



On the possibility of estimation of the diurnal and subdiurnal components of Earth rotation from GNSS data analysis by applying the complex demodulation

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The recent work of Boehm et al. (*J. Geodynamics*, 62 (2012) 56–68) demonstrated the possibility of estimation of the high frequency (diurnal, semidiurnal, ...) components of polar motion and universal time $dUT1 (=UT1-UTC)$ by using the complex demodulation technique in the VLBI data analysis. In this study we consider the possibility of applying a similar approach for analysis of the GNSS data. First, we describe the necessary change of the parameterization of Earth rotation, focusing attention on the differences with respect to the VLBI data analysis. Next we discuss some preliminary results based on the application to the analysis of real data.