



Quality assessment of the local ties used in the ITRF2008

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Local ties are differential coordinates between tracking reference points in co-location sites where two or more geodetic instruments are operating. They are a key element in the ITRF combination allowing to connect the different techniques together and to construct the ITRF. We first recall the ITRF combination strategy, focussing on the usage of local ties, their measurement epochs and their uncertainties. In the same way as for space geodesy technique solutions, local ties are introduced in the ITRF combination with proper variances to account for their uncertainties, and taking into account the epochs of their measurements. We then assess their quality by comparing their respective baseline components to those estimated by space geodesy solutions incorporated in the ITRF2008 combination. We evaluate their impact on the ITRF2008 combination results, and attempt to isolate those co-location sites where new surveys are needed.