

Thursday, March 23, 2017

[R642]

**POSTER SESSION II: INSTRUMENT CONCEPTS V:
ROBOTICS, SMALLSATS, AND SMALL BODY TOOLS
6:00 p.m. Town Center Exhibit Area**

Anderson R. C. Hodges K. Burdick J. **POSTER LOCATION #683**
[Space Science Opportunities Augmented by Exploration Telepresence \(ET\) — Keck Institute for](#)

[Space Studies](#) [#1649]

The Keck Institute of Space Studies organized a Study Program on “Space Science Opportunities Augmented by Exploration Telepresence” on October 3–7, 2016.

Francis R. Johnstone S. Estlin T. Doran G. Gaines D. et al. **POSTER LOCATION #684**

[AEGIS Autonomous Targeting for ChemCam on MSL: Results from the First 220 Sols of Routine](#)
[Science Operations](#) [#2372]

Nice rocks, more ChemCam / From AEGIS intelligence / Beats shooting blindly..

Hu J. Y. Tissot F. L. H. Yokochi R. Ireland T. J. Dauphas N. **POSTER LOCATION #685**

[Defining the Baseline of the REE Stable Isotope Variations in Solar System Materials: Earth](#) [#2602]

We measured the mass-dependent fractionation of Nd, Sm, Eu, Gd, Dy, Er, and Yb to a precision of around 0.03 ‰/amu for different terrestrial geostandards.

Citron R. I. Shah A. Sinha S. Watkins C. Jenniskens P. **POSTER LOCATION #686**

[Meteorite Recovery Using an Autonomous Drone and Machine Learning](#) [#2528]

We studied whether machine learning could be used in conjunction with an autonomous drone to detect meteorites in the field.

Vizi P. G. **POSTER LOCATION #687**

[Streaming Swarm of Nano Space Probes as Mission and Instruments Concept](#) [#3007]

Streaming Swarm of Nano Space Probes (SNP), accelerating them to real high speed and making measurements like on big space probe.

Hong J. Romaine S. Ramsey B. Nittler L. Gendreau K. et al. **POSTER LOCATION #688**

[Miniature Lightweight X-Ray Optics \(MiXO\) and CubeSat X-Ray Telescope \(CubeX\) for Solar](#)
[System Exploration](#) [#2063]

We report the recent progress in development of miniature X-ray optics for future planetary missions and introduce a CubeSat X-ray telescope concept.

Bairstow B. K. Riedel J. E. Lee Y. H. Spilker T. R. Oleson S. R. **POSTER LOCATION #689**

[SmallSat Missions Enabled by Current Radioisotope Power Systems](#) [#1516]

A description of how RPS can enable SmallSat missions, using an Enceladus SmallSat mission concept as an example.

Bercovici B. McMahon J. W. **POSTER LOCATION #690**

[The Small Body Geophysical Analysis Tool](#) [#1324]

The Small Body Geophysical Analysis Tool is a generator of valuable simulated data from small bodies shape models, with shape-modification capabilities.

Atchison J. A. Mitch R. H. Mazarico E. **POSTER LOCATION #691**

[Optical Gravimetry for Flyby Missions: Parametric Study and Validation](#) [#2308]

This research describes a method for resolving the mass of small bodies during spacecraft flybys using deployed, passive test-masses that are optically tracked.

Shaw A. Fulford P. Dickinson C. Chappell L. **POSTER LOCATION #692**

[Instruments and Enabling Technologies for Planetary Exploration](#) [#2238]

MDA and SSL present high heritage technologies for planetary science missions.