

1. Record Nr.	UNINA990001672320403321
Autore	Italia. Ministero delle finanze
Titolo	Relazione della Direzione generale delle Imposte Dirette e del Catasto per gli esercizi finanziari 1896-97, 1900-01 / Ministero delle Finanze
Pubbl/distr/stampa	Roma : Tip. Elzeviriana, 1898-1902
Descrizione fisica	1 v. ; 30 cm
Disciplina	336.294
Locazione	FAGBC
Collocazione	60 336.21 A 6
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Paginazione varia
2. Record Nr.	UNINA9910465413703321
Autore	West Bruce J
Titolo	Fractal physiology and chaos in medicine [[electronic resource] /] / Bruce J. West
Pubbl/distr/stampa	Singapore ; ; London, : World Scientific, 2013
ISBN	1-299-28117-6 981-4417-80-7
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (345 p.)
Collana	Studies of nonlinear phenomena in life sciences ; ; v. 16
Disciplina	610.151539 612.0154 612/.0154
Soggetti	Chaotic behavior in systems Fractals Medicine - Mathematical models Physiology - Mathematical models Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>Contents; Preface; 1 Introduction; 1.1 What is Linearity?; 1.2 Why Uncertainty?; 1.3 How Does Nonlinearity Change Our View?; 1.4 Complex Networks; 1.5 Summary and a Look Forward; 2 Physiology in Fractal Dimensions; 2.1 Complexity and the Lung; 2.2 The Principle of Similitude; 2.2.1 Fractals, Self-similarity and Renormalization; 2.2.2 Fractal Lungs; 2.2.3 Why fractal transport?; 2.3 Allometry Relations; 2.3.1 Empirical Allometry; 2.3.2 WBE model; 2.3.3 WW model; 2.4 Fractal Signals; 2.4.1 Spectral decomposition; 2.5 Summary; 3 Dynamics in Fractal Dimensions; 3.1 Nonlinear Bio-oscillators 3.1.1 Super Central Pattern Generator (SCPG) model of gait 3.1.2 The cardiac oscillator; 3.1.3 Strange attractors (deterministic randomness); 3.2 Nonlinear Bio-mapping; 3.2.1 One-dimensional maps; 3.2.2 Two-dimensional maps; 3.2.3 The Lyapunov exponent; 3.3 Measures of Strange Attractors; 3.3.1 Correlational dimension; 3.3.2 Attractor reconstruction from data; 3.3.3 Chaotic attractors and false alarms; 3.4 Summary and perspective; 4 Statistics in Fractal Dimensions; 4.1 Complexity and Unpredictability; 4.1.1 Scaling Measures; 4.2 Fractal Stochastic Dynamics; 4.2.1 Simple Random Walks 4.2.2 Fractional random walks and scaling 4.2.3 Physical/physiological models; 4.3 Physiologic Time Series; 4.3.1 Heart Rate Variability (HRV); 4.3.2 Breath rate variability (BRV); 4.3.3 Stride rate variability (SRV); 4.4 Summary and Viewpoint; 5 Applications of Chaotic Attractors; 5.1 The Dynamics of Epidemics; 5.2 Chaotic Neurons; 5.3 Chemical Chaos; 5.4 Cardiac Chaos; 5.5 EEG Data and Brain Dynamics; 5.5.1 Normal activity; 5.5.2 Epilepsy: reducing the dimension; 5.5.3 Task-related scaling; 5.6 Retrospective; 6 Physiological Networks: The Final Chapter?; 6.1 Introduction to Complex Networks 6.1.1 A little history 6.1.2 Inverse power laws; 6.2 The Decision Making Model (DMM); 6.2.1 Topological Complexity; 6.2.2 Temporal Complexity; 6.3 Criticality; 6.3.1 Neuronal Avalanches; 6.3.2 Multiple Organ Dysfunction Syndrome (MODS); 6.4 Finale; References; Index</p>
Sommario/riassunto	<p>This exceptional book is concerned with the application of fractals and chaos, as well as other concepts from nonlinear dynamics to biomedical phenomena. Herein we seek to communicate the excitement being experienced by scientists upon making application of these concepts within the life sciences. Mathematical concepts are introduced using biomedical data sets and the phenomena being explained take precedence over the mathematics. In this new edition what has withstood the test of time has been updated and modernized; speculations that were not borne out have been expunged and the breakthroughs</p>