

1. Record Nr.	UNINA9910453522903321
Autore	Jekeli Christopher <1953->
Titolo	Inertial navigation systems with geodetic applications // Christopher Jekeli
Pubbl/distr/stampa	Berlin ; ; New York : , : Walter de Gruyter, , 2001
ISBN	3-11-080023-3
Descrizione fisica	1 online resource (368 p.)
Classificazione	ZI 9120
Disciplina	526/.1
Soggetti	Inertial navigation - Mathematics Electronic books. Earth (Planet) Figure Measurement
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Coordinate Frames and Transformations -- Coordinate Frames -- Inertial Frame -- Earth-Centered-Earth-Fixed Frame -- Navigation Frame -- Transformations -- Direction Cosines -- Euler Angles -- Quaternions -- Axial Vectors -- Angular Rates -- Differential Equation of the Transformation -- Specific Coordinate Transformations -- Fourier Transforms -- Ordinary Differential Equations -- Linear Differential Equations -- General Solution of Linear Differential Equations -- Homogeneous Solution -- An Example -- Fundamental Set of Solutions -- Particular Solution -- The Example, Continued -- Numerical Methods -- Runge-Kutta Methods -- Numerical Integration of Functions -- Inertial Measurement Units -- Gyroscopes -- Mechanical Gyroscopes -- SDF Gyro -- Principal Error Terms -- TDF Gyro -- Optical Gyroscopes -- Ring Laser Gyro -- RLG Error Sources -- Fiber-Optic Gyro -- FOG Error Sources -- Accelerometer -- Accelerations in Non-Inertial Frames -- Force-Rebalance Dynamics -- Pendulous Accelerometer Examples -- Vibrating Element Dynamics -- Error Sources -- Inertial Navigation System -- Mechanizations -- Space-Stabilized Mechanization -- Local-Level Mechanization -- Schuler Tuning -- Wander Azimuth Mechanization -- Strapdown Mechanization -- Numerical Determination of the Transformation Matrix -- A Second-Order Algorithm -- A Third-Order Algorithm -- Specializations -- Navigation Equations -- Unified Approach --

Navigation Equations in i-Frame -- Navigation Equations in e-Frame --
Navigation Equations in n-Frame.
