

Program

Ground-Based Geophysics on the Moon

January 21–22, 2010

Tempe, Arizona

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Thursday, January 21, 2010

8:15 a.m.	Opening Plenary
8:30 a.m.	Keynote Talks
12:00 p.m.	General Contributions Posters and Working Lunch
1:30 p.m.	Electricity and Magnetism/Radar Posters
3:30 p.m.	Heat Flow Posters
4:30 p.m.	International Lunar Network Update
5:00 p.m.	Reception, ASU Old Main

Friday, January 22, 2010

8:15 a.m.	Introduction to Day Two
8:30 a.m.	Seismology Posters
11:15 a.m.	Plenary Discussion and Marching Orders
12:00 p.m.	Breakout Sessions and Working Lunch
1:30 p.m.	Breakout Group Reports
2:30 p.m.	Future Funding Opportunities
3:00 p.m.	Meeting Adjourns

THURSDAY, JANUARY 21, 2010**8:15 a.m. OPENING PLENARY**

8:15 a.m. M. Fouch, A. Dombard, and C. Johnson
Welcome and Opening Remarks

8:30 a.m. KEYNOTE TALKS

8:30 a.m. Schmitt H. H. *
Ground-Based Geophysics on the Moon: An In Situ Perspective

9:00 a.m. Solomon S. C. *
[*Internal Structure and Evolution of the Moon: Outstanding Questions and Observational Challenges*](#) [#3004]

9:30 a.m. Wieczorek M. A. *
[*The Interior Structure of the Moon: What Does Geophysics Have to Say?*](#) [#3019]

10:00 a.m. BREAK

10:30 a.m. Nakamura Y. *
[*Seismology on the Moon — Past, Present and Future*](#) [#3005]

11:00 a.m. Hood L. L. * Halekas J. S.
[*Lunar Surface Magnetometer Measurements for Crustal Paleomagnetism and Deep Electromagnetic Sounding Applications*](#) [#3021]

11:20 a.m. Grant J. A. Russell P. S. Bussey D. B. J.
[*Ground Penetrating Radar as a Means for Constraining Near Surface Properties of the Moon*](#) [#3024]

11:40 a.m. Williams J. G. Turyshev S. G. * Folkner W. M.
[*Lunar Geophysics and Lunar Laser Ranging*](#) [#3038]

12:00 p.m. GENERAL CONTRIBUTIONS POSTERS AND WORKING LUNCH

Miura Yas.
[*Data of Lunar and Terrestrial Craters with Volcanic Rocks*](#) [#3001]

Lu Y.
[*Research of Iron Abundances in Lunar Regolith and a Model of Evolution of the Lunar Surface*](#) [#3007]

Zhong S. J.
[*Are Mare Basalt Volcanism, Volatile Distribution in the Lunar Mantle, and Moonquakes Related?*](#) [#3010]

Echaurren J. C.
[*Mathematical Estimations for Impact Conditions on Bailly Basin, Moon*](#) [#3014]

Elkins-Tanton L. T.
[*Predicting Lunar Interior Structure from Magma Ocean Processes*](#) [#3020]

1:30 p.m. ELECTRICITY AND MAGNETISM/RADAR POSTERS**1:30 p.m. Poster Advertisements****1:45 p.m. Featured Posters**

Blewett D. T. Ho G. C. Korth H. Hood L. L. Halekas J.
[A Landed Experiment Package for Investigation of Lunar Magnetic and Albedo Anomalies](#) [#3009]

Grimm R. E. Delory G. T.
[Next-Generation Lunar Electromagnetic Sounding](#) [#3018]

Stillman D. E. Grimm R. E.
[Dielectric Spectroscopy for Scientific and Resource Characterization of Lunar Regolith](#) [#3028]

Heggy E. Lee P. Bualat M. G. Fong T. Helper M. A. Hodges K. Taylor G. J. Deans M.
[Assessing the Potentials and Complementarities of Human and Robotic Subsurface Exploration on the Moon: Understanding Buried Structural Elements and Potential Ice Enrichment in Support of EVA Activities Using Radar Methods](#) [#3035]

Strangeway R. J. Russell C. T. Angelopoulos V. Chi P. J. Pierce D. R. Rowe K. M. Vassal M.-C.
[Digital Fluxgate Magnetometer Optimized for Lunar Networks](#) [#3026]

Hurtado J. M. Jr. Velasco A. A.
[Lunar Field Geology Enabled by Ground-based Geophysics](#) [#3037]

3:30 p.m. HEAT FLOW POSTERS**3:30 p.m. Poster Advertisements****3:45 p.m. Featured Posters**

Nagihara S. Taylor P. T. Williams D. R. Saito Y.
[Long-Term Warming of Surface and Subsurface Temperatures Observed at Apollo 15 and 17 Sites: Implications for Future Lunar Geophysical Missions](#) [#3008]

Dombard A. J.
[Mitigation Strategies for Astronaut Surface Disturbances During Deployment of Lunar Heat Flow Experiments](#) [#3015]

