# Aboa gradient 

J.Mäkinen



## Aboa absolute pier

0.56 cubic meters, density $2.2 \times 10^{3} \mathrm{~kg} \mathrm{~m}^{-3}$, mass $1.2 \times 10^{3} \mathrm{~kg}$

Attraction of pier (soli line) is not a second degree polynomial in height Solid line true attraction, dash-dot fitted second-degree polynomial from perfect observations

$0.05,0.80,1.30 \mathrm{~m}$ (LCR)

0.25, 0.80, 1.30 m (Scintrex)

## Remove-restore for $\mathrm{g}=\mathrm{g}(\mathrm{h})$

- calculate the effect of the pier
- subtract it from observations $g=g(h)$
- if the non-linearity of $g=g(h)$ is due to a "single" mass anomaly like the pier, then the residuals can be approximated even by a linear function of height
- but certainly with a second degree polynomial
- then restore the effect of the pier

Aboa pier fit to true observations, pier+second degree. Observed mean gradient over [0.05, 1.00] m subtracted



