Record Nr. UNINA9910299739403321 Autore Li Hengnian Titolo Geostationary Satellites Collocation / / by Hengnian Li Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 2014 3-642-40799-4 **ISBN** Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (343 p.) 629.434 Disciplina Soggetti Aerospace engineering **Astronautics** Geophysics Calculus of variations Approximation theory Space sciences Aerospace Technology and Astronautics Geophysics/Geodesy Calculus of Variations and Optimal Control; Optimization Approximations and Expansions Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Introduction -- Orbit Motion Foundations -- The Motion of Geostationary Satellite -- Geostationary Orbit Perturbation -- Harmonic Analysis Geostationary Orbit -- Correction Geostationary Orbit --Maintenance Geostationary Orbit -- Collocation Prototypes and Strategies. Sommario/riassunto Geostationary Satellites Collocation aims to find solutions for deploying a safe and reliable collocation control. Focusing on the orbital

perturbation analysis, the mathematical foundations for orbit and

collocation strategies for multi geostationary satellites sharing with the

control of the geostationary satellite are summarized. The mathematical and physical principle of orbital maneuver and

same dead band is also stressed. Moreover, the book presents some applications using the above algorithms and mathematical models to help readers master the corrective method for planning station keeping maneuvers. Engineers and scientists in the fields of aerospace technology and space science can benefit from this book. Hengnian Li is the Deputy Director of State Key Laboratory of Astronautic Dynamics, China.