Special Issue

Applications of Gravimetry to Earth Sciences

Message from the Guest Editors

Gravimetry is generally used as a prospecting method and contributes to the characterization and definition of underground structures at various scales. Time-lapse gravimetry is also a powerful tool in geophysics that, through sensing changes in subsurface mass, can supply unique information on the dynamics of underground processes. Changes in the gravity field can also be related to crustal displacements that can also be measured by GNSS techniques, in order to discriminate between effects due to mass redistributions and those related to changes in the geometry of geophysical systems. Major technology developments have recently occurred in instrumentation and methodology, opening up new perspectives for increasing the capability of gravimetry. This is critically important for the energy industry (not only petroleum and natural gas, but also geothermal), resource management (particularly, with regard to water), and natural hazards (especially volcanoes and earthquakes). Contributions based on gravity observations in hydrology, volcanology, metrology and petroleum geology, but not limited to these, are welcome and strongly encouraged.

Guest Editors

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Deadline for manuscript submissions

closed (30 November 2021)

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Message from the Editor-in-Chief

Earth journal is a publishing platform to promote discoveries related to the Earth and its components (atmosphere, oceans, land, cryosphere, biosphere, and humans). The journal serves as a publishing venue that views Earth from a holistic perspective and disseminates scientific papers with emphases on multidisciplinary approaches to understand the complexities and interactions occurring on a variety of spatial and temporal scales. Rapid turnaround time and full open access offer the opportunity to make research results immediately available to scientific communities and the general public.

Editor-in-Chief

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