



The GOCE Reprocessing Campaign

Thomas Gruber and the GOCE HPF Team

Technische Universität München, Astronomische und Physikalische Geodäsie, München, Germany (thomas.gruber@tum.de)

With the delivery of the final GOCE rel. 5 gravity models in 2015, the nominal processing of GOCE data has been completed very successfully. All delivered level 1 and level 2 products are of high quality and meet the expected requirements. Since then, several experts from ESA and the GOCE HPF Team investigated in more detail remaining features visible in the GOCE products and identified further improvements in the processing strategies, which led to the decision to start a reprocessing campaign for the GOCE gradiometer data and to prepare a new release of GOCE level 2 products, i.e. precise science orbits and GOCE gravity field models and gradient grids. In addition, a few new GOCE level 2 products have been identified which further enhance the science return of the mission. In particular these are combined gravity field models incorporating newly observed airborne gravity data over Antarctica (filling the polar gap of GOCE) and making use of GOCE data for studies of ionospheric electron content and thermospheric density and wind.

The presentations summarize the revised processing strategies for gravity gradients, precise science orbits and gravity field models and introduces new GOCE products which will be made available to the scientific community. In addition estimates for the expected improvements as well as the reprocessing schedule will be presented.