



## **GOCE User Toolbox and Tutorial**

Per Knudsen (1), Jerome Benveniste (2), and Team GUT (2)

(1) DTU Space, National Space Institute, Geodesy, Kgs. Lyngby, Denmark (pk@space.dtu.dk), (2) ESA/ESRIN, 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. 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 GUT will be further developed through a collaborative effort where the scientific communities participate aiming on an implementation of remaining functionalities facilitating a wider span of research in the fields of Geodesy, Oceanography and Solid earth studies.

The objective of the new GUT project is to further develop GUT by implementing functionalities that have been requested by the general science community. Accordingly, the GUT version 3 will have:

- An attractive and easy to use Graphic User Interface (GUI) for the toolbox,
- Enhance the toolbox with some further software functionalities such as to facilitate the use of gradients, anisotropic diffusive filtering and computation of Bouguer and isostatic gravity anomalies.
- An associated GUT VCM tool for analyzing the GOCE variance covariance matrices.