M. A. Sadovnikov, V. D. Shargorodskiy,

Measurement automation implemented in the laser station "Tochka"

Operating modes of the SLR-station «Tochka» designed for precision laser ranging and taking ephemeris-time measurements in the GLONASS system have been analyzed.
Technical solutions enabling the station to automatically capture and track targets during both day and night observations have been considered.
An algorithm of the station functioning in ranging mode which automatically sets the single-electron mode of return pulse reception, controls parameters of the laser emitter
and configures the optomechanical path is presented. Also, technical solutions enabling automatic calibration of range measurements in relation to the station’s reference point have been covered.