Results of the Mini-SAR Imaging Radar, Chandrayaan-1 Mission to the Moon

The Mini-SAR imaging radar on India’s Chandrayaan-1 mission mapped more than 90% of both poles of the Moon. Scattering properties suggest that water ice is present in some permanently shadowed craters near the north pole.

High Resolution Imaging of Ina: Morphology, Relative Ages, Formation

Meter scale geomorphic analysis of the interior of the enigmatic lunar feature known as Ina.

LROC Observations of the Marius Hills

High-resolution LROC NAC imagery and stereo observations are providing important new insights into the volcanic history of the Marius Hills region.

New Observations of the Marius Hills Complex from Moon Mineralogy Mapper (M3)

Observations of the Marius Hills complex with M3 reveal a plateau with a weaker 1 µm from the surrounding mare. Domes are distinct from the mare of the plateau with the weakest 1 µm band. Olivine signature is found inside the crater Marius.

Morphology of Gruithuisen and Hortensius Domes: Mare vs. Nonmare Volcanism

Digital elevation models derived from stereo image pairs acquired with the Lunar Reconnaissance Orbiter Narrow Angle Camera allow for a detailed comparison of the stratigraphy and morphology of Gruithuisen Gamma and three of the Hortensius Domes.

Regional and Temporal Variations in the Western Mare Basalts: New Observations from the Moon Mineralogy Mapper

The last major phases of lunar volcanism produced spectrally unique basalts on the western near side of the Moon. The Moon Mineralogy Mapper on Chandrayaan-1 has provided detailed new measurements to assess the mineralogy of these basalts.

Mini-RF Observations of a Sample of Large Lunar Pyroclastic Deposits

We present new radar data of large lunar pyroclastic deposits obtained using the Mini-RF instruments on Chandrayaan-1 and Lunar Reconnaissance Orbiter, including the Orientale pyroclastic.

**Lunar Pyroclastic Volcanism at Atlas Crater as Viewed by LROC [#2059]**

LROC data of Atlas Crater reveal major differences between two pyroclastic deposits in the crater floor. Evidence for different eruption styles between the two deposits and possible multiple eruptive episodes at the southern vent is presented.

3:30 p.m. Hiesinger H. * van der Bogert C. H. Robinson M. S. Klemm K. Reiss D.

**New Crater Size-Frequency Distribution Measurements for Tycho Crater Based on Lunar Reconnaissance Orbiter Camera Images [#2287]**

We have performed new crater size-frequency distribution measurements for melt pools, the floor, and the ejecta blanket of Tycho crater. While the pools and the floor are about the same age, the ejecta blanket shows older ages.

3:45 p.m. Huang J. * Xiao L. Yang J. Dong Y. S.

**New Model Ages of Mare Material in Sinus Iridum, Moon [#1184]**

Here we present new absolute model ages of mare material in Sinus Iridum by CSFD method derived from data of Chinese first lunar orbiter Chang’E-1 (CE-1).

4:00 p.m. Hirata N. * Haruyama J. Matsunaga T. Yokota Y. Morota T. Honda C. Ogawa Y. Kitazato K. Shibata Y. Sugihara T. Miyamoto H. Demura H. Asada N.

**Remote Sensing Study of a Large Lunar Crater Jackson [#1585]**

We investigated a large lunar crater Jackson with LISM/SELENE data to reconstruct the impact event forming the crater from distributions of its ejecta and other associated features.

4:15 p.m. Plescia J. B. * Robinson M. S. Paige D. A.

**Giordano Bruno: The Young and the Restless [#2038]**

Giordano Bruno (22 km diameter) has a transitional morphology between simple and complex. Craters on the ejecta may be secondaries formed by the GB impact and thus may not be useful for determining absolute age.

4:30 p.m. Werner S. C. * Medvedev S.

**Lunar Rayed Craters [#1058]**

Global cratering statistics of young rayed impact craters suggests that other geological processes such as space weathering or target composition modified the ray visibility, and any possible asymmetric crater rates were obscured if they existed.