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Soggetti	Geophysics Geology, Structural Mathematical physics Geophysics/Geodesy Structural Geology Mathematical Applications in the Physical Sciences
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Impedances, sources and environments -- Impedances and tippers from one equation -- Modeling of Deep Soundings Study -- Results of deep soundings in Europe -- Electromagnetic monitoring.
Sommario/riassunto	At the heart of this book is the generalized theoretical approach that is applied to investigate the geoelectrical structure of the Earth's mantle. It also analyzes the results of regional and global induction sounding of the Earth's mantle and compares them with the results obtained by other geophysical methods. The generalized theoretical approach employs the Induction Law as a basis for identifying extended relations between magnetic field components, including their plane divergence, impedances and spatial derivatives. The estimations of impedance values and spatial derivatives are performed using the theory of stochastic processes. The book also considers the external sources of magnetic fields used for sounding the Earths mantle from the modern theory perspective, as well as the problem of coincidence of magneto-variation and magnetotelluric methods. Further, it discusses secular variations in the Earth's resistance caused by non-induction sources,

factors that are correlated with the number of earthquakes in the region and shifted in time with global indexes. It is a valuable resource for scientists applying deep induction soundings or interested in the structures of and processes in the Earth's interior.
