Tuesday, March 24, 2009
POSTER SESSION I: LUNAR MISSIONS:
RESULTS FROM KAGUYA, CHANG'E-1, AND CHANDRAYAAN-1
6:30 p.m. Town Center Exhibit Area

Arai T. Yamamoto Y. Okada T. Kato M.
Lessons Learned in Onboard Software Processing of XRS-Kaguya **[#2212]**
We introduce the functional control, data reduction and observation control by the software processing of X-ray spectrometers onboard Kaguya, and we discuss the lessons-learned from the lunar X-ray observation.

Terazono J. Asada N. Demura H. Hirata N. Saiki K. Iwasaki A. Oka R. Hayashi T. Suzuki T. Miyamoto H. Haruyama J. Ohtake M. Matsunaga T. Sobue S. Okumura H. Fujita T. Yamamoto A.
Integrated Lunar Web-GIS Environment Using Data Obtained by Lunar Exploration **[#1232]**
The report of current implementation and development status about integrated GIS infrastructure using lunar exploration data including Kaguya, Japanese lunar explorer.

Okumura H. Sobue S. Hoshino H. Yamamoto A. Fujita T.
Data Archive and Visualization for Lunar Orbiter Kaguya (SELENE) **[#1518]**
Kaguya Data Archive (L2DB) and Kaguya Web Map Server(WMS) are being developed in JAXA Sagamihara Campus and will be open to the public from Nov. 2009. Also World Wind for Kaguya and KML data set will be prepared for the purpose of research and EPO.

Shibata Y. Hirata N. Demura H. Asada N. Yokota Y. Morota T. Honda C. Matsunaga T. Ohtake M. Haruyama J.
Semi-Automatic Recognition of Lunar Geologic Units Based on Texture and Spectral Features Using Image Data Observed by Kaguya, LISM TC/MI **[#1615]**
This research shows first step for semi-automatic recognition by means of ongoing Kaguya data. We especially focus on recognition of geologic units by combining texture and spectral features extracted from image data observed by LISM TC/MI.

Hodokuma T. Kuriki K. Asada N. Demura H. Terazono J. Hirata H. Haruyama J. Ohtake M. Matsunaga T. Araki H.
Integration of Multi-Instrumental Data Sets of Kaguya, LISM and LALT **[#1637]**
We report current status on integration of multi-instrumental data sets of Kaguya, LISM and LALT, such as digital terrain model, altitude profiles, multiband images, and spectral data.

Yokota Y. Matsunaga T. Ohtake M. Haruyama J. Ogawa Y. Nakamura R. Honda C. Morota T. Saiki K. Kawabe S. Nagasawa K. Kitazato K. LISM Working Group
Lunar Phase Curve at Vis/NIR Wavelength Observed by SELENE Spectral Profiler **[#2525]**
We report preliminary results of Disk-resolved lunar phase curve at highland in Vis/NIR wavelength range by SELENE Spectral Profiler data.

Ogawa Y. Matsunaga T. Nakamura R. Takeda H. Ohtake M. Morota T. Hiroi T. Arai T. Saiki K. Sugihara T. Haruyama J. Yokota Y. Honda C. Nimura T. Hirata N. Demura H. Asada N. Terazono J.
Mineral Compositions of the Bright Rayed Craters and Lunar Far-Side Crust Revealed by the Continuous VIS-NIR Spectrum by SP (Spectral Profiler) on SELENE/Kaguya **[#1650]**
SP is a visible and near infrared spectrometer onboard SELENE/Kaguya satellite. Based on the SP spectral data we are conducting a preliminary survey to collect compositional information of the lunar highland crust on the far-side.

Migita E. Araki H. Noda H. Tazawa S. Ishihara Y. Iwata T.
Laser Altimeter Lunar Crater Measurement by SELENE (Kaguya) **[#1981]**
Laser Altimeter (LALT) on board SELENE (Kaguya) can determine anew crater diameter. LALT data is accurate as compared with Clementine LIDAR data. Especially, central peaks seen in LALT data are clearer than those seen in LIDAR data.

Honda C. Morota T. Yokota Y. Ogawa Y. Demura H. Hirata N. Matsunaga T.
Ohtake M. Haruyama J.
Morphologic Characteristics of the Vallis Schröteri **[#1524]**
Using our DTM derived from TC stereo pair images of Kaguya, we measured the morphologic characteristics of the Vallis Schröteri as a function of distance from vent-like feature.

Morota T. Haruyama J. Honda C. Ohtake M. Yokota Y. Kimura J. Matsunaga T. Ogawa Y.
Hirata N. Demura H. Iwasaki A. Miyamoto H. Nakamura R. Ishihara Y. Sasaki S.
Ages and Thicknesses of Mare Basalts in Mare Moscoviense: Results from SELENE (KAGUYA) Terrain Camera Data **[#1280]**
We investigate ages and thicknesses of mare basalts in Mare Moscoviense, which is in the northern hemisphere of the lunar farside, using high-resolution images and digital terrain models (DTMs) obtained by SELENE Terrain Camera (TC).

