

Supplementary Materials: Validation of the EGSIM GRACE gravity fields using GNSS coordinate timeseries and in situ ocean bottom pressure records

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1. Validation using the other two GNSS products

This section presents the figures as supplementary materials showing the validation results using the other two GNSS products, i.e. the EGSIM-reprocessed GNSS data and the JPL GNSS time series.

1.1. Validation against the EGSIM-reprocessed GNSS data

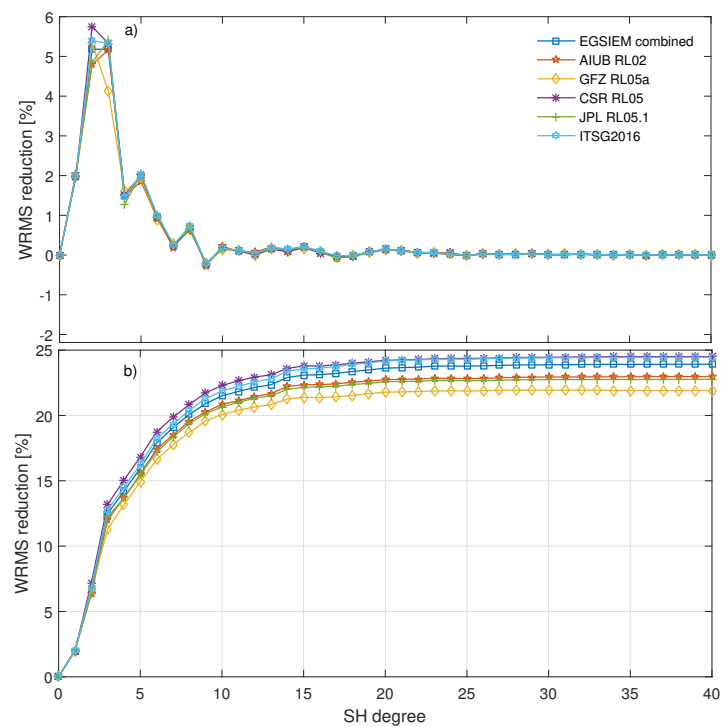


Figure S1. Mean degree WRMS reductions (a) and cumulative degree WRMS reductions (b) of different gravity solutions using the EGSIM-reprocessed GNSS data over 312 GNSS stations globally at the full signal level.

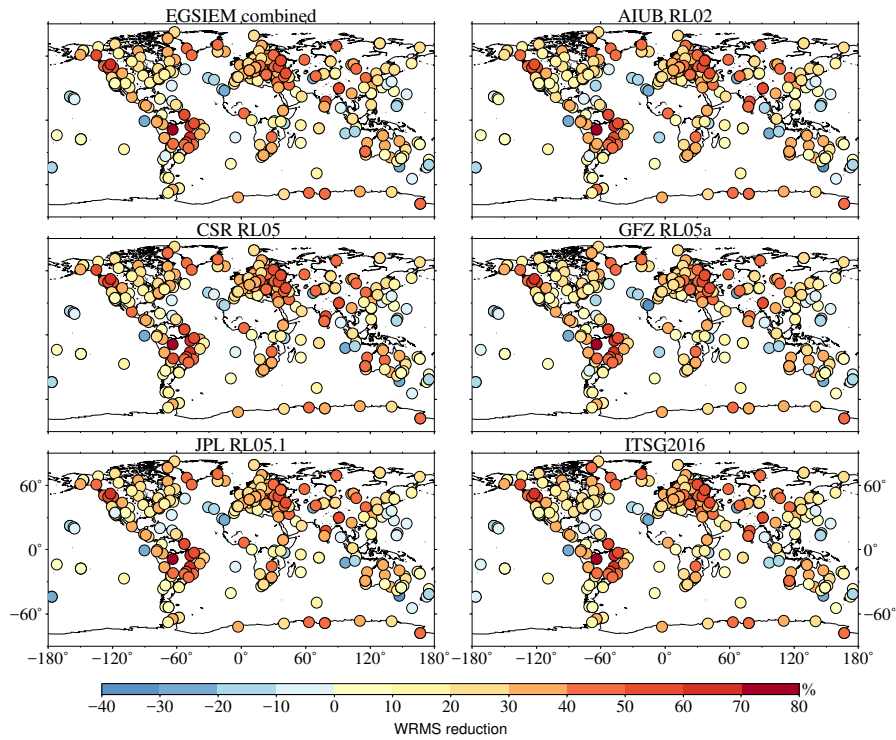


Figure S2. WRMS reduction at the full signal over 312 GNSS stations using the EGSIM-reprocessed GNSS data. GRACE gravity solutions up to their full spectrum are used to compute the displacements.

