update on the Resource Prospector mission, the first robotic rover mission to the Moon's pole in search of water, is presented.

Elphic R. C. Colaprete A. Shirley M. McGovern A.
Beyer R. A. et al.

POSTER LOCATION #354

[Landing Site and Traverse Plan Development for Resource Prospector](#) [#2937]

The Resource Prospector mission will search for viable, recoverable lunar polar resources. But planning for this - ah, there's the rub!

Zou Y. L. Li W.

POSTER LOCATION #355

[Scientific Visions of Lunar Research-Station from China](#) [#1730]

In the future, we suggest China to set a research station on the Moon with four missions (Chang'e-4, Chang'e-6, and two lunar polar exploration missions).

Wimmer-Schweingruber R. F. Zhang S. Hellweg C. E. Yu J.
Guo J. et al.

POSTER LOCATION #356

[The Lunar Lander Neutron and Dosimetry \(LND\) Experiment on Chang'e4](#) [#1320]

The Lunar Lander Neutron and Dosimetry (LND) experiment on China's lunar mission Chang'e4 will measure the neutral and charged radiation on the lunar surface.

Gruener J. E. Lawrence S. J.

POSTER LOCATION #357

[A Mission Concept Based on the ISECG Human Lunar Surface Architecture](#) [#2882]

This abstract describes a five-mission campaign to the lunar surface, using the ISECG humans to the lunar surface design reference mission architecture.

Kamps O. M. Allender E. J. Almeida N. V. Cook J. Ende J. J. et al.

POSTER LOCATION #358

[Exploration of South Polar Region of the Moon: Tele-Operated Traverses](#) [#1909]

Comparison of efficient and science, tele-operated traverses between five human landing sites for exploration of the south pole of the Moon.