



Assessment of GRACE gravity field determination errors using simulations

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As the space-geodetic community has gained experience with the processing of nearly 8 years of GRACE data, we have learned a lot more about the factors influencing the quality of the GRACE-derived mass-flux estimates than we did prior to GRACE launch. Such factors include the the spatio-temporal nature of the signal itself; the various components of flight system performance; the influence of background model errors; and the influence of flight events such as orbit configuration and data gaps.

In an effort to understand the limiting causes of the quality of the present gravity fields from GRACE, and to calibrate the error bounds of various data processing options, simulation studies continue to be useful. This is particularly so as we include the lessons learned into the design of these simulations.

This poster reports on the latest results from our ongoing simulations of the GRACE data processing algorithms and methodology, and assessments of error estimates.