Scientific Event Report

B Space Studies of the Earth-Moon System, Planets, and Small Bodies of the Solar System

B0.1 Lunar Science and Exploration
Main Scientific Organizer  Bhardwaj, Anil
Deputy Organizer  Foing, Bernard H.

Chair: Bhardwaj, Anil
Date: Sun, Jul 15, 2012. Room: B1 001

B0.1-0001-12 10:00 - 10:25 (solicited)
Chandrayaan-2: India’s First Soft-landing Mission to Moon
Mylswamy, Annadurai; T K, Alex; G K, Rama Murali; A, Krishnan

B0.1-0002-12 10:25 - 10:50 (solicited)
The LADEE Mission: Settling Long-Standing Questions
Elphic, Richard; Benna, Mehdi Team: LADEE

B0.1-0003-12 10:50 - 11:10 (solicited)
Japanese Lunar Landing Mission -SELENE-2- Present Status and Candidate Instruments
Tanaka, Satoshi; Hashimoto, Tatsuaki; Hoshino, Takeshi; Mitani, Takefumi; Otake, Hisashi; Otsuki, Masatsugu

B0.1-0004-12 11:10 - 11:30 (solicited)
An Introduction to the Lunar and Planetary Science Activities in Korea
Kim, Kyeong Ja; Lee, Joo-Hee; Seo, Haingja; Ju, Gwangyeok; Lee, Sang-Ryool; Choi, Gi-Hyuk; Sim, Eun-Sup; Lee, Tai Sik

Chair: Bhardwaj, Anil
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B0.1-0005-12 12:00 - 12:25 (solicited)
Recent results from the Lunar Reconnaissance Orbiter Mission and plans for the extended mission
Neumann, Gregory; Keller, John; Vondrak, Richard; Chin, Gordon; Petro, Noah; Garvin, Jim; Rice, James

B0.1-0006-12 12:25 - 12:45 (solicited)
New Results and Synthesis from SMART-1
Foing, Bernard H.

B0.1-0007-12 12:45 - 13:05
In-situ dust measurements by a lunar lander
Srama, Ralf; Kempf, Sascha; Sternovsky, Zoltan; Gruen, Eberhard; Fiege, Katherina; Horanyi, Mihaly; Moragas-Klostermeyer, Georg; Krueger, Harald; Lauffer, Rene; Li, Yanwei; Mocker, Anna; Postberg, Frank; Roeser, Hans-Peter

B0.1-0008-12 13:05 - 13:25 (solicited)
Lunar dust dynamics and its consequences
Borisov, Nikolay

Chair: Foing, Bernard H.
Lunar interior as seen by seismology: from Apollo to future missions
Lognonne, Philippe; Garcia, Raphael; Kobayashi, Naoki; Weber, Renee; Johnson, Catherine; Gagnepain-Beyneix, Jeannine

Morpho - tectonic examination of Reiner Gamma formation and its adjoining region using high resolution satellite remote sensing data sets: Preliminary results
Arya, A.S.; Rajasekhar, R.P.; Thangjam, Guneshwar; K. Joshi, Suned; Verma, P.K.; Ajai, A

The origin of lunar mascons
Czechowski, Leszek

Gullies and landslides on the Moon: An example from Schrodinger basin
Perumal, Senthil Kumar

MINERAL COMPOSITION DETERMINATION OF THE LUNAR CRUST WITH THE SIR-2 INSTRUMENT ON CHANDRAYAAN-1
Mall, Urs; Bugiolacchi, Roberto; Bhatt, Megha
Low Frequency Waves Observed by Lunar Prospector above the Day side Surface of the Moon
Golla, Thejappa; Macdowall, Robert

The Measurements of Gamma-ray Spectrometers from China’s Chang’E-1/2 Spacecrafts
Zhu, Meng-Hua; Chang, Jin; Ma, T Team: ÇE-1/2 GRS Team

New Elemental Maps of the Nearside Lunar Highlands
Grande, Manuel; Carter, James Team: C1XS Team

Mg-Spinel-rich lithology at crater Endymion in the lunar nearside
Bhattacharya, Satadru; Chauhan, Prakash; Ajai, A

Lunar topography: Results from the Lunar Orbiter Laser Altimeter
Neumann, Gregory; Smith, David E; Zuber, Maria T.; Mazarico, Erwan

Lunar Surface Morphology and Composition using Chandrayaan-1 TMC and Hyper-Spectral Instruments
Chauhan, Prakash; Ajai, A; Kiran Kumar, A. S.

