



Analysis of Attitude Errors in the GRACE Range-Rate Observations Using Reprocessed Attitude Data

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The attempts to quantify the impact of attitude errors on GRACE range-rate observations are still continuing even after the mission has officially been ended in November 2017. The availability of the 16-year long time-series has been helpful in gaining a vast knowledge about the attitude errors and ultimately in the improvements of the attitude information. Due to the improvements in the attitude datasets, the attempts to quantify their impact on the gravity field has also been made. But, the improvements have rarely been seen on the gravity field solutions due to other dominated errors in them. Here, we present the propagation of the attitude errors into the range-rate observations. In order to quantify their impact, we use different reprocessed star camera datasets. We extract and explain the attitude errors present in the different datasets. Finally, we analyze their impact on the gravity field solutions.