Thursday, March 24, 2016 [R633]
POSTER SESSION II: LUNAR GEOPHYSICS USING SOUND AND VISION AND SERIOUS MOONLIGHT
6:00 p.m. Town Center Exhibit Area

Guo D. J. Liu J. Z. Zhang F. Q. Sun Y. Ji J. Z. et al. ***POSTER LOCATION #467***
A Lunar Time Scale from Geodynamic Evolution Perspective **[#1744]**
From the geodynamic evolution perspective of the Moon, we propose three Eon geochronological units and advise divide the pre-Necterian into two units.

Siegler M. A. Keane J. T. Laneuville M. Chen Y. Economos R. C. ***POSTER LOCATION #468***
Do Lunar Polar Volatiles Record the Geophysical Evolution of the Moon? **[#2667]**
Moon's geophysics / Recorded in polar ice / It surprised us too.

Williams J. G. Boggs D. H. Ratcliff J. T. ***POSTER LOCATION #469***
Lunar Tidal Recession **[#1096]**
The Moon recedes from the Earth by 38.3 mm/yr due to tidal dissipation, perigee increases 30.4 mm/yr, apogee increases 46.2 mm/yr, and Earth's rotation slows.

Williams J. G. Konopliv A. S. Park R. S.
Boggs D. H. Asmar S. W. et al. ***POSTER LOCATION #470***
Lunar Tidal Distortion from GRAIL and LLR **[#1328]**
Lunar tidal distortion is sensitive to structure. The Love number is determined by GRAIL data analysis and tidal dissipation is given by LLR analysis.

Cuk M. Stewart S. T. Lock S. J. Hamilton D. P. ***POSTER LOCATION #471***
Tidal Evolution of the Moon from a Fast-Spinning High-Obliquity Earth **[#2489]**
Tidal evolution of the Moon from a high-obliquity, high-angular momentum Earth through the Laplace plane transition reduces the system's angular momentum.

Slank R. A. Hurtado J. M. Jr. ***POSTER LOCATION #472***
Discovery of Lunar Subsurface Cavities Using Thermal Inertia **[#3034]**
This research is focusing on using a thermal inertia method to locate, map, and determine dimensions of lunar subsurface cavities.

Durga Prasad K. Rai V. K. Murty S. V. S. ***POSTER LOCATION #473***
A Comprehensive 3D Thermal Model for an Insight into Diurnal and Latitude Variability of Lunar Subsurface Temperatures **[#1290]**
A 3D thermal model was developed to study diurnal and latiudinal variability of lunar subsurface temperatures. Results validated with Apollo and earlier models.

Piqueux S. Hayne P. O. Elder C. M.
Greenhagen B. T. Paige D. A. et al. ***POSTER LOCATION #474***
Depth-Dependency of Lunar Regolith Thermophysical Properties from Transient Shadows Observed by Diviner **[#1762]**
Identify promising locales experiencing topography-induced transient shadows on the Moon, and evaluate their potential for subsurface regolith characterization.

Evans A. J. Andrews-Hanna J. C. ***POSTER LOCATION #475***
Influence of Basin Impact Heating on Viscous Relaxation of Topography and Thermal Interior State **[#2859]**
Regional thermal anomalies generated by early basin-forming impacts may have generated thermal anomalies observable in the present-day physiography.

Fuqua H. A. Fatemi S. Delory G. T. de Pater I. Grimm R. E. ***POSTER LOCATION #476***
Bounding the Validity of Nightside Time Domain Electromagnetic Sounding of the Moon **[#2975]**
We present a summary of our plasma models and discuss the validity of time domain electromagnetic sounding vacuum theory to the nightside lunar wake region.

Goossens S. Lemoine F. G. Sabaka T. J. Nicholas J. B. Mazarico E. et al. ***POSTER LOCATION #477***
A Global Degree and Order 1200 Model of the Lunar Gravity Field Using GRAIL Mission Data **[#1484]**
A new gravity field model of degree and order 1200 in spherical harmonics has been determined using GRAIL mission data.

Urbancic N. Ghent R. Stanley S. Johnson C. L. Carroll K. A. et al. ***POSTER LOCATION #478***
Determining the 3D Subsurface Density Structure of Taurus Littrow Valley Using Apollo 17 Gravity Data **[#1790]**
Using 3D modelling techniques combined with high-resolution image datasets, we investigate the subsurface density structure of Taurus Littrow Valley.

Watters T. R. Weber R. C. Collins G. C. Johnson C. L. ***POSTER LOCATION #479***
The Current Stress State of the Moon: Implications for Lunar Seismic Activity **[#1642]**
Shallow moonquakes possibly generated by slip on young thrust faults are more frequent when the Moon is near apogee or perigee once peak stresses are reached.

Kawamura T. Lognonné P. Blanchette-Guertin J. F. Drilleau M. ***POSTER LOCATION #480***
Seismic Q of the Moon Re-Estimated from Combined Spectrum of Apollo LP and SP Seismometers **[#2293]**
We reevaluate the seismic Q of the Moon with combined spectrum of long and short period seismometer of Apollo.

Gong S. Wieczorek M. A. ***POSTER LOCATION #481***
Is the Lunar Magnetic Field Correlated with Gravity or Topography? **[#2290]**
We test whether the lunar magnetic field is correlated with gravity or topography in both the spatial and spectral domains.

Garrick-Bethell I. ***POSTER LOCATION #482***
A Simple History of Lunar True Polar Wander **[#2874]**
The Procellarum KREEP Terrane may link the Moon's earliest paleopole, inferred from topography, with a more recent one inferred from polar hydrogen deposits.