Selenodesy results by KAGUYA mission
Sasaki, Sho; Goossens, Sander; Ishihara, Yoshiaki; Matsumoto, Koji; Araki, Hiroshi; Haneada, Hideo; Noda, Hiroto; Kikutachi, Fuyuhiko; Namiki, Noriyuki; Iwata, Takahiro

Research on temperature distribution over Moon surface using the data from LAM onboard Chang’e-1 satellite
Meng, Zhiguo; Chen, Shengbo; OSEI Jnr, EDWARD M.; Yang, Qian; Lian, Yi

Iron abundance estimations of the lunar mare regions using VIS-NIR spectrometers on-board Chandrayaan-1
Bhatt, Megha; Mall, Urs; Bugiplacchi, Roberto
B0.1-0029-12 10:00 - 10:20 (solicited)
Recent Results from LRO-LAMP Observations of the Moon
Gladstone, Randy

B0.1-0030-12 10:20 - 10:40 (solicited)
Radio Astronomy from the Moon
Cecconi, Baptiste; Zarka, Philippe; Bougeret, J-L.; Bergman, Jan; Griessmeier, Jean-Mathias; Briand, Carine; Zaslavsky, Arnaud; Falcke, Heino; Aminaei, A; Klein-Wolt, Marc; Gurvits, Leonid; Konovalenko, Alexander; Roettgering, Huub; Thide, Bo; Woan, Graham; Garrett, Mike; Gizani, Nectaria; Hicks, Brian; Oberoi, Divya; Pandey-Pommier, Manta; Stewart, Kenneth; Weiler, Kurt; Chen, Linjie; Yan, Yihua; Berthelier, Jean-Jacques; Ciarletti, Val; Le Gall, Alice Team: Farside Explorer Consortium

B0.1-0031-12 10:40 - 10:55
Results from Alpha-Ray Detector (ARD) on board SELENE
Kinoshita, Katsuyuki; Haruki, Yusuhe; Itoh, Masayuki; Takashima, Takeshi; Mitani, Takefumi; Mori, Kunishiro; Nishimura, Jun; Kashiwagi, Toshiyuki; Okuno, Shoji; Yoshida, Kenji

B0.1-0032-12 10:55 - 11:10
Vertical structure of the ionosphere at Moon – Preliminary results using Chandrayaan-1 S-Band Radio Occultation Measurements.
Choudhary, Raj Kumar; Choudhury, Siddhartha; Bhardwaj, Anil; Bangararaju, Ch; Srinivasan, L.; Shivakumar, S. K.; Devi, K. Uma; Krishna, Anantha

B0.1-0033-12 11:10 - 11:30 (solicited)
A Roadmap to Cave Dwelling on the Moon (and Mars)
Blamont, Jacques

Chair: Okada, Tatsuaki
Date: Tue, Jul 17, 2012. Room: B1 001

B0.1-0034-12 12:00 - 12:15
Compositional heterogeneity of lunar impact melts: Issues of origin and evolution
Dhingra, Deepak; Pieters, Carle

B0.1-0035-12 12:15 - 12:30
High Resolution DEMs from Chandrayaan-1 for Lunar Topographic Mapping
Myneni, Vijaya Jyothi; Sumanth, T Krishna; Sloanki, Ss; Reddy, D Sudheer; Radhadevi, P.V.; Saibaba, J; Varadan, Geeta

B0.1-0036-12 12:30 - 12:45
Mapping Lunar Chemistry with CLASS
Sreekumar, P Team: CLASS

B0.1-0037-12 12:45 - 13:00
Terrain Characterization of the Landing Sites for Chandrayaan-2 Rover
Nagasubramanian, V; Radhadevi, P.V.; Sloanki, Ss; Sumanth, T Krishna; Saibaba, J; Varadan, Geeta

