

Determination of earth gravity field from SLR analysis

OTSUBO, Toshimichi^{1*}, SEKIDO, Mamoru², HOBIGER, Thomas², Tadahiro Gotoh², KUBOOKA, Toshihiro²

¹Hitotsubashi University, ²National Institute of Information and Communications Technology

Determination of earth gravity field is newly implemented in our geodetic analysis software "c5++" (Otsubo, et al, JPGU, 2011). Satellite laser ranging (SLR) data are used to retrieve the gravity field, and its sensitivity is dependent on the SLR targets, especially in its altitude. Although the two LAGEOS satellites are commonly used for terrestrial reference frames and earth orientation parameters, the low SLR satellites such as AJISAI, STARLETTE and STELLA are more sensitive to the earth gravity. Combining those multiple satellites, the long-term trend and the periodical variation will be presented for the J2 term and low degree/order terms up to 2 or 3.

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