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Stability of reference frames in combined SLR and GPS solutions

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A Terrestrial Reference System is realised by SLR and GPS techniques as IGS and ILRS Reference Frame products. Intra- and inter-technique combination of these products could result in a refined realisation of Terrestrial Reference System which could be used for scientific investigations of the Earth's system. Time series of weekly station positions and datum parameters and daily ERP obtained from inividual and combined SLR and GPS solutions have been compared. Co-location stations have been used to align SLR and GPS solutions. Stability of origin, scale and orientation for different solutions has been investigated. Existing problems in solutions have been identified and recommendations to fix them have been given.