Siegler M. A. Paige D. A. Keihm S. J. Greenhagen B. Vasavada A. R. Ghent R. R. Bandfield J. L. Snook K. J.
[The Apollo 15 Lunar Heat Flow Experiment — New Insights from the LRO Diviner Lunar Radiometer](#) [#3042]

Spohn T. Grott M. Richter L. Knollenberg J. Smrekar S. E. HP3 Instrument Team
[Measuring Heat Flow on the Moon — The Heat Flow and Physical Properties Package HP3](#) [#3016]

Smrekar S. E. Hudson T. L. Morgan P. Serviss O.
[Lunar Heat Flow Simulation and Testing Chamber](#) [#3034]

Li R. Yan L.
[A New Linescan-based Panoramic Camera System for Lunar Lander Applications](#) [#3030]

4:30 p.m. INTERNATIONAL LUNAR NETWORK UPDATE

4:30 p.m. Cohen B. A. * Bassler J. A. Hammond M. S. Harris D. W. Hill L. D. Kirby K. W.
Morse B. J. Reed C. L. B. ILN Science Definition Team MSFC/APL ILN Engineering Team
[The International Lunar Network \(ILN\) Anchor Nodes Mission](#) [#3043]

5:00 p.m. RECEPTION, ASU Old Main

FRIDAY, JANUARY 22, 2010

8:15 a.m. INTRODUCTION TO DAY TWO

8:15 a.m. M. Fouch, A. Dombard, and C. Johnson
Introduction to Day Two

8:30 a.m. SEISMOLOGY POSTERS

8:30 a.m. Poster Advertisements

9:15 p.m. Featured Posters

Brzostowski M.
[*Archiving and Reprocessing the Apollo Active Seismic Data*](#) [#3002]

Schmerr N. C. Weber R. C. Garnero E.
[*Characterizing the Lunar Interior with Reflected and Converted Seismic Waves*](#) [#3011]

Weber R. C. Garnero E. Lin P.
[*The Search for the Lunar Core*](#) [#3012]

Lawrence J. F. Johnson C. L.
[*Synthetic Seismograms with High-Frequency Scattering for the Moon*](#) [#3027]

Thorne M. S. Schmerr N. Weber R. Fouch M. J. Garnero E. J.
[*Analysis of Seismic Scattering on the Moon by Waveform Modeling*](#) [#3029]

Kawamura T. Tanaka S. Kobayashi N. Lognonné P.
[*The Lunar Surface Gravimeter as a Lunar Seismometer*](#) [#3023]

Roberts J. H. Lorenz R. D.
[*Tiltmeter for International Lunar Node: Tidal Distortion of the Moon and Long-Period Seismometry*](#) [#3031]

Stewart R. R.
[*High-Resolution Seismic and GPR Surveys for Permafrost Imaging at the NASA HMP Site, Devon Island, Nunavut*](#) [#3022]

Feustel A. Reilly J. Rice J. Brzostowski M.
[*PEGS: Planetary Exploration Geophysical Systems*](#) [#3003]

Mimoun D. Lognonne P. Giardini D. Christensen U. Zweifel P. Mance D. Roll R. Bierwirth M.
De Raucourt S. Gagnepain-Beyneix J. Tillier S. Nebut T. Robert O. Pot O. Schibler P. SEIS Team
[*MOON SEIS: Design and Performances of a Very Broadband Seismometer for Future Lunar Missions*](#) [#3017]

Murphy S. D. Bernstein J. Chaparala M. Borer N. Gibbson C. Elkins-Tanton L. T.
Hager B. H. Herring T.
[*Multinode, Low-Cost, Nano-G Seismology Instrumentation for Lunar Geophysics*](#) [#3025]

Yamada R. Garcia R. Calvet M. Gagnepain-Beyneix J.
[*How to Design an Optimized Lunar Seismic Network Configuration*](#) [#3013]

Shearer P. M.

[The Future of Lunar Seismology](#) [#3006]

Kiefer W. S. Hood L. Johnson C. Neal C. Wieczorek M.

[Landing Site Selection for the Initial International Lunar Network Nodes: A Strategy for Maximizing Early Science Return](#) [#3040]

Neal C. R. Banerdt W. B. Alkalai L. Lunette Team

[Lunette: Establishing a Lunar Geophysical Network Via a Discovery-Class Mission](#) [#3036]

Wolfe C. J. Taylor G. J. Sorensen T. C.

[Cost-Effective Geophysical Exploration of the Moon Using Instrumented Micro-Landers](#) [#3033]

Fouch M. J. Garnero E. J. Thorne M. S. Lin P. Schmerr N. Weber R. Robinson M. S. Yu H.

[Small Aperture Lunar Seismic Arrays \(SALSAs\)](#) [#3032]

11:15 a.m. PLENARY DISCUSSION AND MARCHING ORDERS

12:00 p.m. BREAKOUT SESSIONS AND WORKING LUNCH

1:30 p.m. BREAKOUT GROUP REPORTS

2:30 p.m. FUTURE FUNDING OPPORTUNITIES

3:00 p.m. MEETING ADJOURNS