

## **Comparison of DORIS site position and TRF time series with other space techniques**

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This paper focusses on the time evolution of the terrestrial reference frame and site position time series obtained from DORIS, VLBI, SLR and GPS solutions. For these investigations we used DORIS solutions from IGN (available at CDDIS) and SLR and VLBI solutions computed at DGFI with the software systems DOGS (SLR) and OCCAM (VLBI). The GPS time series are based on weekly station coordinates solutions computed at three IGS Analysis Centers (CODE, JPL and SIO). We present time series for the origin and scale of the terrestrial reference frame and discuss the contribution of the individual techniques for the datum definition of the ITRF. We analyzed the site position time series with respect to non-linear effects, periodic signals and systematic differences and compared the results at colocation sites obtained by different techniques.