



Ocean tide loading along the Norwegian coast

D. I. Lysaker (1), K. Breili (1), J. G. Gjevestad (1), O.C. Omang (2) and B. R. Pettersen (1)

(1) Department of Mathematical Sciences and Technology, Norwegian University of Life Sciences (UMB) (dagny.lysaker@umb.no)

(2) Norwegian Mapping Authority - Geodetic Institute

Absolute gravity measurements contain all tidal signals. They must be corrected for in order to obtain the instantaneous gravity value at an observing point. The body tide is well modeled, but the ocean tide loading signal is more complex. Although a small signal, it is easily detectable with modern gravimeters in stations close to the coast. We compare recent ocean tide loading models by FG-5 #226 in several coastal stations in Norway. The global models are generally in phase with the observed ocean tide loading signal, but the amplitudes are smaller than observed.