



GRACE De-Aliasing Products - Impact of Atmospheric Uncertainties

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In the standard gravity field processing short term mass variations in the atmosphere and the ocean are eliminated in the so-called De-Aliasing step. Up to now the background models, used for De-Aliasing, are regarded as error-free. As GRACE has not reached its pre-launch accuracy yet, the De-Aliasing process and related geophysical model uncertainties are regarded as potential error source in GRACE gravity field determination. It is our goal to identify the impact of uncertainties in the background models on the De-Aliasing products and to further improve them by taking into account atmospheric and oceanic model errors.

This work will give an overview of the atmospheric De-Aliasing sequence as well as the implemented error-propagation model. Furthermore, the effect of taking or not taking atmospheric model uncertainties into account will be investigated and the impact on the (atmospheric) De-Aliasing product will be shown.