The Estimation of Geodetic Datum Transformation Parameters

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SUMMARY

The accuracy estimation of transformation parameters between geocentric and reference datum that is the national geocentric reference system (GRS-2011) of the Russian Federation and SK-95 coordinate system has been done. According to theoretical and experimental analysis there was made a conclusion that geometry of nodes location and domain size essentially influence on the estimation of transformation parameters. The errors in geodetic heights for the coordinate reference system result in scale changes which are the same as the estimation error for the region. It is noted that the estimation of transformation parameters made for a limited territory can significantly differ from real values but, nevertheless, the accuracy of coordinate conversion within approximation is provided and corresponds to the initial errors.