



GOCE - Enhanced gravity gradients along the orbit

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GOCE gravity gradients are known to be very accurate in the measurement bandwidth of the on-board gradiometer. We assess the combination of GOCE gravity gradients with GRACE information. Therefore we take into account the along track projection of the GRACE field information along the GOCE orbit frequencies to lower the influence of the less accurate sectorial information present in GRACE gravity field products. In addition we account for systematic errors in the cross track gradients close to the magnetic poles applying an adapted filter approach. These products (GGC-GRF) are validated for the complete GOCE mission duration and are analyzed in terms of their signal content in comparison with latest published global gravity field models.