Baek S.-M. Kim K.-H. Jin H. ***POSTER LOCATION #483***
Small-Scale Magnetic Anomalies: Northeast Regions of Lunar Near Side **[#1149]**
Using the Lunar Prospector Magnetometer (LP-MAG) data, we investigate small-scale magnetic anomalies in the vicinity of Crisium and Marginis basins.

Kim H. R. von Frese R. R. B. Hood L. L. Kim H. G. O'Reilly B. E. ***POSTER LOCATION #484***
Paleomagnetic Pole Constraints Inferred from Kaguya Satellite Magnetic Observations of the Nectaris Basin **[#1914]**
This study investigates Kaguya's magnetometer observations from the central Nectaris basin for Nectarian age properties of the lunar core dynamo.

Li X. Y. Gan H. Mo B. Wang S. J. Wei G. F. et al. ***POSTER LOCATION #485***
Indication of Mineral Work Function in Lunar Dust Electrostatic Migration **[#1993]**
For photoelectric emission charging of lunar dust grains, we measured work function of several common minerals and discussed their charging characteristics.

Miyake Y. Nishino M. N. ***POSTER LOCATION #486***
Full-Particle Simulations on Electrostatic Plasma Environment Near Lunar Vertical Holes **[#1449]**
Electrostatic plasma environment near lunar vertical holes is modeled numerically, and unique surface charging properties are revealed inside the hole.

Hirabayashi T. Minton D. A. Melosh H. J.
Milbury C. Huang Y.-H. et al. ***POSTER LOCATION #487***
Equilibrium State in Impact-Generated Porosity on a Lunar Surface **[#2491]**
Impacts make craters / A surface becomes thicker / But it stops someday.

Piatek J. L. Hapke B. W. Nelson R. M. ***POSTER LOCATION #488***
Scattering Properties of Lunar Regolith Samples Determined by MIMSA Fits **[#2880]**
Lunar soil reflects / Backscatters, polarizes / Model fits we try.

Macke R. J. Kiefer W. S. Irving A. J. Britt D. T. ***POSTER LOCATION #489***
Density and Porosity Measurements of Lunar and Martian Materials **[#1294]**
We add new densities and porosities for 16 Apollo moon rocks, 35 lunar meteorites, and 14 martian meteorites to aid interpretation of gravity data.

Zhang J. Ling Z. Li B. ***POSTER LOCATION #490***
Lunar Soils on Swirls: Their Photometric Properties and Possible Migration in a Non-Uniform Magnetic Field **[#3039]**
We studied the photometric properties of the Reiner Gamma swirl using LROC observations, and proposed a refreshing mechanism to interpret its albedo patterns.

Sato H. Denevi B. W. Hapke B. Robinson M. S. ***POSTER LOCATION #491***
Hapke Parametric Analysis of Reiner Gamma **[#1959]**
We present a result of Hapke parametric analysis of Reiner Gamma in comparison with the highlands, the mare, and immature impact ejecta.

Jeong M. Kim S. S. Choi Y.-J. Garrick-Bethell I. ***POSTER LOCATION #492***
Polarimetric Characteristics of the Reiner Gamma Swirl **[#2548]**
We analyzed the polarimetric behaviors of Reiner Gamma, the lunar swirl. We suggest the regolith characteristics of the Reiner Gamma swirl.

Boyce J. M. Mouginis-Mark P. J. Robinson M. ***POSTER LOCATION #493***
An LROC Update: The Tsiolkovsky Landslide **[#2471]**
LROC data shows the Tsiolkovsky landslide is actually two adjacent slides whose efficiency is similar to slides in Valles Marineris. It formed at 3.6 Ga.

Venturino C. S. Martin D. J. P. McDonald F. E.
Paisarnsombat S. Steenstra E. S. et al. ***POSTER LOCATION #494***
Lunar Pyroclastic Soil Mechanics and Trafficability in the Schrödinger Basin **[#1676]**
We have investigated the soil mechanics of the Schrödinger basin pyroclastic unit by using boulder tracks to calculate bearing capacities.

Cook J. C. Hurley D. M. Retherford K. D.
Feldman P. D. Gladstone G. R. et al. ***POSTER LOCATION #495***
Searching for Variations in H_2 Abundance with Local Time, Magnetotail Crossings, and Meteor Showers **[#2611]**
An examination of the lunar atmosphere focusing on variations in H_2 over local time, during magnetotail crossing and meteor showers.

Szalay J. R. Horányi M. Colaprete A. Saran's M. ***POSTER LOCATION #496***
The Importance of Meteoritic Influx on Neutrals in the Lunar Exosphere **[#2853]**
Here we report on the first coincident measurements of meteoritic influx and the subsequent generation of exospheric neutrals from the LADEE mission.

Kinoshita K. Kojima K. Itoh M. Takashima T. Mitani T. et al. ***POSTER LOCATION #497***
Radon Gas Emanation on the Lunar Surface Observed by Kaguya/ARD **[#3070]**
We report results from Kaguya/ARD. We pinpointed radon emission sites. We directly observed time variation of the radon emission for the first time.

Chi P. J. Wei H. Y. Farrell W. M. Halekas J. S. ***POSTER LOCATION #498***
Excitation of Selenogenic Ion Cyclotron Waves: Implications from ARTEMIS Observations and Dispersion Analysis **[#2564]**
Two processes can excite ion cyclotron waves at the Moon, providing hints to Moon-magnetotail interaction and pickup ions from the lunar exosphere.