

**Microsymposium 54**  
**Lunar Farside and Poles: New Destinations for Exploration** □

The Woodlands Waterway Marriott Hotel and Convention Center □

1601 Lake Robbins Drive, The Woodlands, Texas, USA □

**March 16-17, 2013**

Co-Sponsored by Brown University, Vernadsky Institute, Massachusetts Institute of Technology,  
and the NASA Lunar Science Institute (NLSI)

**Saturday, March 16, 2013**

**1:00 PM**

**I. Lunar Origin, Internal Structure, and Bombardment History:**

1. New Concepts on the Origin of the Moon: Sarah Stewart.
2. Global Lunar Interior and Evolution: A Synthesis of New Findings from GRAIL: Maria Zuber.
3. Early Bombardment History of the Moon: Recent Insights and New Questions: William Bottke.
4. Science from the Farside of the Moon: Mark Wieczorek.

**3:00 PM**

**II. Crust and Mantle Mineralogy and Composition: New Observational Constraints and Models:**

1. Heterogeneity of Nearside and Farside Lunar Crust: Asymmetric Crustal Growth on the Moon Indicated by Primitive Farside Highland Materials: Makiko Ohtake
2. Detection of Olivine Across the Moon and Possible Implications for the Crust and Mantle: Satoru Yamamoto
3. New Insights on the Global Composition of the Lower Lunar Crust: Systematic and Complex: Carle Pieters
4. Lunar Impact Basin Melt Production and Differentiation: William Vaughan
5. Lunar Magma Ocean Crystallization: New Models and Exploration Goals: Clive Neal.

**5:30 PM**

**III. National/International Programs for Lunar Science and Future Lunar Exploration: A Discussion:** Russia, Japan, China, United States, European Space Agency, India, Canada, and other countries; X-Prize.

**6:00 PM: Reception and Poster Session: (On display throughout meeting).**

1. Effects of Antipodal Ejecta Deposition from Young Lunar Basins on Landforms, Crustal Magnetism, Composition on the Lunar Farside/Polar Regions: Lon Hood
2. South Polar DEMs from Lunar Reconnaissance Orbiter LROC NAC Images and LOLA Data: Mark Rosiek
3. New Crater Counts for Apollo/Luna Sites: Revised Chronology: Stuart Robbins
4. Lunar Reconnaissance Orbiter Camera (LROC) Multi-temporal and High Resolution Images of the North and South Polar Regions: Emerson Speyerer

**Sunday, March 17, 2013****8:30 AM****IV. Lunar Interior, Magmatism, and the History of the Magnetic Field:**

1. Evidence for a Long Duration of the Lunar Magnetic Field and Implications for Core Dynamo Generation and Maintenance: Ben Weiss
2. Magma Ascent and Eruption: New Insights from Models and Observations: Lionel Wilson

**9:30 AM****V. Lunar Polar Deposits and the History of Volatiles:**

1. Polar Resources and Volatile Archives and the Russian Luna Program for Polar Exploration and Sample Return: Igor Mitrofanov
2. Lunar Polar Volatiles: Insights from LRO Diviner: David Paige

**10:30 AM****VI. Lunar Farside Exploration Objectives and Destinations:**

1. Lunar Farside and South Pole-Aitken Basin Robotic Exploration: Brad Jolliff
2. Exploration of the Farside Schrodinger Peak-Ring Basin: David Kring.
3. Insight into the Farside Crater Giordano Bruno from Luna 24 in Mare Crisium: Alexander Basilevsky.

**11:30 AM****VII. Human Exploration of the Surface of the Moon:**

1. A New Apollo Baseline Architecture to Explore the Moon: Commander David Scott (Apollo 15) and STS Astronaut Jeff Hoffman (STS 35, 46, 51-D, 61, 75).

**12:30 PM: Adjourn**