

# Determination of the coordinates of SLR stations from the LARES satellite

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The LARES satellite (Laser Relativity Satellite) was built by the Italian Space Agency and launched on 13 February 2012 by the European Space Agency. It is designed to study the Lense-Thirring effect resulting from general relativity as well as satellite geodesy. The satellite moves on a circular orbit at a distance of 1,450 km with an inclination of 69.5 degrees over a period of 1.9 hours. The satellite is observed by the most SLR stations. The results of the observations were collected from the EUROLAS Data Center for the period of four years from February 2012 to February 2016, for a total of 396105 normal points. The results of the 16 most accurate stations were used for orbital computations. The seven-day orbital arcs were computed using the GSFC NASA GEODYN-II program, determining the coordinates of several selected SLR stations. An important problem was the insufficient number of normal points for 7 days, especially in the winter. The results were compared to the station coordinates obtained from the same weekly LAGEOS-1 and LAGEOS-2 orbital arcs. The task of the presentation is to check the quality of the designated coordinates of the stations obtained from the LARES and LAGEOS satellites.