Record Nr. UNINA9910299828303321 Continuous and Distributed Systems II: Theory and Applications // **Titolo** edited by Viktor A. Sadovnichiy, Mikhail Z. Zgurovsky Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-19075-X Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (395 p.) Studies in Systems, Decision and Control, , 2198-4182;; 30 Collana Disciplina 003.78 Soggetti Mechanics Mechanics, Applied Mathematical physics **Physics** Chemoinformatics **Bioinformatics** Computational biology Theoretical and Applied Mechanics Mathematical Applications in the Physical Sciences Mathematical Methods in Physics Computer Applications in Chemistry Computer Appl. in Life Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references at the end of each chapters. From the Contents: Part I Applied Methods of Modern Algebra and Nota di contenuto Analysis -- Part II Non-autonomous and Stochastic Dynamical Systems -- Part III Optimization, Control and Decision Sciences for Continuum Mechanics Problems -- Part IV Fundamental and Computational Mechanics. Sommario/riassunto As in the previous volume on the topic, the authors close the gap between abstract mathematical approaches, such as applied methods of modern algebra and analysis, fundamental and computational mechanics, nonautonomous and stochastic dynamical systems, on the

one hand, and practical applications in nonlinear mechanics,

optimization, decision making theory and control theory on the other. Readers will also benefit from the presentation of modern mathematical modeling methods for the numerical solution of complicated engineering problems in biochemistry, geophysics, biology and climatology. This compilation will be of interest to mathematicians and engineers working at the interface of these fields. It presents selected works of the joint seminar series of Lomonosov Moscow State University and the Institute for Applied System Analysis at National Technical University of Ukraine "Kyiv Polytechnic Institute". The authors come from Brazil, Germany, France, Mexico, Spain, Poland, Russia, Ukraine, and the USA.