Kobayashi M. Hasebe N. Shibamura E. Miyachi T. Takashima T. Okudaira O. Yamashita N.
Kobayashi S. Hareyama M. Karouji Y. Ebihara M. Arai T. Sugihara T. Takeda H. Iwabuchi K.
Hayatsu K. Nemoto S. Hihara T. Nakazawa S. Otake H. d'Uston C. Maurice S. Gasnault O.
Diez B. Reedy R. C.
Status and Performance of the Gamma-Ray Spectrometer on the Kaguya (SELENE) **[#1735]**
The Kaguya main orbiter carries a GRS, which is providing elemental information on lunar surface. In this presentation, the status and performance of the Kaguya GRS observations in the primary mission and early extended mission are given.

Hareyama M. Hasebe N. Shibamura E. Kobayhashi M.-N. Yamashita N. Karouji Y. Kobayashi S.
Okudaira O. Takashima T. d'Uston C. Maurice S. Gasnault O. Forni O. Diez B. Reedy R. C.
Kim K. J. Arai T. Ebihara M. Sugihara T. Takeda H. Hayatsu K. Iwabuchi K. Nemoto S. Takeda Y.
Tsukada K. Nagaoka H. Hihara T. Maejima H. Nakazawa S.
High Energy Gamma Rays from the Lunar Surface Observed by GRS Onboard SELENE **[#1734]**
The distribution map of lunar gamma-rays in the energy range of 8–13 MeV observed by SELENE-GRS is presented and discussed about area dependencies.

Reedy R. C. Hasebe N. Yamashita N. Karouji Y. Hareyama M. Kobayashi S.
Okudaira O. Shibamura E. Kobayashi M. N. Kim K. J. d'Uston C. Diez B. Gasnault O.
Forni O. Kaguya GRS Team
Gamma Rays in Spectra Measured by the Kaguya Gamma-Ray Spectrometer **[#1788]**
Of 200 peaks observed in spectra measured by the Kaguya Gamma Ray Spectrometer, the sources of 80% have been identified. Most are from the Ge detector, structural Al, and other local matter. Some gamma rays are from several elements in the Moon.

Okada T. Shiraishi H. Shirai K. Yamamoto Y. Arai T. Ogawa K. Kato M.
Grande M. SELENE XRS Team
X-Ray Fluorescence Spectrometer (XRS) on Kaguya: Current Status and Results **[#1897]**
X-ray fluorescence spectrometer (XRS) for major elemental composition mapping of lunar surface is carried on Kaguya, but some difficulties of its observations are found due to degradation of CCD detectors and due to historically quiescent solar activity.

Clark R. Pieters C. M. Green R. O. M3 Science Team
Thermal Removal from Moon Mineralogy Mapper (M^3) Data **[#2136]**
Near-infrared spectra of the Moon contain a mixture of reflectedsunlight and thermal emission caused by heating of the surface fromthe sun at wavelengths beyond about 2 microns. Thermal emission is a factor in analyzing data from M^3.

Taylor L. A. Liu Y. Pieters C. Tompkins S. Isaacson P. Cheek L. Thaisen K.
Lunar Magma Ocean Crust: Implications of FeO Contents in Plagioclase **[#1304]**
The FeO and MgO compositions of the highland plagioclase, particularly that in the FANs, do not represent those from the original LMO. The re-equilibrated values are due to slow cooling of the proto-crust, similar to anorthosites on Earth (Phinney, 1991).

Pieters C. Kumar S. Head J. W. Goswami J. N. Kumar K. Green R. Boardman J. Staid M. Petro N. Isaacson P.
Lunar Orientale Basin: Nature of Impact Melt and Volcanic Flooding from Chandrayaan-1 (M3, TMC, HySI) **[#2157]**
A subset of data observed by M3, TMC, and HySI is used to evaluate the relation of the Maunder Formation and neighboring basalts. The MF is shown to be highly feldspathic and the basalts exhibit features suggestive of magma movement during cooling.

Kiran Kumar A. S. Roy Chowdhury A. Murali K. R. Sarkar S. S. Joshi S. R. Mehta S. Dave A. B. Shah K. J. Banerjee A. Mathew K. Sharma B. N.
The Hyper Spectral Imager Instrument on Chandrayaan-1 **[#1589]**
The Hyperspectral imager on Chandrayaan-1 provides images of lunar surface with a spatial resolution of 80 meters in 64 contiguous spectral bands in visible and near infrared regions for mineralogical mapping.

Sreekumar P. Umapathy C. N. Ramakrishna Sharma M. Sreekantha C. V. Tyagi A. Kumar A. B. Sudhakar M. Abraham L. Kulkani R. Premlatha R. L. Srivastava A. K. Neeraj Kumar S. Bug M. Acharya Y. B. Vadawale S. Shanmugam M. Banerjee D. Purohit S. Patel H. Goswami J. N.
High-Energy X-Ray Spectrometer (HEX) on Chandrayaan-1: Studies of Volatile Transport on Moon and Mapping of U, Th-rich Terrain **[#2572]**
In situ measurements, remote sensing technique and laboratory analysis of returned samples provide information on the elemental composition of a planetary body.