Variations of European Baseline Lengths from VLBI and GPS Data

Zinovy Malkin, Natalia Panafidina, Elena Skurikhina

Institute of Applied Astronomy of Russian Academy of Sciences (IAA)

Contact author: Zinovy Malkin, e-mail: malkin@quasar.ipa.nw.ru

Abstract

Results of VLBI and GPS observations were analyzed with goal to investigate differences in observed baseline length derived from both techniques. VLBI coordinates for European stations were obtained from processing of all available observations collected on European and Global VLBI network. Advanced model for antenna thermal deformation was applied to account for change of horizontal component of baseline length. GPS data were obtained from re-processing of the weekly EUREF solutions. Systematic differences between results obtained with two techniques including linear drift and seasonal effects are investigated.