



IERS Working group on Combination of Space Geodetic Techniques at the Observation Level (COL)

Richard Biancale (1), Daniel Gambis (2), Manuela Seitz (3), Jean-Yves Richard (2), Sylvain Loyer (4), Laurent Soudarin (4), Daniela Thaller (5), Tim Springer (6), Rolf Koenig (7), Cecilia Sciarretta (8), and the TU Vienna, Austria Team

(1) CNES / GRGS, Toulouse, France (richard.biancale@cnes.fr, +33 (0)5 61 33 29 78), (2) Observatoire de Paris / GRGS, PARIS, France, (3) DGFI, Munich, Germany, (4) CNES/ CLS, Ramonville Saint Agne, France, (5) AIUB, Bern, Switzerland, (6) ESOC, Darmstadt, Germany, (7) GFZ, Potsdam, Germany, (8) E-GEOS SPA, ASI-CGS, Matera, Italy

A Working Group on Combination at the Observation Level (COL-WG) has been created in the course of 2009 in the framework of IERS. Its main objective is to bring together groups able to do multi-technique combinations of Normal Equations obtained from the processing of the various space geodetic techniques (DORIS, GPS, SLR and VLBI), this in order to improve accuracy, time resolution and overall consistency of products.

A major task of the COL-WG is to study methods and advantages of combining space geodetic techniques, searching for optimal strategy to solve for geodetic parameters.

The first action of the COL-WG was to organize an inter-comparison campaign to serve as benchmark test. The period chosen extends over the intensive CONT08 VLBI period which took place from 12 to 26 August 2008. Observations of the individual space techniques were first processed in the various COL analysis centres. Then both DGFI and GRGS groups act as combination centre.

The combination analyses are based on weekly combined SINEX files containing station coordinates, Earth orientation parameters (EOP), quasar coordinates and zenithal troposphere delays. The poster will present objectives and strategy of this Working Group and describe the steps already fulfilled.