

1. Record Nr.	UNINA9910253997403321
Titolo	Springer handbook of global navigation satellite systems // editors, Peter Teunissen, Oliver Montenbruck
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-42928-0
Edizione	[First edition 2017.]
Descrizione fisica	1 online resource (XXXI, 1327 pages) : 818 illustrations in color
Collana	Springer Handbooks, , 2522-8692
Disciplina	910.285
Soggetti	Global Positioning System
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"With 818 Figures and 193 Tables."
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part A GNSS Fundamentals -- Part B Satellite Navigation Systems -- Part C GNSS Receivers and Antennas -- Part D GNSS Algorithms and Models -- Part E Positioning and Navigation -- Part F Surveying, Geodesy and Geodynamics -- Part G GNSS Remote Sensing and Timing.
Sommario/riassunto	This Handbook presents a complete and rigorous overview of the fundamentals, methods and applications of the multidisciplinary field of Global Navigation Satellite Systems (GNSS), providing an exhaustive, one-stop reference work and a state-of-the-art description of GNSS as a key technology for science and society at large. All global and regional satellite navigation systems, both those currently in operation and those under development (GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS/NAVIC, SBAS), are examined in detail. The functional principles of receivers and antennas, as well as the advanced algorithms and models for GNSS parameter estimation, are rigorously discussed. The book covers the broad and diverse range of land, marine, air and space applications, from everyday GNSS to high-precision scientific applications and provides detailed descriptions of the most widely used GNSS format standards, covering receiver formats as well as IGS product and meta-data formats. The full coverage of the field of GNSS is presented in seven parts, from its fundamentals, through the treatment of global and regional navigation satellite systems, of receivers and antennas, and of algorithms and models, up to the broad and diverse

range of applications in the areas of positioning and navigation, surveying, geodesy and geodynamics, and remote sensing and timing. Each chapter is written by international experts and amply illustrated with figures and photographs, making the book an invaluable resource for scientists, engineers, students and institutions alike.
