



High Frequency Earth Rotation Parameters from Continuous VLBI Campaigns

T. Artz and A. Nothnagel

University of Bonn, Institute of Geodesy and Geoinformation, Bonn, Germany (thomas.artz@uni-bonn.de)

In most cases, VLBI sessions have a duration of 24 hours, and, on average, three sessions are being scheduled every week. Starting in 1994, several campaigns of continuous VLBI observations (CONT) have been organized in irregular intervals. Recent CONT campaigns contain observations of the same network over a fortnightly timespan. The aim of these campaigns is to provide state-of-the-art VLBI observations continuously over a longer period than just one day. The most recent campaign (CONT08) has been scheduled for a network of 11 observatories and an increased recording rate of 512 Mbit per second. Furthermore, the observing schedules had been modified so that the necessary turn over pause of 30 minutes between two 24h sessions, scheduled at the same time for all sites in earlier CONTs, took place at all sites at staggered intervals.

One of the main scientific goals of these sessions is to generate continuous sub-daily Earth rotation parameters (ERP) in order to uncover discrepancies between theoretical models and observations. In prior campaigns, deviations at the ter-diurnal band have been detected. The fact that these deviations have not been detectable in all CONT sessions so far could be a hint that further discrepancies may be revealed by the new session setup.

As a first step in dealing with the new CONT08 data, we performed an assessment of the quality of the CONT08 sessions. In this presentation, we describe the new scheduling setup and we compare the derived sub-daily ERP to those derived in prior campaigns.