Record Nr. UNINA9910843201403321 Recupito, Giulio Cesare <1581-1647> Autore **Titolo** De Vesuuiano incendio nuntius in lucem iterum editus. Auctore Iulio Caesare Recupito .. Pubbl/distr/stampa Neapoli, apud Ægidium Longum 1632. Et denuo per Octauium Beltranum, : sumptibus Andreae Carbonis bibliopolæ, 1633 124, [2] p.; 8° Descrizione fisica NAP14 Locazione Collocazione S I 19 Lingua di pubblicazione Latino **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Insegna dei Gesuiti sul front. Record Nr. UNINA9911019902903321 **Titolo** Reviews of nonlinear dynamics and complexity. Volume 1 / / edited by Heinz Georg Schuster Pubbl/distr/stampa Weinheim,: Wiley-VCH, 2008 **ISBN** 9786612302459 9781282302457 1282302450 9783527626359 3527626352 9783527626366 3527626360 Descrizione fisica 1 online resource (229 p.) Altri autori (Persone) SchusterHeinz Georg <1943-> Disciplina 003.75 Soggetti Nonlinear theories Computational complexity

Lingua di pubblicazione

**Formato** 

Inglese

Materiale a stampa

Livello bibliografico Note generali

Nota di bibliografia

Nota di contenuto

Monografia

Description based upon print version of record.

Includes bibliographical references and index.

Reviews of Nonlinear Dynamics and Complexity; Contents; Preface; List of Contributors; 1 Nonlinear Dynamics of Nanomechanical and Micromechanical Resonators; 1.1 Nonlinearities in NEMS and MEMS Resonators; 1.1.1 Why Study Nonlinear NEMS and MEMS?; 1.1.2 Origin of Nonlinearity in NEMS and MEMS Resonators; 1.1.3 Nonlinearities Arising from External Potentials: 1.1.4 Nonlinearities Due to Geometry: 1.2 The Directly-driven Damped Duffing Resonator; 1.2.1 The Scaled Duffing Equation of Motion; 1.2.2 A Solution Using Secular Perturbation Theory; 1.2.3 Addition of Other Nonlinear Terms 1.3 Parametric Excitation of a Damped Duffing Resonator 1.3.1 Driving Below Threshold: Amplification and Noise Squeezing; 1.3.2 Linear Instability: 1.3.3 Nonlinear Behavior Near Threshold: 1.3.4 Nonlinear Saturation Above Threshold; 1.3.5 Parametric Excitation at the Second Instability Tongue; 1.4 Parametric Excitation of Arrays of Coupled Duffing Resonators: 1.4.1 Modeling an Array of Coupled Duffing Resonators: 1.4.2 Calculating the Response of an Array: 1.4.3 The Response of Very Small Arrays - Comparison of Analytics and Numerics: 1.4.4 Response of Large Arrays - Numerical Simulation 1.5 Amplitude Equation Description for Large Arrays 1.5.1 Amplitude Equations for Counter Propagating Waves; 1.5.2 Reduction to a Single Amplitude Equation: 1.5.3 Single Mode Oscillations: References: 2 Delay Stabilization of Rotating Waves Without Odd Number Limitation; 2.1 Introduction; 2.2 Mechanism of Stabilization; 2.3 S(1)-Symmetry and Stability of Rotating Waves; 2.4 Conditions on the Feedback Gain; 2.5 Tori; 2.6 Conclusion; References; 3 Random Boolean Networks; 3.1 Introduction; 3.2 Model; 3.2.1 Topology; 3.2.2 Update Functions; 3.2.3 Dynamics; 3.2.4 Applications; 3.2.5 Problems 3.3 Annealed Approximation and Phase Diagrams 3.3.1 The Time Evolution of the Proportion of 1s and 0s; 3.3.2 The Time Evolution of the Hamming Distance; 3.3.3 The Statistics of Small Perturbations in Critical Networks; 3.3.4 Problems; 3.4 Networks with K = 1; 3.4.1 Topology of K = 1 Networks; 3.4.2 Dynamics on K = 1 Networks; 3.4.2.1 Cycles on Loops; 3.4.2.2 K = 1 Networks in the Frozen Phase; 3.4.2.3 Critical K = 1 Networks; 3.4.3 Dynamics on K = N Networks; 3.4.4 Application: Basins of Attraction in Frozen, Critical and Chaotic Networks; 3.4.5 Problems; 3.5 Critical Networks with K = 2 3.5.1 Frozen and Relevant Nodes 3.5.2 Analytical Calculations: 3.5.3 Problems; 3.6 Networks with Larger K; 3.7 Outlook; 3.7.1 Noise; 3.7.2 Scale-free Networks and Other Realistic Network Structures; 3.7.3 External Inputs; 3.7.4 Evolution of Boolean Networks; 3.7.5 Beyond the Boolean Approximation; References; 4 Return Intervals and Extreme Events in Persistent Time Series with Applications to Climate and Seismic Records: 4.1 Introduction: 4.2 Statistics of Return Intervals: 4.2.1 Data Generation and Mean Return Interval 4.2.2 Stretched Exponential Behavior and Finite-Size Effects for Large Return Intervals

Sommario/riassunto

Adopting a cross-disciplinary approach, the review character of this monograph sets it apart from specialized journals. The editor is advised by a first-class board of international scientists, such that the carefully selected and invited contributions represent the latest and most relevant findings. The resulting review enables both researchers and newcomers in life science, physics, and chemistry to access the most important results in this field, using a common language.