



Exploration of Accuracy & Resolution of gravity field from GRACE

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It is a statement of the obvious that the task of multi-technique combination of global mass-load flux is made particularly challenging by widely divergent spatio-temporal signal and error spectra of the component datasets. In all such combinations, the data from GRACE mission provide a crucial part of the total information. Based on the experience of GRACE data processing at both Level-1 and Level-2, we describe the spatial and temporal spectrum of the signal and error content in the GRACE data products. We explore the content within both the metric ranging data (the Level-1B) and the gravity field (the Level-2) data products. The results of this work provide insight into how the spatio-temporal spectrum of GRACE information may be combined with other complementary datasets, in order to obtain the highest temporal resolution and accuracy.