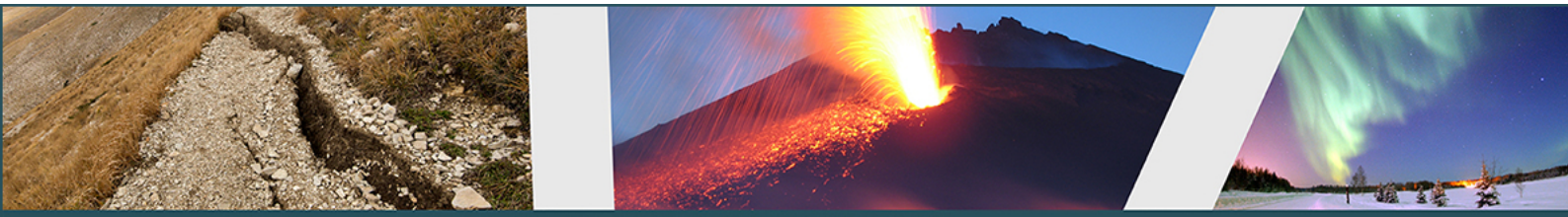

INGV ANNALS OF GEOPHYSICS

Deep Sea Gravity Measurements: GEOSTAR-2 Mission Results

V. Iafolla, S. Nozzoli, E. Fiorenza, V. Milyukov

Abstract

A new concept gravity meter with sensitivity close to Hz ms / 10 2 8 ? ? in the range of 10 -5 ?1Hz 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

Full Text:

PDF

References

DOI: https://doi.org/10.4401/ag-3136

Published by INGV, Istituto Nazionale di Geofisica e Vulcanologia - **ISSN:** 2037-416X

ABOUT THE AUTHORS

V. Iafolla
Istituto di Fisica dello Spazio Interplanetario, CNR - via del Fosso del Cavaliere - 00133 Roma, Italy

Spazio Interplanetario, CNR
- via del Fosso del Cavaliere
- 00133 Roma, Italy

E. Fiorenza
Istituto di Fisica dello
Spazio Interplanetario, CNR
- via del Fosso del Cavaliere
- 00133 Roma, Italy

V. Milyukov
Istituto di Fisica dello
Spazio Interplanetario, CNR
- via del Fosso del Cavaliere
- 00133 Roma, Italy

KEYWORDS

Central Italy Earthquake GPS Historical seismology Ionosphere Irpinia earthquake Italy Mt. Etna Seismic hazard Seismic hazard assessment Seismology UN/IDNDR earthquake earthquakes historical earthquakes ionosphere magnetic anomalies paleoseismology seismic hazard seismicity seismology