B0.1-0038-12 13:00 - 13:15
Experimental and Theoretical Determination of the Effective Thermal Conductivity of JSC-1A with Temperature and Pressure Variation
Parzinger, Stephan; Spinnler, Markus; Sattelmayer, Thomas

B0.1-0039-12 13:15 - 13:30
Applications of the ISA accelerometer for Moon exploration
Iafolla, Valerio; Carmisciano, Cosmo; Peron, Roberto Team: Gravsper-IAPS-AGI-2012
Remote X-ray spectroscopy of the Moon in the future missions
Okada, Tatsuaki

Solar X-ray Monitor (XSM) onboard Chandrayaan-2 orbiter
Vadawale, Santosh; Shanmugam, M.; Acharya, Y. B.; Goyal, S. K.

APXS on board Chandrayaan-2 Rover
Shanmugam, M.; Sripada V.S., Murty; Acharya, Y. B.; Goyal, S. K.

Realization of empirical database and generation of calibration curves for precise quantitative analysis employing a mini-LIBS for Chandrayaan-2 rover
A.S., Laxmiprasad; Raja, V.L.N. Sridhar; Goswami, Adwaita; Rao, M.V.H; Lohar, K.A.; Menon, Surya

Study of Lunar Atmosphere by CHACE aboard Chandrayaan-1 and a Follow-up by the CHACE-2 onboard Chandrayaan-2
Das, Tirtha Pratim; Bhardwaj, Anil; Sridharan, R.; Ahmed, Sm; Mohankumar, Sv; Team*, CHACE-2

A miniature laser-ablation time-of-flight mass spectrometer for sub-ppm composition analysis of planetary surfaces
Wurz, Peter; Tulej, Marek; Riedo, Andreas; Neuland, Maike

Chandrayaan-2: Electro-Optical Imaging Instruments
Roy Chowdhury, Arup; Samudraiah, D R M; Kiran Kumar, A. S.

Dust in plasma, dusty plasma and plasma in lunar environment.
Atanasiuk, Barbara

Lunar Nitrogen Problem: A peep at individual mineral grains
Sripada V.S., Murty; Mahajan, R R

Design and Analysis of an Extended Mission of CE-2: From Lunar orbit to Sun-Earth L2 point
Dong, Qiao
B0.1-0050-12 18:30 - 18:45
Trajectories to Moon in the restricted three-body problem
Dutt, Pooja; A. K., Anilkumar

B0.1-0051-12 (WITHDRAWN) 18:45 - 19:00
Smashing an Asteroid against the Moon
Bombardelli, Claudio; Urrutxua, Hodei

Poster Program

Author in Attendance: 16:00 - 17:30, Poster area: RAMAN

STW = Sunday, Tuesday, Wednesday / TFS = Thursday, Friday, Saturday

STW-R-004 B0.1-0052-12
Topographic correction and its effect to element abundance inversion from CE-1 IIM
Yu, Shuoran; Wu, Yunzhao

STW-R-016 B0.1-0053-12
Human Physiology factors at an International Lunar Base: results from ILEWG EuroMoonMars mission
Rai, Balwant

STW-R-017 B0.1-0054-12
Human social and multi-cultural factors at an International Lunar Base Human social and multi-cultural factors at an International Lunar Base
Kaur, Jasdeep; Rai, Balwant

STW-R-014 B0.1-0055-12
Accelerated solar wind protons near Moon: observation by SWIM/SARA on Chandrayaan-1
Alok, Abhinaw; Bhardwaj, Anil; Thampi, R Satheesh; Dhanya, M B

STW-R-006 B0.1-0056-12
Bursts of Energetic Electron Observed by Chang’E-1 and Chang’E-2
Wang, Xinyue

STW-R-023 B0.1-0057-12
MEMS Inclinometer for Lunar Rover
Vadivel, Thamarai; John, Jiju; Saxena, Gaurav; K V, Shila; Arvind, Kalpana; Islam, Rafiqul; P, Selvaraj; Rao, G Nagendra; C L, Nagendra; J.A., Kamalakar

