COST ES0701

TRAINING SCHOOL ON "GIA MODELING"

A Training School on Glacial Isostatic Adjustment (GIA) Modeling will be organised in Gävle, Sweden. The main objective of this Training School is to give early-stage researchers whose principal area of expertise is not in GIA modeling an intensive training on numerical GIA modeling. The training will not be limited to the solid-earth deformation process of GIA only, but will also involve glaciological modeling of the disappearing Late-Pleistocene ice sheets on the one hand and GIA-induced sea-level change on the other hand. Sea-level change due to GIA is an important contributor to present-day sea-level rise and therefore the importance of this training school reaches far beyond the confines of COST ES0701.

After the training school, participants will have a thorough insight into the complicated interactions between continental ice mass changes, solid-earth deformation and concomitant sea-level variations. They also will have acquired practical knowledge on how to link various data sets from both terrestrial (tide gauges, GPS) and space-based (satellite gravity and altimetry) instrumentation with numerical GIA models. This newly acquired knowledge might prove to be extremely important and trigger new ideas for their particular fields of expertise, such as the ocean sciences, physical geodesy, cryospheric sciences, and climate change in general. In many of these scientific disciplines there is hardly any knowledge or even awareness about the importance of GIA and associated aspects such as temporal and spatial gravity changes and rotational variations of the ice changes (Antarctica, Greenland, mountain glaciers). Furthermore, participants will learn that observations of present-day changes over Antarctica and Greenland do contain important GIA contributions and will get insight in how these GIA-contributions can be identified so that contemporary ice mass changes might be retained that are of such utmost societal importance.

Intensive Training Program

Course contents

- Observations and data handling
- Rebound modeling
- Glaciological modeling
- GIA and sea-level modeling
- Sea-level changes
- Case studies
- Field trip (geology, sea level changes, etc)
- Special lectures

This training school combines lectures and computer projects with preparatory homework exercises. Also a field trip is foreseen. Upon completion of the course, those students that will have fulfilled the school's evaluation requirements will receive a signed certificate, whereby we aim for a work load equivalence of 5 ECTS.

Teaching staff includes

Martin Ekmanm, Summer Institute for Historical Geophysics; Kurt Lambeck, Australian National University; Giorgio Spada, University of Urbino; Bert Vermeersen, TU Delft; Patrick Wu, University of Calgary; Roberik van de Wal, Utrecht University.

Scientific commitee

Bert Vermeersen, TU Delft
Niki Evelpidou, National Kapodistrian University of Athens

Local organisation

Martin Lidberg, Swedish National Land Survey in Gävle

For more details you may visit the following website:
http://www.cost-es0701.gcparks.com

Location: Gävle, Sweden
Duration: 01/06/09 to 05/06/09
Language: English
Application Deadline: 31/03/09

Note: only participants from COST countries can be (partly) reimbursed.
Applications can be submitted via the website.