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Local network stability monitoring for SLR Riga station

Janis Kaminskis(1), Armands Celms(2), Kalvis Salmins(3), Lubova Sulakova(1)

(1) Riga Technical University; (2) Latvia University of Life Sciences and Technologies; (3) Institute of Astronomy, University of Latvia

At the Riga SLR station we are working for geodynamic research, consolidate and practically implement the precise national geodetic network and its linkage to the global geodetic network, contribute to determination of constants in geodesy, specify ellipsoid parameters, gravity field parameters, define precisely the geocentric coordinate system and improve the connection with the world geocentric coordinate system. We care about UN Resolution "A global geodetic reference frame for sustainable development". The main activities are to study, master and implement the functionality of SLR system at the existing station of the Astronomical Institute of the University of Latvia.



Prototype of the geodetic support point, suitable for long-term observations



"Observations of the Earth's artificial satellite Lageos 1. Bypassed photons travelling to the Cygnus constellation."

Combination of GNSS station in Riga, the Latvian Geodetic Coordinate Starting Point and the LS-105 SLR system with its local geodetic network, will provide the basis for space geodetic observations, achieving the objectives of the GGOS and for successful observations within the International Laser Ranging Service network, IERS and International GNSS Service networks. We are aiming for the acquisition of new knowledge and skills for developing new services for geodesic usage in all Baltic countries. Especially in Latvia, due to ongoing introduction of new geodetic coordinate system LKS-20. We contributing to the regional long-term geodetic monitoring capability with the SLR system using at least two or more collocated space geodetic techniques and in near future to expand with new, innovative remote sensing technologies, like InSAR.