STW-R-013 B0.1-0058-12
A Geant4 simulation of for ALPHA PARTICLE X RAY SPECTROMETER (APXS) on board Chandrayaahn-2 Rover
Vadawale, Santosh; Goyal, S. K.; Banerjee, Debabrata; Shanmugam, M.; Acharya, Y. B.
STW-R-005 B0.1-0059-12
Lunar impact melt and palaeoregolith as sources of information about lunar history
Sinitsyn, Mikhail

STW-R-022 B0.1-0060-12
3D SOFTWARE OF LUNAR SURFACE USING LRO DATA
Singh, Deepak; Garg, Pradeep

STW-R-010 B0.1-0061-12
Synergetic use of SAR and Thermal Infra-red data to study the Physical Properties of the Lunar Surface
Saran, Sriram; Das, Anup; Chakraborty, Manab

STW-R-003 B0.1-0062-12
A long-wavelength electromagnetic radiation analyzer for the Luna-Glob mission
Santolik, Ondrej; Kolmasova, Ivana; Uhlir, Ludek; Hruska, Frantisek; Base, Jiri; Korepanov, Valery; Skalsky, Alexander

STW-R-007 B0.1-0063-12
Space Research Institute (IKI), Russian Academy of Sciences
Sadovski, Andrei; Skalsky, Alexander

STW-R-008 B0.1-0064-12
Design of Lens for Lunar Rover Camera
P, Selvaraj; T., Krishnamurthy; P., Chakraborty; J.A., Kamalakar

STW-R-015 B0.1-0065-12
Controlling the Eccentricity of Lunar Orbits with Pulsed Permanent Magnet Hall Thruster.
Mourao, Decio; Moraes, Bruno Da Silva; Winter, Othon; Ferreira, Jose Leonardo; Ferreira, Ivan Soares

STW-R-018 B0.1-0066-12
Imaging applications for space missions
Krishnamoorthy, Subhalakshmi; Laha, Jayanta; Basavaraj, Dinesh; P, Selvaraj

STW-R-012 B0.1-0067-12
Spectral Mapping of Impact Melt at Orientale Basin using M3 data with MGM and SAM
Kodikara, Gayantha; Champati Ray, P.K.; Chauhan, Prakash

STW-R-026 B0.1-0068-12
Introduction to an active X-ray spectrometer for the SELENE-2 rover and preliminary results of scientific investigation
Kim, Kyeong Ja; Amano, Yoshiharu; Boynton, William; Klingelhofer, Goestar; Brueckner, Johannes; Hasebe, Nobuyuki; Hamara, Dave; Starr, Richard; Lim, Lucy; Ju, Gwanghyeok; Fagan, Timothy J.; Ohta, Tohru; Shibamura, Eido
Guidance and control system design of manned lunar ascent module
Hou, Yanze

Chandragriha: Human Residential Research Settlement on Moon
Franklin, Anish; Shah, Yubraj Jung

Non-linear spectral un-mixing of remotely observed lithologies on the Moon
Dhingra, Deepak; Pieters, Carle

Preliminary Investigations of Morphological Features at Lunar North Pole Using SAR Data
Desai, Ami; Saran, Sriram; Trivedi, D.G.; Das, Anup; Mohan, Shiv

Exploring Moon- A hunt to end energy crisis, establishment of base stations and exploring beyond
Chincholi, Kiran; Bg, Koushik; Khan, Muhammad Shadab

A study on dynamics of lunar dust grains using lunar prospector spacecraft
Chandran, Rakesh; G., Renuka

Compositional study of crater Tycho using combined spectral response from Chandrayaan-1 HSI and SMART-1 SIR instruments
Bhattacharya, Satadru; Nathues, Andreas; Chauhan, Prakash; Reddy, Vishnu; Dannenberg, A.; Ajai, A; Kiran Kumar, A. S.

The Gravity-Assist Orbit Design by using Three Adjacent Conic Trajectories
Zhang, Yan; Liu, Shengli; Liu, Likun

Investigation of the lunar deep interior by SELENE-2
Sasaki, Sho; Kikuchi, Fuyuhiko; Matsumoto, Koji; Noda, Hirotomo; Araki, Hiroshi; Kunimori, Hiroo; Hanada, Hideo; Iwata, Takahiro; Funazaki, Ken-ichi

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