Record Nr. UNINA9910627236803321 Autore Paramartha <499-569, > **Titolo** Distributed Attitude Consensus of Multiple Flexible Spacecraft / / by Ti Chen, Jinjun Shan, Hao Wen Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2023 Pubbl/distr/stampa **ISBN** 981-19-4258-7 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (218 pages) Collana **Engineering Series** Disciplina 741.5 Soggetti Aerospace engineering **Astronautics** Automatic control Robotics Automation Aerospace Technology and Astronautics Control, Robotics, Automation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Attitude Dynamics -- Distributed Attitude Tracking Nota di contenuto Based on 3-Dimensional Attitude Representations -- Distributed Attitude Tracking on SO(3) Under Undirected Graphs -- Distributed Attitude Tracking on SO(3) Under Directed Graphs -- Leaderless Attitude Consensus on SO(3). This book mainly presents the authors' recent studies on the Sommario/riassunto distributed attitude consensus of multiple flexible spacecraft. Modified Rodrigues parameters and rotation matrix are used to represent spacecraft attitude. Several distributed adaptive controllers are presented with theoretical analyses, numerical simulations and experimental verifications. The authors intend to provide a manual that allows researchers, engineers and students in the field of aerospace

engineering and mechanics to learn a theoretical and practical approach to the design of attitude consensus algorithms.