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Nota di contenuto	Contents; Preface; 1 Introduction; 2 Fundamental principles and historical developments of inertial navigation; 3 Basic principles of strapdown inertial navigation systems; 4 Gyroscope technology 1; 5 Gyroscope technology 2; 6 Accelerometer and multi-sensor technology; 7 MEMS inertial sensors; 8 Testing, calibration and compensation; 9 Strapdown system technology; 10 Inertial navigation system alignment; 11 Strapdown navigation system computation; 12 Generalised system performance analysis; 13 Integrated navigation systems; 14 Design example 15 Alternative applications of IN sensors and systemsAppendixA Kalman filtering; AppendixB Inertial navigation system error budgets; AppendixC Inertial system configurations; AppendixD Comparison of GPS and GLONASS satellite navigation systems; List of symbols; Glossary of principal terms; Index
Sommario/riassunto	Inertial navigation is widely used for the guidance of aircraft, missiles ships and land vehicles, as well as in a number of novel applications such as surveying underground pipelines in drilling operations. This book sets out to provide a clear and concise description of the physical

principles of inertial navigation, the associated growth of errors and their compensation. There is also detailed treatment of recent developments in inertial sensor technology and a description of techniques for implementing and evaluating such systems. This new edition includes a number of refinements covering