Record Nr. UNINA9910823900803321 Autore Stefanski Andrzej Titolo Determining thresholds of complete sychronization and application [[electronic resource] /] / Andrzej Stefanski New Jersey, : World Scientific, c2009 Pubbl/distr/stampa **ISBN** 1-282-44311-9 9786612443114 981-283-767-1 Descrizione fisica 1 online resource (225 p.) Collana World Scientific series on nonlinear science. Series A. Monographs and treatises, , 1793-1010;; v. 67 Disciplina 515.39 Soggetti Synchronization Nonlinear systems Lyapunov exponents **Dynamics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Preface; Contents; PART I: THEORY; 1. Introduction; 2. Classification of Couplings: 3. Determination of Complete Synchronization Thresholds: 4. Synchronizability of Coupled Oscillators; PART II: APPLICATION; 5. Lyapunov Exponents: Idea and Calculation; 6. Determination of the LLE Using the Complete Synchronization; 7. Applications of the Synchronization Method for the LLE Estimation; Bibliography; Index This book is devoted to the phenomenon of synchronization and its Sommario/riassunto application for determining the values of Lyapunov exponents. In recent years, the idea of synchronization has become an object of great interest in many areas of science, e.g., biology, communication or laser physics. Over the last decade, new types of synchronization have been identified and some interesting new ideas concerning the synchronization have also appeared. This book presents the complete synchronization problem rather than just results from the research. The

problem is demonstrated in relation to a kind of coupling