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| Titolo | From physics to control through an emergent view [[electronic resource] /] / edited by Luigi Fortuna, Alexander Fradkov, Mattia Frasca |
| Pubbl/distr/stampa | Hackensack, N.J., : World Scientific, c2010 |
| ISBN | 1-283-14465-4 9786613144652 981-4313-15-7 |
| Descrizione fisica | 1 online resource (396 p.) |
| Collana | World Scientific series on nonlinear science. Series B ; ; v. 15 |
| Altri autori (Persone) | FortunaL <1953-> (Luigi) FradkovA. L (Aleksandr Lvovich) FrascaMattia |
| Disciplina | 003.5 |
| Soggetti | Control theory Physics - Data processing Mathematical physics Electronic books. |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Selected papers from the 4th International Conference Physics and Control (PhysCon2009), held at the University of Catania, Engineering Faculty, Sept. 1-4, 2009. |
| Nota di bibliografia | Includes bibliographical references. |
| Nota di contenuto | pt. A. Distinguished talks (plenary talks and EPS talks) -- pt. B. Modelling and control of coupled stochastic oscillators -- pt. C. Multistability in natural and laboratory-scale nonlinear systems -- pt. D. Linear and matritial algebra, open problems related to control theory -- pt. E. Localization of oscillations in dynamical systems and control of oscillatory delayed-coupled networks -- pt. F. Microfluidics : theory, methods and applications -- pt. G. Mathematical modelling of dynamic systems for volcano physics -- pt. H. Geometric control for quantum and classical models -- pt. I. Control problems for dynamical systems under uncertainty and conflict -- pt. J. Physics and control in fusion plasma devices -- pt. K. Modeling and optimization of beam and plasma dynamics. |
| Sommario/riassunto | The book is a compilation of selected papers from the conference on Physics and Control 2009, presenting a unified perspective underlying |

the thematics and strategies related to the control of physical systems with emerging applications in physics, engineering, chemistry, biology and other natural sciences. The selected papers reflect the state-of-the-art of the more advanced theoretical and practical studies in the field of control of complex systems. The contributions provide a comprehensive view on some selected topics of particular importance at the disciplinary borderline between Physics
