Record Nr. UNINA9910484129003321 Autore Sun Weichao Titolo Advanced control for vehicle active suspension systems / / Weichao Sun, Huijun Gao, Peng Shi Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 **ISBN** 3-030-15785-7 Edizione [1st edition 2020.] Descrizione fisica 1 online resource (236 pages) Collana Studies in Systems, Decision and Control, , 2198-4182;; 204 Disciplina 629.231 629.243 Soggetti Vibration System theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Background, Modelling and Problem Statements of Active Suspensions Nota di contenuto -- Constrained H Control for Active Suspensions -- Finite Frequency H Control for Active Suspensions -- Constrained Active Suspension Control via Nonlinear Feedback Technology -- Actuator Saturation Control for Active Suspension Systems -- Active Suspension Control with the Unideal Actuators -- Active Suspensions Control with Actuator Dynamics -- Energy Saving Control Strategies: Motor-driven Active Suspension. This book focuses on most recent theoretical ndings on control issues Sommario/riassunto for active suspension systems. The authors first introduce the theoretical background of active suspension control, then present constrained H control approaches of active suspension systems in the entire frequency domain, focusing on the state feedback and dynamic output feedback controller in the nite frequency domain which people are most sensitive to. The book also contains nonlinear constrained tracking control via terminal sliding-mode control and adaptive robust theory, presenting controller design of active suspensions as well as the reliability control of active suspension systems. The target audience primarily comprises research experts in control theory, but the book may also be beneficial for graduate students alike.