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# Gravity Change in the Fennoscandian Uplift Area Observed by Absolute Gravimetry

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The Nordic countries Norway, Sweden, Finland and Denmark are a key study region for the research of glacial isostasy. In addition, it offers a unique opportunity for absolute gravimetry to show its capability as a geodetic tool for geophysical research.
Within a multi-national cooperation, annual absolute gravity measurements have been performed in Fennoscandia by IfE since 2003. For the Hannover gravimeter FG5-220, an overall accuracy of $\pm 30$ nm/s$^2$ is indicated for a single station determination. First results of linear gravity changes are derived for 11 stations in the central and southern part of the uplift area. Comparing with the predicted rates of a glacial rebound modelling, the gravity trends of the absolute measurements differ by 20% (r.m.s. discrepancy) from the uplift model. The mean difference between observed and predicted rates is -0.6 nm/s$^2$ per year only.