Preliminary integration of Digital Terrain Model (LISM) and Topographic Profile (LALT), Kaguya

Hirohide Demura[1]; Tomoki Hodokuma[1]; Naru Hirata[1]; Noriaki Asada[1]; Jun'ichi Haruyama[2]; Makiko Ohtake[2]; Tsuneo Matsunaga[3]; Yasuhiro Yokota[2]; Tomokatsu Morota[2]; Chikatoshi Honda[4]; Yoshiko Ogawa[3]; Tokuhiro Nimura[5]; Haruyama Jun-ichi LISM Working Group[6]; Hiroshi Araki[7]; Seiichi Tazawa[7]

[1] Univ. of Aizu; [2] ISAS/JAXA; [3] NIES; [4] ISAS; [5] Earth and Planetary Sci., Tokyo Univ; [6] -; [7] RISE, NAOJ

Goal of our team is establishment of lunar global DEM (Digital Elevation Model), and here we show a preliminary evaluation for putting a topographic profile (LALT: Laser Altimeter) on a strip of digital terrain model (LISM / TC: Lunar Imaging Spectrometer, Terrain Camera), which were obtained in the initial checkout phase of Kaguya (SELENE).

The latest lunar global shape model and GCPs network are Goddard Lunar Topography Model 2 (GLTM2) and The Unified Lunar Control Network 2005 (ULCN2005). Other available regional sets are integration of local Digital Terrain Model (DTM), GCPs of Mare Orientale, radar observation of Tycho crater, etc. They are also counterparts for verification of our DEM. We will show the current status of integration and verification of DTMs.