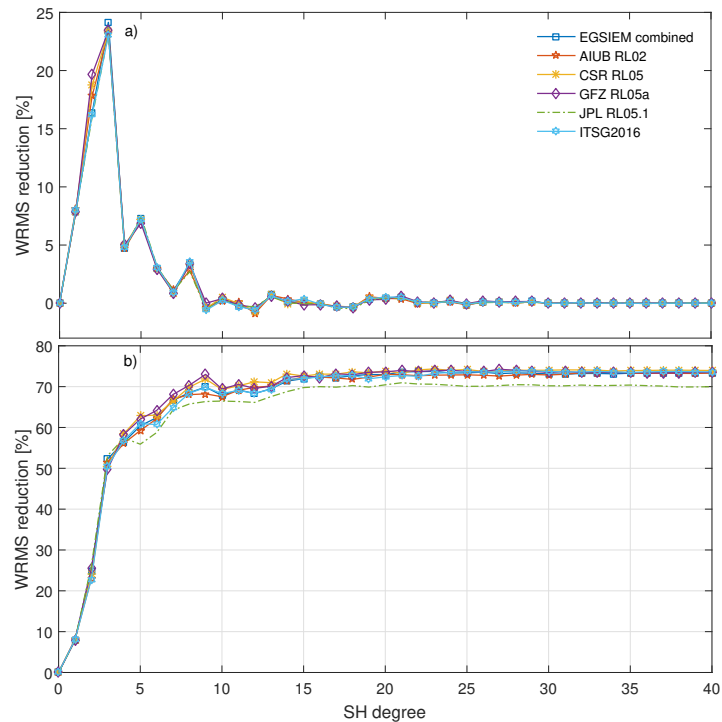


Figure S3. Median degree WRMS reductions (a) and cumulative degree WRMS reductions (b) of different gravity solutions using the EGSIM-reprocessed GNSS data at the annual signal level over 312 GNSS stations globally.

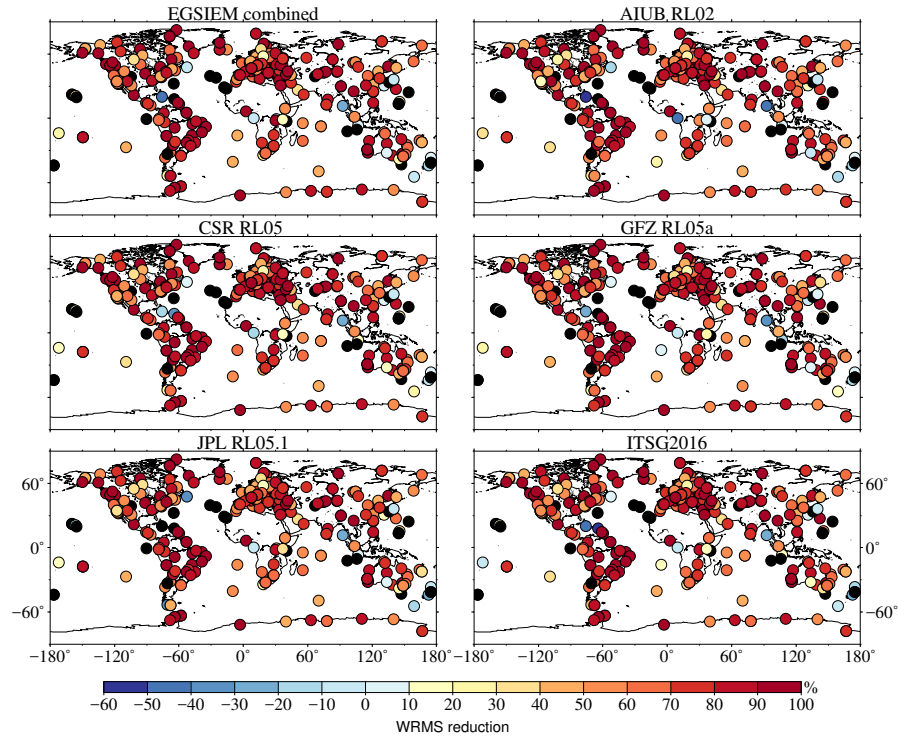


Figure S4. WRMS reduction at the annual signal over 312 GNSS stations using the EGSIEM-reprocessed GNSS data. GRACE gravity solutions up to their full spectrum are used to compute the displacements.

