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Sommario/riassunto	<p>This book is focused on different aspects of geophysical research, particularly on modern approach in subsurface imaging, tectonics, geohazard, seismicity, and Earth planetary system. Syntheses of results from regional and local studies combined with new techniques of geophysical data acquisition and interpretation from diverse geological provinces are presented. Some of the chapter explained clearly the geophysical technic that can image local sources in urban and rural settings in Israel. An example of studies on basement tectonics and fault reactivation in North America using integrated geophysical methods is also presented. Two modes of seismicity, one involving rotational seismology and another based on seismic response in Mexico using Hilbert-Huang transform (HHT) as an alternative technique for extracting data that will be useful for the assessment of potential earthquake, are discussed in other sets of chapters. The integration of geoelectric methods in another chapter demonstrated delimitation of the resistivity anomalies caused by different types of hydrocarbon contaminants and rocks in rural, industrial, and urban sites. The results of electrical resistivity method to define 1D and 2D electrical models from two datasets acquired in dry and rainy seasons in Panama (Central America) were used to show the relationship</p>

between electrical resistivity and volumetric water content. Petrophysical analyses show good fits between resistivity and volumetric water content and known parameters for rocks and soils. The study on Earth planetary system noted that at all stages of the Earth's formation, convective heat and mass transfer are the most important factors in the dynamics of the planet. The chapter on magnetics shows how remanent magnetization and self-demagnetization complicate the inversion and interpretation of magnetic anomaly with examples from iron deposit in South Australia.
