Observations below 5 degrees are ignored. The same PCV as IfE generated and introduced as known information in a second PPP step. are produced with epoch-wise receiver clocks set up, but not solved. Clocks were modelled as unconstrained piece-wise linear function CODE final products.

The GRACE orbit determination performed at AIUB relies as well on chosen. parameter spacing of 60 s with relative constraints of 0.8 ns/h was applied. The kinematic orbits obtained with modelled clocks are compared to

Table 1: Mean daily RMS in cm (and associated standard deviation) of GRACE-B radial, along-track, cross-track kinematic positions residuals with respect to one month of GRACE-B satellite observations in 2009. Clock modeling strategies for PPP and covariance handling for gravity field determination are compared.

Conclusions

Out of the results of this study, the modelling of the GRACE satellite clocks did not yet improve the recovery of gravity field parameters, at least when epoch-wise covariance information is used. By smoothing short term variations, it was expected that a stabilization of the kinematic solution would help in the recovery of the spherical harmonic coefficients of higher degrees. Further investigations are planned, such as taking into account covariance information over longer time spans, and not only the epoch-wise impact in the recovery of the gravity field.

References


References


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