1.8 Orbit Validation On Navigation Satellites Using Satellite Laser Ranging

Gang Zhao, Xuhua Zhou

Shanghai Astronomical Observatory

Satellite Laser Ranging (SLR) has been applied as an independent way of external validation on the orbits obtained by other satellite Precise Orbit Determination (POD) means. In this report, we showed the results of SLR validation on multi-year orbits of navigation satellites including GPS, Galileo and Chinese BeiDou, summarized the space-time distribution characteristics of SLR residuals and discussed their possible reasons.