

# **Laser ranging observations on station "Lviv-1831"**

**K.Martynyuk-Lototsky**(1), Ja.Blahodyr(1), A.Bilinskiy(1), O.Lohvynenko(1),  
N.Virun(1)

(1) Astronomical observatory of Ivan Franko National University of Lviv (langure@mail.ru)

Laser ranging station "Lviv-1831" was founded in 1998 in Lviv Astronomical Observatory (Ukraine) and since there were started the experimental observations of artificial satellites. Laser ranging of satellites of Earth is one of the modern practical methods of investigation of Earth dynamics and solution of the overlapping problems (for example, space navigation) with high accuracy. After reaching the accuracy of data obtained to the level of ILRS requirements the station was registered in International Network of Laser ranging stations in August 2002. Station "Lviv-1831" has received an international number DOMES 12368S001, CDP 18318501. At present the station processes laser-ranging observations of satellites on distances from 900 km (ERS-2, Starlette) to 7000 km (LAGEOS-1, LAGEOS-2) with single-shot ranging precision RMS 5cm and normal points accuracy 1.1cm. Also staff carry out the upgrading work on hardware, electronics, optical way and software for increasing accuracy and high quality of satellites observations.