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Nota di contenuto	Frontmatter -- Preface to the Fourth Edition -- Contents -- 1 Introduction -- 2 Reference Systems and Reference Frames -- 3 The Gravity Field of the Earth -- 4 The Geodetic Earth Model -- 5 Methods of Measurement -- 6 Methods of Positioning and Gravity Field Modeling -- 7 Geodetic and Gravimetric Networks -- 8 Structure and Dynamics of the Earth -- References -- Index
Sommario/riassunto	The fourth edition of this textbook has been thoroughly revised in order to reflect the central role which geodesy has achieved in the past ten years. The Global Geodetic Observing System established by the IAG utilizes a variety of techniques to determine the geometric shape of the earth and its kinematics, the variations of earth rotation, and the earth's gravity field. Space techniques play a fundamental role, with recent space missions also including gravity field recovery. Terrestrial techniques are important for regional and local applications, and for validating the results of the space missions. Global and regional reference systems are now well established and widely used. They also serve as a basis for geo-information systems. The analysis of the time variation of the geodetic products provides the link to other geosciences and contributes to proper modelling of geodynamic

processes. The book follows the principal directions of geodesy, providing the theoretical background as well as the principles of measurement and evaluation methods. Selected examples of instruments illustrate the geodetic work. An extensive reference list supports further studies. The book is intended to serve as an introductory textbook for graduate students as well as a reference for scientists and engineers in the fields of geodesy, geophysics, surveying engineering and geomatics.