

1. Record Nr.	UNINA9910337915503321
Autore	Sansò Fernando
Titolo	Geodetic Heights // by Fernando Sansò, Mirko Reguzzoni, Riccardo Barzaghi
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-10454-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (146 pages)
Collana	Springer Geophysics, , 2364-9119
Disciplina	624 526.1
Soggetti	Geophysics Civil engineering Physical geography Geophysics/Geodesy Civil Engineering Physical Geography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- General coordinates in $R^3$ -- The Earth gravity field: basics -- The anomalous potential and its determination -- Geodetic coordinate systems -- The relation between levelling, geodetic and other unholonomic heights -- The height datum problem.
Sommario/riassunto	This book provides the necessary background of geometry, mathematics and physical geodesy, useful to a rigorous approach to geodetic heights. The concept of height seems to be intuitive and immediate, but on the contrary it requires a good deal of scientific sharpness in the definition and use. As a matter of fact the geodetic, geographic and engineering practice has introduced many different heights to describe our Earth physical reality in terms of spatial position of points and surfaces. This has urged us to achieve a standard capability of transforming one system into the other. Often this is done in an approximate and clumsy way. This book solves the above practical problems in a rigorous way, showing what degree of approximation is used in approximate formulas. In addition the book

gives a sound view on a matter that is presently occupying scientific associations, namely the unification of the global and regional height reference systems. It provides the mathematical background as well as the state of the art of its implementation. It will be particularly useful for professionals and national agencies.

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