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The MAGIC missions are envisaged to advance the applications of satellite based gravity field information for tracking changes in the mass distribution and transport in ground water storages, ice sheets and oceans. The GOCE User Toolbox GUT was originally developed for the utilisation and analysis of GOCE products to support applications in Geodesy, Oceanography and Solid Earth Physics. GUT consists of a series of advanced computer routines that carry out the required computations without requiring expert knowledge of geodesy. Hence, with its advanced computer routines for handling the gravity field information rigorously, GUT may support the future gravity missions such as GRACE-C, NGGM, and MAGIC in developing Level-2 and Level-3 products.

Focusing on MAGIC mission goals on unprecedented recovery of ocean bottom pressures, a more flexible processing of the gravity field information may become essential. Furthermore, an integration of ocean bottom pressure changes with changes in the geostrophic surface currents may advance the analyses further. GUT facilitates such a flexible processing and, in addition, contains tools for the assessment of static gravity field models and for the computation of the dynamic ocean topography models and the associated geostrophic surface currents.
Presentation file
knudsen-per-futuremissions.pdf
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