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Quality of Positioning and Tropospheric Zenith Path Delays Derived by Real-Time PPP

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Using real-time GNSS data streams as available through EUREF and IGS resources enable new positioning applications. Among them are the estimation of satellite and receiver clock corrections, as processed within the IGS Real-Time Pilot Project, and coordinate estimations via Precise Point Positioning (PPP). On the other hand, with a known (and fixed) receiver position the tropospheric zenith path delay (ZPD) could be estimated in real-time for use in numerical weather prediction or now-casting.

Within this presentation we present results of real-time PPP techniques in static as well as kinematic application. Furthermore, we demonstrate the quality of tropospheric zenith path delays derived from real-time PPP in dependence of varied weather conditions by comparing post-processing, near real-time, and real-time data processing. We finally discuss the application of a 'Quick-Start' mode implemented in the BKG Ntrip Client (BNC) to shorten the convergence time of real-time PPP.