

EARTH ORIENTATION PARAMETERS FROM GLONASS OBSERVATIONS

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ABSTRACT.

The GLONASS system experienced for some period of time a lack of satellites. Now, after renewal of regular launches, it is becoming more and more functional, and hence presents a possibility to solve actual astro-geodetic problems. In this work we concentrate on estimation of the Earth orientation parameters from GLONASS observables. First, we develop a procedure for estimation of pole coordinates, Universal time, and celestial pole offsets. Secondly we carry out a feasibility study in order to assess accuracy of estimated parameters. Finally, we develop a procedure for joint processing of GPS and GLONASS observations for estimation of Earth orientation parameters.