Geophysical Research Abstracts
Vol. 19, EGU2017-15701, 2017
EGU General Assembly 2017

Assessment of the ILRS implementation of ITRF2014

Vincenza Luceri (1), Erricos C. Pavlis (2), Magdalena Kuzmicz-Cieslak (2), and Giuseppe Bianco (3)

(1) e-GEOS S.p.A. - ASI/CGS, Matera, Italy (cinzia.luceri@e-geos.it), (2) JCET/UMBC, Baltimore, MD, USA, (3) Agenzia Spaziale Italiana - ASI/CGS, Matera, Italy

The assessment of ITRF2014 was performed using the International Laser Ranging Service (ILRS) time series of loosely constrained site coordinates and EOP estimates (polar motion and LOD). The improvement of the ILRS products from the implementation of the post-seismic deformation model (PSD), being integral part of the ITRF2014 model, was verified in comparison with the previously used reference frame modeling (piece-wise linear). A detailed analysis of the ITRF2014 origin and scale parameters is presented looking at the translations and scale with respect to the ILRS solution. The scale offset issue is investigated focusing on improved estimates of persistent systematic errors over significant periods of time, in hopes of an improved a priori model to be used in the next realization of the ITRF. A datum comparison using the alternate models DTRF2014 and JTRF2014 will also be presented.