

Friday, October 31, 2008
FACILITATING EXPLORATION AND SETTLEMENT
USING ROBOTIC MISSIONS, HUMAN-ROBOTIC PARTNERSHIPS, AND ISRU
8:30 a.m. Salon I

*What are the needs/advantages of robotic missions for advancing lunar science/benefiting human exploration?
 How can human-robotic partnerships be used to develop/build a long-term presence on the Moon?
 What are the drilling challenges on planetary surfaces/in regolith/regolith-ice mixtures/rock and
 at ultra-low temperatures?*

Chairs: C. Neal
B. H. Foing

- 8:30 a.m. Sasaki S. * Araki H. Hanada H. Namiki N. Iwata T. Asari K. Goossens S. Ishihara Y. Ishikawa T. Kawano N. Kikuchi F. Liu Q. Matsumoto K. Noda H. Tazawa S. Tsuruta S. Kurosawa K. Sugita S. Takano T.
[*Global Topography and Gravity Fields of the Moon by Kaguya \(SELENE\)*](#) [#4064]
- 8:50 a.m. Matsumoto K. * Hashimoto T. Hoshino T. Tanaka S. Otsuki M. Kawaguchi J.
[*Japanese 1st Moon Lander SELENE-2 as SELENE Follow-On*](#) [#4076]
- 9:10 a.m. Grande M. * Maddison B. J. Sreekumar P. Huovelin J. Kellett B. J. Howe C. J. Crawford I. A. Smith D. R. C1XS Team
[*C1XS - The Chandrayaan-1 X-Ray Spectrometer*](#) [#4059]
- 9:30 a.m. Walker R. * Cross M.
[*The European Student Moon Orbiter \(ESMO\): A Small Mission for Education, Outreach and Lunar Science*](#) [#4087]
- 9:50 a.m. Ehrenfreund P. * Foing B. H.
[*What Astrobiology Investigations are Needed and Possible on the Moon?*](#) [#4109]
- 10:10 a.m. Sridhar J. *
[*An Experimental Study of Lunar Reconnaissance Base with the Robotic Emplacements*](#) [#4044]
- 10:30 a.m. Zacny K. * Fink P. Milam B. Nagihara S. Taylor P.
[*Heat Flow Probe Deployment in Lunar Regolith Simulant Using a Percussive Penetrometer*](#) [#4021]
- 10:50 a.m. Stoker C. R. *
[*The Scientific Rationale and Technical Challenges of Drilling on the Moon and Mars*](#) [#4010]
- 11:10 a.m. Zacny K. * Maksymuk M. Wilson J. Santoro C. Chu P. Paulsen G. Passaretti M. Roberts D. Kusack A. Kumar N.
[*Rotary Percussive Drilling in a Vacuum Chamber: A Test Bed for Lunar and Mars Drilling*](#) [#4002]
- 11:30 a.m. Kawamoto H. * Uchiyama M.
[*Electrostatic Cleaner of Lunar Dust on Solar Panel and Optical Lens*](#) [#4003]
- 11:50 a.m. Miura Y. *
[*Water and Chlorine Indicator on the Moon with Akaganeite-like Composition*](#) [#4047]