5 1.2. Validation against the JPL GNSS time series

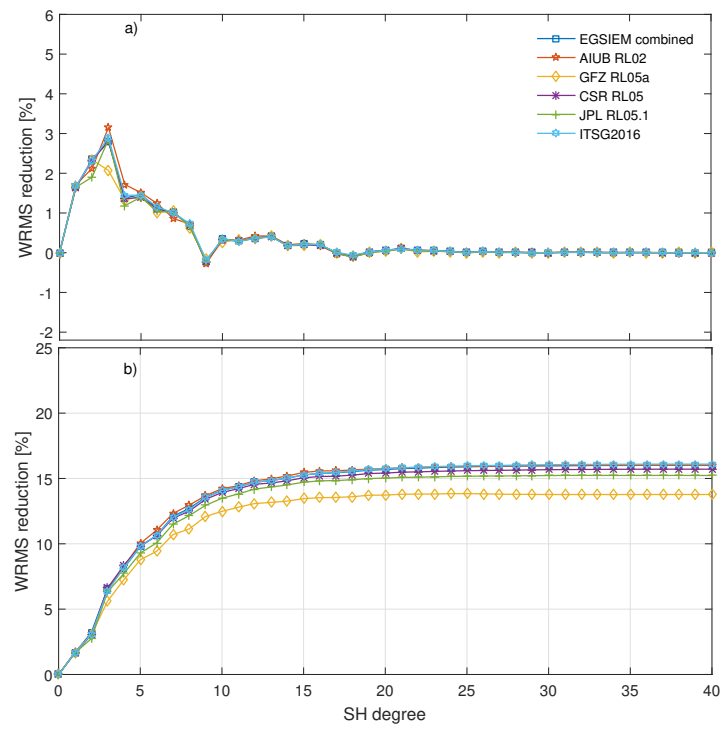


Figure S5. Mean degree WRMS reductions (a) and cumulative degree WRMS reductions (b) of different gravity solutions using the JPL GNSS time series over 788 GNSS stations globally at the full signal level.

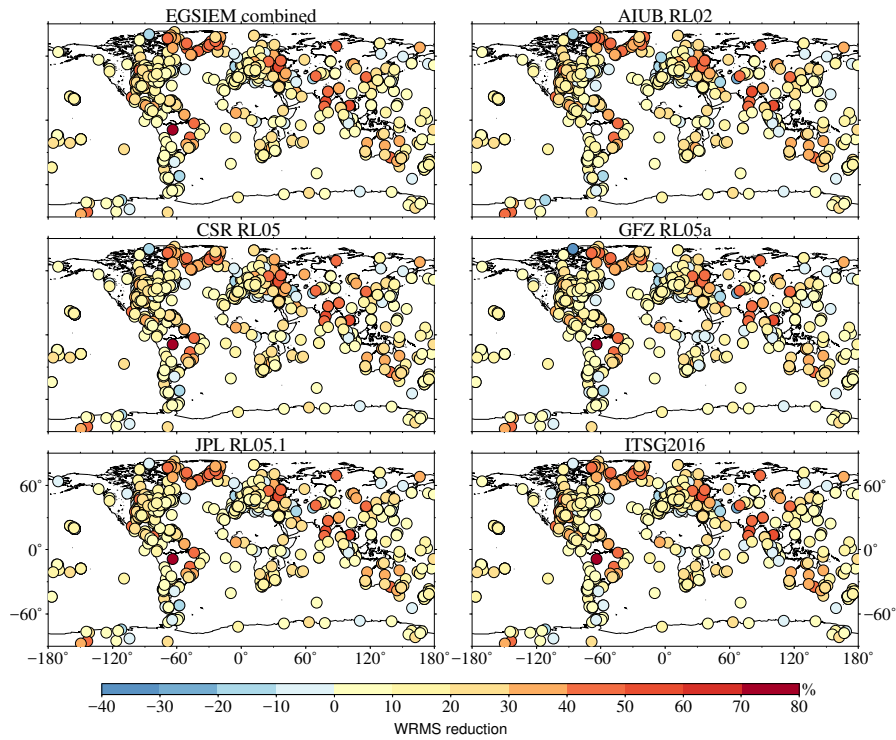


Figure S6. WRMS reduction at the full signal over 788 GNSS stations using the JPL GNSS time series. GRACE gravity solutions up to their full spectrum are used to compute the displacements.

