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Titolo	Orbital Data Applications for Space Objects : Conjunction Assessment and Situation Analysis / / by Lei Chen, Xian-Zong Bai, Yan-Gang Liang, Ke-Bo Li
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Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XXII, 318 p. 176 illus., 115 illus. in color.)
Disciplina	629.1
Soggetti	Aerospace engineering Astronautics Space sciences Automatic control Aerospace Technology and Astronautics Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Control and Systems Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Orbital Prediction Error Propagation of Space Objects -- Orbital Error Analysis Based on Historical Data -- Close Approach Analysis between Space Object -- Calculation of Collision Probability -- Application of Collision Probability -- Orbital Anomaly and Space Events Analysis -- Environment and Flux Analysis of Space Debris.
Sommario/riassunto	This book introduces readers to the application of orbital data on space objects in the contexts of conjunction assessment and space situation analysis, including theories and methodologies. It addresses the main topics involved in space object conjunction assessment, such as: orbital error analysis of space objects; close approach analysis; the calculation, analysis and application of collision probability; and the comprehensive assessment of collision risk. In addition, selected topics on space situation analysis are also presented, including orbital anomaly and space event analysis, and so on. The book offers a valuable guide for researchers and engineers in the fields of astrodynamics, space

telemetry, tracking and command (TT&C), space surveillance, space situational awareness, and space debris, as well as for graduates majoring in flight vehicle design and related fields.