1.

Record Nr.	UNINA9910710592503321
Autore	Domanski Piotr A
Titolo	Impact of refrigerant property uncertainties on prediction of vapor compression cycle performance / / Piotr A. Domanski; David A. Didion
Pubbl/distr/stampa	Gaithersburg, MD : , : U.S. Dept. of Commerce, National Institute of Standards and Technology, , 1987
Descrizione fisica	1 online resource
Collana	NBSIR ; ; 86-3373
Altri autori (Persone)	DidionDavid A DomanskiPiotr A
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	1987. Contributed record: Metadata reviewed, not verified. Some fields updated by batch processes. Title from PDF title page.
Nota di bibliografia	Includes bibliographical references.

2.   Record Nr.   UNINA9910254585503321

Autore	Fieguth Paul
Titolo	An Introduction to Complex Systems : Society, Ecology, and Nonlinear Dynamics / / by Paul Fieguth
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-44606-1
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XII, 346 p. 243 illus., 178 illus. in color.)
Disciplina	531
Soggetti	Statistical physics
	Dynamics
	Computational complexity
	System theory
	Physical geography
	Climatic changes
	Game theory
	Complex Systems
	Complexity
	Earth System Sciences
	Climate Change
	Game Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	1 Introduction -- 2 Global Warming and Climate Change -- Further Reading -- 3 Systems Theory -- 3.1 Systems & Boundaries -- 3.2 Systems & Thermodynamics.-3.3 Systems of Systems -- Case Study 3: Nutrient Flows, Irrigation, and Desertification -- Further Reading -- Sample Problems -- 4 Dynamic Systems -- 4.1 System State -- 4.2 Randomness -- 4.3 Analysis -- 4.3.1 Correlation -- 4.3.2 Stationarity -- 4.3.3 Transformations -- Case Study 4: Water Levels of the Oceans and Great Lakes -- Further Reading -- Sample Problems -- 5 Linear Systems -- 5.1 Linearity -- 5.2 Modes -- 5.3 System Coupling -- 5.4 Dynamics -- 5.5 Non-Normal Systems -- Case Study 5: System

| Sommario/riassunto | This undergraduate text explores a variety of large-scale phenomena - global warming, ice ages, water, poverty - and uses these case studies as a motivation to explore nonlinear dynamics, power-law statistics, and complex systems. Although the detailed mathematical descriptions of these topics can be challenging, the consequences of a system being nonlinear, power-law, or complex are in fact quite accessible. This book blends a tutorial approach to the mathematical aspects of complex systems together with a complementary narrative on the global/ecological/societal implications of such systems. Nearly all engineering undergraduate courses focus on mathematics and systems which are small scale, linear, and Gaussian. Unfortunately there is not a single large-scale ecological or social phenomenon that is scalar, linear, and Gaussian. This book offers students insights to better understand the large-scale problems facing the world and to realize that these cannot be solved by a single, narrow academic field or perspective. Instead, the book seeks to emphasize understanding, concepts, and ideas, in a way that is mathematically rigorous, so that the concepts do not feel vague, but not so technical that the mathematics get in the way. The book is intended for undergraduate students in a technical domain such as engineering, computer science, physics, mathematics, and environmental studies. |