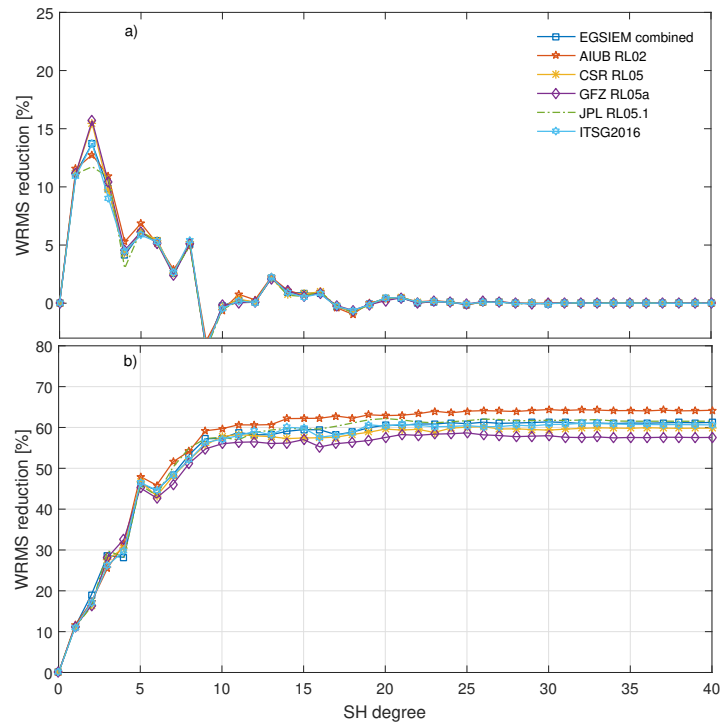


Figure S7. Median degree WRMS reductions (a) and cumulative degree WRMS reductions (b) of different gravity solutions using the JPL GNSS time series at the annual signal level over 788 GNSS stations globally.

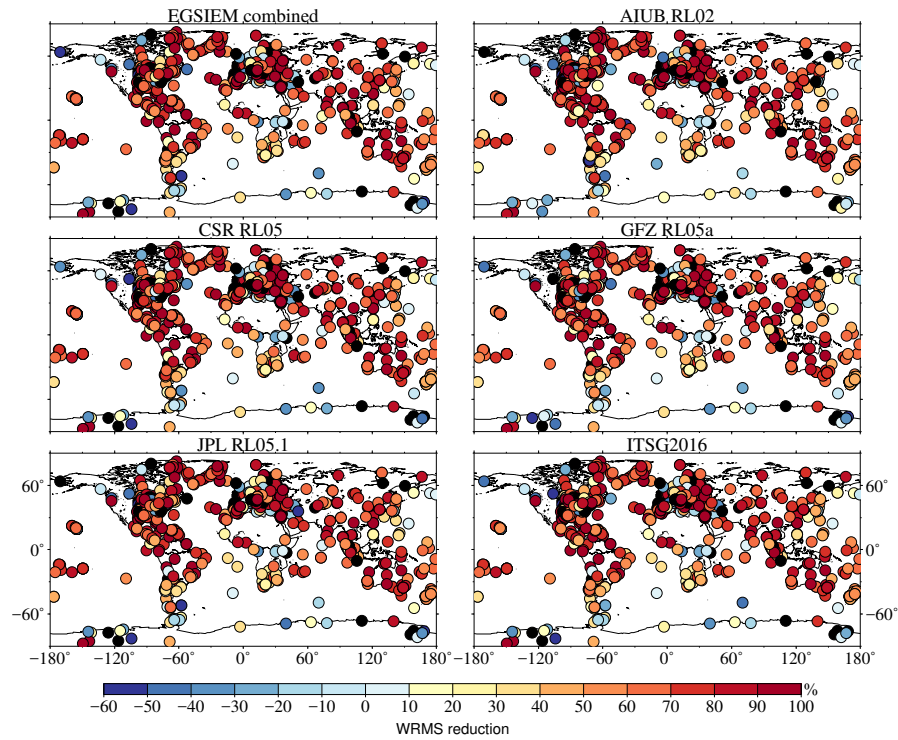


Figure S8. WRMS reduction at the annual signal over 788 GNSS stations using the JPL GNSS time series. GRACE gravity solutions up to their full spectrum are used to compute the displacements.