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Collana	Encyclopedia of Earth Sciences Series, , 1388-4360
Disciplina	550 526.1
Soggetti	Geophysics Remote sensing Geotechnical engineering Astronomy Astrophysics Atmospheric sciences Geophysics/Geodesy Geophysics and Environmental Physics Remote Sensing/Photogrammetry Geotechnical Engineering & Applied Earth Sciences Astronomy, Astrophysics and Cosmology Atmospheric Sciences
Lingua di pubblicazione	Inglese
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Nota di contenuto	From the Contents: Absolute Gravity Measurements -- Acceleration approach -- Advances in long-range kinematics -- Application of absolute gravity research -- Astrogeodetic Methods -- Astrometry; nutation/precession; celestial mechanics -- Atmospheric modelling -- Atmospheric, oceanic, and hydrologic loading effects -- Attitude determination -- Best Integer Prediction in mixed models -- Bureau International de Poids et Mesure (BIPM) - Section Time, Frequency and Gravimetry -- CHAMP-, GRACE-, GOCE-satellite projects -- Computational Methods -- Conventions and correction models --

Deformation analysis -- Deformations of the Earth's crust from InSAR  
-- Digital Terrain Models.

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Sommario/riassunto

The past few decades have witnessed the explosive growth of Earth Sciences in the pursuit of knowledge and understanding the planet Earth. Such a development addresses the challenging endeavour to enrich human lives with bounding Nature as well as to preserve the Planet Earth, the Moon, the other planets, in total the Cosmos, for generations to come. Geodetic Sciences aspires to define and quantify the internal structure, the surface structure, the Oceans and the Atmosphere as well as the exterior - interior structure of the planets. Basic principles of Physics and Astronomy, namely the Static Gravity Field, the time-varying Gravity Field, in short Gravitodynamics, of the Earth and the other planets, the complex rotational motion for rigid bodies as well as deforming bodies of the Earth, The Moon, the Sun, and the planets and their moons and on top the time-varying Topography open a fascination Arena of Geodetic Sciences.

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