

Name of research institute or organization:

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Title of project:

Absolute gravimetric calibration line Grindelwald-Jungfrauoch

Project leader and team:

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Project description:

The first gravimetric calibration Grindelwald-Jungfrauoch has been established 1980 and been published in 1982 (Klingelé, E. and H.-G. Kahle (1982)). The aim of these measurements is to provide precise absolute gravity and gravity difference values along the line, thus providing information on drifts and scale factors of relative gravimeters. On the other hand the calibration line consists of 6 stations with gravity differences not extending the measurable range of relative gravimeters. In comparison with other existing gravimetric calibration lines consisting of two stations located at different altitudes, this matter of fact represents a unique feature.

Since the first measurements were carried out more than 30 years ago, the realization of the stations has suffered from either removed markers (as it was the case at Jungfrauoch, where the brass marker in the basement was removed during renovation works) or the station was located in a geologically unstable region. The measurements at the stations Grindelwald Grund, Alpiglen, Kleine Scheidegg, Eigergletscher, Eigerwand, and Jungfrauoch (c.f. fig. 1) took place in October and were finalized in December 2013.



*Figure 1. Absolute Gravity meter FG5 in working position at Jungfrauoch (basement).*

Key words:

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Gravimetry, Gravimetric calibration line

Scientific publications and public outreach 2013:

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**Data books and reports**

Klingelé, E., and H.-G. Kahle, The Swiss gravimetric calibration line from Interlaken to Jungfrauoch (Switzerland), Institute of Geodesy and Photogrammetry, ETH Zurich, Separata, Nr. 120, 1982.

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