

The space tie between GNSS and SLR

D. Thaller, K. Sosnica, R. Dach, A. Jäggi, C. Baumann
Astronomical Institute University of Bern, Switzerland
thaller@aiub.unibe.ch

GPS and GLONASS satellites tracked by SLR can serve as co-location platform for the combination of GNSS and SLR. If we do so, the two components of the space-tie play a crucial role:

- the satellite antenna offsets (SAO) of the microwave antenna (for the GNSS part),
- the laser reflector array (LRA) offset (for the SLR part).

We validated both components within a combined analysis of GNSS microwave data, SLR data to GPS and GLONASS satellites, and SLR data to LAGEOS. The corrections to the official SAO and LRA values are estimated consistently with each other and with the remaining parameters of the combined solution, especially the scale (given by SLR).