



Testing the gravimetric mass balance of Vernagtferner (2010-2013)

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Monitoring glacier mass balance is to a large extent based on glaciological and geodetic (geometric) methods. On global and large regional scales, the GRACE satellite mission provides (since one decade) complementary information by observing temporal mass changes. A corresponding gravimetric method on local scales is not routinely established, mainly due to its high logistic effort. However, it is believed, that additional constraints from direct observation of mass changes can also provide useful information for small scale glacier monitoring and modelling. Therefore the gravimetric method has been tested and early results are presented here. Thereby, Vernagtferner is used as a test area, because the glacier mass balance is precisely known from intensive glaciological and geodetic observations. The results presented here are based on terrestrial gravimetry and GPS measurements carried out on an annual basis since 2010.