

Asymmetric mapping functions for CONT02 from ECMWF

(Vortrag)

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Recent mapping functions for GPS and VLBI like the Isobaric Mapping Functions (IMF) or the Vienna Mapping Functions (VMF) are based on data from numerical weather models. They map down the tropospheric zenith delays onto arbitrary elevations independent of the azimuth of the observation. By determining path delays from 3D raytracing through the numerical weather model, the extended Vienna Mapping Functions VMF2 provide the mapping function parameters not only once per station and epoch (every 6 hours), but also every 30 degrees in azimuth. In the studies presented here, VMF2 is calculated from data from the European Centre for Medium-Range Weather Forecasts (ECMWF) for CONT02, which is a special VLBI campaign of 15 consecutive 24h-sessions in the second half of October 2002. The results of the analysis with VMF2 are compared to those with classical mapping functions.