ASSESSMENT OF SEASONAL SIGNALS IN ITRF2005 RESIDUALS TIME SERIES. WHAT COULD BE THEIR IMPACTS ON THE COMBINED SOLUTION?

Xavier Collilieux, David Coulot, Zuheir Altamimi

ENSG/LAREG

ITRF2005 is based on the combination of station position and Earth Orientation parameter (EOP) time series. In the first step of the computation, each set of time series is stacked to get station positions and velocities in a well defined reference frame as well as consistent EOPs. As a product, the post fit residuals contain useful information on how station positions can vary with time. The DORIS, SLR and GPS residuals will be analyzed here in terms of annual and semi-annual signals. In an attempt to evaluate the impact of these non linear motions on the combined solution, we use simulated data built with a preliminary loading model."