

Christoph Mayer

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CV

Education:

08/96 PhD in Geophysics (summa cum laude), University of Bremen, Title: Numerical modelling of the transition zone between an ice sheet and an ice shelf.

07/90 Diploma thesis: Numerical experiments on the intrusive transport of mass and heat under conditions of the earth's crust.

Diploma: General Geophysics, Theoretical Physics, Geology, Hydro-geology.

09/83-07/90 Geophysics diploma, Technical University Clausthal.

Professional Career:

Since 06/04 scientist at the Commission for Glaciology, Bavarian Academy of Sciences and Humanities, Munich:

Monitoring and surveying of mountain glaciers

Geophysical measurements on glaciers

Remote sensing of snow and ice

Numerical modelling of ice-dynamic processes and subglacial environments

10/01-05/04 scientific assistant, glaciology group of the Department of Quaternary Geology, Geological Survey of Denmark and Greenland (GEUS):

Investigations on the dynamics and mass balance of the ablation zone of the Greenland Ice Sheet,

Numeric modelling of special ice sheet regions, glaciers and ice caps,

Consultant and advisor for Danish and Greenlandic authorities.

10/99-08/01 project scientist in the remote sensing group at the Institute for Meteorology and Geophysics, Univ. Innsbruck, Austria, project: „IDNDR“ (Austrian Academy of Sciences):

Identification, surveying and monitoring of slow slope movements in alpine areas using SAR interferometry,

Remote sensing analysis of glaciated areas in Antarctica and Iceland,

09/98-08/99 scientific assistant (PostDoc), at the Alfred Wegener Institute, Bremerhaven, project: “Climate variability during the last 10 000 years“:

The glaciers of the Central Karakoram, inventory of an important resource

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The Central Karakoram hosts one of the largest concentrations of mountain glaciers in the world. In the region of the Central Karakoram National Park (CKNP) more than 700 glaciers are situated, including some of the most extensive ice masses in alpine areas. In contrast to the glaciers in the Himalaya it seems that Karakoram glaciers show rather stable mass balances even during the last decades. However, a comparatively large number of glaciers in this region behaves in a cyclic way, with fast advances, followed by slow melt down. In addition, the majority of the large glaciers show a dense debris cover in the ablation zone which prevents a strong area reduction during years of negative mass balances. These conditions make it difficult to estimate the real mass balance conditions for the area. Detailed investigations are needed for a sub-sample of glaciers which can be

monitored for a longer time period. A detailed study on Baltoro Glacier, one of the most prominent representatives of large glaciers in the Karakorum reveals the ablation conditions for low lying, debris covered glacier tongues. During the recent past also accumulation studies have been carried out, in order to complete the required information on glacier mass exchange. This information is now analysed in the context of the prevailing climatic conditions and forms the basis for regional modelling of glacier mass balance.

Keywords:

Glaciology, glacier inventory, climate change, mass balance