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Gravity Gradient Analysis at the GOCE High-Level Processing Facility

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The GOCE Level 1b gravity gradients, as derived from the in-flight calibrated gradiometer, are externally calibrated at the GOCE High-Level Processing Facility using independent gravity field information. Three different, complementary methods are used for that purpose. The baseline method is the calibration using existing, state-of-the-art global gravity field models. In addition we use GOCE GPS data as well as terrestrial gravity data. We will present the results for these three external calibration methods as well as the comparison between them. We also present additional results of the gravity gradients processing, that is, an assessment of the gravity gradient accuracy, the outlier detection results and the correction for temporal gravity variations.