Record Nr. UNINA9910462805403321 Autore Long L. T (Leland Timothy) **Titolo** Acquisition and analysis of terrestrial gravity data / / Leland Timothy Long, Ronald Douglas Kaufmann [[electronic resource]] Cambridge:,: Cambridge University Press,, 2013 Pubbl/distr/stampa **ISBN** 1-139-61069-4 1-107-23610-X 1-107-25459-0 1-139-61255-7 1-139-62185-8 1-283-94370-0 1-139-62557-8 1-139-16228-4 1-139-61627-7 Descrizione fisica 1 online resource (x, 171 pages) : digital, PDF file(s) Disciplina 526/.7 Gravity anomalies - Measurement Soggetti Geophysical surveys Earth (Planet) Crust Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Machine generated contents note: List of symbols; 1. Gravitational attraction; 2. Instruments and data reduction; 3. Field acquisition of gravity data; 4. Graphical representation of the anomalous field; 5. Manipulation of the gravity field; 6. Interpretation of density structure; 7. Direct inversion; 8. Experimental isostasy; References; Index. Gravity surveys have a huge range of applications, indicating density Sommario/riassunto variations in the subsurface and identifying man-made structures, local changes of rock type or even deep-seated structures at the crust/mantle boundary. This important one-stop book combines an introductory manual of practical procedures with a full explanation of analysis techniques, enabling students, geophysicists, geologists and engineers to understand the methodology, applications and limitations

of a gravity survey. Filled with examples from a wide variety of acquisition problems, the book instructs students in avoiding common mistakes and misconceptions. It explores the increasing near-surface geophysical applications being opened up by improvements in instrumentation and provides more advance-level material as a useful introduction to potential theory. This is a key text for graduate students of geophysics and for professionals using gravity surveys, from civil engineers and archaeologists to oil and mineral prospectors and geophysicists seeking to learn more about the Earth's deep interior.