



## Deep Sea Gravity Measurements: GEOSTAR-2 Mission Results

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### Abstract

A new concept gravity meter with sensitivity close to  $10^{-8}$  m/s<sup>2</sup> in the range of 10<sup>-5</sup> to 1 Hz intended for observation of the vertical component of the Earth gravity and teleseismic waves was implemented at the Istituto di Fisica dello Spazio Interplanetario (IFSI), CNR and successfully operated during the GEOSTAR-2 mission. The gravimeter has demonstrated a capability to operate for long time in an autonomous regime and a good reliability for operation in extreme environments; at the same time the experimental measurements gave the information for the further gravimeters implementation. Results of observation and data analysis included the registration of seismic waves excited by global earthquakes and the evaluation of the low frequency modes of free oscillations of the Earth are reported.

### Keywords

seafloor gravimeter; teleseismic waves

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