



## GOCE User Toolbox and Tutorial

Per Knudsen (1) and Jerome Benveniste (2)

(1) DTU Space, National Space Institute, Geodesy, Kgs. Lyngby, Denmark (pk@space.dtu.dk), (2) ESA, ESRI, Frascati, Italy

The GOCE User Toolbox GUT is a compilation of tools for the utilisation and analysis of GOCE Level 2 products. GUT support applications in Geodesy, Oceanography and Solid Earth Physics. The GUT Tutorial provides information and guidance in how to use the toolbox for a variety of applications. GUT consists of a series of advanced computer routines that carry out the required computations. It may be used on Windows PCs, UNIX/Linux Workstations, and Mac. The toolbox is supported by The GUT Algorithm Description and User Guide and The GUT Install Guide. A set of a-priori data and models are made available as well.

Recently, the second version of the GOCE User Toolbox (GUT) was developed to enhance the exploitation of GOCE level 2 data with ERS [U+2010] ENVISAT altimetry. The developments of GUT focused on the

following issues: Data Extraction, Generation, Filtering, and Data Save and Restore

Without any doubt the development of the GOCE user toolbox have played a major role in paving the way to successful use of the GOCE data for oceanography. The results of the preliminary analysis carried out in this phase of the GUTS project have already demonstrated a significant advance in the ability to determine the ocean's general circulation. The improved gravity models provided by the GOCE mission have enhanced the resolution and sharpened the boundaries of those features compared with earlier satellite only solutions. Calculation of the geostrophic surface currents from the MDT reveals improvements for all of the ocean's major current systems.