Geophysical Research Abstracts, Vol. 9, 00905, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-00905 © European Geosciences Union 2007



Comparison of sub-diurnal variations of the Earth orientation parameters from different VLBI solutions

M. Kudryashova (1), D.MacMillan (2) and O.Titov (3)

(1) Astronomical Institute of St.Petersburg State University, St. Petersburg, Russia

(2) NVI Incorporated and NASA Goddard Space Flight Center, Greenbelt, Maryland, USA

(3) Geoscience Australia, GPO Box 378, Canberra, ACT 2601, Australia

In this work several individual time series of sub-diurnal variations of the Earth Orientation Parameters (EOP) obtained from CONT02 VLBI campaign are compared. These are solutions derived at Main Astronomical Observatory (Ukraine), Goddard Space Flight Center and at St. Petersburg University. These series are based on the same VLBI observational material, but different methods of estimation of the unknown parameters (square root information filter, least square method and least square collocation method, respectively) have been applied in computations. The series reveal differences in spectral power density and in other characteristics (for example, in correlations with geophysical excitation calculated from the data of European Centre for Medium-Range Weather Forecasts). We are trying to clarify the reason of the differences.